

DDJC drinking water system is in compliance with new EPA standard

By Doug Imberi, DDJC Public Affairs

Defense Distribution Depot San Joaquin, Calif.'s (DDJC), Sharpe site's drinking water system is in compliance with the new Environmental Protection Agency (EPA) standard for arsenic in drinking water.

DDJC's Environmental Office spearheaded the effort to modify the current water system and, at the same time, achieved an estimated \$1 million in cost avoidance. The new standard became effective January 23, 2006.

The modification was a direct response to the EPA's new standard for arsenic levels in drinking water that changed from the old standard of 50 parts per billion (ppb) to 10 ppb. Arsenic is a naturally occurring mineral found in aquifers that provide drinking water at the Sharpe site. Typically, arsenic levels average 25 to 30 ppb in the unfiltered water.

DDJC's Environmental Office placed a carbon filter on the drinking water well head, and since that time, arsenic levels can no longer be detected.

DDJC is comprised of two sites – Sharpe and Tracy. Arsenic is not found in Tracy drinking water.

DDJC explored several different options to bring the Sharpe site into compliance. They asked the U.S. Army Center for Health and Promotion and Preventative Medicine to survey the water distribution system at Sharpe. After their survey, they suggested an ion exchange system to satisfy the requirement. The cost was estimated to be \$1.2 million.

"This put the project into the MILCON range which takes years to fund and next to impossible to accomplish by the January 23 deadline," said Maurice Benson, DDJC's drinking water program manager.

This required the environmental office to seek additional alternatives. They looked into utilizing an existing connection to the City of Lathrop's water distribution system which would have resulted in purchasing water from the city. Unfortunately, that could not be arranged fast enough to meet the deadline. Other alternatives were to lease a portable system, or trucking

DDJC Tracy water to the Sharpe site.

During this time, a Granular Activated Carbon (GAC) water treatment system which was being used to treat groundwater for volatile organic compounds was getting ready to cease operations at DDJC Tracy.

Quick thinking on the part of the environmental office led them to consult with the manufacturer of the system to find out if it could be adapted to treat drinking water for arsenic.

The answer was yes and it would cost about \$250,000. Quickly, DDJC had to remove the GAC from the vessels, build a concrete pad and modify piping at Sharpe, move the filter vessels to Sharpe, install them, and fill the vessels with a different filter media to get the system in operation.

"We did this all in about three weeks which was a miracle in itself," said Benson. "It took a combined effort by our environmental and engineering staffs, the Army Corps of Engineers, crews from URS Corp., and Baker Tank to pull this off in time. As far as I know, we are the only water system in the region with an operable arsenic treatment system and one that was compliant with the regulations by January 23, 2006."

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