

TECHNICAL SUPPORT DOCUMENT

TECHNICAL INFORMATION PRESENTED IN REVIEW OF AN

ADMINISTRATIVE REVISION BY

Richard D. Beckstead
Permitting Manager
on behalf of:

Clark County Dept. of Air Quality & Environmental Management
500 S Grand Central Pky
Las Vegas, Nevada 89155

For

Republic Dumpco, Incorporated
East of Interstate 15/US 93 Junction,
Apex, Nevada 89124

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

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



Clark County
Department of Air Quality and Environmental Management
Permitting Section

September 2011

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Source Information

Preparer: Richard D. Beckstead
Date: September 20, 2011
Company: Republic Services
Submitter: Richard D. Beckstead - DAQEM
Source: 395
Hydrographic Area: 216 & 217
Subject: Republic Dumpco, Inc.
Apex Waste Management Center
East of Interstate 15/US 93 Junction
Apex, Nevada 89124
T18S, R64E, S10 & 18 and
T18S, R63E, S24

Source Description

Republic Dumpco, Inc. (Republic) is a producer of construction sand and gravel and an operator of the municipal solid waste landfill. The source operates under Standard Industrial Classification (SIC) Code 4953: Refuse Systems and SIC 1442: Construction Sand and Gravel and North American Industrial Classification System (NAICS) Code 562212: Solid Waste Landfill and NAICS 212321: Construction Sand and Gravel Mining. The source meets or exceeds the major thresholds for PM₁₀, NO_x, SO_x, HAP, and TCS (H₂S) and is a minor source for PM_{2.5}, CO, and VOC of air pollutants in the Apex hydrographic basin.

Permitting Action

On September 19, 2011, I was contacted by Todd Whittle, Responsible Officer for Republic Services in Las Vegas, Nevada. He asked about intent of Condition IV.G.2, regarding the requirement to obtain an operating permit prior to commencing operation of the temporary flair system. I told Mr. Whittle that I would investigate the basis for the condition and get back with him.

After reviewing the ATC and TSD, I discussed the purpose of the condition with Beth Davis-Schaedler (Permit Writer) and Ted Lendis (Permitting Supervisor), and was informed the condition may have been added during the permit review process. They opined that there was no basis for the requirement. I concurred with their assessment because operation of the new emission unit, the John Zink Candlestick (open) Flare was not prohibited by the Title V Operating Permit. I conferred with the Compliance Manager, Gary Miller, regarding my assessment, and discussed my intent to reissue the ATC as an Administrative Revision with Omer Shalev at EPA Region 9.

The issuance of this Administrative Revision to the ATC removes Condition IV.G.2 from the ATC. No other change to the document has been approved by me as the Permitting Manager for DAQEM.

Acronyms

Table 1: Acronyms

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

Acronym	Term
TRS	Total Reduced Sulfur
VOC	Volatile Organic Compound

Emission Units

Table 2: Summary of Emission Units

EU	Description	Model No. ¹	Serial No. ¹	SCC
G26	John Zink Candlestick (open) Flare, 1,400 scfm LFG Flow	10x30 LFS & Blower Skid LFF	TBD	50100410
	Control Device - Paques THIOPAQ desulfurization system (Controls of H ₂ S)	TBD	TBD	50100430

¹TBD = To Be Determined. The source has 30 days after the installation of the Flare and the desulfurization system to provide DAQEM with a model number and the serial numbers.

Permitting History

1. The last permit was issued on May 13, 2010.
2. Application for Modification 9 was received by DAQEM on February 16, 2010.
3. The application was assigned to the Air Quality Specialist on February 23, 2010.
4. The application was deemed complete on May 26, 2010.
5. The TSD and draft permit were submitted for review on June 2, 2010.
6. Supplemental information was submitted to DAQEM on August 9, 2010 that incorporates the desulfurization system into this Modification.
7. Supplemental information was submitted to DAQEM on September 13, 2010 to update the information for the Contingency Scenario.
8. Revised TSD and draft permit were submitted for review on September 14, 2010.

Modification 9 ATC NEI Calculations

MSWL Total for Modification 9 [ATC] 2/27/2009							
	PM₁₀	NO_x	CO	SO_x	VOC	HAP	TCS (H₂S)
NEW MSWL (Process W) Total for Mod 8	220.50	43.34	5.85	175.52	2.87	0.98	0.00
Total NEI for Non-Fugitives Mod 9	6.26	12.52	68.07	18.40	8.29	7.33	0.05
NEW MSWL (Process W) Total for Mod 9	226.76	55.86	73.92	193.92	11.16	8.31	0.05

Modification 9 ATC NEI Calculations

MODIFICATION 9 [ATC] 2/27/2009							
	PM₁₀	NO_x	CO	SO_x	VOC	HAP	TCS (H₂S)
Aggregate Processing (Process A)	20.60	0.00	0.00	0.00	0.00	0.00	0.00
Generators [EU: W200-W204]	2.19	65.47	25.26	1.68	4.28	2.31	0.00
Soil Treatment (Process W)	0.88	0.00	0.00	0.00	2.78	0.00	0.00
Industrial Waste (Process W)	11.02	0.00	0.00	0.00	0.19	0.00	0.00
Paved Haul Road (Process W)	0.97	0.00	0.00	0.00	0.00	0.00	0.00
MSWL (Process W) Mod 9	226.76	55.86	73.92	193.92	11.16	8.31	0.05
Total PTE for Non-Fugitives for Source	262.42	121.33	99.18	195.60	18.41	10.62	0.05
Fugitive Emissions from Landfill Gas	0.00	0.00	0.00	0.00	32.89	32.16	147.27

**Modification 9 ATC Contingency Scenario
NEI Calculations**

Contingency Scenario without Desulfurization System							
MSWL Total for Modification 9 [ATC] 2/27/2009							
	PM₁₀	NO_x	CO	SO_x	VOC	HAP	TCS (H₂S)
NEW MSWL (Process W) Total for Mod 8	220.50	43.34	5.85	175.52	2.87	0.98	0.00
Total NEI for Non-Fugitives Mod 9	0.90	0.90	1.79	34.69	0.16	0.16	0.01
NEW MSWL (Process W) Total for Mod 9	221.40	44.24	7.64	210.21	3.03	1.14	0.01

**Modification 9 ATC Contingency Scenario
PTE Calculations**

MODIFICATION 9 [ATC] 2/27/2009							
	PM₁₀	NO_x	CO	SO_x	VOC	HAP	TCS (H₂S)
Aggregate Processing (Process A)	20.60	0.00	0.00	0.00	0.00	0.00	0.00
Generators [EU: W200-W204]	2.19	65.47	25.26	1.68	4.28	2.31	0.00
Soil Treatment (Process W)	0.88	0.00	0.00	0.00	2.78	0.00	0.00
Industrial Waste (Process W)	11.02	0.00	0.00	0.00	0.19	0.00	0.00
Paved Haul Road (Process W)	0.97	0.00	0.00	0.00	0.00	0.00	0.00
MSWL (Process W) Mod 9	221.40	44.24	7.64	210.21	3.03	1.14	0.01
Total PTE for Non-Fugitives for Source	257.06	109.71	32.90	211.89	10.28	3.45	0.01
Fugitive Emissions from Landfill Gas	0.00	0.00	0.00	0.00	32.89	32.16	147.27

395_M09: Attachment 4								
5 year NEI Look Back								
	PM₁₀	PM_{2.5}	NO_x	CO	SO_x	VOC	HAP	TCS (H₂S)
Modification 3 PTE Non-Fugitives: Issued 12/2006	322.76	12.35	106.65	31.88	172.28	10.73	0.43	0.00
Modification 4, Revision 1 NEI:	-66.52	0.00	2.07	-0.69	3.95	-0.67	2.88	0.00
Modification 6 NEI	-0.08	-0.08	0.09	-0.08	0.97	-0.04	-0.03	0.00
Modification 8 NEI	0.00	0.00	0.00	0.00	0.00	0.10	0.01	0.00
Modification 9 NEI	6.26	6.26	12.52	68.07	18.40	8.29	7.33	0.05
Total NEI [5 year look back]	-60.34	6.18	14.68	67.30	23.32	7.26	10.19	0.05
Source: Modification 9 PTE	262.42	18.53	121.33	99.18	195.60	18.41	10.62	0.05