San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

MAR 04 2011

Jeffrey Bennett
Miller Brooks Environmental
222 N. Poinsettia Ave.
Manhattan Beach, CA 90266

Re: Notice of Preliminary Decision - Authority to Construct
Project Number: N-1103238

Dear Mr. Bennett:

Enclosed for your review and comment is the District's analysis of Miller Brooks Environmental's application for an Authority to Construct for a landfill gas collection and control system served by a flare, on behalf of Cove Contractors, Inc., at 3242 S. El Dorado St. in Stockton, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Frank DeMaris of Permit Services at (559) 230-5804.

Sincerely,

David Warner
Director of Permit Services

DW: fgd

Enclosures

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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4800 Enterprise Way
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www.valleyair.org www.healthyairliving.com

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

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MAR 04 2011

Mike Tollstrup, Chief
Project Assessment Branch
Stationary Source Division
California Air Resources Board
PO Box 2815
Sacramento, CA 95812-2815

Re: Notice of Preliminary Decision - Authority to Construct
Project Number: N-1103238

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of Miller Brooks Environmental's application for an Authority to Construct for a landfill gas collection and control system served by a flare, on behalf of Cove Contractors, Inc., at 3242 S. El Dorado St. in Stockton, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

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Stockton Record
Stockton Record

**NOTICE OF PRELIMINARY DECISION
FOR THE PROPOSED ISSUANCE OF
AN AUTHORITY TO CONSTRUCT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Authority to Construct to Miller Brooks Environmental for a landfill gas collection and control system served by a flare, on behalf of Cove Contractors, Inc., at 3242 S. El Dorado St. in Stockton, California.

The analysis of the regulatory basis for this proposed action, Project #N-1103238, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 1990 EAST GETTYSBURG AVENUE, FRESNO, CA 93726.**

San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Landfill Gas Collection System Served by a Flare

Facility Name:	Cove Contractors	Date:	March 1, 2011
Mailing Address:	222 N. Poinsettia Ave. Manhattan Beach, CA 90266	Engineer: Lead Engineer:	Frank DeMaris Nick Peirce
Contact Person:	Jeffrey Bennett – Miller Brooks Environmental		
Telephone:	(714) 500-5454		
Fax:	(714) 743-0482		
E-Mail:	jbennett@millerbrooksenv.com		
Application #:	N-7986-2-0		
Project #:	N-1103238		
Deemed Complete:	October 20, 2010		

I. Proposal

Cove Contractors, Inc. (CCI) is responsible for a small landfill which was used, without appropriate permits, to dispose of inert construction debris, concrete, dirt, and auto shredder waste. Groundwater near the site has been impacted by metals, dissolved solids, and organic compounds from the landfill, with the result that the California Regional Water Quality Control Board (CRWQCB) has taken enforcement action. In response to the cleanup and abatement order, CCI has applied for an Authority to Construct (ATC) permit for a landfill gas collection system served by a flare. The blower and flare are oversized for the facility in order to provide excess landfill gas (LFG) extraction and destruction capacity which will allow CCI and its consultants to conduct pilot testing and develop appropriate system design parameters for a permanent LFG collection and control system.

II. Rules

Rule 2010 Permits Required (12/17/92)
Rule 2201 New and Modified Stationary Source Review Rule (12/18/08)
Rule 2520 Federally Mandated Operating Permits (6/21/01)
Rule 4001 New Source Performance Standards (4/14/99)
Rule 4002 National Emission Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101 Visible Emissions (2/17/05)
Rule 4102 Nuisance (12/17/92)
Rule 4105 Commercial Offsite Multiuser Hazardous Waste and Nonhazardous Waste Disposal Facilities (12/17/92)
Rule 4201 Particulate Matter Concentration (12/17/92)
Rule 4311 Flares (6/18/09)
Rule 4642 Solid Waste Disposal Sites (4/16/98)
Rule 4801 Sulfur Compounds (12/17/92)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notification
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Location

This facility is located at 3242 S. El Dorado St. in Stockton, California. The District has determined that this location is not within 1,000 feet of the outer boundary of the nearest K-12 school. Therefore, the school notification requirements of California Health & Safety Code 42301.6 do not apply.

IV. Process Description

CCI is an inactive landfill that has not accepted waste since 1982. Under applicable CalRecycle and CRWQCB regulations and enforcement actions, CCI is required to prevent methane from escaping the landfill and to prevent contaminants from landfilled wastes from impacting groundwater. To accomplish these goals, CCI proposes to install an LFG collection and control system which will route LFG to a flare for disposal. This gas collection and control system (GCCS) will incorporate several wells drilled into the landfill waste area. These wells are connected to a vacuum blower which draws LFG out of the interior space and creates a pressure differential that inhibits LFG migration. CCI proposes to install a larger blower and flare than are likely to be required, as the additional capacity will enable CCI and its consultants to conduct pilot testing. Data from the pilot tests will be used to design a permanent GCCS for this site.

V. Equipment Listing

Pre-Project Equipment Description:
CCI is a new stationary source, so there is no pre-project equipment to describe.

Post-Project Equipment Description:
N-7986-2-0: LANDFILL GAS COLLECTION SYSTEM SERVED BY A 107 MMBTU/HR JOHN ZINK MODEL U-16 OPEN FLARE

VI. Emission Control Technology Evaluation

It must be noted that the landfill itself is the source operation and has the potential to emit volatile organic compounds (VOC), along with particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}). However, as an inactive landfill this facility only emits PM_{10} as a result of fugitive dust emissions, which are limited by the District Regulation VIII rules. In general, fugitive dust emissions do not originate from a "source operation" and are not subject to Rule 2010. Therefore, VOC is the only pollutant of concern emitted by the landfill.

VOC is emitted as a constituent of the LFG, which is primarily composed of methane (CH_4) and carbon dioxide (CO_2). Methane and VOC emissions from a landfill are controlled using a gas collection system which routes the collected LFG to a flare or other combustion device where it is burned. Various regulations require the flare or other combustion device to reduce VOC emissions by at least 98% by weight.

VII. General Calculations

A. Assumptions

- LFG flow rate is 3,000 ft^3/min (Applicant, manufacturer's rating)
- LFG flow rate is 493,473,400 ft^3/yr (applicant)
- LFG HHV is 596 Btu/ft^3 (Applicant, landfill gas analysis)
- F-Factor is 9,046 ft^3/MMBtu (Applicant, landfill gas analysis)
- LFG sulfur content is 0.1 ppmv as H_2S (Applicant, landfill gas analysis)
- LFG VOC content is 50 ppmv as TPH_g (MW 100)
- Other assumptions will be stated as they are made

B. Emission Factors

Emission factors for the proposed flare are as follows:

Table 1: Emission Factors

Pollutant	EF (lb/MMBtu)	Source
NO_x	0.068	Applicant
SO_x	0.1 ppmv as H_2S	Applicant, landfill gas analysis
PM_{10}	0.042	Applicant
CO	0.37	Applicant
VOC	20 ppmv @ 3% O_2	Rule 4642, Section 5.2.1

CCI has proposed that the VOC emission factor be determined based on the uncontrolled LFG VOC concentration and the required 98% control efficiency. The resulting emission factor is calculated as follows:

$EF_{VOC} = (50/10^6)$ x (100 lb/lb-mol) x (1 – 0.98) ÷ (16 lb/lb-mol)
EF_{VOC} = 6.25 ppmv

Alternatively, District Rule 4642, *Solid Waste Disposal Sites*, also limits VOC emissions to 20 ppmvd (as methane) corrected to 3% oxygen (O_2) if 98% destruction efficiency cannot be achieved.

EF_{VOC} = 20 ppmv @ 3% O_2

The potential to emit is the maximum capacity of an emission unit to emit a pollutant based on its design and taking into account the effect of required pollution control devices. Where two equally valid alternatives or assumptions exist, it is appropriate to use the more conservative alternative or assumption. Since 20 ppmv is greater than 6.25 ppmv, 20 ppmv will be used to define the potential to emit for VOC.

C. Emission Calculations

1. Pre-Project Potential to Emit (PE1)

Since CCI is a new facility, PE1 is zero for all pollutants.

2. Post-Project Potential to Emit (PE2)

For purposes of the equipment description the flare is described as being rated at 107 MMBtu/hr. This rating is the product of the blower flow rate of 3,000 ft^3/min and the LFG higher heating value of 596 Btu/ft^3 and is accurate to three significant digits. For greater accuracy the flow rate and higher heating value are used directly in the calculations presented below.

In addition, annual emissions are calculated using CCI's proposed limit of 493,473,400 ft^3/yr for total LFG flow. The purpose of this limit is to ensure that emissions from the landfill do not exceed any major source or offset threshold.

For NO_x:
PE2 = (0.068 lb/MMBtu) x (3,000 ft^3/min) x (596 Btu/ft^3) x (60 min/hr) x (24 hr/day) x (10^6 Btu/MMBtu)
PE2 = 175.1 lb/day

PE2 = (0.068 lb/MMBtu) x (493,473,400 ft^3/yr) x (596 Btu/ft^3) = 19,999 lb/yr

For SO_x:
PE2 = $(0.1/10^6)$ x (3,000 ft/min) x (60 min/hr) x (24 hr/day) x (1 SO_2/H_2S) x (64 lb/lb-mol) ÷ (379.5 ft^3/lb-mol)
PE2 = 0.1 lb/day

PE2 = $(0.1/10^6)$ x (1 SO_2/H_2S) x (64 lb/lb-mol) x (493,473,400 ft^3/yr) ÷ (379.5 ft^3/lb-mol)
PE2 = 8 lb/yr

For PM_{10}:
PE2 = (0.042 lb/MMBtu) x (3,000 ft^3/min) x (596 Btu/ft^3) x (60 min/hr) x (24 hr/day) x (10^6 Btu/MMBtu)
PE2 = 108.1 lb/day

PE2 = (0.042 lb/MMBtu) x (493,473,400 ft^3/yr) x (596 Btu/ft^3) = 12,353 lb/yr

For CO:
PE2 = (0.37 lb/MMBtu) x (3,000 ft^3/min) x (596 Btu/ft^3) x (60 min/hr) x (24 hr/day) x (10^6 Btu/MMBtu)
PE2 = 952.6 lb/day

PE2 = (0.37 lb/MMBtu) x (493,473,400 ft^3/yr) x (596 Btu/ft^3) = 108,821 lb/yr

For VOC:
PE2 = $(20/10^6)$ x (1 lb-mol/379.5 ft^3) x (16 lb/lb-mol) x (9,046 ft^3/MMBtu) x (3,000 ft^3/min) x (1,440 min/day) x (596 Btu/ft^3) x (1 MMBtu/10^6 Btu)
PE2 = 19.6 lb/day

PE2 = $(20/10^6)$ x (1 lb-mol/379.5 ft^3) x (16 lb/lb-mol) x (9,046 ft^3/MMBtu) x (493,473,400 ft^3/yr) x (596 Btu/ft^3) x (1 MMBtu/10^6 Btu)
PE2 = 2,243 lb/yr

Table 2: PE2

	NO_x	SO_x	PM_{10}	CO	VOC
PE2 (lb/day)	175.1	0.1	108.1	952.6	19.6
PE2 (lb/yr)	19,999	8	12,353	108,821	2,243

3. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's Permit Administration System emissions profile screen. Detailed QNEC calculations are included in Appendix D.

D. Stationary Source Calculations

1. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

Since CCI is a new facility, SSPE1 is zero for all pollutants.

2. Post-Project Stationary Source Potential to Emit (SSPE2)

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

Table 3: SSPE2 (lb/yr)					
Unit	NO_x	SO_x	PM_{10}	CO	VOC
N-7986-2-0	19,999	8	12,353	108,821	2,243
ERC	0	0	0	0	0
SSPE2	19,999	8	12,353	108,821	2,243

3. Major Source Determination

Pursuant to Section 3.23 of District Rule 2201, a Major Source is a stationary source with post-project emissions, or SSPE2 equal to or exceeding one or more of the following threshold values. However, Section 3.23.2 states, "for the purposes of determining major source status, the SSPE2 shall not include the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site."

Table 4: Major Source Determination (lb/yr)					
	NO_x	SO_x	PM_{10}	CO	VOC
SSPE2	19,999	8	12,353	108,821	2,243
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	No

As shown in Table 4, CCI is not a major stationary source for any pollutant.

Effective July 15, 2008 the District was required to implement the requirements of Title 40, Code of Federal Regulations, Part 51.165 and the EPA Emission Offset Interpretive Ruling (Part 51 – Appendix S) for $PM_{2.5}$. Under these requirements a major source of $PM_{2.5}$ is defined as one with the potential to emit 100 ton/yr (200,000 lb/yr) or more of $PM_{2.5}$. Since $PM_{2.5}$ is a subset of PM_{10}, it is evident that SSPE2 for $PM_{2.5}$ emissions is less than or equal to 12,353 lb/yr; since the major source threshold for $PM_{2.5}$ is 200,000 lb/yr this facility is not a major source for $PM_{2.5}$. No further analysis is required, and $PM_{2.5}$ emissions will not be further discussed.

4. Baseline Emissions

Pursuant to District Rule 2201, Section 3.7, BE for any pollutant is equal to the pre-project potential to emit for any emissions unit located at a non-major source. As shown in Section VII.D.3 of this document, this facility is not a major source for any affected pollutant. Therefore, BE = PE1 for all emissions units and all pollutants.

5. SB288 Major Modification

An SB288 Major Modification is defined in 40 CFR Part 51.165 (in effect on December 19, 2002) as "*any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act.*" As shown in Section VII.D.3 of this document, this facility is not a major stationary source for any pollutant. Therefore, it cannot undergo a major modification. No further discussion is required.

6. Federal Major Modification

As shown in Section VII.D.3, this facility is not a major source for any pollutant. Therefore, in accordance with District Rule 2201, Section 3.17, this project does not constitute a Federal Major Modification. No further discussion is required.

VIII. Compliance

Rule 2010 Permits Required

This rule provides that the operator of any source operation with the potential to emit air contaminants into the atmosphere must obtain a Permit to Operate, and that any person constructing or modifying such a source operation such obtain an Authority to Construct prior to commencing construction. Since it is CCI's intent to replace operate the LFG collection system with the proposed 107 MMBtu/hr flare on a temporary basis in order to conduct pilot testing, and to then replace the flare and LFG extraction blower with more appropriately-sized units, it is appropriate to specifically include the requirement to obtain an ATC for the flare replacement on the current ATC in order to ensure compliance:

- *No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for the change specified in condition 2. [District Rule 2010]*

- *The construction of additional landfill gas extraction wells and connection of such wells to the landfill gas extraction system shall not constitute a modification of this permit provided there is no change in landfill gas extraction rate or in the flare. [District Rule 2010]*

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis for the following[1]:

a. Any new emissions unit with a potential to emit exceeding two pounds per day,
b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
d. Any new or modified emissions unit, in a stationary source project, which results in an SB288 Major Modification or a Federal Major Modification.

This proposal is for a landfill gas collection system served by a flare. The LFG collection system is the emissions unit, while the flare is a VOC control device. BACT is triggered on an emission unit-by-emission unit basis, but since the concept of an emission unit includes a source operation, while the definition of a source operation specifically excludes an air pollution abatement operation, BACT can only be triggered for the emissions unit itself. The LFG collection system has the potential to emit 19.6 pounds of

[1] Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

VOC in any one day even after the control device. Therefore, BACT is triggered for VOC, but cannot be triggered for any other pollutant.

2. BACT Guideline

BACT Guideline 1.4.3 applies to emissions from a landfill gas vapor collection system. In accordance with District Policy APR-1305, *Best Available Control Technology (BACT) Policy*, information from the BACT Guideline will be cited without further analysis.

3. BACT Determination

As shown in the Top-Down BACT Determination in Appendix B, BACT is satisfied by the following controls:

VOC: Flare with control efficiency of 98% or greater, or controlled VOC emissions of 20 ppmv (as methane) @ 3% O_2 or less

B. Offsets

1. Offset Applicability

Pursuant to Section 4.5.3 of the rule, emission offsets are required if SSPE2 equals or exceeds the following emission offset threshold levels for any one affected pollutant:

Table 5: Emission Offset Thresholds (lb/yr)

	NO_x	SO_x	PM_{10}	CO	VOC
SSPE1	0	0	0	0	0
SSPE2	19,999	8	12,353	108,821	2,243
Offset Threshold	20,000	54,750	29,200	200,000	20,000
Offsets Triggered?	No	No	No	No	No

2. Quantity of Offsets Required

As shown in Table 5, SSPE2 is below the offset threshold for each affected pollutant. Therefore, the quantity of offsets required is zero.

C. Public Notice

1. Applicability

Pursuant to Section 5.4 of the rule, public notification and publication are required for the following types of applications:

5.4.1 New Major Sources, Federal Major Modifications, and SB288 Major Modifications
As shown in Sections VII.D.3, VII.D.5, and VII.D.6, CCI is not a new major source and this proposal does not constitute a federal major modification or an SB288 major modification. Public notice is not required under this provision.

5.4.2 Applications which include a new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one affected pollutant
As shown in Section VII.C.2 of this document, PE2 exceeds 100.0 lb/day for NO_x, PM_{10}, and CO. Public notice is required under this provision.

5.4.3 Modifications that increase SSPE1 from a level below the emissions offset threshold level to a level exceeding the emissions offset threshold level for one or more pollutants
As shown in Table 5 above, this proposal does not increase stationary source emissions from a level below the emissions offset threshold to a level above the emissions offset threshold for any pollutant. Public notice is not required under this provision of the rule.

5.4.4 New stationary sources with SSPE2 exceeding the emissions offset threshold level for one or more pollutants
As shown in Table 5 above, SSPE2 does not exceed the emissions offset threshold level for any pollutant. Public notice is not required under this provision of the rule.

5.4.5 Any permitting action resulting in a Stationary Source Project Increase in Permitted Emissions (SSIPE) exceeding 20,000 pounds per year for any one pollutant

Table 6: Emission Offset Thresholds (lb/yr)

	NO_x	SO_x	PM_{10}	CO	VOC
SSPE2	19,999	8	12,353	108,821	2,243
SSPE1	0	0	0	0	0
SSIPE = SSPE2 – SSPE1	19,999	8	12,353	108,821	2,243
Offsets Triggered?	No	No	No	No	No

As shown in Table 6, SSIPE exceeds 20,000 lb/yr for CO. Public notice is required under this provision of the rule.

2. Public Notice Action

As discussed above, public noticing is required for this project for emissions in excess of 100 lb/day and SSIPE in excess of 20,000 lb/yr. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATC for this equipment.

D. Daily Emission Limitation (DEL)

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, the DEL must be contained in the latest ATC and contained in or enforced by the latest PTO, and enforceable, in a practical manner, on a daily basis. DELs are also required to enforce the applicability of BACT. The following conditions will be included on the ATC:

- *Landfill gas combustion in the flare shall not exceed 0.18 MMscf/hr and 493 MMscf/yr. [District Rule 2201]*
- *NOx Emissions from the flare serving the LFG collection system shall not exceed 0.068 lb-NOx/MMBtu. [District Rule 2201]*
- *PM10 emissions from the flare serving the LFG collection system shall not exceed 0.042 lb/MMBtu [District Rule 2201]*
- *CO emissions from the flare serving the LFG collection system shall not exceed 0.37 lb/MMBtu. [District Rule 2201]*
- *Either the VOC control efficiency shall be not less than 98% or VOC emissions from the LFG collection system served by a flare shall not exceed 20 ppmv (as methane) @ 3% O2. [District Rules 2201 and 4642]*
- *Sulfur content of LFG shall not exceed 0.1 ppmv as H2S. [District Rule 2201]*

E. Compliance Assurance

1. Source Testing, Monitoring, Record Keeping, and Reporting

This LFG collection system served by a flare is subject to District Rule 4642 (Solid Waste Disposal Sites), which includes applicable source testing, monitoring, record keeping, and reporting requirements. These requirements will be discussed in the portion of this document devoted to that rule.

2. Installation, Operation, and Maintenance

Pursuant to Sections 5.6.2 and 5.6.3 of the rule, an ATC will include conditions to ensure that the new or modified source is built according to the specifications and plans included in the application, or which are necessary to assure construction and operation in the manner assumed in the application review. The following conditions will be included on the ATC to ensure proper installation, operation, and maintenance:

- *All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]*

- *A non-resettable, totalizing mass or volumetric gas flow meter to measure the amount of landfill gas combusted in the flare shall be installed, utilized and maintained. [District Rule 2201]*

Rule 2520 Federally Mandated Operating Permits

As shown in Section VII.D.3 of this document, SSPE2 is below the applicable major source threshold for each pollutant. Furthermore, as shown in the discussion of Rules 4001 and 4002 below, CCI is not subject to any requirement under a new source performance standard or national emissions standard for hazardous air pollutants. Therefore, CCI is not subject to Rule 2520 and no further discussion is required.

Rule 4001 New Source Performance Standards

This rule incorporates by reference the new source performance standards (NSPS) in Title 40, Code of Federal Regulations, Part 60 (40 CFR 60). This Part includes two subparts (CC and WWW) that apply to municipal solid waste (MSW) landfills and may apply to CCI. Subpart WWW applies only to MSW landfills that commenced construction, reconstruction, or modification on or after May 30, 1991, whereas Subpart CC applies to MSW landfills that commenced construction, reconstruction, or modification before that date. CCI last commenced construction, reconstruction, or modification prior to 1991, so it is not subject to Subpart WWW.

Furthermore, Subpart CC requires control of LFG at any MSW landfill that has (in addition to other requirements) accepted waste since November 8, 1987 or has additional design capacity available for future waste disposal. According to the California Regional Water Quality Control Board (CRWQCB) Cleanup and Abatement Order R5-2006-0707, item 4, waste disposal operations ceased in 1982. Furthermore, CCI was an unpermitted landfill when it was accepting waste and is now a closed landfill (as defined by CalRecycle), although it has not yet been formally closed under CRWQCB regulations. Therefore, CCI cannot become subject to the emission guidelines contained in Subpart CC. No NSPS applies to this facility, and no further discussion is required.

Rule 4002 National Emission Standards for Hazardous Air Pollutants

This rule incorporates by reference the national emission standards for hazardous air pollutants (NESHAP) in 40 CFR 61 and 63. Subpart AAAA applies to MSW landfills, but includes the same provision included in 40 CFR 60 Subpart CC, that an MSW landfill must have received waste since November 8, 1987 or have remaining capacity in order to be subject to the requirements of the NESHAP. CCI last accepted waste in 1982 and has no capacity to accept additional waste, so it cannot become subject to this Subpart. No NESHAP applies to this facility, and no further discussion is required.

Rule 4101 Visible Emissions

This rule defines and regulates visible emissions from any source operation. This source operation is an LFG collection and control system served by a flare, so as long as the equipment is operated and maintained correctly no visible emissions are expected. The following condition will be included on the ATC to ensure compliance:

- *No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]*

Rule 4102 Nuisance

This rule prohibits the emission of any air contaminant that causes injury, detriment, nuisance, or annoyance to any considerable number of persons or to the general public. As long as the equipment is operated and maintained correctly a nuisance condition is not expected. The following condition will be included on the ATC to ensure compliance:

- *No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]*

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR-1905, *Risk Management Policy for Permitting New and Modified Sources*, specifies that for an increase in emissions associated with a proposed new source or modification, the District must perform an analysis to determine the possible impact to the nearest resident or worksite. A health risk assessment (HRA) is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (Appendix C), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

Table 7: RMR Summary			
Categories	**Flare (Unit 2-0)**	**Project Totals**	**Facility Totals**
Prioritization Score	7.95	7.95	7.95
Acute Hazard Index	0.00	0.00	0.00
Chronic Hazard Index	0.00	0.00	0.00
Maximum Individual Cancer Risk (10^{-6})	0.02	0.02	0.02
T-BACT Required?	**No**		
Special Permit Conditions?	**Yes**		

As shown in Table 7, the proposed LFG collection system with a flare has a prioritization score greater than 1.0, but the resulting acute and chronic indices are less than 1.0 and the maximum individual cancer risk is less than 1.0 per million. Therefore, pursuant to APR-1905, the proposal is approvable without requiring the application of toxics best available control technology (T-BACT). The following condition, previously included in the DEL section of this document, will be included on the ATC to ensure the validity of the assumptions used in conducting the HRA:

- *Landfill gas combustion in the flare shall not exceed 0.18 MMscf/hr and 493 MMscf/yr. [District Rule 2201]*

Rule 4105 Commercial Offsite Multiuser Hazardous Waste and Nonhazardous Waste Disposal Facilities

This rule requires the operator of a facility subject to the rule to obtain an ATC or PTO (as applicable) for that facility, regardless of potentially applicable permit exemptions in District Rule 2020, *Exemptions*. This rule was last amended in 1992 and appears to have its origin in the fact that, while the District required a permit for NSPS and NESHAP sources under Rule 2020, no NSPS or NESHAP applied to landfills and similar facilities prior to 1996. This rule continues to ensure that facilities too small to be subject to the requirements of the NSPS or NESHAP are still required to obtain a permit.

The District has previously determined, as recently as project S-1100316, that this rule applies only to hazardous waste facilities that are required to obtain a license under Division 20, Chapter 6.5 of the California Health & Safety Code. This facility has not accepted, and will not accept, hazardous waste that would require it to obtain a license under the relevant section. Therefore, this facility is not subject to this rule and no further discussion is required.

Rule 4201 Particulate Matter Concentration

This rule prohibits the emission of particulate matter in excess of 0.1 grains per cubic foot of exhaust gas at dry standard conditions. Since the flare combusts LFG, particulate matter emissions are not expected to exceed this limit. The following condition will be included on the ATC to ensure compliance with this rule:

- *Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]*

Rule 4311 Flares

This rule is intended to limit emissions of NO_x, SO_x, and VOC from operations involving the use of flares. However, Section 4.1 specifically exempts flares operated in MSW landfills subject to the requirements of Rule 4642. CCI is a solid waste disposal site subject to Rule 4642, so the flare is exempt from the requirements of this rule.

Rule 4642 Solid Waste Disposal Sites

This rule is intended to limit VOC emissions from any solid waste disposal site with an LFG collection system. Section 4.1 exempts from the rule requirements any active disposal area in a landfill, any hazardous waste disposal site, and any site subject to the requirements of NSPS Subpart CC or WWW. CCI does not include any active or hazardous waste disposal sites, and is not subject to NSPS Subparts CC or WWW, so it is subject to the requirements of the rule.

Section 5.1 of the rule establishes various requirements that apply to the design and operation of the gas collection system, including requirements and emission limits for surface emissions testing, the provision of sampling ports at each well head, maximization of LFG gas extraction without overdraw, and the use of a control device that meets the requirements of Section 5.2. This later section specifies the applicable emission limit or control efficiency requirement that applies, along with the compliance demonstration requirement. The following conditions will be included on the ATC to ensure compliance with this section:

- *The gas collection system shall be operated in such a manner that the surface emissions testing of the landfill shows the concentration of the total organic compounds, measured as methane, do not exceed 1,000 ppmv at any point on the surface of the solid waste disposal site or along the gas transfer path of the gas collection system. [District Rule 4642]*

- *The gas collection system shall be operated in such a manner to prevent overdraw that can cause fires or damage to the gas collection system. [District Rule 4642]*

- *Permittee shall install, maintain, and operate the landfill gas collection system and flare in accordance with the manufacturer's specifications and in accordance with Section 5.2.4 of District Rule 4642 (Solid Waste Disposal Sites). [District Rule 4642]*

- *The flare shall be equipped with: 1) a heat sensing device to indicate the continuous presence of a flame, and; 2) either a device to record landfill gas flow to the flare at least once every 15 minutes, or a locking device to secure the flare bypass line valve in a closed position. [District Rule 4642]*

Section 5.3 specifies the requirements that apply when buried solid waste is brought to the surface during installation of the gas collection system or other activities. CCI has already installed the gas collection wells for a passive venting system found to be exempt under project N-1083941, so it is not expected that additional wells or trenches will need to be constructed. However, additional wells may need to be constructed in the future, and other activities may bring solid waste to the surface, so the following condition will be included on the ATC to ensure compliance with this section:

- *Whenever buried solid waste is brought to the surface, permittee shall cover the excavated solid waste using fresh soil, plastic sheeting, or vapor retarding foam as necessary in order to prevent odorous emissions and minimize the release of landfill gas. [District Rule 4642]*

Section 5.4 details the requirements that apply whenever maintenance of the LFG collection and control system will require the system to be shut down. The following conditions will be included on the ATC to ensure compliance:

- *Owner/operator shall notify the APCO by telephone at least 24 hours before performing any maintenance that requires the system to be shutdown. The notification shall include a description of the maintenance, the date maintenance will be performed and the amount of time needed to complete the maintenance. [District Rule 4642]*

- *The gas collection system and/or control device shall not be shut down for more than 144 cumulative hours in any calendar year. [District Rule 4642]*

Sections 6.1, 6.2, and 6.3 of the rule address the surface emissions testing, source testing, and record keeping requirements of the rule. The following conditions will be included on the ATC to ensure compliance:

- *Surface emission testing shall be conducted semiannually as required by District Rule 4642 unless the facility currently qualifies to conduct surface emission monitoring annually. [District Rule 4642]*

- *The flare shall be source tested to determine compliance with either the VOC emission limit or the control efficiency requirement of this permit within 60 days of initial start-up. [District Rule 4642]*

- *Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]*

- *The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]*

- *Source testing for VOC emissions and VOC destruction shall be conducted utilizing EPA method 25. [District Rule 4642]*

- *The permittee shall maintain records of surface emissions testing, source test results showing VOC emissions or control efficiency, and maintenance-related or other collection system and control device downtime, including the shutdown of individual well(s). [District Rules 1070 and 4642]*

- *All records shall be retained on site for a period of at least five years and shall be made available for District inspection upon request. [District Rule 4642]*

Section 6.4 of the rule specifies the contents of an emission control plan. Section 7.0 of the rule specifies the compliance schedule, including the requirement for a facility with excessive surface emissions to submit an emission control plan. CCI is not obligated by surface emission testing results to submit an emission control plan, but has submitted an ATC application for an LFG collection and control system in order to comply with CRWQCB and CalRecycle requirements. These sections do not apply to CCI, and no further discussion is required.

Rule 4801 Sulfur Compounds

This rule prohibits the emission of sulfur compounds in excess of 0.2% by volume (2,000 ppmv) as SO_2 from any source operation. The concentration of sulfur compounds emitted can be calculated as follows:

$C = (0.1/10^6) \times (1\ ft^3/596\ Btu) \times (10^6\ Btu/MMBtu) \times (1\ MMBtu/9{,}046\ ft^3) \times (1\ SO_2/H_2S) \times (10^6)$
$C = 0.02$ ppmv

Since 0.02 ppmv is less than the rule limit of 2,000 ppmv, compliance with the LFG sulfur content limit will ensure compliance with this rule. No further discussion is required.

California Environmental Quality ACT (CEQA)

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Unified Air Pollution Control District (District) adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.

- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The California Regional Water Quality Control Board Central Valley Region (RWQCB) is the public agency having principal responsibility for approving the Project. As such, the RWQCB served as the Lead Agency for the project. RWQCB determined that issuance of Cleanup and Abatement Order No. R5-2006-0707 was categorically exempt pursuant to California Code or Regulations (CCR) §15321(a)(2), and that construction of the landfill cover is categorically exempt pursuant to CCR §15330 and §15301.

The District is a Responsible Agency for the project because of its discretionary approval power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §15381).

The District's engineering evaluation of the project (this document) demonstrates that compliance with District rules and permit conditions would reduce Stationary Source emissions from the project to levels below the District's thresholds of significance for criteria pollutants. Thus, the District concludes that there is no evidence before the District upon which to disagree with Lead Agency's determination that the project is categorically exempt under CEQA. The District has determined that no additional findings are required (CCR §15096(h)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending satisfactory completion of the required NSR public noticing period, issue Authority to Construct N-7986-2-0 subject to the conditions on the attached draft Authority to Construct included in Appendix A.

X. Billing Information

Billing Information		
Permit Number	**Fee Schedule**	**Description**
N-7986-2-0	3020-02-H	107 MMBtu/hr

Appendices
Appendix A: Draft Authority to Construct
Appendix B: BACT Guideline and BACT Analysis
Appendix C: Health Risk Assessment
Appendix D: QNEC Calculations

Cove Contractors
N-7986, N-1103238

Appendix A
Draft Authority to Construct

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-7986-2-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: COVE CONTRACTORS, INC.
MAILING ADDRESS: 379 COSTA MESA STREET
COSTA MESA, CA 92627

LOCATION: 3242 SOUTH EL DORADO ST
STOCKTON, CA

EQUIPMENT DESCRIPTION:
LANDFILL GAS COLLECTION SYSTEM SERVED BY A 107 MMBTU/HR JOHN ZINK MODEL U-16 OPEN FLARE

CONDITIONS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for the change specified in condition 2. [District Rule 2010]
2. The construction of additional landfill gas extraction wells and connection of such wells to the landfill gas extraction system shall not constitute a modification of this permit provided there is no change in landfill gas extraction rate or in the flare. [District Rule 2010]
3. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
6. {1407} All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
7. A non-resettable, totalizing mass or volumetric gas flow meter to measure the amount of landfill gas combusted in the flare shall be installed, utilized and maintained. [District Rule 2201]
8. Landfill gas combustion in the flare shall not exceed 0.18 MMscf/hr and 493 MMscf/yr. [District Rule 2201]
9. NOx Emissions from the flare serving the LFG collection system shall not exceed 0.068 lb-NOx/MMBtu. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-7986-2-0 : Jan 19 2011 9:34AM -- DEMARISF : Joint Inspection NOT Required

10. PM10 emissions from the flare serving the LFG collection system shall not exceed 0.042 lb/MMBtu [District Rule 2201]
11. CO emissions from the flare serving the LFG collection system shall not exceed 0.37 lb/MMBtu. [District Rule 2201]
12. Either the VOC control efficiency shall be not less than 98% or VOC emissions from the LFG collection system served by a flare shall not exceed 20 ppmv (as methane) @ 3% O2. [District Rules 2201 and 4642]
13. Sulfur content of LFG shall not exceed 0.1 ppmv as H2S. [District Rule 2201]
14. The gas collection system shall be operated in such a manner that the surface emissions testing of the landfill shows the concentration of the total organic compounds, measured as methane, do not exceed 1,000 ppmv at any point on the surface of the solid waste disposal site or along the gas transfer path of the gas collection system. [District Rule 4642]
15. The gas collection system shall be operated in such a manner to prevent overdraw that can cause fires or damage to the gas collection system. [District Rule 4642]
16. Permittee shall install, maintain, and operate the landfill gas collection system and flare in accordance with the manufacturer's specifications and in accordance with Section 5.2.4 of District Rule 4642 (Solid Waste Disposal Sites). [District Rule 4642]
17. The flare shall be equipped with: 1) a heat sensing device to indicate the continuous presence of a flame, and; 2) either a device to record landfill gas flow to the flare at least once every 15 minutes, or a locking device to secure the flare bypass line valve in a closed position. [District Rule 4642]
18. Whenever buried solid waste is brought to the surface, permittee shall cover the excavated solid waste using fresh soil, plastic sheeting, or vapor retarding foam as necessary in order to prevent odorous emissions and minimize the release of landfill gas. [District Rule 4642]
19. Owner/operator shall notify the APCO by telephone at least 24 hours before performing any maintenance that requires the system to be shutdown. The notification shall include a description of the maintenance, the date maintenance will be performed and the amount of time needed to complete the maintenance. [District Rule 4642]
20. The gas collection system and/or control device shall not be shut down for more than 144 cumulative hours in any calendar year. [District Rule 4642]
21. Surface emission testing shall be conducted semiannually as required by District Rule 4642 unless the facility currently qualifies to conduct surface emission monitoring annually. [District Rule 4642]
22. The flare shall be source tested to determine compliance with either the VOC emission limit or the control efficiency requirement of this permit within 60 days of initial start-up. [District Rule 4642]
23. {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
24. {110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
25. Source testing for VOC emissions and VOC destruction shall be conducted utilizing EPA method 25. [District Rule 4642]
26. The permittee shall maintain records of surface emissions testing, source test results showing VOC emissions or control efficiency, and maintenance-related or other collection system and control device downtime, including the shutdown of individual well(s). [District Rules 1070 and 4642]
27. All records shall be retained on site for a period of at least five years and shall be made available for District inspection upon request. [District Rule 4642]

Appendix B
BACT Guideline and BACT Analysis

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 1.4.3*

Last Update: 1/8/2001

Landfill Gas Vapor Collection System

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
NOx	0.06 lb-NOx/MMBtu	0.05 lb/MMBtu	
PM10	Air assist fan	Steam injection	
SOx		Wet Scrubber with 98% control efficiency	
VOC	Flare with a control efficiency of (= or >) 98% or a controlled VOC (measured as methane) of (= or <) 20 ppmv @ 3% O2		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in s a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source - Permit Specific BACT Determinations on Next Page(s)**

As shown in the discussion of the BACT requirements of Rule 2201 in Section VIII of this document, the BACT requirements are triggered for VOC emissions from this LFG collection and control systems. In accordance with APR-1305, information from BACT Guideline 1.4.3, which covers landfill gas vapor collection systems, will be cited without further analysis.

Step 1 – Identify All Possible Control Technologies:

BACT Guideline 1.4.3 lists the following control options for this class of source:

1. Flare with 98% control efficiency or greater, or controlled VOC emissions of 20 ppmv (as methane) @ 3% O_2 – Achieved in Practice

Step 2 – Eliminate Technologically Infeasible Options:

All control options from Step 1 are technologically feasible.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

1. Flare with 98% control efficiency or greater, or controlled VOC emissions of 20 ppmv (as methane) @ 3% O_2

Step 4 – Cost Effectiveness Analysis

CCI has proposed to most stringent control remaining from Step 3. No cost effectiveness analysis is required.

Step 5 – Select BACT

The BACT requirement is satisfied by CCI's proposal to use a flare with at least 98% control efficiency for VOC, or that will reduce VOC emissions to less than or equal to 20 ppmv (as methane) @ 3% O_2. No further discussion is required.

Appendix C
Health Risk Assessment Summary

San Joaquin Valley Air Pollution Control District
Risk Management Review

To:	Frank DeMaris – Permit Services
From:	David Garner – Technical Services
Date:	November 4, 2010
Facility Name:	Cove Contractors
Location:	3242 W El Dorado St, Stockton, CA
Application #(s):	N-7986-2-0
Project #:	N-1103238

A. RMR SUMMARY

RMR Summary			
Categories	**Flare (Unit 2-0)**	**Project Totals**	**Facility Totals**
Prioritization Score	7.95	7.95	7.95
Acute Hazard Index	0.00	0.00	0.00
Chronic Hazard Index	0.00	0.00	0.00
Maximum Individual Cancer Risk (10^{-6})	0.02	0.02	0.02
T-BACT Required?	**No**		
Special Permit Conditions?	**Yes**		

Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

Unit # 2-0

{new} Waste gas consumption rate for the open flare shall not exceed 0.18 MMSCF per hour or 493 MMSCF per year. [District Rule 2201]

B. RMR REPORT

I. Project Description

Technical Services received a request on October 19, 2010, to perform a Risk Management Review (RMR) and an Ambient Air Quality Analysis (AAQA) for a proposed installation of landfill gas collection system served by a John Zink Model U-16 open flare.

II. Analysis

RMR. Technical Services performed a prioritization using the District's HEARTs database. Since the total facility prioritization score was greater than one, a refined health risk assessment was required. Emissions calculated using San Diego Emission Factors for Landfill Gas Flares were input into the HEARTs database. The AERMOD model was used, with the parameters outlined below and meteorological data for 2005-2009 from Stockton to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the Hot Spots Analysis and Reporting Program (HARP) risk assessment module to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Analysis Parameters Unit 2-0			
Source Type	Point	**Location Type**	Urban
Effective Stack Height (m)	9.14	**Closest Receptor (m)**	82
Effective Stack Diameter (m)	1.82	**Type of Receptor**	Business
Stack Exit Velocity (m/s)	20	**Max Hours per Year**	8,760
Stack Exit Temp. (°K)	1,273	**Fuel Type**	Landfill Gas
Flare Rating (MMBtu/hr)	107.28		

AAQA. Technical Services performed modeling for criteria pollutants CO, NOx, SOx and PM_{10}; as well as a RMR. The emission rates used for criteria pollutant modeling were 39.69 lb/hr CO, 7.30 lb/hr NOx, 0.00 lb/hr SOx, and 4.50 lb/hr PM_{10}.

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

Diesel ICE	1 Hour	3 Hours	8 Hours.	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO_x	Pass[1]	X	X	X	Pass
SO_x	Pass	Pass	X	Pass	Pass
PM_{10}	X	X	X	Pass[2]	Pass[2]

*Results were taken from the attached AAQA spreadsheet.
[1]The project was compared to the 1-hour NO2 National Ambient Air Quality Standard that became effective on April 12, 2010 using the District's approved procedures.
[2]The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

III. Conclusion

RMR. The acute and chronic indices are below 1.0 and the cancer risk factor associated with the flare is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

To ensure that human health risks will not exceed District allowable levels; the permit conditions listed on page 1 of this report must be included for this proposed unit.

AAQA. The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

IV. Attachments

A. RMR request from the project engineer
B. Prioritization score and facility summary
C. HARP risk summary
D. PSD spreadsheet

Appendix D
QNEC Calculations

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC is calculated as follows:

QNEC = PE2 – BE, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr
PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr
BE = Baseline Emissions for each emissions unit, lb/qtr

Using the values in Sections VII.C.2 and VII.D.4 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

$PE2_{quarterly}$ = $PE2_{annual}$ ÷ 4 quarters/year
$BE_{quarterly}$ = BE_{annual} ÷ 4 quarters/year

Quarterly Net Emissions Increase (QNEC) (lb/qtr)						
	PE2	BE	Quarter 1	Quarter 2	Quarter 3	Quarter 4
NO_X	19,999	0	4,999	5,000	5,000	5,000
SO_X	8	0	2	2	2	2
PM_{10}	12,353	0	3,088	3,088	3,088	3,089
CO	108,821	0	27,205	27,205	27,205	27,206
VOC	2,243	0	560	561	561	561