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Results in Brief and Effect

We identified deficiencies in water operations at three contractor-operated facilities and two military-operated facilities, and in the oversight of those operations. Contractors provided bottled drinking water and bulk water³ to U.S. forces. Military water purification units only provided bulk water.

From March 2004 to February 2006, the quality of water provided by contractors, through treatment or distribution at three of the sites we visited, was not maintained in accordance with field water sanitary standards as specified in the Department of Army, Technical Bulletin (Medical) 577, "Sanitary Control and Surveillance of Field Water Supplies," March 1986, with revision December 15, 2005 (TB MED 577).⁴ Although required, KBR did not maintain the quality of the water it distributed to point-of-use storage containers at Camp Ar Ramadi, Camp Q-West, and Camp Victory. Additionally, at Camp Q-West, KBR improperly provided chlorinated wastewater from its Reverse Osmosis Water Purification Unit (ROWPU) to personal hygiene facilities.

During the time we reviewed water operations, from January 2004 through December 2006, the military processes for providing potable and nonpotable water did not always meet field water sanitary control and surveillance requirements as required by TB MED 577. Specifically, operators of the military water production sites we visited were not performing all required quality control tests nor did they maintain appropriate production, storage, and distribution records.

Because of corrective actions taken, contractor processes for providing potable and nonpotable water were adequate as of November 2006 when internal quality control procedures and DoD oversight were in place to provide quality assurance for the processes of water production, production site storage, distribution, and storage at point-of-use facilities. However, military water purification units at LSA Anaconda and Camp Ali did not perform required quality control tests and did not maintain appropriate records of water produced, stored, and issued during the period reviewed. Therefore, water suppliers exposed U.S. forces to unmonitored and potentially unsafe water. Although there was no way to determine whether water provided by the contractors and military water purification units caused disease, contractors and military units responsible for water operations must always ensure that water provided to the forces meets all established standards and is safe to use.

³ Bulk water refers to potable or nonpotable water not packaged for individual use that is transported from large storage containers (50,000 gallons) at the production site to smaller common point-of-use storage containers of various sizes.

⁴ During the audit scope (from January 2004 through December 2006) the Army updated TB MED 577. Unless otherwise specified, all references here to TB MED 577 refer to the December 2005 version.