



Air Purification Technology

*Removing odor, corrosion, airborne dust and VOCs
at wastewater treatment and industrial facilities*

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Greetings!

PALM VALLEY WRF: 5 YEARS, NO ODORS, \$1MM SAVINGS

Aerisa bipolar ionization systems installed in 2009 to treat severe odor and corrosion problems at the Palm Valley Water Reclamation Facility (PVWRF) in Goodyear, AZ continue to deliver five years later with no breakdowns and only minimum maintenance. **The Aerisa technology proved significantly less expensive to install and to operate than traditional chemical scrubbers, while odor complaints from the public have dropped to zero.**

"I haven't had any odor complaints for well over three years," reports Matthew Garlick, Director of Arizona Operations for Liberty Utilities. "This is amazing when you realize there are homes on one side within 170 feet of our building."

The PVWRF is located adjacent to a golf course residential community. The facility was designed to utilize a minimum footprint through the construction of equipment and administration buildings on top of below-grade process basins. Unfortunately, the original two chemical scrubbers proved insufficient, and after odor complaints from the public continued, a third polishing scrubber with carbon was added. However, moisture-laden air with highly corrosive constituents continued to visibly damage equipment in the headworks room.



Exhaust Air Handler with Ionizer Section

An initial solution proposed to PVWRF was to triple the size of the chemical scrubber system to 45,000 SCFM. Instead, Brian McBride P.E., now with AMEC, recommended to dedicate the existing systems to a smaller application, the process basin headspace. McBride then **recommended Aerisa ionization systems for the headworks and dewatering buildings.** The resulting solution for each building included one supply ionization air handler, two exhaust ionization air handlers, transitional ductwork and ion distribution ductwork.

Unlike legacy odor control systems that utilize chemicals, carbon or biological media to scrub air exhausted out of a building or headspace, ionization systems supply highly-ionized air (i.e., with O_2^+ , O_2^- ions) to proactively attack the contaminants at their source while vastly improving in-area working conditions. As a second purification step, outside air may be ionized and mixed with pre-treated facility air to deliver high-quality exhaust.

Projected to save \$1MM over five years compared to the chemical scrubber alternative, the Aerisa systems were fast-tracked by PVWRF. Before implementation of the Aerisa system, the headworks H_2S levels routinely measured up to 20 ppm. Post-installation testing performed showed almost uniform non-detect levels of H_2S inside and outside the buildings.

Corrosion in the headworks building is no longer apparent. "Corrosion was such a problem five years ago I hired a structural engineer to make sure the roof hadn't gone," Matthew Garlick says. "But today we have no rusting."

Garlick also recently confirmed that the Aerisa system has continued to function without interruption for the past five years.

Consistent operation and huge savings have allowed McBride to state, "Aerisa's ionization

technology should be used in many more places--it works!"



Supply Air Handler with Ionizer Section

Come See Us In Miami to Win Your Own System

We're proud to announce that Aerisa will be exhibiting at the 2014 [WEF Odors and Air Pollutants Conference](#) in Miami, Florida, on June 1st and 2nd.



Every two years, the WEF Conference brings together environmental professionals from around the world for a showcase on odors and air pollutants management. This year's conference is intended to encourage the use of effective and innovative technologies such as Aerisa's bipolar ionization!



Stop by and visit Aerisa at booth #218. We will have odor and corrosion control equipment on display for you to view. **And we'll also hold a drawing for booth attendees to win one of several whole-house ionization air purification systems.**

To put Aerisa's revolutionary odor control technology to work for you and your company, please visit [Aerisa.com](#) or call us.

Sincerely,

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