

June 9, 2004

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RE: Proposed Major Facility Review Permit for Union Sanitary District, Facility #A1209

Mr. Frazier:

Union Sanitary District (USD) appreciates the opportunity to comment on the draft Proposed Major Facility Review (Title V) Permit. We would like to thank you for the commitment you have shown to working with us throughout the development of permit conditions. Many of our concerns have been resolved through this process, and we just have a few remaining suggestions we would like to bring to the Bay Area Air Quality Management District (District)'s attention. These issues are outlined below.

Table IIA

In Table IIA – Permitted Sources, S-162 "Sludge Handling, Solids Handling Building" should be renamed "Solids Handling, Dewatering Building, 4 Centrifuges" and designated S-180, as shown below. The 352,000 gal/day capacity for the new Dewatering Building was established in a Permit to Operate granted on 2/11/04.

The second	S-	Sludge Handling - Solids	Custom	N/A	250,000
	162*	Handling Building			352,000
					gal/day
					capacity

Comment: S-180 will replace S-162 for sludge dewatering in June 2004

S-180	Sludge Handling,		352,000	
	Dewatering Building, 4		gal/day	
	Centrifuges			

Table II B

On page 10 of Table IIB – Abatement Device, Odor Scrubber A-29 abates only source S-131, and thus should be modified as shown below.

A-29	Atomizer Odor	S-130,	BAAQMD	none listed	N/A
	Scrubber	S-131	Reg. 1-301		

On page 11 of Table IIB, Odor Scrubber A-31 and Odor Scrubber A-35 have been relocated to abate source S-180, and therefore the table should be modified as follows.

A-31	Atomized Mist Odor	S-180-S-135	BAAQMD	none listed-	N/A
	Scrubber		Reg. 1-301	No-	
				detection-	
				of odorous	
				breakthrou	
				gh	

A-35	Atomizer Odor	S-180 -160,	BAAQMD	none listed	N/A	
	Scrubber	S-162	Reg. 1-301			Comment:

Table IV-H

S-162, Sludge Handling – Solids Handling Building will be replaced in June 2004 with a new Dewatering Building with 4 centrifuges, S-180. Therefore, Table IV-H Source-specific Applicable Requirements on page 25 should read:

S-162, Sludge Handling - Solids Handling Building S-163, Sludge Handling-Pumping Station

S-164, SLUDGE HANDLING-GRAVITY BELT THICKENERS S-180, SLUDGE HANDLING, DEWATERING BUILDING, 4 CENTRIFUGES

Condition 20905 for S-16 Lean Burn Engine, 535 KW

On Page 36, so that there is no confusion as to what is considered a violation, and because USD's primary compliance focus is on concentration values, we would prefer the language of the NOx and CO emissions standards to be reworded as follows:

Comment: S-162 will be replaced by S-180 in June 2004

- 3 Nitrogen Oxide (NOx) emissions shall not exceed 1.0 grams of NOx (calculated as NO2) per brake-horsepower-hour. The permit holder may demonstrate compliance with this emission rate limit by demonstrating a NOx concentration in the engine exhaust of no more than 73 ppmv of NOx, corrected to 15% oxygen, dry basis. An exhaust concentration measurement of more than 1.0 g/bhp-hr 73-ppm of NOx shall not be deemed a violation of this part, if the permit holder can demonstrate that NOx emissions did not exceed 73 ppmv of NOx 1.0 g/bhp-hr during the test period. The permit holder shall only be in violation of this part if measurements exceed both 1.0 g/bhp-hr and 73 ppmv of NOx. (Basis: BACT)
- 4 Carbon Monoxide (CO) emissions shall not exceed 2.65 grams of CO per brake-horsepower-hour. The owner/operator may demonstrate compliance with this emission rate limit by demonstrating a CO concentration in the engine exhaust of no more than 318 ppmv of CO, corrected to 15% oxygen, dry basis. An exhaust concentration measurement of more than 2.65 g/bhp-hr 318 ppm of CO shall not be deemed a violation of this part, if the permit holder can demonstrate that CO emissions did not exceed 318 ppmv 2.65 g/bhp-hr during the test period. The permit holder shall only be in violation of this part if measurements exceed both 2.65 g/bhp-hr and 318 ppmv of CO.

(Basis: BACT)

On page 37, condition 7b, USD maintains the position that an annual methane test is unnecessary. The other tests adequately characterize the composition of the digester gas, and therefore there is no need to submit samples for an expensive test that must be conducted in an off-site contract laboratory. We therefore suggest that methane be deleted from the requirement under 7b as follows:

5 <u>Digester gas composition: Concentration (dry basis) of carbon dioxide (CO2), nitrogen (N2), oxygen (O2), total reduced sulfur compounds (TRS), methane (CH4), and total non-methane organic compounds.</u>

Condition 21298 for S-15 Lean Burn Engine, 700 KW

We recommend the following changes to this permit condition, consistent with our recommendations for S-16 outlined above.

- 6 Nitrogen Oxide (NOx) emissions shall not exceed 1.34 grams of NOx (calculated as NO2) per brake-horsepower-hr.. The permit holder may demonstrate compliance with this emission limit by demonstrating a NOx concentration in the engine exhaust of no more than 98 ppmv of NOx corrected to 15% oxygen, dry basis. An exhaust concentration measurement of more than 1.34 g/bhp-hr 98 ppm of NOx shall not be deemed a violation of this part if the permit holder can demonstrate that NOx emissions did not exceed 98 ppmv 1.34 g/bhp-hr during the test period. The permit holder shall only be in violation of this part if measurements exceed both 1.34 g/bhp-hr and 98 ppmv of NOx.

 (Basis: Cumulative Increase)
- 7 Carbon Monoxide (CO) emissions shall not exceed 2.65 grams of CO per brake-horsepower-hour. The owner/operator may demonstrate compliance with this emission rate limit by demonstrating a CO concentration in the engine exhaust of no more than 318 ppmv of CO, corrected to 15% oxygen, dry basis. An exhaust concentration measurement of more than 2.65 g/bhp-hr 318 ppm of CO shall not be deemed a violation of this part, if the permit holder can demonstrate that CO emissions did not exceed 318 ppmv 2.65 g/bhp-hr during the test. The permit holder shall only be in violation of this part if measurements exceed both 2.65 g/bhp-hr and 318 ppmv of CO. (Basis: BACT)
- 7b. Digester gas composition: Concentration (dry basis) of carbon dioxide (CO2), nitrogen (N2), oxygen (O2), total reduced sulfur compounds (TRS), methane (CH4), and total non-methane organic compounds.

Table VII-C

In Table VII-C - Applicable Limits and Compliance Monitoring Requirements on page 46, the thermal capacity monitoring requirement is an annual check, not a monthly requirement. Therefore the table should be changed as follows.

Thorn	BAAQM	NT	T	S-16: 51.684 E6	BAAQM	D/A D/M	Records
Theim	- 1	114				I/AI/WI	records
1	D Cond			Btu/yr	D Cond		
Capaci	<u>20905,</u>				20905,		
v	part 2				part 8		

Table VII-F

Per the discussion above regarding the replacement of the Solids Handling Building with the new Dewatering Building, Table VII-F on page 49 should be modified as follows.

S-162, SLUDGE HANDLING — SOLIDS HANDLING BUILDING S-163, SLUDGE HANDLING-PUMPING STATION S-164, SLUDGE HANDLING-GRAVITY BELT THICKENERS S-170, ANAEROBIC DIGESTER S-180, SLUDGE HANDLING, DEWATERING BUILDING, 4 CENTRIFUGES

Comment: S-162 will be replaced by S-180 in June 2004

We appreciate your willingness to work with us throughout this permit renewal process. If you have any questions, or would like to discuss these comments in more detail, please contact me at (510) 477-7561 or Jackie Kepke of CH2M HILL at (510) 587-7545.

Sincerely,

James Chen

Coach/Treatment & Disposal Services