

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE DIVISION

APPLICATION PROCESSING AND CALCULATIONS

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Appl#:See Below
Processor: KKM
Reviewer: 

PERMIT TO OPERATE ANALYSIS - CHANGE OF CONDITIONS

COMPANY NAME

AEIS NUMBERS:

USA WASTE OF CALIFORNIA
EL SORBRANTE LANDFILL

113674

PERMITEE/OPERATOR

EQUIPMENT LOCATION

SAME AS FORM 400A

SAME AS FORM 400A

Applications(s):

See Below

EQUIPMENT DESCRIPTION

APPLICATION NO. 499536 (SAME AS PO F93538, APPL.NO.457117)

LANDFILL GAS FLARING SYSTEM CONSISTING OF:

1. KNOCKOUT VESSEL/GAS FILTER, ENDUSTRA, 2'-6" DIA. BY 6'-1" HIGH, 5,500 CFM CAPACITY.
2. KNOCKOUT VESSEL/MOISTURE SEPARATOR, 4' DIA. BY 10' HIGH
3. SHUT OFF VALVES
4. TWO (2) BLOWERS, HAUCK, EACH 25 HP, 1500 SCFM CAPACITY.
5. BLOWER, GARDNER DENVER/LAMSON, MODEL NO. 1404GD, 200 HP, 5500 SCFM CAPACITY,
COMMON TO THE FLARING SYSTEM AND LANDFILL GAS FIRED INTERNAL COMBUSTION ENGINES.
6. TWO (2) BLOWERS, HOUSTON SERVICE INDUSTRIES, MODEL 14104, EACH 200 HP, 5500 SCFM, VARIABLE FREQUENCY DRIVE
7. TWO (3) FLAME ARRESTORS, 8" DIAMETER.
8. TWO (2) FLARES (NOS. 1 AND 2), DIXON BOILER WORKS, EACH 7'-7" INSIDE DIAMETER BY 22'-0" HIGH, WITH AUTOMATIC AIR DAMPER, PROPANE PILOT, UV FLAME DETECTOR, HEX BURNER DESIGN, FOUR 4" DIAMETER TEST PORTS, 1390 SCFM CAPACITY.
9. FLARE (NO. 3), JOHN ZINK, MODEL ZULE, 13' DIA. BY 60' HIGH, AUTOMATIC AIR DAMPER, PROPANE PILOT, 100 HP COMBUSTION AIR BLOWER, FOUR SOURCE TEST PORTS.
10. TWO PROPANE TANKS, 5 GALLONS EACH.

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CONDITIONS: (SAME AS PREVIOUS PO F93538, A/N 457117, EXCEPT FOR NO.7)
New Condition No.7

7. WHENEVER THE FLARE IS IN OPERATION, A TEMPERATURE OF NOT LESS THAN 1400 DEGREES FAHRENHEIT, 15 MINUTE AVERAGE, AS MEASURED BY THE TEMPERATURE INDICATOR AND RECORDER, SHALL BE MAINTAINED EXCEPT DURING PERIODS OF STARTUP AND SHUTDOWN. STARTUP IS DEFINED AS THE PERIOD FROM FLARE IGNITION TO THE TIME WHEN 1400 DEGREES FAHRENHEIT IS ACHIEVED, NOT TO EXCEED 30 MINUTES. SHUTDOWN IS THE PERIOD BEGINNING WHEN THE GAS VALVE BEGINS TO CLOSE AND ENDING WHEN THE GAS VALVE COMPLETELY SHUTS OFF, NOT TO EXCEED 30 MINUTES.

BACKGROUND

USA Waste of California (WM) -El Sobrante Landfill, ID No. 113674, filed application No. 499536, and 499537, on June 1, 2009, for a change of permit conditions for a landfill gas flare control system operating under PO F593538, which was issued under application No. 457117.

The application were filed because the current flare has difficulties complying with the instantaneous minimum temperature requirement of condition No.7 on the current permit to operate. During low flow conditions, which according to the applicant is caused by fluctuation in LFG flow from the LFG-to-energy facility, the flare does not react immediately and is unable to shutdown quickly enough before the temperature fall below the instantaneous minimum temperature requirement.

PROCESS DESCRIPTION

According to the previous application the landfill gas control system and flare station at El Sobrante Landfill includes a gas collection system and three enclosed flares to incinerate the landfill gas. the landfill is located at El Sobrante Landfill located at 10910 Dawson Canyon Road Corona, California.

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EMISSIONS

[Same as previous appl.No.157809]

Table 1A - Hourly Emissions					
	NOx	CO	ROG	PM10	SOx
Appl.No.	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
499536	8.44	12.23	9.50	4.90	9.20
457117	8.44	12.23	9.50	4.90	9.20
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. There is no expected emissions increase due to this modification. Therefore, 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 Source Tests in March 2007, and June 2007, 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 source test results, the total sulfur content (calculated as H2S) is less than 150 ppm, and compliance with Rule 431.1 is expected.

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Rule 1150.1

Each flare is required to comply with Rule 1150.1 section (d)(1)(C)(i) which requires venting the landfill gas collection system [permit No. F91988 (Appl.No.463733)] 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 a source tests conducted in March 2007, and June 2006, each flare complies with Rule 1150.1 operating requirements.

Rule 1303 - BACT & Offsets

Table 1B - NSR Emission Entries

Appl.No.	NOx lb/day	CO lb/day	ROG lb/day	PM10 lb/day	SOx lb/day
499536	203	294	228	118	221
457117	203	294	228	118	221
Net Increase	0	0	0	0	0

Neither BACT analysis nor offsets are required because there is no increase in criteria pollutants associated with the proposed modification. Therefore, compliance with Rule 1303 is expected.

Rule 1401

No risk assessment is required because there is no change in the emission rate of TAC. Therefore, compliance with Rule 1401 is expected.

40 CFR Part 60 WWW

This facility is subject to this NSPS regulation. This Facility has an active gas collection system and routes the gas to a control system (flares) with a minimum of 98% NMOC destruction efficiency and/or a treatment system that process the gas prior to use in the landfill gas fired engines

40 CFR Part 63 AAAA

This facility is subject to this NESHAPS regulation and complies by complying with 40 CFR Part 60, Subpart WWW.

Regulation XXX

Since there is no increase of emissions, and based on the certification of compliance in Forms 500C1 and 500C2, a "Minor" revision of the Title V facility permit to operate is recommended.

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RECOMMENDATION

Since the proposed change of conditions for the permit to operate the flare is expected to comply with all AQMD Rules and Regulations, application number 499836, is recommended for permit to operate with the proposed equipment descriptions, and conditions.