

TECHNICAL SUPPORT DOCUMENT

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

APPLICATION SUBMITTED BY

Republic Services

For

Republic Dumpco, Inc.

**Part 70 Operating Permit Number: 395
(Renewal)**

SIC Code - 4953: Refuse Systems
SIC Code – 1442: Construction Sand and Gravel



Clark County
Department of Air Quality and Environmental Management
Permitting Section

November 2010

This Technical Support Document (TSD) accompanies the proposed Part 70 Operating Permit for Republic Dumpco, Inc.

TABLE OF CONTENTS

	Page
I. ACRONYMS	3
II. EXECUTIVE SUMMARY	4
III. SOURCE INFORMATION.....	5
A. General.....	5
B. Description of Process.....	5
C. Permitting History.....	6
D. Operating Scenario.....	12
E. Proposed Exemptions.....	13
IV. EMISSIONS INFORMATION.....	13
A. Total Source Potential to Emit.....	13
B. Equipment Description.....	13
C. Emission Units, Emission Limitations and PTE.....	14
D. Testing.....	25
E. Continuous Emissions Monitoring.....	26
V. REGULATORY REVIEW.....	27
A. Local Regulatory Requirements.....	27
B. Federally Applicable Regulations.....	31
VI. COMPLIANCE.....	36
A. Compliance Certification.....	36
B. Compliance Summary.....	38
C. Permit Shield.....	45
D. Streamlining Demonstration.....	45
E. Summary of Monitoring for Compliance.....	47
VII. EMISSION REDUCTION CREDITS (OFFSETS).....	50
VIII. ADMINISTRATIVE REQUIREMENTS.....	50

I. ACRONYMS

Table I-1: List of Acronyms

Acronym	Term
AQR	Clark County Air Quality Regulations
A/L	Air to Liquid Ratio
ATC	Authority to Construct
bhp	Brake Horse Power
°C	Degrees Celsius
CAAA	Clean Air Act, as amended
CARB	California Air Resources Board
CEMS	Continuous Emissions Monitoring System
CFR	United States Code of Federal Regulations
CO	Carbon Monoxide
DAQEM	Clark County Department of Air Quality & Environmental Management
EPA	United States Environmental Protection Agency
EF	Emission Factor
EO	Executive Order
EU	Emission Unit
EVR	Enhanced Vapor Recovery
°F	Degrees Fahrenheit
GDO	Gasoline Dispensing Operation
GPM	Gallons per Minute
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
MMscf	Million Standard Cubic Foot
M/N	Model Number
MSWL	Municipal Solid Waste Landfill
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
PTE	Potential to Emit
QA/AC	Quality Assurance/Quality Control
RMP	Risk Management Plan
SCC	Source Classification Codes
scf	Standard Cubic Feet
scfm	Standard Cubic Feet per minute
SIC	Standard Industrial Classification
SIP	State Implementation Plan
S/N	Serial Number

Acronym	Term
SO _x	Sulfur Oxides
SSM	Startup, Shutdown, and Malfunction
TCS	Toxic Chemical Substance
tpy	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emission Evaluation
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound

II. EXECUTIVE SUMMARY

Republic Services – Republic Dumpco, Inc. (Republic) is under SIC Codes 4953 – Refuse System and 1442 – Construction Sand and Gravel and NAICS Codes 562212 – Solid Waste Landfill and 212321 – Construction Sand and Gravel Mining. Republic is located in Apex, East of Interstate 15/US 93 Junction. The legal description of the source's location is as follows: portions of T18S, R64E, Section 18 and 19 and T18S, R63E, Section 24 in Apex Valley, Clark County, Apex, Nevada. Republic is situated in Hydrographic Areas 216 and 217 (Apex Valley: Garnet Valley and North Hidden Valley). Apex Valley is designated as an unclassified non attainment area for 8-hour ozone (regulated through NO_x and VOC) and is PSD for PM₁₀, CO, SO₂.

The following table summarizes the source PTE for each regulated air pollutant for all emission units addressed by this Part 70 operating permit:

	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP	TCS (H ₂ S)
Non-fugitive PTE	266.89	12.27	112.03	59.72	177.18	9.93	3.32	0.00
Landfill – Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	32.89	32.16	147.27

Republic is a major source for PM₁₀, NO_x, SO_x, HAP, H₂S and minor source for PM_{2.5}, CO and VOC. Republic serves as the primary municipal solid waste landfill for Clark County since October of 1993. The types of material the landfill accepts included municipal solid waste, petroleum contaminated soil, asbestos, construction debris, sewage sludge, septic waste, medical waste and dead animal waste. Republic has a gas collection and control system with an internal combustion flare capable of burning at 1,000 cubic foot per minute (EU: W07). The landfill gas collection and control system is designed to capture approximately 75% of the landfill gas generated, leaving approximately 25% as fugitive emissions. This Part 70 Operating Permit is issued based on the Title V Renewal application submitted on January 30, 2007.

Based on the information submitted by the applicant and a technical review performed by the DAQEM staff, the DAQEM proposes the renewal of a Part 70 Operating Permit to Republic Dumpco, Inc.

III. SOURCE INFORMATION

A. General

Permittee	Republic Services, Republic Dumpco, Inc.
Mailing Address	Republic Services 770 East Sahara Avenue Las Vegas, Nevada 89104
Contacts	Todd Whittle
Phone Number	(702) 599-5537
Fax Number	(702) 599-5585
Source Location	Apex Waste Management Center East of Interstate 15/US 93 Junction Apex, Nevada 89124
Hydrographic Area	216 and 217
Township, Range, Section	T18S, R64E, Section 18 and 19 T18S, R63E, Section 24
SIC Codes	4953: Refuse Systems 1442: Construction Sand and Gravel
NAICS Codes	562212: Solid Waste Landfill 212321: Construction Sand and Gravel Mining

B. Description of Process

Aggregate Plant

Mined stone is fed into the primary plant by end loader where it undergoes initial size reduction before being transported over a series of overland conveyors to the secondary, cone, sand and wash plants for further processing. The material is processed through screening, crushing and washing operations to produce various construction aggregates for onsite use as cover material or wholesale delivery to the construction industry.

The operations are divided into: 1) Primary Plant, 2) Gabion Plant, 3) Secondary Plant, 4) Sand Plant, 5) Cone Plant, 6) Wash Plant and 7) Landfill Cover Plant. Each plant has the capability to run independently from the primary feed plant and from one another.

MSWL

Republic serves as the primary municipal solid waste landfill for Clark County since October of 1993. The types of material the landfill accepts include municipal solid waste, petroleum contaminated soil, asbestos, construction debris, sewage sludge, septic waste, medical waste and dead animal waste. The Municipal Solid Waste Landfill will be open to public waste delivery 24 hours a day, 365 days per year, closing only on recognized holidays.

Container trucks carrying municipal solid waste enter from I-15. Trucks are weighed or measured as they enter the facility by driving over scales. Waste trucks then drive down a paved and an unpaved road before entering the landfill disposal area. Once at the disposal area, trucks are either unloaded using engine driven tippers or are end dumped. The tippers advance across the width of active cells until a new lift is started on top of the completed one in a stacking manner. Empty trucks exit the facility the same way they came in.

Republic has a gas collection and control system with an internal combustion enclosed combustor (Callidus Flare) capable of burning at 1,000 cubic foot per minute (EU: W07). The landfill gas collection and control system is designed to capture approximately 75% of the landfill gas generated, leaving approximately 25% as fugitive emissions.

Cover material is excavated from the next disposal cell or from borrow areas and processed by Las Vegas Paving through a crusher to meet landfill specifications. It is then transported to the active cell where it is used as cover material. Cover material is transported from the Las Vegas Paving aggregate plant as needed. Water is used during excavating and various processing activities to control particulate matter. Baghouses are used at each crusher.

C. Permitting History

Republic is regulated by the Clark County Department of Air Quality and Environmental Management (DAQEM) and has a Title V permit. The initial Part 70 Operating Permit was issued September 17, 2002.

Table III-C-1: Permits Issued to Republic Dumpco, Inc.

Date Issued	Permit Number	Description
12/31/2010	Modification 5	ATC to update the Aggregate Plant and consolidation of the haul roads, waste placement, stockpiles, and to change the nomenclature of all emission units assigned to the MSWL
05/13/2010	Modification 8, Revision 1	ATC to remove Section 52 language and add applicability date for 40 CFR 63, Subpart CCCCC
02/01/2010	Modification 8	ATC to install Phase I equipment on the aboveground gasoline tank.
Cancelled	Modification 7	ATC to update 40 CFR 60 Subpart WWW language
02/27/2009	Modification 6	ATC to replace engine
11/04/2008	Modification 4, Revision 1	ATC/OP administrative revisions
02/14/2008	Modification 4	ATC/OP reconfiguration of aggregate plant and consolidation of all previously issued ATC/OPs
12/29/2006	Modification 3	ATC/OP to replace engines
12/27/2004	Modification 2, Revision 1, ATC/OP-C	ATC/OP to incorporate revised emission calculations that result in a net emission decrease from ATC/OP-B issued 07/10/2002
09/17/2002	N/A	Part 70 Operating Permit
07/10/2002	Modification 2, Revision 1, ATC/OP-B	ATC/OP to incorporate revised emission calculations that result in a net emission decrease from ATC/OP-A issued 04/03/2002
04/03/2002	Modification 2, Revision 1, ATC/OP-A	ATC/OP for all emission units at the facility
12/27/2001	Modification 2, Revision 1	ATC/OP administrative changes

Date Issued	Permit Number	Description
10/24/2000	Modification 1	ATC/OP for Alternative Operating Scenario at Aggregate Plant
09/16/1997	Modification 2	Modification to Aggregate Plant ATC/OP
08/13/1997	Modification 1	ATC/OP for Aggregate Plant
05/21/1996	Modification 0	Interim OP issued for Aggregate Plant
02/04/1995	---	ATC cancelled due to 18-mo. expiration to commence construction
10/04/1993	Modification 0, Revision 0	ATC/OP
05/11/1992	---	ATC cancelled due to 18-mo. expiration to commence construction
11/01/1990	Modification 1	Modification to increase throughputs
05/02/1990	Modification 0	Issuance of initial authority to construct

On January 30, 2007, DAQEM received an application to revise the Part 70 OP. The source requested that DAQEM incorporate modifications that had recently been made through the following ATC permits:

1. Modification 5: Updated the Aggregate Plant throughputs and emission factors for hard rock mining, installed blasting and consolidated hauls roads. Installed waste placement, stockpiles (active/inactive), tipper engines and changed the nomenclature of all emission units assigned to the MSWL.

Table III-C-2: Updated Nomenclature for the Emission Units of the MSWL

NEW EU#	OLD EU#	Description	Model No.	Serial No.
H01	F01	Haul Road, Paved (2.0 miles Round Trip)		
H02	D05	Waste Soil Truck Road, Unpaved		
	D06	Petroleum Contaminated Liquid Haul Road, Unpaved		
	E04	Waste Truck Haul Road, Unpaved		
	E05	Cover Material Truck Haul Road, Unpaved		
	G01	Waste Truck Haul Road, Unpaved		
	G02	Septic Truck Haul Road, Unpaved		
	G03	Cover Material Hauling from Aggregate Plant, Unpaved		
W01	G04	Cover Material Hauling from Excavation, Unpaved		
	D01	Soil Treatment Bulk Material Unloading		
	D02	Stationary Grizzly Deck		
	D03	Material Transfer to Soil Treatment Cell		
	D04	Soil Trans from Soil Treatment Cell		
W02	D07	Soil Treatment Waste Processing		
W03	E01	Industrial Waste Cover Material Dumping		
	E02	Transfer to Face Cover Material		
W04	E03	Industrial Waste VOC from Landfill Gas		
W05	G05	Cover Material Handling for Waste Placement		
W06	G08	1-2,500 aboveground gasoline storage tank, Regular		
W07	G09	LFG Flare, Callidus, Enclosed Combustion	G8844	
W100	G22	Fugitive Emissions from Landfill (based on 2006 Estimates)		
W200	W200	Caterpillar Diesel Generator:	3516	5SJ00130

NEW EU#	OLD EU#	Description	Model No.	Serial No.
W201	W201	Caterpillar Diesel Generator:	3516	7RN00440
W203	W203	Caterpillar Diesel Generator:	3412CDITA	WJ02059
W204	W204	Caterpillar Diesel Generator:	3412CDITA	WJ01887
W205	G10	Caterpillar Diesel Tipper Engine	3208	35601941
W206	G14	Cummins Diesel Generator	6CT8.3-G2	F99093314
W207	G15	Cummins Diesel Generator	6CT8.3-G2	F99093315
W208	G16	Isuzu Diesel Generator	QD145 "6BD1"	3647886
W209	G17	Caterpillar Diesel Generator	3406	90U16559
W210	G23	Caterpillar Diesel Tipper Engine	3056E	35603786
W211	G24	Caterpillar Diesel Tipper Engine	3056E	35603782
W212	G25	John Deere Diesel Tipper Engine	4045H	PE4045H6386 63

2. Modification 8, Revision 1: Amended the permit to remove AQR Section 52 language and add the applicability date for 40 CFR 63 Subpart CCCCC. This ATC was issued and signed by Republic.
3. Modification 8: Installed Phase I equipment to the gasoline storage tank (EU: W06). This ATC was issued but not signed by Republic.
4. Modification 7: Updated 40 CFR 60 Subpart WWW language. This ATC was cancelled by the Republic.
5. Modification 6: Replaced a 115 hp Caterpillar tipper engine (EU: G12) with a 115 hp John Deere tipper engine (EU: G25). This ATC was issued and signed by Republic.
6. Modification 4, Revision 1: Amended the ATC/OP to incorporate requested changes from Republic Services. This ATC/OP was issued and signed by Republic.
7. Modification 4: Changed the configuration of the Aggregate Plant and exempted three diesel storage tanks and four 11.5 kW mobile light plants. This ATC/OP was issued and signed by Republic.
8. Modification 3: Incorporated an alternative operating scenario for the Aggregate Plant and installed a new generator that did not increase throughput. This ATC/OP was issued and signed by Republic.
9. Modification 2, Revision 1-C: Incorporated revised emission calculations which resulted in a net emissions decrease from the Modification 2-B ATC/OP issued 07/10/2002. The ATC/OP was issued and signed by Republic.

Submittals and Communications History

- November 2, 2004 – DAQEM received a letter from Republic requesting a revision Modification 2, Revision 1-B, by consolidating all the equipment into the permit.
- January 24, 2006 – DAQEM received an amendment to the 2002 Title V permit.
- June 6, 2006 – DAQEM received an application for a Modification 3 to replace two diesel tipper engines with two new diesel tipper engines.
- October 10, 2006 – Republic received a communication from DAQEM stating that the portable light plants shall be categorically exempted.
- December 20, 2006 – DAQEM received two applications for modifications. Modification 4 was to update and add emission units to the Aggregate Plant and Modification 5 was to install twelve Landfill gas engines at the MSWL.
- January 29, 2007 – Republic submitted a letter reminding DAQEM to categorically exempt the diesel tanks and diesel mobile lights.

- January 30, 2007 – Republic submitted the Part 70 Operating Permit Renewal application.
- March 2, 2007 – Republic submitted the reconfiguration of emission units at the Aggregate Plant for Modification 4.
- May 10, 2007 – DAQEM sent a Letter of Incompleteness to Republic requesting information on the aggregate plant.
- June 11, 2007 – Republic submitted submittal information requested in the Letter of Incompleteness.
- October 24, 2007 – Republic submitted an amendment to the December 20, 2006 Modification 5 application to construction of two Waste Sorting Lines at the site.
- February 14, 2008 – Modification 4 was issued.
- March 5, 2008 – DAQEM's Compliance Division confirmed Republic's request for a Hearing before the Clark County Air Pollution Control Hearing Board.
- April 16, 2008 – A meeting was held with Republic and DAQEM in regards to Modification 4 issues.
- August 14, 2008 – DAQEM sent a Letter of Incompleteness to Republic for Modification 5 requesting supplemental information.
- September 30, 2008 – Republic submitted requested information per August 14, 2008 Letter of Incompleteness.
- September 30, 2008 – Republic submitted an amendment to Modification 5 requesting that a diesel tipper engine, stockpiles, waste placement, blasting, and all unpaved haul roads be under one emission unit be added to the Modification 5 application submittal.
- September 30, 2008 – Republic submitted a revision for Modification 4 to amend the operation of emission unit: W201 diesel generator.
- September 30, 2008 – Republic submitted an application for Modification 6 to install two diesel generators.
- October 13, 2008 – Republic submitted corrections and comments to Modification 4, Revision 1 draft permit.
- October 20, 2008 – Republic submitted a request to amend language in Modification 4.
- November 4, 2008 – Modification 4, Revision 1 was issued.
- November 19, 2008 – Republic submitted an amendment to the Title V renewal application updating the Responsible Official.
- December 2, 2008 – DAQEM sent a Letter of Incompleteness for Modification 5 and 6.
- December 9, 2008 – Republic received a letter about the day and time of Air Pollution Control Hearing that they requested.
- December 18, 2008 – Republic submitted a letter stating that the source would not be able to submit the requested information for the December 9th Letter of Incompleteness because they were in the process of a merger with another company (Allied Assests) and the source requested an additional 30 days to submit requested information. Republic also submitted a request a postponement of one month for the Air Pollution Control Hearing scheduled on January 22, 2009.
- December 19, 2008 – Republic submitted an amendment to the Title V renewal application updating the Responsible Official to Mark Clinker.
- December 23, 2008 – DAQEM sent a letter to Republic to extent the submittal of supplemental information by 30 days.
- January 23, 2009 – DAQEM received a letter from Republic stating that due to the merger that they would not be able to submit requested information by January 2009 and requested additional 30 days to submit.

- February 27, 2009 – Republic submitted requested information for the Letter of Incompleteness dated December 2, 2008.
- February 27, 2009 – Modification 6 was issued.
- March 13, 2009 – Republic submitted an amendment to Modification 4, Revision requesting language changes.
- March 30, 2009 – Republic submitted a letter to withdrawal the language changes to Modification 4, Revision 1.
- July 30, 2009 – Republic submitted an amendment to the Modification 5 application to include a new diesel tipper engine.
- September 14, 2009 – Republic submitted an amendment to the Title V renewal application requesting that the updates to the aggregate plant be incorporated into the Operating Permit.
- December 8, 2009 – Republic submitted an application for Modification 8 to install Phase I equipment on the 2,500 aboveground gasoline tank.
- February 1, 2010 – Modification 8 was issued.
- February 16, 2010 – Republic submitted an application for Modification 9 to install a 1,400 scfm candlestick flare.
- March 3, 2010 – Republic submitted an amendment to Modification 8 requesting that the applicability date for 40 CFR 63 Subpart CCCCCC be installed in the permit.
- May 10, 2010 – DAQEM sent a Letter of Incompleteness to resolve issues with the Modification 5 application.
- May 13, 2010 – Modification 8, Revision 1 was issued.
- May 25, 2010 – Republic submitted an application for Modification 10 to install a desulfurization system for the candlestick flare.
- June 11, 2010 – DAQEM sent a Letter of Incompleteness for outstanding information for Modification 5.
- June 14, 2010 – Republic submitted outstanding information for Modification 5.
- June 10, 2010 – Republic submitted an amendment to the Title V renewal application updating the Responsible Official to Todd Whittle.
- June 29, 2010 – Republic submitted response to the June 11, 2010 Letter of Incompleteness.
- August 26, 2010 – Republic submitted an amendment to Modification 9 to include Modification 10 as BACT for the 1,400 scfm candlestick flare.
- September 13, 2010 – Republic submitted an amendment to Modification 9 for an alternative scenario to operate the candlestick flare without the desulfurization system.
- September 21, 2010 – DAQEM requested additional information for Modification 5.
- October 1, 2010 – Republic submitted the requested information for Modification 5.
- October 28, 2010 – Republic submitted manufacturer's guarantees for the John Zink 1,400 scfm candlestick flare.
- November 1, 2010 – Republic submitted requested information updating the Aggregate Plant emission factors and rated capacity for the crushers.
- November 12, 2010 – Republic submitted updated information for the Aggregate Plant.
- November 12, 2010 – Republic submitted corrections and comments on the draft Title V – Operating Permit renewal

Changes from Title V OP issued in September 2002

Emission Limits: **Aggregate Plant**

- Appropriate and current emission limitations regarding opacity were added to the permit in accordance with AQR Section 26 and 40 CFR 60, Subpart OOO. This affected Conditions C-6, C-8, C-9 and C-18 of the Title V OP issued September 2002.

MSWL

- Appropriate and current emission limitations for the diesel engines (NSR ATC Modification 5) subject to 40 CFR 60, Subpart IIII and 40 CFR 63, Subpart ZZZZ were added.

Production Limits:

Aggregate Plant

- The limits on hours of operation in Condition B-2 of the Title V OP issued in September 2002 were removed since the aggregate plant is no longer limited by hours (NSR ATC Modification 5).
- The production limits outlined in Conditions B-3 and B-4 of the Title V OP issued in September 2002 were modified and updated appropriately (NSR ATC Modification 5).
- Blasting was added to EU: A127 as part of Modification 5 and production limits were added appropriately.

MSWL

- Production limitations for the vehicle miles traveled was added as requested in Modification 5 and updated from the format as presented in Conditions B-10 and B-11 of the Title V issued in September 2002.
- Condition B-9 of the Title V OP issued in September of 2002 was removed because the hazardous waste facility was never installed.
- Condition B-10 and B-11 of the Title V OP issued in September of 2002 was removed because the limit should be based on vehicle miles traveled for the entire site.
- A production limitation for the cover material (EU: W05) was added because there is an emission limitation that must be enforced.
- A production limitation for the GDO has been added to the current Title V OP renewal as part of Modification 8.
- A production limitation for Waste Placement (EU: W08) and stockpiles (EU: W09) have been added to the current Title V OP renewal as part of Modification 5.
- The limitations on the diesel generators have been updated from fuel usage to hourly usage. Therefore, production limitations for the diesel generators (EUs: W200, W201 and W203 through W209) have been updated to the current Title V OP renewal as part of Modification 5.

Emission Controls:

Aggregate Plant

- Condition C-7 of the Title V OP issued in September 2002 was removed based on authority matters. It was an unenforceable condition.
- Conditions C-12, C-13, C-14, C-15 of the Title V OP issued in September 2002 were removed since the emission and control factors were updated as part of Modification 5.

MSWL

- Condition C-29 of the Title V OP issued in September of 2002 was removed based on authority matters. It was an unenforceable condition.
- Condition C-33 of the Title V OP issued in September of 2002 was removed since the hazardous waste facility was never installed.

- Condition C-34 of the Title V issued in September of 2002 was removed. Compliance has indicated that the condition is unrealistic and unenforceable. This condition serves no purpose since the VMT are already limited.
- New conditions were added with regard to the GDO (EU: W06) which received an ATC (Modification 8).
- New condition III-B-3(o) added as required by 40 CFR 60, Subpart WWW.
- Condition C-43 of the Title V OP issued in September of 2002 was removed because it was redundant and covered by other 40 CFR 60, Subpart WWW conditions.
- Condition III-B-3(y) was added as required by 40 CFR 60, Subpart WWW.
- New conditions were added as required by 40 CFR 63, Subpart AAAA and Subpart ZZZZ.

D. Operating Scenario

Aggregate Plant

There is no limit on the hours of operation of the aggregate plant. Production is limited to the following annual throughputs, based on the rated capacities of primary pieces of equipment:

Table III-D-1: Maximum Allowable Production Throughputs

EU	Description	Plant	tons/year
A01	Mining/ Excavation	Primary Plant	7,000,000
A25	Gabion Screen	Gabion Plant	1,000,000
A37	Triple Deck Screen SC2	Secondary Plant	3,300,000
A38	Triple Deck Screen SC3	Secondary Plant	3,300,000
A62	VSI Crusher	Sand Plant	1,600,000
A79	Cone Crusher 1	Cone Plant	2,000,000
A108	Triple Deck Screen SC7	Wash Plant	3,500,000
A109	Triple Deck Screen SC8	Wash Plant	3,500,000
A130	Primary Crusher 2	Landfill Cover Plant	1,000,000
A136	Screen SC9	Landfill Cover Plant	3,000,000

Blasting is limited to 1,733,886 ft² of surface area blasted per rolling 12-month period.

MSWL

The Part 70 Operating Permit lists all of the limits for each emission unit which has a throughput limit and/or limits on the hours of operation.

Republic is a Municipal Solid Waste Landfill that has been accepting waste from Clark County since 1993. Waste is delivered to the site by trucks and distributed according to the type of waste; general, contaminated soil, and industrial waste. The source has a soil treatment facility, an industrial waste facility, and the general waste area that accepts over 13 million tons of waste a year. The waste from the trucks that are operated by the source are placed by diesel tipper engine into the open layer of a cell and then aggregate cover material, from the aggregate plant, is place over the waste until the cell layer is completely filled to a specified high and width. Once a cell is completely filled and new cell is opened and within a calculated timeframe the closed cell has vertical and horizontal wells installed to capture the fugitive emissions of non-methane organic compounds, methane, and sulfur dioxide. The collection and control system then conveys the landfill gas (LFG) to the enclosed combustor (LFG Flare) that is rated for 1,000 scfm flow rate. The collection and control system is assumed to collect approximately 75 percent of the LFG, leaving 25 percent at fugitive emission of the landfill surface. Republic is

responsible for all diesel generators that are used to maintain the wells on the site, as well as, for the aggregate plant.

E. Proposed Exemptions

Exemptions have not been proposed by the source.

IV. EMISSIONS INFORMATION

A. Total Source Potential to Emit

Table IV-A-1 reflects the sum of the PTEs of all permitted emission units. The source is major for PM₁₀, NO_x, SO_x, HAP and H₂S and minor for CO and VOC.

Table IV-A-1: Total Source PTE (tons per rolling 12-months)¹

	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP	TCS (H ₂ S)
Non-fugitive PTE	266.89	12.27	112.03	59.72	177.18	9.93	3.32	0.00
Landfill Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	32.89	32.16	147.27
Major Source Thresholds	100	100	100	100	100	100	10/25²	1³

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

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

³H₂S is major at stated thresholds per AQR 12.2.19 (amended 10/07/04).

B. Equipment Description

The air emission source equipment and associated major equipment are listed below.

Aggregate Plant

- Primary Plant material processing emission units (EUs: A01, A02, A04, A07, A08, A09, A12, A16, A17 and A22)
- Gabion Plant material processing emission units (EUs: A23, A25, A27, A28, A30, A31, A33 and A34)
- Secondary Plant material processing emission units (EUs: A35, A37, A38, A40, A42, A44, A46, A47, A49, A51, A52, A58 and A60)
- Sand Plant material processing emission units (EUs: A62, A65, A69, A72, A74 and A77)
- Cone Plant material processing emission units (EUs: A79, A82, A83, A85, A87, A89, A93, A95, A98, A102 and A104a)
- Wash Plant material processing emission units (EUs: A106, A108, A109, A112, A113, A114, A116, A118, A119, A122, A124, A125 and A126)
- Landfill Cover Plant material processing emission units (EUs: A127, A128, A130, A133, A136, A138, A141, A145, A147, A149 and A151)

MSWL

- Paved Haul Road (EU: H01)
- Unpaved Haul Road (EU: H02)
- Soil Treatment Bulk Material Unloading (EU: W01)
- Soil Treatment Waste Processing (EU: W02)
- Industrial Waste Cover Material Dumping and Transfer (EU: W03)
- Industrial Waste VOC from Landfill Gas (EU: W04)

- Cover Material Handling (EU: W05)
- 2,500 gallon Gasoline Storage Tank (EU:W06)
- Enclosed Combustor LFG Flare (EU: W07)
- Waste Placement (EU: W08)
- Stockpiles (EU: W09)
- Fugitive Emissions from Landfill (EU: W100)
- Diesel Generators and Tipper Engines (EUs: W200, W201, W203 through W212)

C. Emission Units, Emission Limitations and PTE

Aggregate Plant

Table IV-C-1: List of Emission Units for the Aggregate Plant

EU	Description	Rating (tph)	Make	Model #	Serial #	SCC
Primary Plant						
A01	Mining/Excavation	4,825				30502033
A02	Grizzly 1	1,650				30502013
A04	Grizzly to Primary Crusher 1	600	Crush Boss	HSI 400	6356511	30502001
	Primary Crusher 1					
	Primary Crusher 1 to Belt 1					
A07	2 Belt System (Drop from Grizzly and Belt 1 to Belt 2)	1,650				30502006
A08	Grizzly 2	600				30502013
A09	Grizzly 2 to Primary Crusher 2	600	Crush Boss	HSI 400	6356536	30502001
	Primary Crusher 2					
	Primary Crusher 2 to Belt 3					
A12	3 Belt System (Grizzly to Belt 2, Belt 3 to Belt 4 and Belt 4 to Belt 5)	1,650				30502006
	2 Belt Transfers (Belt 2 to Belt 5 and Belt 5 to Stacker S1)	2,500				30502006
A16	Stacker S1	2,500				30502006
A17	7 Belt System (Belt Feeders 6, 7 and 8 to Belt 9, Belt 9 to Belt 10, Belt 10 to Belt 11, Belt 11 to Belt 12 and Belt 12 to Stacker S2)	2,500				30502006
A22	Stacker S2	2,500				30502006
Gabion Plant						
A23	Belt 12 to Belt 13 (From Primary Plant)	415				30502006
A25	Belt 13 to Gabion Screen SC1	415	Telsmith	6x16 TD	275M101 C1607	30502002
	Gabion Screen SC1					
	Gabion Screen SC1 to Belt 14					
	Gabion Screen SC1 to Belt					

EU	Description	Rating (tph)	Make	Model #	Serial #	SCC
	15					
	Gabion Screen SC1 to Belt 16					
A27	Belt 14	210				30502006
A28	Stacker S3	210				30502006
A30	Belt 15	105				30502006
A31	Stacker S4	105				30502006
A33	Belt 16	105				30502006
A34	Stacker S5	105				30502006
Secondary Plant						
A35	Belt Feeder 17 to Belt 18	1,525				30502006
A37	Belt 18 to Triple Deck Screens SC2 and SC3	900	JCI	6x20 TD	SAD155 4A	30502002
	Triple Deck Screen SC2					
	Screen SC2 to Belt 19					
	Screen SC2 to Belt 21					
	Screen SC2 to Belt 26					
Screen SC2 to Belt 31						
A38	Triple Deck Screen SC3	900	JCI	6x20 TD	96H02B3 2	30502002
	Screen SC3 to Belt 21					
	Screen SC3 to Belt 32					
A40	2 Belt System (Belt 19 to Belt 20 and Belt 20 to Stacker S6)	900				30502006
	Belt 32 to Belt 20	900				
A42	Stacker S6	900				30502006
A44	2 Belt System (Belt 21 to Belt 22 and Belt 22 to Stacker S7)	300				30502006
	Additional Transfer from SC3 (via Belt 21) Included					
A46	Stacker S7	300				30502006
A47	2 Belt Feeders to Belt 25	500				30502006
A49	2 Belt System (Belt 26 to Belt 27 and Belt 27 to Stacker S8)	500				30502006
A51	Stacker S8	500				30502006
A52	2 Belt Feeders to Belt 30	500				30502006
A58	Belt 31 to HSI 1 Crusher	600	Crush Boss	HSI 400	101400	30502002
	HSI 1 Crusher					
	HSI 1 Crusher to Belt 33					
A60	Recirculation Belt 33					30502006
Sand Plant						
A62	Belt 25 to VSI Crusher 1	200	CEMCO	70	AVE019 5170	30502003
	Belt 35 to VSI Crusher 1					
	VSI Crusher 1					

EU	Description	Rating (tph)	Make	Model #	Serial #	SCC
	VSI Crusher 1 to Belt 34					
A65	Belt 34 to Screen SC4	300	JCI	6x20 TD	96H05D 32	30502003
	Screen SC4					
	Screen SC4 to Belt 35					
	Screen SC4 to Belt 39					
A69	3 Belt System (Belt 36 to Belt 37, Belt 37 to Belt 38 and Belt 38 to Stacker S9)	210				30502006
A72	Stacker S9	210				30502006
A74	3 Belt System (Belt 39 to Belt 40, Belt 40 to Belt 41 and Belt 41 to Stacker S10)	200				30502006
A77	Stacker S10	200				30502006
Cone Plant						
A79	Belt 30 to Cone Crusher 1	300	Nordberg	HP 300	3031065 7	30502003
	Cone Crusher 1					
	Cone Crusher 1 to Belt 42					
A82	Belt 42 to Screens SC5 and SC6	450	JCI	6x20 TD	99H03K3 2	30502003
	Triple Deck Screen SC5					
	Screen SC5 to Belt 43					
	Screen SC5 to Belt 49					
	Screen SC5 to Belt 51					
A83	Triple Deck Screen SC6	450	JCI	7x20 TD	43J0491	30502003
	Screen SC6 to Belt 45					
A85	2 Belt System (Belt 43 to Belt 44 and Belt 44 to Stacker S11)	210				30502006
A87	Stacker S11	210				30502006
A89	4 Belt System (Belt 45 to Belt 46, Belt 46 to Belt 47, Belt 47 to Belt 48 and Belt 48 to Stacker S12)	300				30502006
A93	Stacker S12	300				30502006
A95	2 Belt System (Belt 49 to Belt 50 and Belt 50 to Belt 30)	250				30502006
A98	4 Belt System (Belt 51 to Belt 52, Belt 52 to Belt 53, Belt 53 to Belt 54 and Belt 54 to Stacker S13)	450				30502006
	Belt 53 to Belt 55	150				30502006
A102	Stacker S13	450				30502006
A104a	Belt 55 to VSI Crusher 2	150	CEMCO	80	ADEV03 99180V	30502003
	VSI Crusher 2					
	VSI Crusher 2 to Belt 39					
Wash Plant						
A106	Belt Feeder 56 to Belt 57	1,200				30502006

EU	Description	Rating (tph)	Make	Model #	Serial #	SCC
A108	Belt 57 to Screens SC7 and SC8	605	JCI	6x20 TD	96H01B3 2	30502003
	Triple Deck Screen SC7					
	Screen SC7 to Sand Screw 1					
	Screen SC7 to Belt 61					
A109	Triple Deck Screen SC8	605	Cedar Rapids	TSS 6203-32	54400	30502003
	Screen SC8 to Sand Screw 2					
	Screen SC8 to Belt 60					
	Screen SC8 to Belt 61					
A112	Sand Screw 1 to Belt 58	70				30502006
A113	Sand Screw 2 to Belt 58	70				30502006
A114	2 Belt System (Belt 58 to Belt 59 and Belt 59 to Stacker S14)	140				30502006
A116	Stacker S14	140				30502006
A118	Belt 60 to Stacker S15	550				30502006
A119	Stacker S15	550				30502006
A122	2 Belt System (Belt 61 to Belt 62 and Belt 62 to Storage Hopper)	415				30502006
A124	Storage Hopper to Belt 63	415				30502007
A125	Belt 63 to Rock Truck	415				30502006
A126	Rock Truck Dumping	415				30502031
Landfill Cover Plant						
A127	Blasting	24,200 ft ² /hr				30502009
A128	Grizzly 3	1,800				30502013
A130	Grizzly 3 to Primary Crusher 2	400	Crush Boss	400	400504	30502001
	Primary Crusher 2					
	Primary Crusher 2 to Belt 64					
A133	Grizzly 3 to Belt 64	1,400				30502006
	2 Belt System (Belt 64 to Belt 65 and Belt 65 to Belt 66)	1,800				
A136	Belt 66 to Screen SC9	1,800	Cedar Rapids	8x20 TD	46531	30502003
	Belt 75 to Screen SC9					
	Screen SC9					
	Screen SC9 to Belt 67					
	Screen SC9 to Belt 70					
	Screen SC9 to Belt 72					
Screen SC9 to Belt 74						
A138	3 Belt System (Belt 67 to Belt 68, Belt 68 to Belt 69 and Belt 69 to Stacker S16)	1,000				30502006
A141	Stacker S16	1,000				30502006

EU	Description	Rating (tph)	Make	Model #	Serial #	SCC
A143	2 Belt System (Belt 70 to Belt 71 and Belt 71 to Stacker S17)	500				30502006
A145	Stacker S17	500				30502006
A147	2 Belt System (Belt 72 to Belt 73 and Belt 73 to Stacker S18)	300				30502006
A149	Stacker S18	300				30502006
A151	Belt 74 to Cone Crusher 2	200	Svedala	S-3000	03JA088 02	30502002
	Cone Crusher 2					
	Cone Crusher 2 to Belt 75					

Table IV-C-2: PTE Aggregate Plant (tons per year)

EU	PM ₁₀	EU	PM ₁₀	EU	PM ₁₀
A01	0.32	A46	0.03	A106	0.12
A02	0.03	A47	0.07	A108	0.01
A04	0.04	A49	0.09	A109	0.01
A07	0.18	A51	0.05	A112	0.01
A08	0.02	A52	0.09	A113	0.01
A09	0.04	A58	0.02	A114	0.01
A12	0.46	A60	0.05	A116	0.01
A16	0.16	A62	0.02	A118	0.01
A17	1.13	A65	0.59	A119	0.01
A22	0.16	A69	0.03	A122	0.01
A23	0.02	A72	0.01	A124	0.01
A25	0.37	A74	0.07	A125	0.01
A27	0.01	A77	0.02	A126	0.01
A28	0.01	A79	0.02	A128	0.02
A30	0.01	A82	0.74	A130	0.01
A31	0.01	A83	0.74	A133	0.19
A33	0.01	A85	0.03	A136	1.11
A34	0.01	A87	0.01	A138	0.14
A35	0.14	A89	0.14	A141	0.05
A37	1.22	A93	0.03	A143	0.05
A38	1.22	A95	0.05	A145	0.02
A40	0.21	A98	0.15	A147	0.02
A42	0.07	A102	0.03	A149	0.01
A44	0.10	A104a	0.01	A151	0.01

Table IV-C-3: PTE Blasting (tons per year)

EU	PM ₁₀	NO _x	CO
A127	8.31	5.50	29.11

Table IV-C-4: Emission Rates and Concentrations Aggregate Plant

EU	PM ₁₀ Mass Emission Rate (pounds per hour)	PM Stack Emission Concentrations	
		(g/dscm)	(gr/dscf)
A04	0.01	0.032	0.014
A09	0.01	0.032	0.014
A58	0.01	0.032	0.014
A62	0.01	0.032	0.014

EU	PM ₁₀ Mass Emission Rate (pounds per hour)	PM Stack Emission Concentrations	
		(g/dscm)	(gr/dscf)
A79	0.01	0.032	0.014
A104a	0.01	0.032	0.014
A130	0.01	0.032	0.014
A151	0.01	0.032	0.014

Discussion of Emission Calculations for Aggregate Plant

All emission factors in the aggregate plant are taken from AP-42 Table 11.19.2-2 unless otherwise stated here. The mining/excavation (EU A01) emission factor is estimated from adding together two controlled conveyor drop points ($0.000046 \times 2 = 0.00092$ lb/ton). The grizzly emission factors are estimated from the truck unloading factor of 11.19.2-2. The blasting (EU A127) emission factor for PM₁₀ is taken from AP-42 Table 11.9-1 for blasting. CO and NO_x emission factors for blasting were determined by using Table 1 from the Summary of Data for Shots of ANFO from "A Technique for Measuring Toxic Gases Produced by Blasting Agents" (Mainiero, Richard J., 23rd Annual Conference on Explosives and Blasting Technique, February 1997). In the study, emissions were studied by various techniques for measuring toxic gases produced by blasting agents, which resulted in emission factors for the range of percent fuel oil from 5.0 percent to 7.0 percent. Las Vegas Paving uses 5.8 percent fuel oil in the ANFO when blasting. Because there are numerous emissions for 5 percent and 6 percent, the emissions were averaged for each percent and calculated to get the correct emissions rate for 5.8 percent. The detailed emission factor calculations are as follows:

Emission Factor for NO_x:

There are 22.4 liters in a mole (—)

The molecular weight of CO is 46.00 — assuming that NO_x is NO₂

Where 5% averaged = 4.35— and 6% averaged 1.27—

Assuming the percent of Fuel Oil in ANFO used is 5.8% then 5.8% would equal 1.89—

Using — to get the Emission Factor of NO_x

Emission Factor for CO:

There are 22.4 liters in a mole = (—)

The molecular weight of CO is 28.01 —

Where 5% averaged = 8.09— and 6% averaged 18.47—

Assuming the percent of Fuel Oil in ANFO used is 5.8% then 5.8% would equal 16.39—

Using — to get the Emission Factor of CO

MSWL

Table IV-C-5: List of Emission Units for the MSWL

EU	Description	Rating	Make	Model #	Serial #	SCC
H01	Haul Road, Paved (2.0 miles Round Trip)	1,237,592 VMT/yr				30502011
H02	Haul Road, Unpaved	321,920 VMT/yr				30502011
W01	Soil Treatment Bulk Material Unloading	20,000 tpy				30510499
	Stationary Grizzly Deck					30504034
	Material Transfer to Soil Treatment Cell					30510199
	Soil Transfer from Soil Treatment Cell					30510199
W02	Soil Treatment Waste Processing	20,000 tpy				50100402
W03	Industrial Waste Cover Material Dumping	435,000 tpy				30510499
	Transfer to Face Cover Material					30510199
W04	Industrial Waste VOC from Landfill Gas	200,000 tpy				50100402
W05	Cover Material Handling for Waste Placement	1,090,951 tpy				30502512
W06	1-2,500 aboveground gasoline storage tank, Regular	61,771 gal/yr				40600306
W07	Enclosed Combustion LFG Flare	1,000 scfm	Callidus	G8844		50100410
W08	Waste Placement	13,008,600 tpy				50200602
W09	Stockpiles: Active/Inactive (cover	123.11 acres				30502507

EU	Description	Rating	Make	Model #	Serial #	SCC
	material)					
W100	Fugitive Emissions from Landfill (based on 2006 Estimates)	N/A				50100402
W200	Diesel Generator: DOM 1994	2,593 hp	CAT	3516	5SJ00130	20200102
W201	Diesel Generator: DOM 1996	2,593 hp	CAT	3516	7RN00440	20200102
W203	Diesel Generator: DOM 1998	1,072 hp	CAT	3412CDIT A	WJ05059	20200102
W204	Diesel Generator: DOM 1998	1,108 hp	CAT	3412CDIT A	WJ01887	20200102
W205	Diesel Tipper Engine: DOM Pre-2006	150 hp	CAT	3208	35601941	20200102
W206	Diesel Generator: DOM Pre-2006	188 bhp	Cummins	6CT8.3-G2	F99093314	20200102
W207	Diesel Generator: DOM Pre-2006	188 bhp	Cummins	6CT8.3-G2	F99093315	20200102
W208	Diesel Generator: DOM Pre-2006	77 bhp	Isuzu	QD145 "6BD1"	3647886	20200102
W209	Diesel Generator: DOM Pre-2006	315 hp	CAT	3406	90U16559	20200102
W210	Diesel Tipper Engine: DOM 2007	173 bhp	CAT	3056E	35603786	20200102
W211	Diesel Tipper Engine: DOM 2007	173 bhp	CAT	3056E	35603782	20200102
W212	Diesel Tipper Engine: DOM 2007	115 hp	John Deere	4045H	PE4045H638663	20200102

Table IV-C-6: PTE MSWL (tons per year)

EU	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
H01	93.69	0.00	0.00	0.00	0.00	0.00	0.00
H02	121.85	0.00	0.00	0.00	0.00	0.00	0.00
W01	0.26	0.00	0.00	0.00	0.00	0.00	0.00
W02	0.00	0.00	0.00	0.00	0.00	2.78	0.00
W03	2.18	0.00	0.00	0.00	0.00	0.00	0.00
W04	0.00	0.00	0.00	0.00	0.00	0.19	0.00
W05	3.97	0.00	0.00	0.00	0.00	0.00	0.00
W06	0.00	0.00	0.00	0.00	0.00	0.40	0.10
W07	8.37	8.37	4.89	0.27	169.98	0.26	0.09
W08	1.04	0.00	0.00	0.00	0.00	0.00	0.00
W09	3.58	0.00	0.00	0.00	0.00	0.00	0.00
W200	0.02	0.02	2.77	0.25	0.02	0.08	0.03
W201	1.38	1.38	37.54	20.90	1.11	3.54	1.53
W203	0.50	0.50	15.23	2.44	0.33	0.40	0.45
W204	0.29	0.29	9.93	1.67	0.22	0.26	0.30
W205	0.55	0.55	7.83	1.69	1.09	0.67	0.13
W206	0.20	0.20	5.47	0.45	0.14	0.14	0.20
W207	0.20	0.20	5.47	0.45	0.14	0.14	0.20
W208	0.01	0.01	0.07	0.02	0.01	0.01	0.01
W209	0.02	0.02	0.30	0.06	0.01	0.03	0.01

EU	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
W210	0.26	0.26	6.35	0.79	1.55	0.35	0.17
W211	0.26	0.26	6.35	0.79	1.55	0.35	0.17
W212	0.21	0.21	4.33	0.83	1.03	0.33	0.02

Table IV-C-7: PTE MSWL Fugitive Emissions (tons per year)

EU	Description	Pollutant	Maximum Emissions
			tons/year
W100	Fugitive Emissions from Landfill (based on 2006 Estimates)	VOC (including HAP)	32.89
		HAP (Not including H ₂ S)	32.16
		TCS (only H ₂ S)	147.27

Table IV-C-8: Emission Rates MSWL (pounds per hour)

EU	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP
W07	1.91	1.91	1.12	0.06	38.81	0.06	0.01

Discussion of Emission Calculations for MSWL

Modification 5

The emission factors for the paved and unpaved haul roads are based on and DAQEM defaults derived using AP-42 Section 13.2.1 and 13.2.2.

Table IV-C-9: PTE MSWL Haul Roads (tons per rolling 12-months)

EU	Description	VMT/hr	VMT/yr	lbs/VMT	CF	PTE	
						lbs/hr	tons/yr
H01	Haul Road: Paved	141.00	1,237,592	7.57	0.02	21.35	93.69
H02	Haul Road: Unpaved	37.00	321,920	7.57	0.10	28.01	121.85
PM₁₀ Subtotal						49.36	215.53

Vehicle traffic entering and leaving the site is controlled at the main gate of the source. Waste and rock hauling vehicles entering the site are counted and the destination of each truck noted (i.e. municipal waste, septic, rock). The routes these vehicles use are documented and the distance measured using satellite imagery. The miles on paved and unpaved roads are then calculated by multiplying the number of vehicles by the miles of the truck route.

Other routine operations within the site have been monitored and conservative estimates developed. These estimates are designed to over report the actual vehicle miles traveled to ensure compliance. The conservative approach is cost effective for Republic to demonstrated compliance without spending high labor cost. Assumptions will be periodically verified. The activities, which are conservatively high estimates, are listed in Table IV-C-10.

Table IV-C-10: Routine Operations at Republic Dumpco – Apex Waste Management Center

Activity	Available Data	Activity Reported for Emissions Tracking
Employee and Visitor Access	Approximately 100 employees enter and leave the site on week days and 50 employees work on Saturday and Sunday. Very few deliveries occur on	Calculate emissions based on 150 employee/visitor trips on week days, 75 employee/visitor trips on weekends. All travel on paved road.

Activity	Available Data	Activity Reported for Emissions Tracking
	weekends and typically no visitors	
Water Trucks	Republic reviewed the water use for the last two years and the highest rate of use was 160,000 gallons in one day. Smallest water truck is 8,000 gallons. Based on aerial map, approximately 2.6 miles of unpaved road on longest water truck trip.	Calculate emissions based on 20 round trip loads per day, 4 miles on unpaved roads per trip.
Cover Material Hauling	Republic tracks cover material placement. Average number of loads per day is 30. Longest trip from source to working face is 0.75 miles paved and 0.75 miles unpaved.	Calculated emission based on 45 trips per day assuming 0.75 miles on paved road and 0.75 miles on unpaved road.
Generator Servicing	One trip per day to each of the two generators for fueling and servicing. Longest distance to generator is 3 miles unpaved, 2 miles paved.	Calculate emission based on 3 trips per day, 3 miles unpaved and 2 miles paved.
Utility Crew	Typically 8 trips each week day on 2 miles of paved road and 0.50 miles unpaved roads.	Calculate emission based on 3 shifts, 4 trips per shift on 0.50 miles of unpaved road and 2 miles of paved roads.

The emission factors in the waste placement (EU: W08) were taken from EPA AP-42, Section 11.19.2 and Table 11.19.2-2 were Republic took a conservative approach by applying a ten times higher emission factor.

Table IV-C-11: PTE MSWL Waste Placement (tons per year)

EU	Description	Throughput		EF	CF	PTE	
		tons/hr	tons/yr			lbs/hr	tons/yr
W08	Waste Placement	3,000	13,008,600	0.00016	N/A	0.48	1.04

The cover material stockpiles (EU: W09) were derived using on AP-42 13.2.4 referenced C. Cowherd, Jr., et al Fu., "Control of Open Fugitive Dust Sources", EPA-450/3-88-008 and the Western Regional Air Partnership (WRAP), "Fugitive Dust Handbook".

Table IV-C-12: PTE Stockpiles (tons per year)

EU	Description	Throughput	EF (lbs/ ton)	CF	PTE	
					lbs/ hour	tons/ year
W09	Stockpiles - Active	77.03 acres	0.01 lb/acre-hour		0.77	3.37
	Stockpiles - Inactive	46.08 acres	0.001 lb/acre-hour		0.05	0.20

Note: Emission Factor¹ = 1.7(s/1.5)(365-p/235)(f/15)(ratio of PM₁₀ to PM) where,

S² = silt content % = 9% for active storage piles and 1.8% for inactive storage piles (assumes inactive stockpiles are stabilized to 80% control).

P³ = number of days with >0.01 inches of precipitation per year = 30 days

F⁴ = percentage of time that wind speed exceeds 5.4 m/s at mean pile height = 25%

Ration of PM₁₀ to PM = 0.50

Emission Factor⁵ = 0.12 PM₁₀ per day per acre, Emission Factor = 0.01 lb PM₁₀ per hour per acre (based on 24 hours/day)

¹Emission Factor Calculation reference: *Control of Open Fugitive Dust Sources*, Section 4.1.3, EPA-450/3-98-008.

²Silt content obtained from AP-42 Table 13.2.4-1 for the average silt content for Municipal Solid Waste Landfill Cover).

³Number of days with >0.01 inches of precipitation per year obtained from AP-42 Figure 13.2.2-1.

⁴Based on Reid Gardner, Moapa Windrose.

⁵PM₁₀ to PM ratio of 0.5 is based on AP-42 14.2.5.

Example Calculation: PM₁₀ Emissions, lb/hour = Emission Factor, lb PM₁₀ per day per acre X Maximum Area of Stockpile, acres.

Modification 8, Revision 1

Installed a date in which the source was subject to the 40 CFR 63 Subpart CCCCCC (EU: G06).

Modification 8

The emission factor for Phase I equipment on the gasoline storage tank was based on DAQEM default emission factors.

Table IV-C-13: PTE GDO (tons per rolling 12-months)

EU	Throughput (gals/year)	EF ¹ (tons/gal)	CE ²	PTE (tons/year)	
				VOC	HAP
W06	26,400	0.013 (VOC) ³	95.0	0.17	N/A
W06	26,400	0.000000008 (HAP) ³	95.0	N/A	0.01

¹DAQEM default emission factors are used throughout.

²Control efficiencies are rule based and shall be a minimum of 95.0 percent for Phase I.

³Controlled (95.0 percent control) emission factor.

The diesel generators and tipper engines (EUs: W200, W201, W203, and W204 through W209 have been updated from fuel usage to hours of operations based on the fuel usage. The emissions have not changed as a result of this update.

Modification 6

The source removed a 115 horsepower Caterpillar diesel tipper engine (EU: G12) and replaced it with a 115 horsepower John Deere diesel tipper engine (EU: W212). The emission factors for PM₁₀, NO_x, CO, and SO_x were based on manufacturer's emission guarantees and VOC and HAPs were based on AP-42 emission factors.

The Aggregate Plant's emission list was updated to be consistent with DAQEM's standard of emission units being placed into processes instead of separate line items. There was no increase to emissions.

Modification 4, Revision 0

The source changed the operation of the Aggregate Plant, by adding new emission units, increasing the throughputs, and re-configuring the existing emission units. The emission factors used for the aggregate plant were changed from AP-42 Chapter 11.19.1 – Sand and Gravel Processing emission factors to AP-42 Chapter 11.19.2 – Crushed Stone Processing and Pulverized mineral Processing emission factors. The source requested to have three diesel storage tank and four 11.5 kW mobile diesel light plants categorically exempted. The four generators (EUs: W200, W201, W203, and W204) were changed from the aggregate plant (Las

Vegas Paving's) responsibility to under the control of Republic. The four generators still are utilized at the Aggregate Plant, but Republic assumed responsibility of them. The generators also are employed at the Aggregate Plants to run the equipment as needed.

Modification 4, Revision 1

The previous permit was updated to make corrections to language per submitted request on March 5, 2008.

Modification 3

The source replaced 2 – 210 horsepower Caterpillar diesel engines (EUs: G11 and G13) with two 173 horsepower Caterpillar engines (EUs: W210 and W211) The emission factors for the two Caterpillar diesel generators emission factors for PM₁₀, NO_x, CO, SO_x, VOC and HAP were based on AP-42 emission factors.

D. Testing

Aggregate Plant

Performance testing is subject to 40 CFR 60 Subpart A, 40 CFR 60 Subpart OOO and DAQEM's Guideline of Performance Testing.

Required testing on the aggregate plant will be performed using the following methods:

Table IV-D-1: Performance Testing Requirements Aggregate Plant

Emission Units	Description	Test Method	Pollutant	Frequency
A02, A04, A07, A08, A09, A12, A16, A17, A22, A23, A25, A27, A28, A30, A31, A33, A34, A35, A37, A38, A40, A42, A44, A46, A47, A49, A51, A52, A58, A60, A62, A65, A69, A72, A74, A77, A79, A82, A83, A85, A87, A89, A93, A95, A98, A102, A104a, A106, A128, A130, A133, A136, A138, A141, A143, A145, A147, A149 and A151	Aggregate Plant	EPA Method 9	Opacity	Initially and every 5 years
A04, A09, A58, A62, A79, A104a, A130 and A151	Aggregate Plant Crushers	EPA Method 5 or Method 17	PM	Initially and every 5 years

Changes from Title V OP issued in September 2002

- The previous Title V permit and most recent ATC required Method 9 testing to be performed on mining/excavation, which included blasting (EUs: A01 and A127). This requirement was removed as this is not part of Subpart OOO or AQR Sections 26 or 34.
- The previous Title V permit required annual Method 9 testing. Compliance determined this was not necessary and that testing every 5 years would be sufficient.

MSWL

Performance testing is subject to 40 CFR 60 Subpart A, 40 CFR 60 Subpart WWW, 40 CFR 63, Subpart ZZZZ and DAQEM's Guideline of Performance Testing.

Table IV-D-2: Performance Testing Requirements MSWL

Emission Units	Description	Test Method	Pollutant	Frequency
W06	GDO	CARB TP-201.3	VOC and HAP	Initially and annually
W07	Callidus Flare with the Collection and Control System	EPA Method 2E, 25, 25C or 18	Flare Control Efficiency (NMOC)	Initially and annually
		EPA Method 9	Opacity	Initially and annually
		EPA Method 3C	Levels less than 20% Nitrogen or 5% Oxygen at each well	Monthly
W100	Fugitive Emissions from the Landfill	Method 21	Methane	Quarterly
		Method 21	Chemical analysis of landfill gases	Annually
W200, W201, W203, W204 through W209 inclusive (Applicable: May 3, 2013)	Engines	EPA Method 10 or ASTM Method D6522-00 and Method 320 or ASTM D6348-03	CO and HAPs	Initially and every 8,760 hours or every 3 years whichever comes first

The enclosed combustor (Callidus Flare) includes the Collection and Control System.

Subsequent performance testing of the GDO and the enclosed combustor (Callidus Flare) shall be conducted every year.

Republic is not required to performance test for CO or HAP in generators/engines (EUs: W200, W201, W203, W204 through W209) until May 3, 2013 with the requirements in 40 CFR 63, Subpart ZZZZ.

Changes from Title V OP issued in September 2002

- Conditions III-D-6 through 9 were added as required by 40 CFR 63, Subpart CCCCCC.
- Conditions III-D-13 through 19 were added as required by 40 CFR 63, Subpart ZZZZ.

E. Monitoring

Aggregate Plant

Republic is required to comply with local monitoring requirements and the monitoring requirements in 40 CFR 60, Subpart OOO.

Daily visual opacity observations shall be made on the aggregate plant including the control device stacks (baghouses). The water spray system will be inspected daily. The baghouses will be monitored daily and inspected at least monthly.

Changes from Title V OP issued in September 2002

- The requirement to perform bi-weekly moisture sampling was removed since the aggregate plant is no longer limited to a moisture requirement.

MSWL

Republic is required to comply with local monitoring requirements and the monitoring requirements of 40 CFR 60, Subpart WWW and Subpart IIII, 40 CFR 63, Subpart AAAA, Subpart ZZZZ and Subpart CCCCCC.

Daily visual opacity observations shall be made and will include each emission unit in the MSWL. Daily inspection of the GDO (EU: W06) to ensure that the equipment is maintained and operated per manufacturer's specifications. Bi-weekly sampling and analysis shall be conducted on the Soil Treatment Waste Processing. On a monthly basis the gauge pressure in the gas collection header shall be measured, and nitrogen and oxygen levels and the temperature of the landfill gas shall be monitored at each wellhead. A visual inspection of seal and closure mechanism shall be performed. The surface concentrations of methane and the PM₁₀ and H₂S Ambient Air shall be monitored and reported on a quarterly basis. On an annual basis the VOC emission for the Soil Treatment facility will be calculated, the amount of biodegradable waste in the Industrial Waste facility will be monitored, and the NMOC emission rate for the Industrial Waste facility shall be calculated.

Changes from Title V OP issued in September 2002

- Condition D-11 of the Title V OP issued in September of 2002 was removed since the hazardous waste facility was never installed.
- Updated GDO monitoring conditions to be compliant with 40 CFR 63, Subpart CCCCCC.
- Updated Surface Methane Monitoring conditions to be compliant with 40 CFR 60, Subpart WWW.
- A new condition regarding the implementation of a cover integrity monitoring program was added to this OP as required by 40 CFR 60, Subpart WWW.
- New conditions regarding the collection and control system were added as required by 40 CFR 60, Subpart WWW.
- Condition III-C-24 was added as required by 40 CFR 60, Subpart WWW.
- Condition III-C-25 was added as required by 40 CFR 60, Subpart IIII.

V. REGULATORY REVIEW

DAQEM has determined that the following public law, statutes and associated regulations apply:

1. CAAA, Authority: 42 U.S.C. § 7401, et seq.;
2. Title 40 of the CFR;
3. NRS, Chapter 445B;
4. Portions of the AQR included in the SIP for Clark County, Nevada. SIP requirements are federally enforceable. All requirements from ATC permits issued by DAQEM 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.

A. Local Regulatory Requirements

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

The DAQEM 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 details the Clark County Part 70 Operating Permit Program. These regulations may be accessed on the Internet at: <http://www.accessclarkcounty.com/depts/daqem/aq/rules/pages/regs.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 SIP. Requirements and conditions that appear in the Part 70 Operating Permit which are related only to non-SIP rules are notated below as locally enforceable only.

Table V-A-1: AQR Section 12 and 55 Summary Table for This Source (As Addressed by Part 70 OP)

	PM ₁₀	PM _{2.5}	NO _x	CO	SO ₂	VOC	HAP	H ₂ S
Air Quality Area	PSD	PSD	Nonattainment (ozone)	PSD	PSD	Nonattainment (ozone)	PSD	PSD
Non-Fugitive Source PTE (tpy)	266.89	12.27	112.03	59.72	177.18	9.93	3.32	0.00
Landfill: Fugitive PTE	0.00	0.00	0.00	0.00	0.00	32.89	32.16	147.27
Major Source	≥ 100 tpy	≥ 100 tpy	≥ 100 tpy	≥ 100 tpy	≥ 100 tpy	≥ 100 tpy	10/25 ¹	1 ²

¹Ten (10) tons for any individual HAP or 25 tons for combination of all HAPs.

²H₂S major threshold per AQR 12.2.19 (amended 10/07/04).

Discussion: Republic is a major source of PM₁₀, NO_x, SO_x, HAP, and H₂S. As part of the original NSR Analysis all of these emissions triggered notice of proposed action.

Table V-A-2: Clark County DAQEM – AQR with Source Compliance or Requirement

Applicable Section – Title	Applicable Subsection - Title	SIP	Affected Emission Unit
0. Definitions	applicable definitions	yes	entire source
1. Definitions	applicable definitions – “Affected Facility”, “Air Contaminant”, “Air Pollution Control Committee”, “Area Source”, “Atmosphere”, “Board”, “Commercial Off-Road Vehicle Racing”, “Dust”, “Existing Facility”, “Existing Gasoline Station”, “Fixed Capital Cost”, “Fumes”, “Health District”, “Hearing Board”, “Integrated Sampling”, “Minor Source”, “Mist”, “New Gasoline Station”, “New Source”, “NIC”, “Point Source”, “Shutdown”, “Significant”, “Single Source”, “Smoke”, “Source of Air Contaminant”, “Special Mobile Equipment”, “Standard Commercial Equipment”, “Standard Conditions”, “Start Up”, “Stop Order”, “Uncombined Water”, and “Vapor Disposal System”	yes	entire source
2. Air Pollution Control Board	all subsections	yes	entire source
4. Control Officer	all subsections	yes	entire source
5. Interference with Control Officer	all subsections	yes	entire source
6. Injunctive Relief	all subsections	yes	entire source
8. Persons Liable for Penalties - Punishment: Defense	all subsections	yes	entire source
9. Civil Penalties	all subsections	yes	entire source
10. Compliance Schedule	when applicable; applicable subsections	yes	entire source
11. Ambient Air Quality Standards	applicable subsections	yes	entire source
Through June 30, 2010: 12. Preconstruction Review for New or Modified Stationary Sources (Amended 10/07/04)	All subsections except the following: 12.2.18 HAP Sources in Clark County. 12.2.20 Additional Requirements for STATIONARY SOURCES with Beryllium, Mercury, Vinyl Chloride, or Asbestos EMISSIONS in Clark County	Yes except 12.2.18 and 12.2.20	entire source
12.5. Part 70 Operating Permit Requirements	applicable subsections	yes	entire source
13. National Emission Standards for Hazardous Air Pollutants	CCAQR Section 13.2.62: Subpart AAAA Municipal Solid Waste Landfills CCAQR Section 13.2.85: Subpart ZZZZ Stationary Reciprocating Internal Combustion Engines CCAQR Section 13.2.109: Subpart CCCCC Gasoline Dispensing Facilities	no	MSWL, diesel engines (EUs: W200, W201, W203 and W204 through W209), and GDO

Applicable Section – Title	Applicable Subsection - Title	SIP	Affected Emission Unit
14. New Source Performance Standards	CCAQR Section 14.1.74: Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants CCAQR Section 14.1.82: Subpart WWW Standards of Performance for Municipal Solid Waste Landfills CCAQR Section 14.1.90: Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	no	Aggregate Plant, MSWL, diesel engines (EUs W210, W211 and W212)
18. Permit and Technical Service Fees	18.1 Operating Permit Fees 18.2 Annual Emission Unit Fees 18.4 New Source Review Application Review Fee 18.5 Part 70 Application Review Fee 18.6 Annual Part 70 Emission Fee 18.14 Billing Procedures	yes	entire source
Through June 30, 2010: 19. Part 70 Operating Permit FEDERAL APPROVAL (11/25/01)	19.2 Applicability 19.3 Part 70 Permit Applications 19.4 Part 70 Permit Content 19.5 Permit Issuance, Renewal, Re-openings, and Revisions 19.6 Permit Renewal by the EPA and Affected States 19.7 Fee Determination and Certification	N/A	entire source
24. Sampling and Testing - Records and Reports (Through June 30, 2010)	24.1 Requirements for installation and maintenance of sampling and testing facilities 24.2 Requirements for emissions record keeping 24.3 Requirements for the record format 24.4 Requirements for the retention of records by the emission sources	yes	entire source
25. Affirmative Defense for Excess Emissions due to Malfunctions, Startup and Shutdown	applicable subsections	yes	entire source
26. Emission of Visible Air Contaminants	26.1 Limit on opacity (\leq 20 percent for 3 minutes in a 60-minute period)	yes	entire source
28. Fuel Burning Equipment	Emission Limitations for PM	yes	entire source
29. Sulfur Contents of Fuel Oil	Sulfur content shall be equal to or less than 0.05 percent sulfur by weight	no	Diesel engines
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

Applicable Section – Title	Applicable Subsection - Title	SIP	Affected Emission Unit
55. Preconstruction Review for New or Modified Stationary Sources in the 8-hour Ozone Nonattainment Area (Through June 30, 2010)	all subsections	no	entire source
60. Evaporation and Leakage	all subsections	yes	entire source
70. Emergency Procedures	all subsections	yes	entire source
80. Circumvention	all subsections	yes	entire source
81. Provisions of Regulations Severable	all subsections	yes	entire source

AQR SECTION 11 - AMBIENT AIR QUALITY STANDARDS (*in part*)

Table V-A-3: PSD Increment Consumption

Pollutant	Averaging Period	PSD Increment Consumption by the Source ($\mu\text{g}/\text{m}^3$)	Location of Maximum Impact	
			UTM X (m)	UTM Y (m)
SO ₂	3-hour	23.86 ¹	691820	4027161
SO ₂	24-hour	5.81 ¹	691512	4028059
SO ₂	Annual	1.11	691485	4028356
PM ₁₀	24-hour	25.14 ¹	691616	4027961
PM ₁₀	Annual	5.81	691536	4027155
NO _x	Annual	1.88	691467	4028555

¹Modeled High 2nd High Concentration

Table V-A-3 shows the location of the maximum impact and the potential PSD increment consumed by the source at that location. The impacts are below the PSD increment limits.

B. Federally Applicable Regulations

40 CFR 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 DAQEM of modifications, opacity testing, records of malfunctions of process equipment and/or continuous monitoring device, CEMS data, and performance test data. These requirements are found in the Part 70 OP. DAQEM requires records to be maintained for five years, a more stringent requirement than the two years required by 40 CFR 60.7.

40 CFR 60.8 – Performance tests

Discussion: These requirements are found in the Part 70 OP in Section IV-D. 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. DAQEM requirements for initial performance testing are identical to AQR Section 60.8. DAQEM 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: Compliance with various applicable standards will be demonstrated by performance tests unless otherwise specified in the standard. The source is subject to 40 CFR 60 Subpart GG which requires fuel monitoring and sampling to meet a standard. Subpart GG requirements are addressed in the Part 70 OP. AQR Section 26 is more stringent than the federal opacity standards, setting a maximum of 20 percent opacity for a period of more than 6 consecutive minutes. Republic shall operate in a manner consistent with this section of the regulation.

40 CFR 60.12 – Circumvention

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

40 CFR 60.13 – Monitoring requirements

Discussion: This section requires that CEMS meet 40 CFR 75 Appendix B and 40 CFR 60 Appendix F standards of operation, testing and performance criteria. The Part 70 OP contains the CEMS conditions and citations to 40 CFR 75 Appendix B and 40 CFR 60 Appendix F. In addition, the QA plan approved for the CEMS follows the requirements outlined including span time and recording time.

Subpart 000 – Standards of Performance for Nonmetallic Mineral Processing Plants

40 CFR 60.670 – Applicability

Discussion: All emission units in the aggregate processing plant except the mining and blasting are applicable to this Subpart.

40 CFR 60.672 – Standard for Particulate Matter

Discussion: The Permittee is subject to the requirements of particulate matter standards and emission limits, including the PM limit and opacity limits, as described in Tables 2 and 3 of the Subpart. These requirements are found in the Part 70 OP. The source did not document when construction commenced for the aggregate plant after the issuance of MOD 4, which was the last modification for the aggregate process. It only documented when the new configuration commenced operation, which was after April 2008. 40 CFR 60 Subpart 000 was revised to require more stringent standards for equipment that was constructed, modified or reconstructed after April 2008. Since the source could not demonstrate they commenced construction prior to this date, they proposed the more stringent standard.

40 CFR 60.675 – Test Methods and Procedures

Discussion: The Permittee shall determine compliance with the PM standards using test methods described in this subsection. Opacity standards to be demonstrated using Method 9, every five years, and the PM emission standards are to be demonstrated using Method 5, every five years. These requirements are found in the Part 70 OP.

40 CFR 60.676 – Reporting and Recordkeeping

Discussion: The Permittee shall submit to the Administrator and to the Control Officer information required by this subsection. Specific record keeping and reporting requirements are identified in the Part 70 OP.

Subpart WWW – Standards of Performance for Municipal Solid Waste Landfill

40 CFR 60.750 – Applicability

Discussion: The Enclosed Combustor (Callidus Flare), the Collection and control system, and the Landfill fugitive emission are subject to this subpart.

40 CFR 60.752 – Standard for Air Emission from Municipal Solid Waste Landfills

Discussion: The Permittee is subject to the requirements of the standards and emission limits. The source calculated the estimated NMOC in 2006, in which they demonstrated that the collection and control system with a control device must continue to operate.

40 CFR 60.753 – Operational Standards for Collection and Control Systems

Discussion: The Permittee is subject to the requirement of the operational standards for the collection and control system. The source has to maintain and operate the collection and control system to continue a 75% collection rate of Landfill gas with a control efficiency of 98% at the enclosed combustor (Callidus flare).

40 CFR 60.754 – Test Methods and Procedures

Discussion: The Permittee is subject to the requirements of the test methods and procedures. The source shall calculate the NMOC emission rate every five (5) years using the actual year-to-year solid waste acceptance rate. The source will also determine the NMOC concentration by sampling the any cell that has retained waster for at least two (2) years. Once the set NMOC concentration level has been reached the source shall install a collection system.

40 CFR 60.755 – Compliance Provisions

Discussion: The Permittee is subject to the requirements of the compliance provision. The source shall calculate the maximum expected gas generation flow rate from the landfill. The collection and control system that is installed, it shall be monitored, tested, maintained and operated in accordance with Subpart WWW to demonstration compliance. The Permittee shall demonstrate compliance with the surface methane operational standards of 500 parts per million or less. The source shall monitor the integrity of the landfill cover.

40 CFR 60.756 – Monitoring of Operations

Discussion: The Permittee is subject to the requirements of the monitoring of operations. The source shall monitor the temperature of the landfill gas and the levels of nitrogen and oxygen in the landfill gas at the wellheads and measure the gauge pressure at the collection header. The enclosed combustor shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications.

40 CFR 60.757 - Reporting Requirements

Discussion: The Permittee is subject to the requirements of the reporting requirements. The source shall submit the initial design report. The source shall submit the NMOC emission rate report, and shall submit a closure report to the Administrator within 30 days of waste acceptance cessation.

40 CFR 60.758 – Recordkeeping Requirements

Discussion: The Permittee is subject to the requirements of the recording requirements. The Permittee shall keep up-to-date records of the controlled landfill and the records shall be readily accessible. The Permittee shall maintain records for a minimum of 5 years.

Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

40 CFR 60.4200 – Applicability Determination

Discussion: The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) with a displacement less than 30 liters per cylinder where the model year is 2007 or later, for engines that are not fire pumps, and July 1, 2006, for ICE certified by National Fire Protection Association as fire pump engines. This subpart applies to diesel engines (EUs: W210, W211 and W212).

40 CFR 60.4202 and 40 CFR 60.4205 – Emission Standards for Owners and Operators

Discussion: The operator of the stationary CI ICE must provide the manufacturer certification of the emission standard specified in this subpart. These requirements are addressed in the Part 70 OP.

40 CFR 60.4206 and 40 CFR 60.4211 – Compliance Requirements

Discussion: The operator of the stationary CI ICE must operate and maintain CI ICE that achieve the emission standards according to the manufacturer's written instructions and procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine. These requirements are addressed in the Part 70 OP.

40 CFR 60.4214 – Reporting and Recordkeeping Requirements

Discussion: The operator of the CI ICE shall keep records that include: engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; emission control equipment; and fuel used. If the stationary CI internal combustion is a certified engine, the owner or operator shall keep documentation from the manufacturer that the engine is certified to meet the emission standards. These requirements are addressed in the Part 70 OP.

40 CFR 63-NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES:

Subpart AAAA – National Emission Standard for Hazardous Air Pollutants for Municipal Solid Waste Landfills

40 CFR 63.1935 – Applicability

Discussion: The Permittee is subject to the applicability of this subpart. The Permittee has a design capacity equal to or greater than 2.5 million megagrams and 2.5 million

cubic meters and has estimated uncontrolled emissions equal to or greater than 20 megagrams per year of NMOC as calculated in accordance with 40 CFR 60.754(a).

40 CFR 63.1945 – Date of Compliance

Discussion: The Permittee shall comply to this subpart by January 16, 2003. The Permittee has submitted a SSM Plan on January 16, 2004.

40 CFR 63.1955 – Standards

Discussion: The Permittee shall comply with the requirements of 40 CFR 60, subpart WWW. The Permittee shall demonstrate compliance by complying with 40 CFR 60, subpart WWW requirements and developing a SSM Plan according to the provisions in 40 CFR 63.6(e)(3). The Permittee must maintain on copy of the SSM Plan on site.

40 CFR 63.1980 – Notifications, Records, and Reports

Discussion: The Permittee is subject to the requirements of notifications, records, and reports. The Permittee shall keep records and reports as specified in 40 CFR 60, subpart WWW.

Subpart ZZZZ – National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

40 CFR 63.6585 – Applicability

Discussion: Subpart ZZZZ applies to the several engines at this source (EUs: W200, W201, W203, W204 through W209).

40 CFR 63.6595 – Date of Compliance

Discussion: The applicable emission units must comply with the applicable emission limitations and operating limitations no later than May 3, 2013.

40 CFR 63.6603 – Emission Limitations and Operating Limitations

Discussion: The requirements are stipulated in the Part 70 OP.

40 CFR 63.6625 – Monitoring, Installation, Collection, Operation and Maintenance Requirements

Discussion: The source must install a non-resettable hour meter if one is not already installed. The source must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

Subpart CCCCCC – National Emission Standard for Hazardous Air Pollutants for Gasoline Dispensing Facilities

40 CFR 63.11111 – Applicability

Discussion: The Permittee is subject to the requirements of §63.11116 for facilities with a monthly throughput of less than 10,000 gallons of gasoline (EUs: W06).

40 CFR 63.11113 – Compliance timelines

Discussion: The Permittee is required to comply with this subpart on January 10, 2011.

40 CFR 63.11116 – Requirements for facilities with monthly throughput of less than 10,000 gallons gasoline

Discussion: The Permittee is subject to the requirements of this section. The Permittee shall not allow gasoline to be handles in a manner that would result in vapor release to the atmosphere for extended periods of time. The Permittee shall minimize and clean all gasoline spills, cover open gasoline containers, and minimize gasoline sent to open waste collection system.

40 CFR 63.11120 – Testing and Monitoring Requirements

Discussion: The requirements are stipulated in the Part 70 OP.

40 CFR 63.11124 – Notifications Requirements

Discussion: The Permittee is subject to the notifications, records, and reports. The Permittee shall submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority by January 10, 2011.

40 CFR 63.11125 – Recordkeeping Requirements

Discussion: The Permittee is subject to the recordkeeping requirements. The Permittee shall keep records for a period of five (5) years and the records shall be made available for inspection during the course of a site visit.

40 CFR 63.11126 – Reporting Requirements

Discussion: The requirements are stipulated in the Part 70 OP.

VI. COMPLIANCE

A. Compliance Certification

19.3.3.9 Requirements for compliance certification:

- (a) Regardless of the date of issuance of this Part 70 OP, the schedule for the submittal of reports to the DAQEM shall be as follows:

Table VI-A-1: Reporting Schedule

Required Report	Applicable Period	Due Date ¹
Quarterly Report for 1 st Calendar Quarter	January, February, March	April 30 each year
Quarterly Report for 2 nd Calendar Quarter	April, May, June	July 30 each year
Quarterly Report for 3 rd Calendar Quarter	July, August, September	October 30 each year
Quarterly Report for 4 th Calendar Quarter, Any additional annual records required.	October, November, December	January 30 each year
Annual Compliance Certification Report	12 Months	30 days after the Operating Permit issuance anniversary date
Annual Emission Inventory Report	Calendar Year	March 31 each year
Excess Emission Notification	As Required	Within 24 hours of the time the Permittee first learns of the excess emissions

Required Report	Applicable Period	Due Date ¹
Excess Emission Report	As Required	Within 72 hours of the Excess Emission Notification
Deviation Report	As Required	Along with semi-annual reports
Performance Testing	As Required	Within 60 days from the end of the test

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

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

B. Compliance Summary

Table VI-B-1: AQR Applicable to Republic Dumpco, Inc.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 0	Definitions	Applicable – Republic will comply with all applicable definitions as they apply.	Republic will meet all applicable test methods should new definitions apply.	Republic complies with applicable requirements.
AQR Section 4	Control Officer	Applicable – The Control Officer or his representative may enter into Republic property, with or without prior notice, at any reasonable time for purpose of establishing compliance with permit regulations	Republic will allow Control Officer to enter property as required.	Republic complies with applicable requirements.
AQR Section 11	Ambient Air Quality Standards	Applicable – Republic is a source of air pollutants.	Republic demonstrated compliance in the ATC permit application with air dispersion modeling.	Republic complies with applicable requirements.
Through June 30, 2010: AQR Section 12.1 (Amended 10/07/04)	General application requirements for construction of new and modified sources of air pollution	Applicable – Republic applied for and the ATC certificate was issued before commencing construction.	Republic. received the ATC permit to construct.	Republic complies with applicable requirements.
Through June 30, 2010: AQR Section 12.2.5 (Amended 10/07/04)	Requirements for specific air pollutants: PM ₁₀ emission source located in the PSD area	Applicable – Republic is a major source of PM ₁₀ emissions.	The Part 70 permit has relevant compliance, record keeping and reporting requirements.	Republic complies with applicable requirements for PM ₁₀ .
Through June 30, 2010: AQR Section 12.2.8 (Amended 10/07/04)	Requirements for specific air pollutants: Minor CO emission source located in the PSD area.	Applicable – Republic is a minor CO source with CO emission units located in Hydrographic Basin 216 and 217.	The Part 70 permit has relevant compliance, record keeping and reporting requirements.	Republic complies with applicable control technology requirements for CO.
Through June 30, 2010: AQR Section 12.2.11 (Amended 10/07/04)	Requirements for specific air pollutants: Minor VOC sources located in the VOC Management Area.	Applicable – Republic is a minor VOC source with VOC emissions units located in Hydrographic Basin 216 and 217.	The Republic VOC controls meet BACT as applicable for Hydrographic Basin 216 and 217. The Part 70 permit has relevant compliance, record keeping and reporting requirements.	Republic complies with applicable control technology requirements for VOC.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
Through June 30, 2010: AQR Section 12.2.14 (Amended 10/07/04)	Requirements for specific air pollutants: NO _x sources located in the NO _x Management Area.	Applicable – Republic has NO _x PTE > 100 TPY.	The Republic NO _x controls meet BACT as applicable for Hydrographic Basin 216 and 217. The Part 70 permit has relevant compliance, record keeping and reporting requirements.	Republic complies with applicable control technology requirements for NO _x .
Through June 30, 2010: AQR Section 12.2.16 (Amended 10/07/04)	Requirements for specific air pollutants: SO _x sources located in the PSD area.	Applicable – Republic is a major SO _x source with SO _x emission units located in Hydrographic Basin 216 and 217.	The Republic stationary gas turbines meet BACT as applicable for Hydrographic Basin 216 and 217. The Part 70 permit has relevant compliance, record keeping and reporting requirements.	Republic complies with applicable control technology requirements for SO _x .
Through June 30, 2010: AQR Section 12.5 (Amended 10/07/04)	Air Quality Models	Applicable – Dispersion modeling will be performed as required for any future major modifications.	As applicable, if any future dispersion modeling is performed in response to a request for any ATC permit modifications, it will be in accordance with provisions of 40 CFR 51, Appendix W.	Republic complies with applicable requirements.
AQR Section 12.5	Part 70 Operating Permits	Applicable – Republic is a major stationary source and under Part 70. Renewal applications are due between 6 and 18 months prior to expiration. Revision applications will be submitted within 12 months of commencing operation of the new emission unit.	Republic submitted the initial Part 70 permit application within 12 months of startup. The renewal application was submitted within the appropriate timeframe.	Republic complies with applicable requirements.
AQR Section 13.2.62 Subpart AAAA	NESHAP – Municipal Solid Waste Landfills	Applicable – The Republic facility is subject to this subpart	Applicable requirements.	Republic complies with applicable requirements.
AQR Section 13.2.85 Subpart ZZZZ	NESHAP – Stationary Reciprocating Internal Combustion Engines	Applicable – The Republic fire pump is an affected unit.	Applicable monitoring requirements.	Republic must be in compliance with the applicable requirements on and after May 3, 2013.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 13.2.109 Subpart CCCCC	NESHAP – Gasoline Dispensing Facilities	Applicable – The Republic gasoline tank is an affected unit.	Applicable monitoring requirements.	Republic Dumpco, Inc. complies with applicable requirements.
AQR Section 14.1.1 Subpart A	NSPS – General Provisions	Applicable – Republic. is an affected facility under the regulations. Sec. 14 is locally enforceable; however, the NSPS standards they reference are federally enforceable.	Applicable monitoring, recordkeeping and reporting requirements.	Republic complies with applicable requirements.
AQR Section 14.1.74 Subpart OOO	NSPS – Standards of Performance for Nonmetallic Mineral Processing Plants	Applicable – Republic has emission units processing more than 25 tons per hour of mineral material.	Applicable performance tests, opacity tests, monitoring, recordkeeping and reporting requirements.	Republic complies with applicable requirements.
AQR Section 14.1.82 Subpart WWW	NSPS – Standards of Performance for Municipal Solid Waste Landfills	Applicable – Republic has a collection and control system and fugitive emissions from the landfill	Applicable performance tests, monitoring, recordkeeping and reporting requirements.	Republic complies with applicable requirements.
AQR Section 14.1.90 Subpart IIII	NSPS – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Applicable – Several of the Republic engines are subject to this Subpart	Applicable monitoring, recordkeeping and reporting.	Republic complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 18	Permit and Technical Service Fees	Applicable – Republic will be required to pay all required/applicable permit and technical service fees.	Republic. is required to pay all required/applicable permit and technical service fees.	Republic. complies with applicable requirements.
Through June 30, 2010: AQR Section 19	40 CFR 70 Operating Permits	Applicable – Republic. is a major stationary source and under Part 70 the initial Title V permit application will be submitted within 12 months of startup. Renewal applications are due between 6 and 18 months prior to expiration. Revision applications will be submitted within 12 months of commencing operation of the new emission unit. Section 19 is both federally and locally enforceable.	Republic submitted the initial Part 70 permit application within 12 months of startup. The renewal application was submitted within the appropriate timeframe.	Republic complies with applicable requirements.
AQR Section 21	Acid Rain Permits	Not Applicable	Not applicable.	Not applicable.
AQR Section 22	Acid Rain Continuous Emission Monitoring	Not Applicable	Not applicable.	Not applicable.
AQR Section 25	Affirmative Defense for Excess Emissions due to Malfunctions, Startup and Shutdown	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.	Any upset, breakdown, emergency condition, or malfunction in which emissions exceed any permit limit shall be reported to the Control Officer within 24 hours of the time the Permittee first learns of the excess emissions.	The Republic currently complies with applicable requirements.
AQR Section 26	Emissions of Visible Air Contaminants	Applicable – Opacity for any emission unit may not exceed 20 percent for more than 6 consecutive minutes.	Compliance determined by EPA Method 9 or visible emission observations.	Republic complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 29	Sulfur Content of Fuel Oil	Applicable – If fuel oil is used it must be low sulfur fuel with sulfur content less than 0.05 percent by weight. Section 29 is locally enforceable only.	Fuel sulfur content verification obtained from fuel oil supplier.	Republic complies with applicable requirements.
AQR Section 40	Prohibition of Nuisance Conditions	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.	Republic air contaminant emissions controlled by pollution control devices or good combustion and thus will not cause a nuisance.	Republic complies with applicable requirements.
AQR Section 41	Fugitive Dust	Applicable – Republic shall take necessary actions to abate fugitive dust from becoming airborne.	Republic utilizes appropriate best practices to not allow airborne fugitive dust.	Republic complies with applicable requirements.
AQR Section 42	Open Burning	Applicable – In event Republic 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.	Republic will contact the DAQEM and obtain approval in advance for applicable burning activities as identified in the rule.	Republic 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 15 minutes. Section 43 is a local enforceable rule only.	Republic is a predominantly natural gas-fired facility and is not expected to cause odors.	Republic complies with applicable requirements.
Through June 30, 2010: AQR Section 55	Preconstruction review for New or Modified Stationary Sources in the 8-Hour Ozone Nonattainment Area	Applicable – Republic is located in Hydrographic areas 216 and 217 and will need to meet the applicable emission control requirements at times of future modifications.	In the event Republic undertakes any modification, the facility will have to apply proper control technologies and meet offset requirements as applicable.	Republic complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 70.4	Emergency Procedures	Applicable – Republic submitted an emergency standby plan for reducing or eliminating air pollutant emissions in the Section 16 Operating Permit Application.	Republic submitted an emergency standby plan and received the Section 16 Operating Permit.	Republic complies with applicable requirements.

Table VI-B-2: Federal Air Quality Regulations Applicable to Republic Dumpco, Inc.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
40 CFR Part 51.165	Nonattainment NSR requirements.	Applicable – Republic is a major source for a nonattainment pollutant in a nonattainment area.	In the event Republic undertakes any modification, they will have to apply proper control technologies as applicable.	Republic complies with applicable requirements.
40 CFR Part 52.21	Prevention of Significant Deterioration (PSD)	Applicable – Republic 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.	Republic complies with applicable sections as required by PSD regulations.
40 CFR Part 52.1470	SIP Rules	Applicable – Republic is classified as a Title V source, and SIP rules apply.	Applicable monitoring and record keeping of emissions data.	Republic 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 (NSPS) – General Provisions	Applicable – Republic is an affected facility under the regulations.	Applicable monitoring, recordkeeping and reporting requirements.	Republic complies with applicable requirements.
40 CFR Part 60, Subpart OOO	Standards of Performance for Nonmetallic Mineral Processing Plants	Applicable – The Republic aggregate plant is subject to the requirements of this Subpart.	Applicable monitoring, performance testing, recordkeeping and reporting requirements.	Republic complies with applicable requirements.
40 CFR Part 60, Subpart WWW	Standards of Performance for Municipal Solid Waste Landfills	Applicable – Republic is subject to the requirements of this Subpart.	Applicable monitoring, recordkeeping and reporting requirements.	Republic complies with applicable requirements.
40 CFR Part 60, Subpart IIII	Standards of Performance for New Stationary Sources for Stationary Compression Ignition Internal Combustion Engines	Applicable – Several of the Republic engines are subject to this Subpart.	Applicable monitoring, recordkeeping and reporting requirements.	Republic complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
40 CFR Part 60	Appendix A, Method 9 or equivalent, (Opacity)	Applicable – Emissions from stacks are subject to opacity standards.	Opacity determined by EPA Method 9.	Republic complies with applicable requirements.
40 CFR Part 63, Subpart AAAA	Emission Standards for Hazardous Air Pollutants – Municipal Solid Waste Landfills	Applicable – Republic is subject to the requirements of this Subpart	Applicable monitoring, recordkeeping and reporting requirements.	Republic complies with applicable requirements.
40 CFR Part 63, Subpart ZZZZ	Emission Standards for Hazardous Air Pollutants – Stationary Reciprocating Internal Combustion Engines	Applicable – Several of the Republic diesel engines are subject to the requirements of this Subpart.	Applicable monitoring, performance testing, recordkeeping and reporting requirements.	Republic must be in compliance with the applicable requirements on and after May 3, 2013.
40 CFR Part 63, Subpart CCCCCC	Emission Standards for Hazardous Air Pollutants – Gasoline Dispensing Facilities	Applicable – Republic gasoline tank is subject to the requirements of this Subpart	Applicable monitoring, recordkeeping and reporting requirements.	Republic complies with applicable requirements.
40 CFR Part 64	Compliance Assurance Monitoring	Not Applicable.	Not Applicable.	Not Applicable.
40 CFR Part 70	Federally Mandated Operating Permits	Applicable – Republic is a major stationary source and under 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 unit.	Republic submitted a timely renewal application. Applications for new units will be submitted within 12 months of startup.	Republic complies with applicable requirements.
40 CFR Part 72	Acid Rain Permits Regulation	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	Applicable – Republic is subject to stratospheric ozone regulations based on 40 CFR 82.4.	Applicable.	Applicable.

C. Permit Shield

A permit shield was not requested by the source.

D. Streamlining Demonstration

Table VI-D-1: Aggregate Plant Streamlining Demonstration

EU	Regulation (40 CFR)	Regulatory Standard	Permit Limit	Value Comparison (in Units of the Permit Limit)			Averaging Period Comparison			Streamlining Statement for Shielding Purposes
				Standard Value	Permit Limit Value	Is Permit Limit Equal or More Stringent?	Standard Averaging Period	Permit Limit Averaging Period	Is Permit Limit Equal or More Stringent?	
A02, A07, A08, A12, A16, A17, A22, A23, A25, A27, A28, A30, A31, A33, A34, A35, A37, A38, A40, A42, A44, A46, A47, A49, A51, A52, A60, A65, A69, A72, A74, A77, A82, A83, A85, A87, A89, A93, A95, A98, A102, A106, A128, A133, A136, A138, A141, A143, A145, A147 and A149	60.672 (OOO)	7 percent opacity	7 percent opacity	7 percent opacity	7 percent opacity	Yes	6 consecutive minutes	6 consecutive minutes	Yes	The permit limit is equal to the standard. Compliance with permit demonstrates compliance with the standard.
A04, A09, A58, A62, A79, A104a, A130 and A151	60.672 (OOO)	0.032 g/dscm PM	0.032 g/dscm PM	0.032 g/dscm PM	0.032 g/dscm PM	Yes	N/A	N/A	N/A	The permit limit is equal to the standard. Compliance with permit demonstrates compliance with the standard.
		12 percent opacity	12 percent opacity	12 percent opacity	12 percent opacity	Yes	6 consecutive minutes	6 consecutive minutes	Yes	

Table VI-D-1: MSWL Streamlining Demonstration

EU	Regulation (40 CFR)	Regulatory Standard	Permit Limit	Value Comparison (in Units of the Permit Limit)			Averaging Period Comparison			Streamlining Statement for Shielding Purposes
				Standard Value	Permit Limit Value	Is Permit Limit Equal or More Stringent?	Standard Averaging Period	Permit Limit Averaging Period	Is Permit Limit Equal or More Stringent?	
W06	60.11116 CCCCC	Initial 2" wc	Initial 2" wc	Initial 2" wc	Initial 2" wc	Yes	N/A	N/A	N/A	The permit limit is equal to the standard. Compliance with permit demonstrates compliance with the standard.
W07	60.754(d) (WWW)	98 weight-percent or outlet of 50 ppm NMOC as carbon or less	98 weight-percent or outlet of 50 ppm NMOC as carbon or less	98 weight-percent or outlet of 50 ppm NMOC as carbon or less	98 weight-percent or outlet of 50 ppm NMOC as carbon or less	Yes	N/A	N/A	N/A	The permit limits are equal to the standard. Compliance with the permit demonstrates compliance with the standard.
W07	AQR 26	20 percent opacity	20 percent opacity	20 percent opacity	20 percent opacity	Yes	6 consecutive minutes	6 consecutive minutes	Yes	The permit limits are more stringent than the standard. Compliance with the permit demonstrates compliance with the standard.
W210, W211 and W212	60.4204 (III)	9.2 g/kW-hr (6.9 g/hp-hr) NO _x	Yes	N/A	N/A	N/A	The permit limits are equal to the standard. Compliance with the permit demonstrates compliance with the standard.			

EU	Regulation (40 CFR)	Regulatory Standard	Permit Limit	Value Comparison (in Units of the Permit Limit)			Averaging Period Comparison			Streamlining Statement for Shielding Purposes
				Standard Value	Permit Limit Value	Is Permit Limit Equal or More Stringent?	Standard Averaging Period	Permit Limit Averaging Period	Is Permit Limit Equal or More Stringent?	
W200, W201, W203, and W204	63.6600 (ZZZZ)	23 ppmvd CO @ 15 % O ₂	23 ppmvd	23 ppmvd	23 ppmvd	Yes	4-hour averaging period	4-hour averaging period	Equal	The permit limits are equal to the standard. Compliance with the permit demonstrates compliance with the standard.
W205, W206, and W207	63.6600 (ZZZZ)	230 ppmvd CO @ 15 % O ₂	230 ppmvd	230 ppmvd	230 ppmvd	Yes	4-hour averaging period	4-hour averaging period	Equal	The permit limits are equal to the standard. Compliance with the permit demonstrates compliance with the standard.
W209	63.6600 (ZZZZ)	49 ppmvd CO @ 15 % O ₂	49 ppmvd	49 ppmvd	49 ppmvd	Yes	4-hour averaging period	4-hour averaging period	Equal	The permit limits are equal to the standard. Compliance with the permit demonstrates compliance with the standard.

E. Summary of Monitoring for Compliance

Table VI-E-1: Summary of Monitoring for Compliance

Emission Unit	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
A01	Mining	Opacity	AQR Section 26	No greater than 20 percent opacity.	Visual emission observations

Emission Unit	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
A02, A07, A08, A12, A16, A17, A22, A23, A25, A27, A28, A30, A31, A33, A34, A35, A37, A38, A40, A42, A44, A46, A47, A49, A51, A52, A60, A65, A69, A72, A74, A77, A82, A83, A85, A87, A89, A93, A95, A98, A102, A106, A128, A133, A136, A138, A141, A143, A145, A147 and A149	Aggregate Processing	Opacity	40 CFR 60, Subpart 000	No greater than seven percent opacity.	Visual emission observations. Method 9 testing every five years.
A04, A09, A58, A62, A79, A104a, A130 and A151	Crushers with Baghouse Control	Opacity	40 CFR 60, Subpart 000	Less than 12 percent opacity	Visual emission observations. Method 5 or 17 testing every five years.
		PM	40 CFR 60, Subpart 000	Less than 0.032 g/dscm (0.014 gr/dscf)	
A127	Blasting	Opacity	AQR Section 26	No greater than twenty percent opacity.	Visual emission observations.
H01	Paved Haul Road	Opacity	AQR Section 26	No greater than twenty percent opacity.	Visual emission observations.
H02	Unpaved Haul Road	Opacity	AQR Section 26	No greater than twenty percent opacity.	Visual emission observations.
W01	Bulk Material Unloading	Opacity	AQR Section 26	No greater than twenty percent opacity.	Bi-weekly sampling and analysis of materials less than 0.25 inch in diameter
W02	Waste Processing	VOC	AQR Section 12 (amended 10/4/04)	Maximum VOC emissions	Calculating VOC emission using "Chemdat8" emission factors
W03	Cover Material	Opacity	AQR Section 26	No greater than twenty percent opacity.	Best management practices
W04	VOC from Landfill Gas	NMOC	40 CFR 60, Subpart WWW	No greater than 50 megagrams per year	Calculated NMOC mass emission rate
W05	Cover Material Handling	Opacity	AQR Section 26	No greater than twenty percent opacity.	Best management practices
W06	Gasoline Tank	VOC and HAP	40 CFR 63, Subpart CCCCCC	Vapor leaks	Daily inspection to GDO equipment
W07	Enclosed Combustor (Callidus Flare)	Opacity NMOC	AQR 26 40 CFR 60, Subpart WWW	No greater than twenty percent opacity. Concentration of NMOC	Visual emission observations. NMOC concentration by collection and analyzing LFG.
W08	Waste Placement	Opacity	AQR Section 26	No greater than twenty percent opacity.	Best management practices

Emission Unit	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
W09	Stockpiles	Opacity	AQR Section 26	No greater than twenty percent opacity.	At least 70% moisture content when active and dust palliative when inactive
W100	Fugitive Landfill Emissions	Methane	40 CFR 60, Subpart WWW	No greater than 500 ppm	Quarterly surface testing
W200, W201, W203, W204 through W209	Diesel Generators and Tipper Engines	Opacity	AQR Section 26	No greater than twenty percent opacity.	Visual emission observations.

VII. EMISSION REDUCTION CREDITS (OFFSETS)

The source is subject to offset requirements in accordance with AQR Section 59. Offset requirements and associated mitigation are pollutant-specific.

VIII. ADMINISTRATIVE REQUIREMENTS

AQR Section 19 requires that DAQEM identify the original authority for each term or condition in the Part 70 Operating Permit. Such reference of origin or citation is denoted by *[italic text in brackets]* after each Part 70 Permit condition.

DAQEM proposes to issue the Part 70 Operating Permit 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 Operating Permit Program submitted for the purpose of complying with the Title V requirements of the 1990 CAAA and implementing 40 CFR 70.

Factual:

Republic. has supplied all the necessary information for DAQEM to draft Part 70 Operating Permit conditions encompassing all applicable requirements and corresponding compliance.

Conclusion:

DAQEM has determined that Republic will continue to determine compliance through the use of performance testing, quarterly reporting, daily recordkeeping, coupled with annual certifications of compliance. DAQEM proceeds with the preliminary decision that a Part 70 Operating Permit should be issued as drafted to Republic for a period not to exceed five years.