

DANIEL COMPANY

Fiberglass Air Pollution Control Systems

Rev. 4.13

REFERENCE LIST

Biological Odor Control Systems:

The following is a partial list of biological odor control systems manufactured and system-integrated by Daniel Company with associated references. More references are available upon request.

1. Owner City of Los Angeles, CA
Project Name **La Cienega and Jefferson Air Treatment Facility (Installed ~ 2009)**
Contact Adel H. Hagekhalil
City of Los Angeles Department of Public Works Bureau of Sanitation
Assistant Director of Bureau of Public Works
Ph: (213) 485-2210

System Description a. Five systems each at 4,000 CFM (20,000 CFM Total)
b. Inlet H2S Loading: 150 ppm
(See Picture #2)

2. Owner City of Los Angeles, CA
Project Name **North Central Outfall Sewer Air Treatment Facility (Installed ~ 2009)**
Contact Adel H. Hagekhalil
City of Los Angeles Department of Public Works Bureau of Sanitation
Assistant Director of Bureau of Public Works
Ph: (213) 485-2210

System Description a. Three systems each at 3,333 CFM (10,000 CFM Total)
b. Inlet H2S Loading: 150 ppm
(See Picture #3)

3. Owner Orange County Sanitation District, CA
Project Name **P2-66 – Plant 2 Headworks Replacement (Installed ~ 2007)**
Contact Khalil Kairouz - Carollo Engineers
Ph: (714) 540-4300

Carla D. Dillon - Orange County Sanitation District
Sulfide & Odor Control
Ph: (714) 593-7371

System Description System #A: Headworks System
a. 188,300 CFM air flow rate. Thirteen BTF systems each at 18,830 cfm
b. Pressure drop: 6-8 inches water column
c. 2 seconds retention time
d. Bed depth: 9 feet
e. Media material: Juergen Loy's foam
f. Biotower is humidified through a recirculation pump with makeup water

System #B: Trunkline System
a. 40,000 CFM air flow rate. Three systems each at 13,333 cfm
b. Pressure drop: 6-8 inches water column
c. 2 seconds retention time

- d. Bed depth: 9 feet
- e. Media material: Juergen Loy's foam
- f. Biotower is humidified through a recirculation pump with makeup water
(See Picture #5)

4. Owner City of Richmond, VA
 Project Name **Richmond Treatment Plant NRP-3 (Installed ~ 2011)**
 Contact Kurt Stykemain - Greeley and Hansen
 Ph: (804) 204-2402
 System Description 15,000 CFM air flow rate. Two systems each at 7,500 CFM
 (See Picture #1)

5. Owner City of Lubbock, TX
 Project Name **SEWRP Digesters 8 and 9 Improvements (Installed ~ 2012)**
 Contact Kyle McCoy - Plant Operation Manager
 Ph: (806) 775-2620
 Jason Anderson - Carollo Engineers
 Ph: (512) 453-5383
 Email: JAnderson@carollo.com
 System Description System: 6,400 cfm
 (See Picture #4)

6. Owner City of Sunrise, FL
 Project Name **Sawgrass WWTP Headworks Improvements (Installed in 2014)**
 Contact Eli Tilen - Brown and Caldwell
 Ph: (305) 704-4423
 Email: ETilen@Brwnncald.com
 Carl Thompson - Plant Manager
 Ph: (954) 888-6003
 System Description System 1: 10'Ø Vessel @ 4,855 cfm
 System 2: 10'Ø Vessel @ 4,855 cfm
 (See Picture #7)

7. Owner City of Corpus Christi, TX
 Project Name **New Broadway WWTP (Installed ~ 2012)**
 Contact Lasaro Olivares
 Ph: (361) 960-1248
 System Description System 1: 2,700 cfm
 System 2: 2,700 cfm

8. Owner Trinity River Authority of Texas
 Project Name **Central Regional Wastewater System - Solids Management Improvements Phase I (Current Project)**
 System Description System: 14,300 cfm

9. Owner City of McAllen, TX
 Project Name **Balboa Lift Station Upgrade (Installed in 2015)**
 Contact Jason Anderson - Carollo Engineers

Ph: (512) 453-5383
Email: JAnderson@carollo.com

System Description
Julio Oviedo - Owner
(956) 681-1755
System 1: 3,500 cfm
System 2: 3,500 cfm
(See Picture #6)

10. Owner City of Hillsboro, OR
Project Name **Rock Creek Advanced WWTF Gravity Thickener (Installed in 2015)**
Contact Monica Keenan - James W. Fowler Company
Ph: (503) 507-0342
System Description System 1: 1,200 cfm
System 2: 1,200 cfm
(See Picture #8)

*12. Owner Los Angeles County Sanitation District, CA
Project Name **Valencia Water Reclamation Plant (Installed ~ 2002)**
Contact Robert Morton - Sr. Engineer
24501 S. Figueroa
Carson, CA 90745
Ph: (310) 830-2400
System Description a. 12,000 CFM air flow rate
b. Average inlet H₂S concentration: 20 ppm
c. Over 5 years in operation

*13. Owner Los Angeles County Sanitation District, CA
Project Name **Saugus Water Reclamation Plant (Installed ~ 2003)**
Contact Robert Morton - Sr. Engineer
24501 S. Figueroa
Carson, CA 90745
Ph: (310) 830-2400
System Description a. 16,000 CFM air flow rate
b. Average inlet H₂S concentration: 30 ppm
c. Over 5 years in operation

*14. Owner Los Angeles County Sanitation District, CA
Project Name **L.A. County Joint Water Pollution Control Plant (Installed ~ 1995)**
Contact Robert Morton - Sr. Engineer
24501 S. Figueroa
Carson, CA 90745
Ph: (310) 830-2400
System Description Test unit. 1,500 CFM full scale system

*15. Owner City of Livermore, CA
Project Name **Livermore Water Reclamation Plant (Installed ~ 2000)**
Contact Ralph Olson and Kevin Kepler
Sr. Engineer and Sr. Operation Manager
101 W. Jack London Blvd
Livermore, CA 94559
Ph: (925) 960-8100

System Description

- a. 7,000 CFM air flow rate
- b. Average inlet H₂S concentration: 40 ppm
- c. Over 15 years in operation

* Systems featuring GES Technology.

More references are available upon request.

Photos of Daniel Company's Biological Odor Control Systems:



Picture #1: Richmond Treatment Plant, NRP-3 Project - Richmond Virginia



Picture #2: La Cienega and Jefferson Air Treatment Facility - Los Angeles California



Picture #3: North Central Outfall Sewer Air Treatment Facility - Los Angeles California



Picture #4: City of Lubbock, TX



Picture #5: P2-66 – Plant 2 Headworks Replacement - Huntington Beach California



Picture #6: Balboa Lift Station - McAllen Texas



Picture #7: Sawgrass WWTP - Sunrise Florida



Picture #8: Rock Creek WWTF - Hillsboro Oregon