

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT STATIONARY SOURCE COMPLIANCE DIVISION PERMIT APPLICATION PROCESSING AND CALCULATIONS	PAGES 4	PAGE 1
	APPL NO 501724	DATE 8/10/10
	PROCESSED BY TK	CHECKED BY AD

Applicant

County Sanitation Districts
of Los Angeles County
P.O. Box 4998
Whittier, California 90607

Equipment Location:

2800 S Workman Mill Road
Whittier, California

Equipment Description

Previous A/N 341081

Landfill Condensate/Leachate Collection/Storage System consisting of:

1. Four storage tanks, condensate/leachate influent, each 7,000 gallons capacity
2. Storage tank, condensate, 2,000 gallons capacity
3. Storage tank, condensate, 2,000 gallons capacity
4. Storage tank, condensate/leachate, 1,200 gallons capacity
5. Two storage tanks, condensate, each 11,300 gallons capacity
6. Storage tank, condensate, 5,000 gallons capacity
7. Storage tank, condensate/leachate, 6,000 gallons capacity
8. Storage tank, condensate, 5,000 gallons capacity with a carbon filter
9. Storage tank, condensate, 3,000 gallons capacity
10. Storage tank, condensate, 500 gallons capacity with a carbon filter
11. Ten temporary storage tanks, leachate, each up to 20,000 gallons capacity

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History

The Sanitation District has installed a landfill condensate/leachate collection and storage system at the Puente Hills Landfill. This application is to change the equipment description and add equipment which had been installed without a permit.

Process Description

The condensate and leachate will be collected and stored in various storage tanks. There is a total of 75,300 gallons of permanent storage and 200,000 gallons of temporary storage of the condensate/leachate. The previous application was 68,800 gallons of permanent storage and 160,000 gallons of temporary storage. The tanks (including the temporary storage tanks) are vented to the gas collection system which is vented to the flares. A 5,000 gallon and a 500 gallon tank are vented to a carbon filter.

Calculations

There is no emission increase from the tanks since they are vented to the gas collection system which is vented to the flares. The emission from the flares will not increase the permitted limits. The emission increase is from the two tanks, one 5,000 gallons and one 500 gallons, each vented to a carbon filter.

ROG emissions from the two tanks:

5000 gal tank:

$$\begin{aligned}
 R1 &= 1410 \text{ ug/L} \times 300 \text{ gal/day} \times 3.785 \text{ L/gal} \times 2.2 \text{ lbs/kg} \times \text{kg}/10E9 \\
 &= 0.00357 \text{ lbs/day} \\
 &= 0.00015 \text{ lbs/hr}
 \end{aligned}$$

$$R2 = 0.00119 \text{ lbs/day} \times 1-0.99$$

$$= 0.0000357 \text{ lbs/day}$$

$$= 0.0000015 \text{ lbs/hr}$$

500 gal tank:

$$\begin{aligned}
 R1 &= 1410 \text{ ug/L} \times 100 \text{ gal/day} \times 3.785 \text{ L/gal} \times 2.2 \text{ lbs/kg} \times \text{kg}/10E9 \\
 &= 0.00119 \text{ lbs/day} \\
 &= 0.00005 \text{ lbs/hr}
 \end{aligned}$$

$$R2 = 0.00119 \text{ lbs/day} \times 1-0.99$$

$$= 0.0000119 \text{ lbs/day}$$

$$= 0.0000005 \text{ lbs/hr}$$

Total emission increase:

$$\begin{aligned}
 R1 &= 0.00020 \text{ lbs/hr} \\
 &= 0.048 \text{ lbs/day}
 \end{aligned}$$

$$\begin{aligned}
 R2 &= 0.000002 \text{ lbs/hr} \\
 &= 0.000048 \text{ lbs/day}
 \end{aligned}$$

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Emissions are negligible.

Evaluation

Rule 212: Emission increase is less than 212g, no toxic risk is less than one in a million and no school within 1000 feet. Therefore, a public notice is not required.

Rule 401 Visible Emissions:
No violations are expected.

Rule 402 Nuisance:
No violations are expected.

Reg. XIII: New Source Review

All tanks are vented to the landfill gas collection system except the 5000 gallon and the 500 gallon tanks which are vented to a carbon filter. Emissions from the two tanks vented to the carbon filters are well below 1 lb/day. Equipment is in compliance

Rule 1401: Risk is less than one in a million.
Equipment is in compliance.

Reg XXX: Title V Permits

This modification is a "de minimus significant" permit revision since there is an emission increase, and requires a 45 day EPA notice.

Conclusions and Recommendations

Equipment is in compliance with the Rules and Regulations of the SCAQMD. A permit to operate is recommended.

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]

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3. THIS EQUIPMENT SHALL BE OPERATED AND MAINTAINED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION.
[RULE 204]
4. THE OPERATION OF THIS EQUIPMENT SHALL NOT RESULT IN THE DISCHARGE OF UNTREATED, ODOROUS LIQUID INTO THE ATMOSPHERE.
[RULE 402]
5. THE VACUUM TRUCK WHICH EMPTIES THE CONDENSATE/LEACHATE FROM THE CONDENSATE/LEACHATE STORAGE TANKS SHALL NOT VENT ODOROUS VAPORS INTO THE ATMOSPHERE.
[RULE 402]
6. ANY LIQUID USED FOR DUST CONTROL OR OTHER PURPOSES SHALL BE ODORLESS AND SHALL NOT CONTAIN TOTAL VOLATILE ORGANIC COMPOUNDS IN EXCESS OF 45 UG/L.
[RULE 402]
7. ALL CONDENSATE AND LEACHATE STORAGE TANKS, WITH THE EXCEPTION OF TANKS AS DESCRIBED IN EQUIPMENT DESCRIPTION NO. 8 AND 10, SHALL BE VENTED TO A LANDFILL GAS COLLECTION SYSTEM WHICH HAS BEEN ISSUED A VALID PERMIT TO CONSTRUCT OR OPERATE BY THE AQMD.
[RULE 1150.1, 1303 (a)(1)-BACT]