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Results and Effect on Operations

We identified deficiencies in water operations at three contractor-operated facilities and two military-operated facilities and in the oversight of those operations. On three occasions, the quality of water provided by contractors, through treatment or distribution, was not processed 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," December 15, 2005. This occurred because KBR did not implement established water quality monitoring controls. Specifically:

- KBR did not perform water quality tests on the water it stored in point-of-use containers at Camp Ar Ramadi from October 13, 2004, to May 26, 2005.
- KBR improperly applied Army field water standards governing the process for purification wastewater disposal and source water selection at Camp Q-West from March 14, 2004, through February 3, 2006.
- KBR did not perform water quality tests on the water it stored in point-of-use containers at Camp Victory from November 2004 to February 2006.

Additionally, as of March 4, 2007, KBR had not established or disseminated standard emergency response procedures to comply with contract requirements for reporting compliance violations. Noncompliance with the established controls resulted in water of unknown quality being used for personal hygiene by U.S. forces on Camp Ar Ramadi (approximately 7,300 personnel) and water purification facility wastewater being used in personal hygiene units at Camp Q-West (approximately 5,000 personnel).

During the time of our review, 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 were not performing all required quality control tests nor did they maintain appropriate production, storage, and distribution records. This occurred because the military also did not implement established water quality monitoring controls. Specifically:

- Military water purification operators at Camp Ali did not fully understand which tests were needed at the production site and how often to conduct them.
- Military water purification operators at Camp Ali and LSA Anaconda did not possess the Water Quality Analysis Set-Purification equipment needed to perform the required tests.⁵

MNF-I water operations were deficient in the areas of oversight, quality control, recordkeeping, and troop education. Examples include:

⁵ Operator requirements include testing for water temperature, total dissolved solids, turbidity, chlorine residual, and pH (TB MED 577, Chapter 8, paragraph 8-7. a.).