



Albuquerque Bernalillo County Water Utility Authority

NEWS RELEASE

Water Authority Breaks Ground on New Environmentally Friendly Ultraviolet Disinfection System at Southside Water Reclamation Plant

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ALBUQUERQUE, SEPT. 17, 2009—The Albuquerque Bernalillo County Water Utility Authority today broke ground at its Southside Water Reclamation treatment plant on a new state-of-the-art ultraviolet (UV) disinfection system that is environmentally friendly. The \$7.4 million project will replace the potentially hazardous chlorine gas disinfection process currently used to treat water before it is discharged into the Rio Grande. The project will take approximately one year to build.

“Currently we use chlorine gas to disinfect our effluent, or outflow,” said Jeffrey Romanowski, Southside Reclamation Plant manager. “While plant staff members have done a great job of maintaining the system, handling bulk chlorine poses significant risks. With UV, we can eliminate both the chlorine and sulfur dioxide chemical systems. Plus, ultraviolet disinfection has a proven track record. UV disinfection systems are currently being used in more than 20 percent of wastewater treatment plants in North America.”

Art De La Cruz, a Water Authority Board Member and Bernalillo County Commissioner whose district includes the Southside Treatment Plant, was actively involved in planning for the upgrade. “This is a true benefit to our community,” he said. “The new UV system is better all the way around – for the Plant’s neighbors and for those who depend on the Rio Grande. We are very excited that this significant upgrade will soon become a reality.”

Ultraviolet (UV) light at specific wavelengths between 200 and 300 nanometers (billionths of a meter) disinfects water by instantly destroying the genetic material (DNA) within viruses, bacteria and chlorine-resistant protozoa. This eliminates their ability to reproduce. Unable to multiply, the microorganisms die.

UV disinfection is simple, chemical-free and extremely safe. It does not require special staff training, certification or emergency response and evacuation plans. Also, unlike chlorine, UV cannot be overdosed and does not create any potentially harmful byproducts.

The first phase of the project was selection of the correct ultraviolet disinfection system for the Southside Reclamation Plant. The Water Authority went through a request for proposal process to select the disinfection equipment to meet their needs.

The system selected for the project, the TrojanUV3000Plus™, is currently in use at more than 1,000 facilities worldwide. It is a reliable, user-friendly system that is cost effective to operate and maintain, and that maximizes UV lamp output. Trojan Technologies, the company that makes the system, said its UV lamps deliver 98 percent of full UV output after more than one year of use and have 20 percent less decline in output after 12,000 hours of use compared to competitive UV lamps.

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Romanowski explained that the system was also selected because “it is a very flexible and modular and will fit well within the existing Plant’s footprint.”

The UV disinfection project includes the following components:

- Construction of a 3,172 square foot building to house the new system that will match the Plant’s existing architecture;
- Demolition of an old aeration basin that is no longer needed;
- Installation of junction boxes to tie the new system into existing pipes; and
- Installation of an emergency generator.

The new system will handle an average water flow of 76 million gallons per day with capacity to handle a peak water flow of 120 million gallons per day. Currently, the Southside Water Reclamation Plant treats about 55 million gallons of water a day.

CH2M HILL, Inc. is the engineering consulting firm that prepared the design and is currently assisting with services during construction. Albuquerque-based RMCI, Inc. is the general contractor for the project. McDade Woodcock, Inc., which is based in Albuquerque and also has offices in Colorado, will handle the electrical work.

Romanowski said, “We’re excited that the project is underway, and look forward to being able to upgrade our water disinfection capabilities with a system that is inherently safe and environmentally friendly.”

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