



Case Study WTP #1

Liquid Oxygen Supply
For Ozone Generation

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Highlights:

Location — Las Vegas, Nevada

Scope of Project:

- Engineering & Project Management to support design
- On-site support & startup
- (2) 13,000 gal LOX storage tanks
- (2) Ambient Air Vaporizers
- Vaporizer Switching Manifold
- Downstream Pressure Manifold
- Flow spec: 30,000 SCFH, 24 hour duty
- 316/L stainless steel piping
- 316/L stainless steel valving
- Project Completion: 2013

Application:

A water treatment plant located in Nevada used to treat the water for Clark County. The oxygen system was used to provide gaseous oxygen to the ozone generators. The design of the system was to accommodate a future build-out for tanks and vaporizers.

Project Background:

The project was a public bid that had Chart Industries in the specification. The general contractor approached Chart with the specifications. It was recommended by Chart that we procure and fabricate all the large bore piping to reduce field installation. By doing this, Chart took the responsibility of the vendor coordination, reducing the general contractor's resource requirements.

Significant Accomplishments:

Providing equipment per the engineer's specifications for capacity, material requirement, cleanliness, flow requirements and seismic per Nevada seismic requirements. Taking the responsibility of fabricating the GOX Pressure Manifold greatly reduced the amount of field installation required for this project.

System Configuration:

Chart's two horizontal 13,000 gal vessels with brass/bronze plumbing. Vessels included tank mounted pressure & level transmitters. Chart also included ambient vaporizers rated for 30,000 SCFH each. The GOX Pressure Manifold was 8" SCH40 SMLS piping with butterfly valves mounted to electric actuators as well as temperature transmitters. The GOX manifold included a 316 stainless regulator and was skidded to a stand.

"Just wanted to drop you a note and let you know that Chart has been very helpful to the McCarthy team at AWT. When my Mechanical Manager was out of town, Chart was more than happy to jump in and help out. I just want you to know that your efforts are recognized by McCarthy. We need more vendors and subcontractors that want to and are willing to help like Chart."

Brandon Moon
McCarthy Building Companies, Inc.

