
U.S. Naval Support Activity, Bahrain's Submission

For the Chief of Naval Operations Environmental Award

Award Category
"Environmental Quality – Overseas Installation"



NSA Bahrain: Supporting Family, Fleet, and War Fighters

The continued importance of the Middle East and Southwest Asia to the United States has resulted in a steady increase in the U.S. Navy's presence in the region. In addition to a significant increase in its deployed forces, the Navy's shore presence in the Arabian Gulf, beginning in 1948, has grown appreciably throughout the years since Operation DESERT STORM. The formal responsibility for managing the environmental programs at these shore facilities rests with U.S. Naval Support Activity (NSA), Bahrain.

NSA Bahrain is the only permanent frontline shore base in the Southwest Asia area of operations that provides Operational Support to U.S. and Coalition Forces operating throughout the U.S Central Command (CENTCOM) Area of Responsibility (AOR). It serves as a major logistic node for ships deployed to the U.S. FIFTH Fleet. NSA Bahrain not only provides logistical, medical, security, administrative, and recreational support in the most dynamic theater in the world, it also maintains the highest standard of excellence and accomplishments, despite severe manpower and financial constraints. The period of October 2008 through September 2010 was a highly dynamic, demanding, and productive period. The base infrastructure, base support, quality of life services and facilities were improved significantly. NSA Bahrain's environmental team continues to provide exceptional oversight of the environmental program at Camp Lemonier in Djibouti (CLDJ), even after the transition of CLDJ to Commander, Navy Region Europe (CNRE). In addition, our environmental team's assigned area has further expanded to include ISA Air Base (IAB). This effort reflects the truest sense of the American spirit with which members of the NSA Bahrain team accomplish all tasks at the "Tip of the Spear."

Program Summary

The objective of the Environmental Program (ENV) at NSA Bahrain is to provide timely, quality service that enables and sustains Fleet, Fighter, and Family readiness through consistent standardized shore services within the Commander, FIFTH Fleet (COMFIFTHFLT) AOR and the Horn of Africa (HOA).

Our ENV is successfully targeting hazardous waste minimization and improving military readiness in a high tempo operational environment. The ENV enables NSA Bahrain, COMFIFTHFLT, and approximately 86 Tenant Command stakeholders in adopting environmental management techniques that promote the protection of the environment and mission objectives. Our environmental team has consistently succeeded in achieving environmental excellence utilizing scarce resources and has dedicated their organization to improving environmental quality in their installation's operations.

Additionally, the team continues to manage the COMFIFTHFLT environmental functions delegated to Commander, Navy Region, Europe Africa, Southwest Asia (CNREURAFSWA) including the Navy On-Scene Coordinator (NOSC), Regional Environmental Coordinator (REC), and the Environmental Lead Component for Joint Logistic and Contracting (LCLC), has put forth their best effort, reflecting the truest sense of the American spirit, while keeping the highest standards and meeting all defined goals at the "Tip of the Spear."

One Team, One Environment

We are taking action...

NSA Bahrain continued its reign of excellence by initiating new programs and improving existing ones to enhance the Quality of Life for its personnel, FIFTH Fleet, and the surrounding communities.

To support dependent return to Bahrain, ENV has launched an aggressive environmental awareness campaign, aiming at providing education and guidance to our families and incoming troops. ENV has also established a recycling program at the Department of Defense Dependent School (DoDDS), encouraging our children in protecting the environment and their future.

ISA Air Base (IAB)

Our Environmental Manager has again embraced the environmental challenges and skillfully addressed the dynamic circumstances and resource constraints, impacting IAB, by cultivating a high-performing workforce, establishing Standard Operation Procedures for sustainable solutions, i.e. fuel transfer operations to prevent, respond, and mitigate oil and hazardous materials spills. Exercising supervisory control and drawing upon his engineering skills to plan design and execute new programs to manage hazardous waste and solid waste as the foot print at IAB expands.

ENV completed the Environmental Condition of Property (ECP) survey, documenting the environmental conditions at IAB prior to the deployment of U.S. Forces.

Under the extreme arid weather conditions of southern Bahrain, the Environmental Manager recognized the strategic importance of developing a wastewater management plan, while simultaneously conducting a potable water vulnerability analysis in an effort to strengthen the supported commands mission accomplishment. In addition, he was able to project the infrastructure and procedures to establish a Qualified Recycling Program at IAB.

Camp Lemonier, Djibouti (CLDJ), Horn Of Africa (HOA), U.S. African Command

ENV is proud to support U.S. African Command's (USAFRICOM's) mission in educating and training the Host Nation (HN) in various locations within the AOR. ENV conducted four waste management and oil spill response workshops in Djibouti, Gabon, Kenya, and Seychelles providing much needed training to more than 150 HN personnel.

The remote location of the camp requires exercising considerable judgment and ingenuity in interpreting, adapting, and applying the broad and general policy guidance already in place throughout the AOR.

In the past, all waste generated at CLDJ was exported to Europe via Defense Reutilization Marketing Service for disposal at exorbitant disposal cost. ENV established the first-ever Used Oil Recycling Program at CLDJ, diverting the past two years of more than 1,200, 55-gal drums and reducing disposal cost by more than \$475K.

ENV has also established a Hazardous Waste Operations and Emergency Response (HAZWOPER) and Pollution Prevention (P2) training programs that were recognized repeatedly by the Republic of Djibouti Minister of the Environment. This training has educated and certified more than 85 Host Nation and U.S. personnel.

Connecting with Customers

- More than 3,000 new comers received Environmental Management Systems (EMS) awareness training through the Installation Indoctrination Training.
- More than 70 Installation personnel, including leadership and Department Heads, have completed the Civil Engineer Corps Officers School on-line EMS General Awareness Training.
- Published articles on EMS awareness and Recycling in the base's weekly publication, "The Desert Times." This communication further reinforces our commitment to the community

and the environment by regularly updating personnel on environmental issues.

- More than 100 HN personnel participated in various environmental activities in Bahrain, United Arab Emirates (UAE), and CLDJ.
- Earth week celebrations were a great success, with the participation of 400-500 Coalition Forces, U.S., and HN representatives.

Taking Care of the Fleet, Family, and Fighters

ENV took action and delivered results by increasing the operational tempo of its personnel to meet and exceed the fleet's needs. The operational and administrative improvements dramatically increased performance, efficiency, and capability of NSA Bahrain, its 86 tenant commands, and the fleet.

During the past two years, ENV responded to more than 1,400 service calls supporting 148 U.S. Navy and Coalition Ships with processing over 4,500 drums of shipboard used hazardous material offloaded in Bahrain and UAE.

We provided the annual Consumer Confidence Report (CCR) to drinking water consumers at CLDJ and NSA Bahrain ensuring consumers stay abreast of the quality of drinking water.

ENV formed the first Water Management Board (WMB) that meets monthly to discuss water related issues with the goal to provide maximum protection whenever possible to water consumers.

ENV provides on-going monitoring of water quality at DoDDS, NSA Bahrain, IAB, CLDJ, UAE, and other satellite locations, including the Aviation Unit, and the Harbor Patrol Unit, providing maximum protection to water consumers by ensuring drinking water is of higher quality than most commercially bottled water.

Periodically conduct Vulnerability Assessments of the drinking water treatment and distribution system at NSA Bahrain, IAB, and CLDJ to protect our water supply from potential sabotage and contamination.

And we are delivering Results...

- Diverted over 2,000 tons of aluminum cans, scrap metals, tires, wood, plastic bottles, paper, cardboard, and others from the solid waste stream, achieving a disposal cost avoidance of over \$150,000 while generating over \$35,000 of sale proceeds supporting the base's ENV programs.(Table 1).
- Provided HAZWOPER, P2, Spill Prevention, and EMS training to over 200 HN and U.S. personnel at NSA Bahrain, UAE, and CLDJ, providing the skills and knowledge necessary to safely handle hazardous waste, respond to spills, and conduct P2 assessments.
- Recycled over 3,000 drums of used oil and oily rags reducing hazardous waste disposal quantity by 1.2 million pounds and hazardous waste disposal costs by over \$1,000,000.
- ENV implemented a robust HW minimization program reducing disposal quantity by more than 50% and disposal cost by more than 75%.
- Total waste disposal cost avoidance for the past two years was in excess of \$3,000,000.

Supporting the Local Community...

- NSA Bahrain declared the week of 22 April as Earth week. More than 400 U.S., Coalition Forces, HN, and DoDDS children participated in a weeklong Earth Week celebration that included various activities aimed at increasing awareness and making pledges to protect the environment. Earth Week emphasized that every day is Earth Day – a time to act and to protect our planet.
- Each day, ENV sent out articles that provided information about Earth Day and its history. Additionally, a booth was set up on the facility, and manned by ENV who provided passersby with environmental tips, such as energy conservation, and explained informational posters that were on display. There were more than 75 daily visitors to the booth.
- More than 68,000 pounds of debris were collected and separated into trash and recyclable materials that included aluminum cans, wood pallets, scrap metal, paper, and plastic. Out of the total amount collected, more than 50 percent,

approximately 54,000 pounds were delivered to various recycling contractors. Approximately 14,000 pounds of trash was disposed of at the Kingdom of Bahrain Asker Landfill.

- Our annual Oil Spill Table Top exercise (TTX) and workshop was a huge success. Over 80 personnel representing the U.S., Bahrain, Saudi Arabia, Kuwait, Qatar, UAE, Oman, and private contractors participated in the workshop exploring various spill scenarios that have the potential of impacting the environment of the Arabian Gulf. The TTX also ensured that our NOSC and HN plans are compatible.

Reaching New Heights of Excellence

Our ENV has been recognized repeatedly at the highest levels. In FY09, ENV was awarded four prestigious environmental quality awards; Secretary of Defense, Secretary of the Navy, and the CNO for Individual/Team in addition to the CNO Environmental Quality for Non-Industrial Installation Award.

Environmental Quality Assessment (EQA) and Management Program

- The Environmental Quality Assessment (EQA) has three tiers, including an annual self-audit conducted by the activity, external audit sponsored by the major claimant (usually every three years), and the audit conducted by the Inspector General. NSA Bahrain was also exposed to the following audits within the past two years; two internal audits, an IG audit, an EMS internal audit, two EMS external audits, and an EQA external audit. The base was commended each time for its proactive approach in implementing plans and initiatives geared toward improving the compliance posture of the base and maintaining good relations with the HN's. NSA Bahrain was approved to re-declare conformance with ISO 14001.
- Inspections of NSA Bahrain and tenant facilities are conducted regularly for compliance with the Final Governing Standards (FGS) and U.S. Navy policies. Inspection reports to include deficiencies and recommended corrective actions are provided to the customers. Follow up visits are also conducted to ensure corrective actions have been implemented.

- ENV staff coordinated the annual EQA with over 86 tenant commands and other organizations. This week long, in-depth inspection ensured that NSA Bahrain facilities maintained compliance with regulations and included extensive record reviews as well as an inspection of over 35 storage points located at the Aviation Unit, Harbor Patrol Unit, and the NSA compound.
- Due to the high turnover of personnel at NSA Bahrain, ENV developed shop specific Hazardous Communications Program to reduce exposure risk and ensure personnel safety.

Waste Management and Resource Recovery

- In this AOR, Jebel Ali, UAE, and Bahrain are the only authorized shipboard HAZMAT offload locations. ENV manages both locations.
- Continuously updating HAZMAT offload procedures for the FIFTH Fleet. A message summarizing the offload procedures is sent to the ships on a monthly basis.
- Maintain close contact with ship personnel to provide needed guidance and policy on HAZMAT management.
- The recycling programs in Bahrain and the UAE have diverted over 1,000 tons of otherwise hazardous waste and reduced disposal cost by over \$3,000,000 over the past two fiscal years (Table 2).
- Diverted over 200 tons of aerosol cans, oil filters, batteries, toner cartridges, and fluorescent light bulbs (Table 2) reducing Hazardous Waste (HW) disposal cost by over \$400,000.
- Achieved more than 65% decrease in HW disposal cost and quantity (Table 3). Total HW disposal quantity was approximately 140 tons at a disposal cost of about \$295,000 for the two years combined. These figures are over 60% less than the Region's baseline of 360 tons at a disposal cost of over \$2.00M.

Environmental Management System (EMS)

NSA Bahrain maintains an exemplary environmental program and sets the example for all Navy installations. Recent Environmental Management System/Environmental Compliance audits in, 2009 and 2010, testify to the results

gained from aggressive, positive leadership that is the obvious key element of a sound program management. We were approved to re-declare conformance with ISO 14001.

A dedicated Environmental Manager and highly disciplined staff provide a superior level of service to customers at the activities and facilities supported by the NSA Bahrain Environmental Program. These are truly the strengths of a productive and highly successful program. The bedrock of the program is a prolific Qualified Recycling Program and an EMS training regimen that is fully integrated into the Installation Indoctrination Training.

The managerial skill of the Environmental Manager is demonstrated in his focused attention on the Unit/Tenant Environmental Coordinators who are the lynch-pins for daily awareness and control of environmental risk within each shop. The overarching reason for the continued success of this program is the dedication to “the attention to detail.”

EMS has been an extremely essential tool in enhancing the base’s existing, mature environmental programs.

- Increased awareness and communication, among installations, tenant, and contractor personnel, of potential environmental impacts and associated risks to mission readiness.
- Standardization of procedures for control of significant aspects across Tenant and Contractor operated activities.
- A more comprehensive approach to identifying and documenting environmental priorities, enabling improved funding justifications and communications to Senior Leadership.

Environmental Effects Abroad of Major Federal Actions

- ENV has implemented the Environmental User’s Guide to comply with the EO 12114, FGS, DoDINST 6050.7 (Series), DoDINST 4715.5 (Series), and SECNAVINST 5090.6 (Series).

Completed the ECP surveys at ISA Air Base, Quay-9 at Jebel Ali (UAE), New site at Fujairah (UAE), water Front in Bahrain and the Port of Djibouti.

- Completed fourteen (14) Records of Negative Decision (RoND) reports for projects in Djibouti, Ethiopia, UAE, and Bahrain.

LCLC, REC, NOSC (N40) Functions

In addition to the N45 functions that our team provides in the CNREURAFSWA Detachment Southwest Asia (DET SWA) assigned area, our Environmental Manager also manages the N40 shore functions in the COMUSNAVCENT AOR. COMUSNAVCENT delegated the N40 function to CNREURAFSWA in March 2009.

ENV obtained funding from Commander, Naval Installation Command to revalidate the outdated FGS for Bahrain and the UAE. The Draft FGS for both countries was completed in September 2010. Both documents were submitted to CENTCOM for review and approval.

To support readiness of the FLEET, ENV has conducted several oil spill equipment deployment exercises at the four major ports in Bahrain and the UAE. ENV has engaged the HN’s in all exercises to form a coalition in case of an incident and to make sure our plans and the Host Nation’s are enmesh.

Work closely with the Gulf Cooperative Council Marine Emergency Mutual Aid Center (MEMAC). Our N40 facilitated a meeting between MEMAC and the Republic of Iraq and COMFIFTHFLT for the purpose of helping Iraq develop their spill contingency plan and establish an effective spill response program.

Our N40 represents COMUSNAVCENT in the CENTCOM bi-weekly conference meetings along with ENV representatives in Afghanistan, Iraq, Oman, and CONUS; and in the CENTCOM Environmental Oversight Committee (EOC) SVTC to explore possible solutions to issues impacting the AOR environmental programs.