Customer Message

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CRRUA Completes Media Filter Replacement at Arsenic Treatment Facilities

The Camino Real Regional Utility Authority (CRRUA) has completed an initiative to increase the efficiency of the arsenic removal process and ensure the continued delivery of consumable water that meets government standards at two of its arsenic treatment facilities (ATF.) CRRUA provides water and wastewater services to Sunland Park and Santa Teresa, NM.

Eric Lopez, NM certified Level 4 Operator in water and wastewater for CRRUA, reported that filter media replacement at the Sunland Park ATF was successfully completed on September 5, 2024. Media filter replacement at the Santa Teresa Industrial Park (STIP) ATF was completed on July 27, 2024.

"The overall rehabilitation and filter media change-out project of the Sunland Park and STIP ATFs is now 100% complete and both systems are 100 % operational," Lopez said. The STIP has three filter chambers, and the Sunland Park ATF has two.

"Filter media consists of varying sizes of river rock, sand and anthracite coal," said Paul Cashion of South Carolina-based C & C Environmental Services that is replacing the filter media. "The media is placed in the filter chambers in layers with the anthracite coal at the top followed by a layer of sand then varying sizes of river rock. As water flows through the layers of rocks, it loosens the arsenic, trapping it in the sand. The sand is then removed and properly disposed of."

Cashion said each chamber uses 12,800 pounds of sand, 8,050 pounds of stones and 4,394 pounds of anthracite coal. "Anthracite coal is part of the filtration process. It also helps with the taste of the water and controls odors."

"The arsenic removal process using this media is equivalent to the way river water is purified in nature as it flows over rock, gravel, and sand, Cashion said. "It's a process used to remove naturally occurring arsenic in treatment facilities across the country."

In addition to filter media replacement at the Sunland Park ATF, Lopez said header lines were repaired, a three-layer protective coating was applied to the inside of the chambers to help guard against corrosion and tank drains were replaced. Those drains were identified in the New Mexico Environment Department's 2023 Sanitary Survey of CRRUA as needing replacement. CRRUA is currently 70% compliant in correcting the deficiencies.

Lopez said during the filter media replacement at the Sunland Park ATF, arsenic field tests were completed daily to ensure that CRRUA remained within the Environmental Protection Agency's drinking water Maximum Contaminant Level (MCL) of 10 parts per billion (ppb.) Lopez also said the chambers were backwashed (flushed) and Bacteriological Tests (Bac-T) were taken to ensure they were free from bacterial contamination before returning to service.

"I identified this project as a priority when I took over this past January and fast-tracked it," said Juan Crosby, CRRUA executive director. "In March, the CRRUA board of directors approved $444,000 in reserve funds for filter media replacement at the two ATFs."

Since January 24, 2024, CRRUA has passed 12 arsenic water tests, including a New Mexico Environment Department's quarterly test and CRRUA's voluntary monthly tests last taken in August 2024.

A video produced by CRRUA on the arsenic removal process is available on the CRRUA YouTube channel at https://www.youtube.com/watch?v=Bp9BTFDj2Cg

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