

| | | |
|---|--------------------|-------------------|
| SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT STATIONARY SOURCE COMPLIANCE DIVISION PERMIT APPLICATION PROCESSING AND CALCULATIONS | PAGES | PAGE 1 |
| | APPL NO 516867 | DATE 05/6/11 |
| | PROCESSED BY AM | CHECKED BY CDT |

Permit to Construct/Operate

Applicant

City of LA/Hyperion Treatment Plant
12000 Vista Del Mar
Playa Del Rey, CA 90293

Equipment Location

12000 Vista Del Mar
Playa Del Rey, CA

Equipment Description

APPLICATION NO. 516867

MODIFICATION OF THE EXISTING DIGESTER GAS DESULFURIZATION SYSTEM UNDER PERMIT TO OPERATE NO. F38915 CONSISTING OF:

1. SIX (6) COMPRESSORS, 2350 H.P. TOTAL.
2. GAS HOLDER, LOW PRESSURE, 100,000 CUBIC FEET CAPACITY.
3. KNOCKOUT DRUM, RAW DIGESTER GAS, ABSORBER INLET, 4' ID X 9' H.
4. TWO KNOCKOUT DRUMS, ABSORBER OUTLET, 4' ID X 9' H. WITH TWO COALESCING FILTERS (ONE STANDBY).
5. TWO SPILLBACK BLOWERS (ONE STANDBY).
6. CHEMICAL FEED SYSTEM CONSISTING OF THREE POLYETHYLENE CHEMICAL ADDITIVE DRUMS, ONE 3000-GALLON CHEMICAL ADDITION TANK, FOUR PNEUMATIC CHEMICAL TRANSFER PUMPS, AND ONE SUMP PUMP.
7. TWO VENTURI CONTRACTORS.

| | | |
|---|--------------------|-----------------|
| SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT STATIONARY SOURCE COMPLIANCE DIVISION PERMIT APPLICATION PROCESSING AND CALCULATIONS | PAGES | PAGE 2 |
| | APPL NO 516867 | DATE 05/6/11 |
| | PROCESSED BY AM | CHECKED BY |

8. SCRUBBING LIQUOR HEATER, 5,120,000 BTU/HR MAXIMUM.
9. TWO ABSORBERS.
10. TWO OXIDIZERS WITH TWO 60-H.P. RECIRCULATION PUMPS, TWO REGENERATION AIR BLOWERS, AND TWO RECIRCULATION TANKS.
11. TWO PRECIPITATE HOLDING TANKS, 7' ID X 26' H., AGITATED, WITH TWO 5-H.P. PRECIPITATE PUMPS.
12. CENTRIFUGE, 40 H.P.
13. ONE RESLURRYING TANK, 12' ID X 16' H., WITH ONE RESLURRYING MIXER AND TWO DILUTE SLURRY PUMPS, 3 H.P. EACH, ONE STANDBY.
14. CHEMICAL MAKEUP PUMP AND CHEMICAL MAKEUP MIXER.
15. PIPING TO OPERATE TWO TRAINS IN PARALLEL OR SERIES.

BY REPLACING TWO OF THE EXISTING COMPRESSORS WITH 4 NEW COMPRESSORS, AND ADDITION OF ONE GAS HOLDER.

Background:

The above application was filed on 12/7/2010 for modification of the existing Digester Gas Desulfurization System under PO # F38915 issued on 4/17/2001, by replacing the existing compressors with new ones, and adding one gas holder to the existing one. The applicant has revised the existing equipment description in addition to the above modifications. The revised permit (including the above modifications) is as follows:

1. SEVEN (7) COMPRESSORS, 4850 H.P. TOTAL.
2. TWO GAS HOLDERS, LOW PRESSURE, 112,500 CUBIC FEET CAPACITY AND 150,000 CUBIC FEET CAPACITY.
3. KNOCKOUT DRUM, RAW DIGESTER GAS, ABSORBER INLET, 4' ID X 9' H.

| | | |
|---|--------------------|-----------------|
| SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT STATIONARY SOURCE COMPLIANCE DIVISION PERMIT APPLICATION PROCESSING AND CALCULATIONS | PAGES | PAGE 3 |
| | APPL NO 516867 | DATE 05/6/11 |
| | PROCESSED BY AM | CHECKED BY |

4. TWO KNOCKOUT DRUMS, ABSORBER OUTLET, 4' ID X 9' H. WITH TWO COALESCING FILTERS (ONE STANDBY).
5. TWO SPILLBACK BLOWERS (ONE STANDBY).
6. CHEMICAL FEED SYSTEM CONSISTING OF THREE POLYETHYLENE CHEMICAL ADDITIVE DRUMS, ONE 3000-GALLON CHEMICAL ADDITION TANK, FOUR PNEUMATIC CHEMICAL TRANSFER PUMPS, AND ONE SUMP PUMP.
7. TWO VENTURI CONTRACTORS.
8. SCRUBBING LIQUOR HEATER, 5,120,000 BTU/HR MAXIMUM.
9. TWO ABSORBERS.
10. TWO OXIDIZER TANKS WITH ASSOCIATED REGENERATION AIR BLOWERS.
11. TWO RECIRCULATION TANKS WITH ASSOCIATED PUMPS.
12. TWO PRECIPITATE HOLDING TANKS, 7' ID X 26' H., AGITATED, WITH ASSOCIATED PUMPS.
13. CENTRIFUGE, 40 H.P.
14. ONE RESLURRYING TANK, 12' ID X 16' H., WITH ONE RESLURRYING MIXER AND ASSOCIATED SLURRY PUMPS.
15. CHEMICAL MAKEUP PUMP AND CHEMICAL MAKEUP MIXER.

Process Description

For detailed process description, please see the attached copy of the previous evaluations.

The operating schedule for the above system is 24 hrs per day, 7 days per week, and 52 wks/yr.

| | | |
|---|--------------------|-----------------|
| SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT STATIONARY SOURCE COMPLIANCE DIVISION PERMIT APPLICATION PROCESSING AND CALCULATIONS | PAGES | PAGE 4 |
| | APPL NO 516867 | DATE 05/6/11 |
| | PROCESSED BY AM | CHECKED BY |

Emissions:

There is no emissions increase due to the above modifications.

Note: The ROG emissions reported in the P/O # F38915 will be reported in the NSR for this application.

Health Risk Analysis:

There is no emissions increase due to the above modifications. Therefore, no risk analysis is required.

Note:

The facility is in compliance with MICR for less than 10×10^{-6} .

Evaluation

Rule 212: This is not a significant project. There are no schools within 1000 ft. of the facility. There is no emissions increase due to the above modifications. Public notice is not required.

Rule 401: Visible Emissions
No violations are expected.

Rule 402: Nuisance
Nuisance is not expected.

Reg. XIII:
Modeling: Modeling for VOC is not required.
Offsets: Emissions of criteria pollutants are less than 22 lbs/day or 4 tons/yr. Therefore, offsets are not required.

Rule 1401: There is no emissions increase due to the above modifications. Risk analysis is not required (see Health Risk Analysis)

Rule 1401.1: This facility is not a new facility. Not subject to this rule.

| | | |
|---|---------------------------|------------------------|
| SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT STATIONARY SOURCE COMPLIANCE DIVISION PERMIT APPLICATION PROCESSING AND CALCULATIONS | PAGES | PAGE 5 |
| | APPL NO 516867 | DATE 05/6/11 |
| | PROCESSED BY AM | CHECKED BY |

Conclusions and Recommendations

The equipment is in compliance with the Rules and Regulations of the AQMD. A Permit to Construct/Operate is recommended. For Permit Conditions please see Sample Permit.