

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE DIVISION PERMIT APPLICATION EVALUATION AND CALCULATIONS	PAGES 4	PAGE 1
	APPL NO 501731	DATE 12/17/2009
	PROCESSED BY GCR	CHECKED BY GCR

PERMIT TO CONSTRUCT/OPERATE (ALTN/MODIF'N)

APPLICANT'S NAME: LA COUNTY SANITATION DISTRICT

MAILING ADDRESS: P. O. BOX 4998
WHITTIER, CA 90607

EQUIPMENT ADDRESS: 5300 LOST HILLS ROAD (CALABASAS LANDFILL)
AGOURA, CA 91301-2340

FACILITY ID NO.: 042514

EQUIPMENT DESCRIPTION:

AIR STRIPPER SYSTEM NO. 1, AT SCALE AREA, FOR TREATMENT OF LANDFILL LIQUIDS – BARRIER (#2 & 5) CANYON WATER, LCRS, UNDERDRAIN WATER, AND LANDFILL GAS CONDENSATE LIQUID, CONSISTING OF:

1. INFLUENT WATER STORAGE TANK, 10,000 GALLONS CAPACITY AND PIPED TO LANDFILL GAS CONDENSATE COLLECTION TANKS (F15737).
2. AIR STRIPPER (NO. 1), PACKED COLUMN TYPE, 3' DIA. BY 35'-0" H., 90 GPM CAPACITY, WITH 700 CFM AIR BLOWER, WITH DIRECT FEED FROM COLLECTION TANKS (F15737) FOR BATCH TREATMENT, AND VENTING TO LANDFILL GAS COLLECTION SYSTEM (F51198).
3. AIR STRIPPER (BACKUP/TEMPORARY), PACKED BED COLUMN TYPE, 30 GPM, WITH 400 CFM AIR BLOWER.
4. TREATED EFFLUENT STORAGE TANK, 5000 GALLONS.

CONDITIONS:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS PERMIT SHALL EXPIRE IF CONSTRUCTION OF THE EQUIPMENT IS NOT COMPLETED WITHIN ONE YEAR FROM THE DATE OF ISSUANCE OF THIS PERMIT UNLESS AN EXTENSION IS GRANTED BY THE EXECUTIVE OFFICER.
[RULE 205]

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4. THIS EQUIPMENT SHALL ONLY BE USED TO TREAT LANDFILL LIQUIDS SHOWN UNDER THE EQUIPMENT DESCRIPTION.
[RULE 204]
5. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS THE EXHAUST AIR FROM THE AIR STRIPPER (S) AND THE VENTING OF THE INFLUENT WATER STORAGE TANK ARE VENTED TO THE LFG COLLECTION SYSTEM, AND TO THE AIR POLLUTION CONTROL EQUIPMENT WHICH IS IN FULL USE AND HAS A VALID PERMIT FROM THE AQMD.
[RULE 402, 1303(a)(1)-BACT, 1401]
6. FLOW METER SHALL BE INSTALLED AND MAINTAINED FOR THE AIR STRIPPER TO MEASURE AND RECORD THE RESPECTIVE LANDFILL LIQUIDS FEED RATE (GPM) AND AIR FLOW RATE (CFM). WHEN IN OPERATION, FLOW RATE READINGS (GPM AND CFM) SHALL BE RECORDED ONCE A DAY.
[RULE 204]
7. THIS EQUIPMENT SHALL TREAT NO MORE THAN 129,600 GALLONS OF LANDFILL LIQUIDS, INCLUDING DIRECT BATCH TREATMENT OF THE LFG CONDENSATE, IN ANY ONE DAY.
[RULE RULE 1303 (b) (2)-OFFSET, 1304, 1401]
8. QUARTERLY GRAB SAMPLES OF AIR STRIPPER LIQUIDS INFLUENT AND EFFLUENT WATER SHALL BE COLLECTED AND ANALYZED FOR ORGANIC COMPOUNDS PRESENT. RECORDS FOR QUANTITY OF STRIPPER EFFLUENT COLLECTED SHALL BE KEPT. RESULTS FOR INFLUENT AND EFFLUENT SAMPLES' ANALYSIS SHALL BE KEPT ON FILE.
[RULE 3004 (a) (2)]
9. THE BACKUP/TEMPORARY AIR STRIPPER SHALL ONLY OPERATE IF ANY PRIMARY STRIPPER (NO. 1 OR 2) IS OUT OF SERVICE.
[RULE 204]
10. ALL RECORDS SHALL BE KEPT FOR A PERIOD OF AT LEAST FIVE YEARS AND SHALL BE MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 3004 (a) (2)]

BACKGROUND:

The above application 501731 was submitted on 09-01-2009 for alteration/modification to the existing air stripper permit F69100 (A/N 430378). On January 23, 2008 a research permit (F94957, A/N 475278) was granted for the air stripper for treatment of the landfill gas condensate study to determine VOC stripping efficiency and stripper effluent qualitative analysis, that effluent can meet current requirements (waste discharge) of the Las Virgenes Municipal Water District. The research permit was granted for maximum influent treatment rate of 2.5 gpm.

This is a Title V facility. Title V revision (No. 1) was issued December 7, 2007. A/N 501732 is also submitted for Title V permit revision (No. 2). TV revision will include air stripper modification and modification of existing landfill condensate, collection and storage system (F15737, A/N 337534).

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PROCESS DESCRIPTION:

Existing air stripper No. 1 (F69100, A/N 430378) treats landfill liquids-Canyon water, LCRS, and underdrain water, and stripper exhaust is vented to the LFG collection system (F51198, A/N 341029) and subsequently sent to the flaring station (F77394, 440826). In January 2010, the facility is planning to start newly permitted LFG combustion turbines for landfill gas to energy (LFGTE) project. Currently, LFG condensate is disposed off by injecting into the existing flares, that would serve as backup APC equipment in the event gas turbine(s) is (are) off line.

The proposed modifications are to pipe the LFG condensate storage tanks to the existing 10,000 gallon influent storage tank, and provide a permanent direct feed line, from the condensate storage tanks to the air stripper for the batch treatment of the condensate, as needed.

As per information contained in the application there will be no net increase in air stripper off-gas (and VOCs rate) and venting to the LFG collection system for subsequent treatment by the gas turbines (as flares will serve as standby).

The facility had confirmed by e-mail (11-20-09) that AQMD inquiry and understanding for the stripper operations with no net emission increase is correct. This means that air stripper operating parameters (GPM and CFM) will remain as under the current permit F69100, A/N 430378.

The treated effluent flows into a 5000 gallon tank which is combined with Barrier 6 canyon water prior to the 're-use' (for dust control) water storage tanks. The effluent is subject to VOC monitoring requirements established by the State Regional Water Quality Control Board (RWQCB) and must meet re-use concentration limits specified for VOCs. The combined effluent from the air stripper system is further mixed with reclaimed water prior to land application. Off gases generated from the influent/effluent tanks and the air stripper are vented to the gas collection system (A/N 341029).

VOC EMISSIONS:

Proposed modifications would not yield in NO net VOC emission increase as operating parameters (GPM and CFM) are same as under current permit F69100 (A/N 430378).

Therefore VOC emissions are same as under current permit,

$$R_1 = 0.016 \text{ lbs/hr} = 0.38 \text{ lb/day (going to LFG collection system)}$$

$$R_2 (\text{@ } 98\% \text{ DRE, LFG to APC}) = 0.00032 \text{ lb/hr} = 0.008 \text{ lb/day} = 2.8 \text{ lb/yr.}$$

RULES EVALUATION:

Rule 212: This is not a significant project. No net emission increase is expected from the proposed modifications. No school within 1000' of source. Compliance is expected.

Rule 401: The equipment is not expected to emit visible emissions.

Rule 402: The equipment is not expected to emit odorous emissions or nuisance.

Rule 1150.1: Exhaust from the air stripper, containing VOCs (and TACs) will be vented to the existing permitted LFG collection system and subsequent treatment by APC equipment (GTs or flares). Compliance is expected.

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Reg. 13: NO net increase in VOC. No BACT analysis required. No modeling or offset required... Compliance is expected.

Rule 1401: NO net increase in VOC. Compliance is expected.

Rule 1401.1: N.A. This is an existing facility. No net emission increase from these modifications.

REG. XX: Regional Clean Air Incentive Market (RECLAIM):

This facility is exempt from RECLAIM per Rule 2001(I) (1) (C) – construction and operation of landfill gas control, processing or landfill gas energy recovery facilities, and such facility is prohibited from electing to enter RECLAIM.

REG. XXX: Title V

Title V revision A/N 501732 (No. 2) is filed to incorporate this and other permits. Compliance is expected.

RECOMMENDATIONS:

P/C-P/O is recommended, after TV revision and EPA review/commenting period, for the above equipment with the proposed conditions on page 1 & 2.