PERMIT TO OPERATE ANALYSIS (Change of Conditions)

COMPANY NAME — **AEIS NUMBERS:**

Riverside County Waste Management Department, Bandlands Landfill — 6979

PERMITEE/OPERATOR — **EQUIPMENT LOCATION**

SAME AS FORM 400A — SAME AS FORM 400A

Applications(s): **See Below**

EQUIPMENT DESCRIPTION

APPLICATION NO. 472572 [SAME AS PO F88616, APPL.NO.416359]

LANDFILL GAS FLARING SYSTEM CONSISTING OF:

1. CONDENSATE KNOCKOUT VESSEL
2. FLOW METER AND RECORDER
3. BLOWER, HOFFMAN, CENTRIFUGAL, VARIABLE FREQUENCY, 2000 SCFM, 30 HP
4. FLAME ARRESTOR
5. FLARE, JOHN ZINK, ENCLOSED, WITH SPUD HEX BURNER DESIGN, 8'-4" DIA X 24'-4" HIGH, 34.1 MM BTU/HR, 1250 SCFM WITH A PROPANE PILOT, ELECTRIC IGNITOR AND UV FLAME SCANNER

CONDITIONS: (See Sample permit except as indicated below)

Remove condition no.27

27. THIS FLARING SYSTEM SHALL NOT BE OPERATED SIMULTANEOUSLY WITH THE LANDFILL GAS FIRED ENGINE PERMITTED UNDER APPLICATION NO. 444070.

APPLICATION NO. 502606

APPLICATION FOR A SIGNIFICANT REVISION TO THE FACILITY PERMIT ISSUED ON SEPTEMBER 9, 2008.

BACKGROUND

The Riverside County Waste Management Department, ID No. 006979, filed application No. 472572, on August 7, 2007, for a change of permit condition to PO F88616 (a/n 416359) which was issued for a permit to operate a landfill gas flare station located at the inactive Bandlands Landfill.

The flare is used to burn the landfill gas transferred from the gas collection system subject to permit to operate No. F88616 (Appl.No. 416359) . The flare originally received a permit to construct on August 25, 2007, and subsequently issued a permit to operate on March 22, 2007, under application No. 416359.

There is no change in permit description required.

This application was filed to remove condition No.27 from PO F88616 (416359) which prohibited simultaneous operation with a Landfill Gas Control and Resource Recovery system operated under PO F80754 (444070). When permits F88616, and F80754 were issued there was insufficient landfill gas collection to enable simultaneous operation of both permit units.

Application No.502606 was filed on October 2, 2009, for a Significant Revision of the Title V facility permit issued on September 9, 2008. The proposed revision is to remove condition No. 27 in Section D as proposed by Application No. 472572.

PROCESS DESCRIPTION

The proposed change of conditions is to enable the simultaneous operation of the landfill gas flare, with the existing internal combustion engine operated under permit No. F80754 (Appl.No. 444070) . According the engineering report dated 07-28-04, the flare is designed for a maximum flow of 1250 scfm, and has a maximum rating of 34.1 mmbtu/hr, and the landfill gas fired internal combustion engine (PO F80754, A/N 444070) is rated at 1777 hp. According to the applicant, the increase in landfill gas collection, is sufficient to operate the flare and engine simultaneously. The current maximum LFG usage of the engine is 300 cfm.

EMISSIONS

See Appendix B

Table 1A - Hourly Emissions

Appl.No.	NOx lb/hr	CO lb/hr	ROG lb/hr	PM10 lb/hr	SOx lb/hr
472572	2.05	6.83	0.75	1.50	1.00
416359	2.05	6.83	0.75	1.50	1.00
Net Increase	0.00	0.00	0.00	0.00	0.00

Evaluation

Rule 212

There is no school located within 1000 feet of this facility. Since the current application is to remove the prohibition of simultaneous operation of the flare and Landfill Gas to Energy System (Appl.No. 444070), the actual increase in maximum daily criteria emissions, which is estimated in Appendix B, is based on the maximum rating of the flare minus the maximum fuel consumption of the internal combustion engine.

Table 1B - Rule 212 Facility Increase Emissions

Appl.No.	NOx lb/day	CO lb/day	ROG lb/day	PM10 lb/day	SOx lb/day
(Rule 212)	37	124	14	27	18

Consequently, no public notice is required because the emissions from this flare does not exceed the limits specified in subdivision (g) of this Rule, and the increase in risk is less than one in a million.

Rule 402

Under normal operating conditions, no nuisance is expected to be generated from the proper operation of this equipment. Therefore, compliance with Rule 402 is expected.

Rule 404

Based on engineering experience, the particulate concentration from this flare should not exceed the limits of this Rule under normal operating conditions. Therefore compliance with this rule is expected.

Rule 407

Based on the previous engineering evaluation filed under application No. 416359, the CO emissions are below the limits of this Rule, and no violation of this Rule is expected.

Rule 409

PM10 concentration is expected to be less than 0.02 gr/scf. Therefore, compliance with Rule 409 is expected.

Rule 431.1

Based on the previous engineering evaluation filed under application No.416359, the total sulfur content (calculated as H2S) is less than 150 ppm, and compliance with Rule 431.1 is expected.

Rule 1150.1

The flare is required to comply with Rule 1150.1 section (d)(1)(C)(i) which requires venting the landfill gas collection system [permit No.F58662 (Appl.No.411687)] to a control system designed and operated to reduce NMOC by at least 98 percent by weight, or less than 20 ppmv as Hexane. Based on the previous engineering evaluation filed under application No. 416359, the flare complies with Rule 1150.1 operating requirements.

Rule 1303 - BACT & Offsets

Table 1C - NSR Emission Entries

Appl.No.	NOx lb/day	CO lb/day	ROG lb/day	PM10 lb/day	SOx lb/day
472572	49	164	18	36	24
416359	0	0	0	0	0
Net Increase	49	164	18	36	24

A BACT analysis is not required because there is no increase in the emission of maximum daily criteria pollutants. There is no increase in maximum daily emissions from the flare because it is currently permited to operate 24 hours per day when the engine is not operating. Offsets are required for criteria pollutants because the flare was permitted previously as a backup to the engine. These required offsets will be provided from the priority reserve. Therefore, compliance with Rule 1303 is expected.

Rule 1401

Since the risk assessment filed under application No. 416359, was based on a inlet flow rate of 1250 dscfm, which represents the worst case emissions of Toxic Air Contaminants, there is no increase in potential to emission TAC from the proposed change of permit conditions. Therefore, no additional risk assessment is required and compliance with Rule 1401 is expected.

Regulation XXX

A significant permit revision is recommended because the proposed revision meets the requirements of Table 3-9 of the Title V technical guidence document dated 1998. A significant revision is recommended because removing a condition prohibiting simultaneous operation is considered a relaxation of a condition.

RECOMMENDATION

Since the proposed operation of the flare is expected to comply with all AQMD Rules and Regulations, application number 472572, is recommended for approval with the proposed equipment descriptions, and conditions.

Issue a Significant Revision to the Title V Facility permit subject to a 45 day EPA review, and 30 day public notice required under Regulation XXX.

APPENDIXES

A. NSR TRANSACTION REPORT
B. Emission Estimate.