

Contract Summary

Contract: INDEFINITE QUANTITY CONTRACT FOR FFP DESIGN AND PROFESSIONAL ENGINEERING SERVICES REQUIRED FOR COMPLIANCE WITH DRINKING WATER AND AIR EMISSION REGULATIONS (N64270-06-D-7103)

Location: NAVFAC Atlantic Area of Responsibility

Client: NAVFAC Atlantic

Value: \$5,000,000

Scope: Initial Distribution System Evaluations; Vulnerability Assessments; Water System Audits; Cross-Connection/Backflow Prevention Survey; Water Conservations Studies; Unidirectional Flushing Programs; Training;

Date: 2006-2012

Background

AH Environmental Consultants was awarded by the United States Naval Facilities Engineering Command (NAVFAC) Atlantic a 5-year, \$5M IDIQ, to provide Safe Drinking Water Act (SDWA) compliance services by the United States Naval Facilities Engineering Command (NAVFAC) Atlantic. Examples of SDWA compliance assignments completed by AH for NAVFAC Atlantic customers include the projects below.

Potable Water System Vulnerability Assessment for U.S. Naval Medical Research Unit No. 3 (NAMRU 3), Cairo, Egypt



AH was tasked by NAVFAC Atlantic to conduct a sanitary survey and vulnerability assessment and develop a response plan for the drinking water system at NAMRU 3. A sanitary survey is an on-site review of the source water, facilities, equipment, operation procedures, preventive and routine maintenance programs and monitoring compliance. The overall goal is to provide an evaluation of the adequacy the source, facilities, equipment, operation and maintenance for producing and distributing safe drinking water. The result of the study was a comprehensive report that presented the findings of the sanitary survey and included planning level costs for all recommended

corrective actions. Additionally, AH provided a vulnerability assessment and emergency response plan as separate submittals.

Water System Audit, Portsmouth Naval Hospital, Portsmouth, VA

The Naval Facilities Engineering Command, Atlantic Division (NAVFAC ATLANTIC) contracted AH to conduct a water audit in order to develop reliable estimates of the quantity and quality of potable water required by various hospital functions at Naval Medical Center Portsmouth (NMCP), Portsmouth, Virginia. The purpose of this project was two-fold; (1) to provide information that would be used to modify NMCP's existing



emergency response plan to better address necessary actions in the event of loss of potable water supply and (2) to function as a pilot study of methods that could be used to perform



similar hospital water audits at other Naval Medical Facilities. AH provided a comprehensive report that contained information that contained potable water usage details, identification of critical areas of potable water demand, and assisted in the development of an emergency water conservation component of the existing emergency response plan. The emergency water conservation component was designed to restrict the use of available water to

critical areas during a loss of potable water supply. These temporary water restrictions and recommended water conservation measures would help conserve and extend the amount of time that NMCP's stored water supplies could sustain identified patient life-support functions and other essential needs until normal water service was restored.

Naval Support Activity Naples, Italy

AH completed a Cross Connection Control/Backflow Prevention Survey and a Water Conservation Study for NSA Naples' activities. These activities included NSA Capodichino, NSA Gaeta, NSA Carney Park and NSA Gricignano. AH recently provided onsite engineering assistance to NSA Carney Park to ensure a reliable potable water supply.

Wastewater Treatment Plant Operator's Training at NAS Sigonella, Italy

AH presented a 4-day on-site WWTP Operators Training Course. This training covered both theoretical and practical aspects of the WWTP operations and maintenance. The course was instructed in both English and Italian (in separate class rooms). Four-day instruction was presented in each language and covered an Introduction to Wastewater Treatment, Wastewater Collection and Preliminary Treatment, Primary, Secondary, and Tertiary Treatment, Sludge Handling, Disinfection, and Tools for Wastewater Treatment and Control.

Operations Assistance and Treatment Plant Evaluations

AH has provided on-site operations assistance and treatment plant evaluations for the reverse osmosis treatment plants at NSA Capodichino and NAS Sigonella, Italy and NSA Bahrain.

Development and Implementation of the Initial Distribution System Evaluation (IDSE) for the Stage 2 Disinfection By-Products Rule, Marine Corps Base Camp Lejeune, NC

AH developed and implemented an IDSE for five of the Marine Corps Base (MCB) Camp Lejeune water systems (Hadnot Point, Holcomb Boulevard, New River, Rifle Range, and Courthouse Bay) as part of Stage 2/DBP Rule compliance. AH reviewed the existing water distribution system information for each of the water supply systems, made a preliminary selection of IDSE monitoring locations and conducted field visits to visually inspect potential monitoring locations and make final selection of IDSE monitoring locations for sampling. AH then developed an IDSE plan for each water system in accordance with the Stage 2 DBPR requirements. After the approval of this plan by MCB Camp Lejeune and the North Carolina Department of Environment and Natural Resources (NCDENR), AH provided MCB Camp Lejeune with three days of onsite assistance in implementing the IDSE sampling. Finally, the IDSE sampling results provided by MCB Camp Lejeune were evaluated to select the Stage 2 DBPR monitoring locations.

Unidirectional Flushing Programs (UDF)



As part of the continuing efforts to provide effective distribution system water quality control, AH developed UDF programs for Naval activities throughout the Mediterranean area of operations including Spain, England, Italy and Greece.

AH recently completed a UDF guidance document for the Norfolk Naval Shipyard in Portsmouth, VA. This document serves as a guidance manual for the development, implementation and maintenance of the unidirectional flushing program at Norfolk Naval Shipyard. As part of this project, AH was tasked with providing Step-by-step flushing procedures for the facility.

Evaluation of Filter Backwash Recycle and Process Control Alternatives, MCAS Cherry Point, NC

The Marine Corps Air Station (MCAS) Cherry Point owns and operates a 6-million gallon per day (MGD) capacity water treatment plant (WTP) that receives groundwater exclusively from 26 active wells located within the MCAS fence line. The WTP was constructed in 1994 and comprises the following processes: aeration, precipitative softening and ozonation, followed by granular media filtration and chlorine disinfection. As operated, the filter backwash water was conveyed to a holding tank, which was subsequently discharged to the sanitary sewer. In addition, due to control limitations, there were periods of time when WTP production was greater than demand and the excess water overflowed to a clearwell. This overflow from the clearwell was wasted to the storm water collection system. AH was contracted to evaluate the feasibility of implementing recycling of the filter backwash water as part of the effort to reduce water consumption at MCAS Cherry Point in compliance with Executive Order 13423. Executive Order 13423 dated January 24, 2007, mandates a 16 percent reduction in water consumption by 2015 for government agencies. Water consumption during FY 2007 was used as the baseline. The Executive Order requires agencies to achieve the 16 percent reduction by 2015 with a 2 percent annual reduction goal. AH provided



recommendations to eliminate spills and overflows at the WTP along with planning level costs to implement the recommendations.

Water Conservation Plan, MCB Camp Lejeune, NC

AH Environmental Consultants (AH) was contracted by the Naval Facilities Engineering Command (NAVFAC) Mid Atlantic to prepare a Water Conservation Plan (WCP) for Marine Corps Base Camp Lejeune (MCB Camp Lejeune), North Carolina. The WCP also included Marine Corps Air Station New River (MCAS New River). The WCP was developed to address the water conservation-related elements of the Energy Policy Act of 1992 and Executive Order (EO) 13423. EO 13423 outlines the policies and procedures federal agencies will adopt to accomplish goals relating to energy efficiency, water conservation, and the use of renewable energy products. The WCP presented recommendations for water conservation projects and opportunities based on the water consumption information collected during water audits of approximately 350 facilities at MCB Camp Lejeune. The WCP included data, findings, and recommendations for the audited facilities comprising approximately 9,850,000 square feet of floor space

