

CONTRACT NAME:	Safe Drinking Water Act and Clean Air Act Compliance		
CUSTOMER	NAVFAC Atlantic		
CONTRACT NUMBER:	N62470-06-D-7103	CONTRACT PERIOD OF PERFORMANCE	1999 - CURRENT
CONTRACT VALUE	\$5M	CONTRACT TYPE:	IDIQ FFP

Contract Summary:

AH Environmental Consultants is currently working under a second 5-year, \$5M IDIQ contract to provide Safe Drinking Water Act and Clean Air Act compliance services. All task orders were completed within approved schedule and budget. AH has provided drinking water support to NAVFAC Atlantic customers since 1999. AH provides specialized engineering studies and analysis to assist Naval installations in providing safe drinking water to their customer, optimize operation of water distributions and treatment systems, water audits, cross connection control/backflow prevention surveys, engineering options evaluations for expansion of water systems to meet the Marine Corps’ Grow the Force initiative, and safeguard the water system by conducting water system vulnerability assessments and emergency response plan. AH updated an air emission inventory and provided training maintenance staff on ozone depleting substance.

Air Emission Inventory, Naval Support Activity Naples:

AH managed a subcontractor that updated an air emission inventory at Naval Support Activity, Naples. The project involved conducting a site survey of stationary source emitting units, photographing and labeling all emitting units with appropriate information, developing emission estimates, conducting a compliance review, and preparing a draft and final emissions report.

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 for the Norfolk Naval Shipyard in Portsmouth, VA.

Air Emissions Inventory, Norfolk Naval Shipyard, Portsmouth, VA:

AH managed a subcontractor that updated an air emission inventory at this large naval facility. The project involved conducting a site survey of stationary source emitting units, photographing and labeling all emitting units with appropriate information, developing emission estimates, conducting a compliance review, and preparing a draft and final emissions report.

Customer Satisfaction

“The consultants performed this task according to the agreed schedule and the quality of the work was excellent.”

Jengfu Chen
Environmental Engineer

“This task is considered a difficult task, because the complexity of the water distribution system at NNSY. However, AH Environmental did a very thorough site verification and provided a good product.”

James F. Harris
Section Head

“AH did a very thorough evaluation on the water distribution system and provided good recommendations.”

Joanne Truong
NTR, Environmental Engineer

Operations Assistance and Water Treatment Plant Evaluations:

AH has provided on-site operations assistance and treatment plant evaluations for the Reverse Osmosis treatment plants at NSA Capodichino and NSA Bahrain as well as facilities at NAS Sigonella. The assistance and evaluations were in response to operational difficulties and treatment plant failures at these facilities.

Sanitary Surveys and Emergency Contingency Plans:

AH has completed sanitary surveys and emergency contingency plans for Naval Support Activities in Bahrain; Rota, Spain; Souda Bay, Crete; Guantanamo Bay, Cuba and Naples, Italy, as well as Naval Air Station Sigonella, Italy. The sanitary surveys evaluate the safety, reliability, and capability of the water source, system vulnerability and security, potable water treatment system, distribution system network including maintenance of residual disinfectant, distribution system storage, water quality monitoring, sampling procedures and overall potable water system management. Emergency Contingency Plans provide guidance to ensure delivery of potable water to key facilities in the event of either natural or intentional service interruptions.

Water Treatment Plant and Process Training:

AH has provided training workshops on water treatment processes and plant operation for the Chief of Naval Operations, NAVFAC Atlantic and CRNE. These workshops were conducted in Naples, Italy; Sigonella, Italy; Rota, Spain; Charleston, SC; and Port Hueneme, California.

Ozone Depleting Substances Compliance Training:

AH managed a subcontractor that provided Refrigerant Compliance Training designed to prepare students to successfully pass the EPA Section 608 Technician Certification Programs. The subcontractor also provided a course on Review of Refrigerant Operations and Maintenance Procedures covering refrigerant recovery/recycling/reclaim, leak detection, handling and disposal of ODS refrigerants.

MCB Camp Lejeune Water Treatment Plant Consolidation Study:

AH developed recommendations for the operation of a consolidated water system, with respect to hydraulic aspects, water quality and supply as well as regulatory issues. Hydraulic modeling exercises showed that one of the systems would have to be operated as a separate pressure zone and that the selected route for interconnecting the systems could result in water quality problems with respect to disinfectant residuals and disinfection byproducts. It was also found that new water sources would have to be developed to offset a decrease in well field capacity.

MCB Camp Lejeune Megaplant Planning Study:

Following the consolidation study described above, AH recently conducted a study to update Camp Lejeune's Long Term Water System Master Plan and prepare the Base for the Megaplant concept. This study identified overall water treatment system deficiencies relative to compliance with pending drinking water regulations and included the development of conceptual designs, and cost estimates for the replacement of the existing plants using lime softening, ion exchange or membrane filtration treatment.

Water System Audit, Naval Medical Center Portsmouth, VA:

As part of an effort to assist in the development of emergency response plans for Navy medical facilities, AH developed working estimates of the quantity and quality of the water requirements of various hospital functions at NMC Portsmouth. The results of this audit were compared to overall water usage as indicated by the master meter records. These results were integrated with existing emergency response plans and other available information to determine critical use areas with recommendations from a utility perspective on how to keep these areas functional in the event of a water outage.



Water System Vulnerability Assessments and Emergency Response Plans:

As part of force protection efforts, AH conducted Vulnerability Assessments and developed Emergency Response Plans for Naval Support Activity, Bahrain, Marine Corps Air Station Cherry Point, MCB Camp Lejeune, and Naval Station Roosevelt Roads, PR.

Cross Connection Control/Backflow Prevention Survey and Water Conservation Study for Naval Support Activity, Naples:

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, Carney Park recreation facility and NSA Gricignano. Conduct Hydraulic Evaluation and Implementation of the Initial Distribution System Evaluation (IDSE) for the Stage 2 Disinfectants & Disinfection By-Products Rule at Marine Corps Air Station Cherry Point, NC

Conduct Hydraulic Evaluation and Implementation of the Initial Distribution System Evaluation (IDSE) for the Stage 2 Disinfectants & Disinfection By-Products Rule at Marine Corps Air Station Cherry Point, NC:

AH conducted a hydraulic evaluation including the development of a hydraulic/water quality model for the MCAS Cherry Point distribution system as part of Stage 2 DBP Rule compliance. In order to meet this objective the following steps/subtasks were performed by AH to develop the model and identify the structural and/or operational changes that were required. AH obtained and reviewed current distribution network maps, storage tank drawings, pump curves, and topographic data. All maps were updated using existing information and drawings. This did not include surveying or field-testing to locate water distribution system components. AH collected current information on water usage in the distribution system, including, but not limited to, available meter data, water conservation records and information on building usage and occupancy. AH collected up to two years of historical water production and chlorine usage data at the WTP and chlorine residual data from monitoring in compliance with the TCR. AH evaluated the existing SCADA system data with respect to its ability to automatically collect applicable tank level, flow rate, pump status and pressure data during the field testing. AH incorporated findings from the historical information in the hydraulic model and performed preliminary simulations for the development of the field test plan. AH developed a field testing program consisting of pipe friction (C-factor) testing, pressure monitoring and a tracer study. C-factor and fire flow testing was performed for up to five days. Five samples of filtered water were collected to determine the bulk chlorine decay coefficients used in the water quality model. Two weeks of distribution system monitoring were performed during which tanks levels, flow

rates and pressures were recorded and fluoride monitoring was performed. The hydraulic and water quality model was calibrated and verified based on the findings from the field testing and extended period simulations were performed to address travel paths and water age at nodes throughout the distribution system, the location of hydraulically locked-out storage tanks and areas of excessive water age, and to evaluate storage facility fluctuations and their impacts on water quality. The findings of the modeling efforts were summarized in a report and recommendations were provided to address deficiencies. A 1.5 day on-site hydraulic model training was conducted for activity personnel.

Once completed, the calibrated model was used as the basis for a System Specific Study to satisfy the IDSE requirements of the Stage 2 DBP Rule. The model was reviewed and revised to conform to the IDSE requirements. The extended period simulation was performed as required by the IDSE, and the modeling information was utilized to select the IDSE monitoring locations. A draft IDSE Modeling Study Plan was prepared in accordance with the Stage 2 DBP Rule requirements and submitted to MCAS Cherry Point for review. Upon approval, AH provided Cherry Point with one day of onsite assistance in implementing the IDSE sampling.

MAJOR SUBCONTRACTORS:	URS Group Incorporated, Eastern Research Group		
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