
U.S. Naval Support Activity Bahrain's Submission

For the
FY08 Secretary of Defense
Environmental Award

Award Category
"Environmental Quality – Overseas Installation"



Naval Support Activity (NSA) Bahrain is a world-class installation that prides itself on leading from the front line at the "Tip of the Spear."

NSA Bahrain: Straight Forward – Defending Freedom

OUR MISSION: NSA Bahrain serves as the only permanent frontline shore base in the Southwest Asia area of operations that provides facility and administrative support to the Commander, United States Naval Forces Central Command (COMUSNAVCENT) and 80 tenant commands from every service; it serves as a major logistic node for ships deployed to the 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 accomplishment despite severe manpower and financial constraints. NSA Bahrain remains at the forefront providing critical support to the war on terrorism within the theater. In addition, the infrastructure and quality of life services and facilities were improved significantly. 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 at NSA Bahrain (ENV) is support the mission and operations of the Base by 1) maintaining compliance with applicable environmental laws and regulations, 2) protecting human health and the environment, and 3) implementing Pollution Prevention (P2) initiatives to reduce the generation of hazardous waste and its associated costs.

One of the most outstanding features of the Base ENV is the achievement of over a fifty percent reduction in quantity and cost of hazardous waste disposal during the past two years. The program also identifies opportunities to reduce, reuse, or recycle hazardous and solid waste. The program has been repeatedly recognized for its innovation, versatility and proactive approach in enhancing the environmental awareness of the surrounding Host Nation (HN) communities. The NSA Bahrain recycling program has won numerous prestigious awards.

The environmental program personifies the Navy core values of Honor, Courage and Commitment by emphasizing the importance of a clean and healthy environment. The program activities demonstrate that

Taking Action and Delivering Results

environmental protection is not the responsibility of only a few, but the responsibility of everyone.

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 (QOL) for its personnel, FIFTH Fleet and the surrounding communities.

ENV provided multifaceted support in what currently is the most dynamic military theater in the world. Camp Lemonier, Djibouti, Africa (CLDJ) is frontier new challenge that added a level of complexity not previously found in this program. 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.

As a result of the Camp's historical hazardous waste (HW) management practices, ENV established the first-ever, used oil recycling and on-site training programs. ENV P2 and training efforts were recognized via a letter of appreciation from the Minister of Environment.

Connecting with Customers

- Published articles on environmental protection in the base's "Desert Times" reinforcing commitment to the community and the environment.
- Published a plain-language, multimedia Environmental Compliance Guide that provides base personnel and tenants with clear guidance and direction on how to accomplish mission-critical operations in an environmentally sound manner.
- Provided monthly environmental management system (EMS) and HW handling training to the base HW handlers.
- Established P2 training to educate base personnel about different P2 aspects including recycling, waste reduction, and material substitution.

Taking Care of the Fleet

The primary mission of NSA Bahrain and its tenant commands is to provide critical logistical

support to US Forces operating in the Arabian Gulf region. The ENV mission aims at enhancing the quality of life of the base populous as well as the surrounding communities while maintaining compliance with regulations.

Over the past two years, ENV has shown exceptional commitment to environmental protection and earned the admiration, respect, and recognition of the host nation. This dedication has strengthened our long-lasting relationship with the HN's and enhanced the U.S. Navy's image in this AOR.

The achievements during the preceding two years are a testament to the successful management of the NSA Bahrain environmental program. These achievements include management and procurement for programs benefiting the mission of the Navy within the AOR, as well as the community relations programs that strengthen the positive relationship with the host nation and surrounding community. The successful management of the environmental program is also responsible for the successful integration of pollution prevention programs across diverse civilian and military activities reducing costs, increasing environmental compliance, and reducing exposure of personnel to toxic materials.

What is particularly noteworthy about our environmental accomplishments is the fact that the programs did not sacrifice other areas of environmental compliance to increased regulatory scrutiny or operating expense. By specifically targeting source reduction and recycling, the programs actually reduced costs by over two million dollars. The implemented programs also target the life-cycle nature of the activities thereby assuring continued savings into the future.

A key to supporting the long-term mission of NSA Bahrain is to ensure that new programs are maintained and transferred between changes in command. Through the development of instructions and proper training of shop and other facility personnel, the longevity of



beneficial waste reduction, pollution prevention, environmental training, and spill response programs will be maintained. In time, lessons learned and pitfalls overcome will become standard tools that others will learn from and apply to other areas of environmental management.

And we are delivering Results...

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 improved the performance, efficiency, and capability of NSA Bahrain, its 80 tenant commands, and the fleet.

Excelling as a Force Multiplier

During the past two years, ENV responded to more than 1,000 service calls supporting 158 U.S. Navy and coalition ships with processing over 5,000 drums of shipboard used HAZMATs offloaded in Bahrain and United Arab Emirates (UAE).

Breaking through Operational Barriers

Leading the Way...

- 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 generating over \$35,000 of sale proceeds supporting the base's ENV programs.(Table 1).
- Initiated P2 , HAZWOPR, and spill response-training programs ensuring compliance with the FGS, and HN requirements. This training provided personnel the skills and knowledge necessary to safely handle hazardous waste, respond to spills, and conduct P2 assessments.
- Recycled over 2,500 drums of used oil and oily rags reducing hazardous waste disposal quantity by 1.3 million pounds and hazardous waste disposal costs by over \$750,000.

Provided training to local government officials including security, environmental, safety, and military personnel on numerous environmental topics. NSA Bahrain environmental program ensures involvement of HN personnel to increase

awareness and public understanding of environmental issues.

Supporting the Local Community...

- Recognizing the need for environmental consciousness, ENV established a variety of programs with voluntary partners to improve environmental conditions. Our innovative programs provide comprehensive environmental training to the base population, schools, local community groups, business and industry, and local government to increase awareness and public understanding of environmental issues to ensure future generations can enjoy the same resources we do today.
- ENV lead a team of service members, DoD, DoDDS School children and host nation personnel 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 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 explain informational posters that were on display. There were more than 75 visitors to the booth, daily.
 - More than 500 military, DoDD School children, and HN volunteers separated debris into trash and recyclable materials – these included aluminum cans, wood pallets, scrap metal, and paper and plastic. Out of the total amount collected – more than 50 percent – approximately 37,500 pounds were delivered to various recycling contractors. Approximately 33,500 pounds of trash was disposed of at the Kingdom of Bahrain Asker Landfill.
- Even after Earth Week had officially ended personnel from NSA continued the cleanup effort aboard NSA while Navy Seabees and ENV personnel cleaned up the MILCON

area. In all, more than 215,000 pounds of damaged concrete barriers and construction debris was removed.

- Representative from Bahrain, Saudi Arabia, Kuwait, Qatar, UAE, Oman, and private contractors participated in the Navy's Oil Spill response Table Top Exercise formulating a plan of cooperation to properly respond to on-water spills within the Arabian Gulf.

Protecting our Families and Troops

- Meticulously managed the drinking water monitoring program for NSA Bahrain and satellite locations including AV Unit, DoDDS, Harbor Patrol Unit, and the Port of Jebel Ali (UAE) ensuring personal health and safety by supplying water that meet the FGS water quality criteria.
- Closely monitored the Reverse Osmosis Plant, which has the capacity to provide over 280,000 gal/day of drinking water.
- Implemented Spill Prevention plan to reduce or eliminate spills, and to ensure readiness in case of spills. Spills have been reduced by over 40% over the past two years due to ongoing training and increased management focus.
- Prepared annual drinking water Consumer Confidence Report (CCR) ensuring that base population stay informed of the water quality.

Reaching New Heights of Excellence

Djibouti's Minister of Environment lauded ENV's P2 and awareness training efforts via an unprecedented letter of appreciation.

Winner of Honorable Mention in the 2008 White House "Closing the Circle" award for superior P2 achievement.

Winner of the FY2007 CNO Environmental Quality Award for Non-Industrial Installation.

Environmental Quality Assessment (EOA) and Management Program

- The EOA 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 exposed to two internal audits, IG audit, and EMS internal 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. The few deficiencies identified were corrected within less than 90 days.

- Inspections of NSA Bahrain and tenant facilities are conducted regularly for compliance with the FGS and US 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 80 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 turn over of personnel at NSA Bahrain, ENV developed shop specific HAZCOM 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.
- Continually update the HAZMAT offload procedures for the FIFTH Fleet. A message summarizing the offload procedures is sent to the ships on a monthly basis.
- Stay in close contact with ship personnel to provide needed guidance and recommendations on the proper way to manage HAZMATs.
- The recycling programs in Bahrain and the UAE have diverted over 1,100 tons of otherwise hazardous waste and reduced

disposal cost by over \$2,500,000 over the past two fiscal years (Table 2).

- Over 4,000 drums of over 320 tons of oily rags were *washed and reused* reducing HW disposal quantity by over 50% and cost by \$900,000.
- Recycled over 1,300 drums of used oil weighing over 275 tons reducing disposal cost by over \$500,000
- Over 10,000 of used HAZMAT drums were washed and re-used resulting in a cost avoidance of over \$300,000.
- Diverted over 170 tons of aerosol cans, oil filters, batteries, toner cartridges, and fluorescent light bulbs (Table 2) reducing HW disposal cost by over \$440,000.
- 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's EMS implementation efforts are nearing their conclusion and are on track for full conformance in advance of the 30 September 2009 conformance deadline. An initial planning period in 2005 established EMS policy and an implementation plan identified environmental aspects and objectives/targets, implemented EMS training program for all installation personnel, and engaged senior leadership in the EMS process, ensuring NSA Bahrain of meeting the DoD EMS In-place metrics for 31 Dec 2005. Continuing efforts implemented and documented all elements of an ISO-14001-based EMS.

A recent internal audit identified minor non-conformances, which are currently being addressed through corrective action initiatives. NSA Bahrain is scheduled to receive its external verification audit in May of 2009 and is confident that it is well positioned for full conformance recognition for CNIC. EMS enhancements planned for 2009 will integrate energy, water, and transportation related

initiatives, consistent with performance goals of Executive Order 13423.

As a result of enhancements to existing, mature environmental programs achieved through focus on the EMS, NSA Bahrain is realizing the following benefits:

- 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, SECNAVINST 5090.6A, and DODINST 4715.5
- Successfully completed Environmental Baseline Surveys (EBS) and Record of negative Decisions (RoND) for projects in Ethiopia, Djibouti, Bahrain, and the UAE.

Environmental Executive Agent (EEA)

To maintain compliance with DOD and OPNAV Instructions and Directives as well as our good relations with the HN's; ENV has worked diligently with COMUSNAVCENT and CENTCOM to delegate the EEA authority.

Delegating the EEA will ensure the FGS is revalidated and HN regulations are incorporated. Doing so is extremely essential to show respect and maintain our HN's long-lasting good relationship.