

NAVSUP FLEET LOGISTICS CENTER PEARL HARBOR ENVIRONMENTAL QUALITY TEAM



From Left to Right: Scott Hedrick, Benjamin Fegurgur, LCDR Angela Watson, Director, Fuel Department; Alan Sugihara, Stan Sousa, Captain John Polowczyk, Commanding Officer

INTRODUCTION

The mission of the Naval Supply Systems Command Fleet Logistics Center Pearl Harbor (NAVSUP FLC Pearl Harbor), formerly known as Fleet and Industrial Supply Center Pearl Harbor, is to provide logistics support to the Pacific Fleet. This involves the direct support and sustainment of more than 40 surface ships and submarines homeported in Pearl Harbor and more than 70 shore commands and activities. It also supports transient vessels and battlegroups, including those of foreign navies. In addition, NAVSUP FLC Pearl Harbor is designated as a Defense Logistics Agency Energy (DLA Energy) defense fuel support point. The Fuel Department stores, manages and supplies fuel to the military and other federal agencies for their ships, cutters, vessels and for both fixed wing and rotary wing aircraft. The command population consists of 90 military members and 375 civilian employees. The command is responsible for 121 facilities located on two islands: O'ahu and Kaua'i.

The NAVSUP FLC Pearl Harbor Environmental Quality Team (Team) was organized by the Fuel Department Director to ensure that all facilities and operations throughout the command remain compliant with environmental requirements. This was accomplished by incorporating innovative and visionary environmental best management practices to work processes. In doing so, the Team has taken bold steps to protect Hawaii's fragile environment in ways that enhances the command's mission capability while assuring continued performance into the future.

TEAM MEMBERS' BACKGROUND, POSITION DESCRIPTION, AWARDS AND SERVICES

LCDR Angela Watson, Supply Corps, United States Navy, Fuel Director, NAVSUP FLC Pearl Harbor: LCDR Watson is responsible for all aspects of fuel operations, management, inventory control and accounting. She also is responsible for the command's facilities construction, repair and maintenance program.

Scott Hedrick, Deputy Fuel Director, NAVSUP FLC Pearl Harbor: Mr. Hedrick supports the Fuel Director in the day-to-day operations and execution of the command's fuel and facilities management mission.

Awards and Services: Received Navy Meritorious Service medal (2010). Received CNO Environmental Award as member of the Fleet and Industrial Supply Center Pearl Harbor Sustainability Team (2010).

Benjamin Fegurgur, Acting Fuel Laboratory Manager, NAVSUP FLC Pearl Harbor: Mr. Fegurgur served as activity laboratory manager during part of the award period and managed the fuel laboratory and the Fuel Oil Reclamation Facility (FORFAC).

Stanley Sousa, Regional Hazardous Material Manager, NAVSUP FLC Pearl Harbor: Mr. Sousa is the Regional Hazardous Material Manager and manages the CHRIMP program for the Region.

Alan Sugihara, P.E., Environmental Engineer, Naval Facilities Engineering Command (NAVFAC) Hawaii: Mr. Sugihara is assigned to NAVSUP FLC Pearl Harbor as the Environmental Coordinator and serves as the command point of contact for the environmental and natural resources protection program.

Awards and Services: Received CNO Environmental Award as member of the Fleet and Industrial Supply Center Pearl Harbor Sustainability Team (2010).

ACCOMPLISHMENTS

In FY 2010 and FY 2011, the team completed several important projects to improve the operational and environmental programs at the command. An important event that occurred during this time frame was the joining of the Air Force and Navy functions, programs and personnel in FY11 when Hickam Air Force Base merged with Naval Station Pearl Harbor to become Joint Base Pearl Harbor-Hickam (JBPHH). During this joint base event, air field fueling operations and facilities were transferred to NAVSUP FLC Pearl Harbor. Further, certain fuel operation functions at Pacific Missile Range Facility, Barking Sands, Kauai (PMRF Barking Sands) were also transferred during this period. This facility is on another island, which created command and control and environmental program oversight challenges. Under the direction of LCDR Watson, Team Leader, a focused effort was made to ensure that combining the operational processes during the transition would also result in continual improvement of the command's environmental compliance and sustainability posture. Although this task was difficult, significant progress was achieved through (1) implementation of environmental management systems, (2) pollution prevention, and (3) environmental compliance that promotes sustainability in the areas of environmental planning, waste management, and land, air and water resource protection.

Environmental Management Systems



NAVSUP FLC Pearl Harbor is a tenant of JBPHH and is part of the Navy Region Hawaii environmental management system (EMS). To better ensure that proper attention was given to environmental program requirements in its operations, NAVSUP FLC Pearl Harbor decided to begin developing its own EMS in FY11. The commanding officer, CAPT John Polowczyk, issued his environmental and natural resources protection policy statement that clearly expressed his vision and expectations for environmental protection to all personnel. This provided the necessary foundation for the command level EMS. A number of instructions have since been updated, approved and distributed throughout the command, which was the next step in articulating the commander's intent into specific policies and procedures. NAVAC

HI supported this process through regulatory guidance as well as conducting internal audits to ensure compliance. Through these audits, facility repairs and upgrades were identified and executed. In addition, targeted training on

subjects to all hands, such as hazardous waste (HW) and spill prevention, control and countermeasures, were also conducted via periodic command newsletters and environmental fact sheets as well as formal classroom training.

Pollution Prevention and Waste Reduction Efforts

- **Region CHRIMP Center Operations:** The cornerstone of any HW minimization program is to control the amount of hazardous materials in use. NAVSUP FLC Pearl Harbor is responsible for executing elements of the Naval Supply Systems Command's Pollution Prevention program and the regional Hazardous Material Control and Management (HMC&M) programs. This includes a major sub-program; the Navy's Consolidated Hazardous Material Reutilization and Inventory Management Program (CHRIMP). This is a Navy life cycle management program which reduces HW by cutting it off at the source. It does this through centralized control and cradle-to-grave management of hazardous material (HM) into a single location, the Regional CHRIMP Center (RCC). The RCC is responsible for procuring, stocking, issuing, and eventually disposing of HM as HW for 111 shore work centers; 11 home-ported surface ships; 19 home-ported submarines; and performing locker assessments of over 200 shore customer HAZMAT lockers. The program has increased worker safety because of the reduction of HM in the work centers and has reduced the workload associated with HM management.

The RCC responds to customer HM requests by screening their requirements for reuse (free-issue) material; procuring new items not available via reuse; and issues the material required to perform the task at hand. When the work is completed, the customer returns any unused portion of HM to the RCC. RCC personnel examine the returned HM and determine if the unused portion can be retained for reuse by another customer, if it can be recycled, or if it should be disposed of as HW. RCC personnel track HM usage via the Navy Enterprise Resource Planning (ERP) system that records HM based on the chemical constituents from which it is derived. This is essential for compliance with federal reporting requirements under the Emergency Planning and Right to Know Act.

Under Mr. Sousa's leadership, this process has resulted in higher efficiency in maintenance activities and substantial cost savings by: procuring in quantities appropriate for work requirements; reducing procurement costs by reissuing full, unopened, unused and/or partially used HM, thus using less HM; and reducing disposal costs by generating less HW. During this period, Navy commands serviced by the RCC saved \$5.5 million in procurement costs and \$20.5 million in waste disposal and cost avoidance for a total savings of \$26 million. In addition, Mr. Sousa was able to guide the RCC operations to receive these accomplishments for FY10 and FY11:

- First Navy HAZMAT Region to achieve goals for the CHRIMP Utilization Rate and Container Turn-in Delinquency Rate metrics for 10-consecutive months, and
- First Navy HAZMAT Region in NAVSUP to implement ERP 1.1.

- **Fuel Oil Reclamation Facility (FORFAC) Operation:** The FORFAC is a major part of the NAVSUP FLC Pearl Harbor compliance and sustainability program. The Fuel Department reclaims off-specification fuels instead of disposing them, which significantly reduces disposal costs. More importantly, this enables the Navy to help reduce the Nation's dependence on foreign oil. Under Mr. Fegurgur's direction, NAVSUP FLC Pearl Harbor accepted and reclaimed 236,796 gallons of not ready for issue off-specification marine diesel and jet fuel for the period of FY 2010 and FY 2011 which was sold by DLA for \$94,718. Through this program, the sale of fuel oil reclaimed vice disposal as oily waste resulted in a savings of almost \$3.9 million during the two year period.



The FORFAC reclaims petroleum as a fuel vice disposal as a waste.

- **Solid Waste Reduction:** The Team initiated a NAVSUP FLC Pearl Harbor internal project design review process where facility design plans, specifications and other documents were examined to assure that appropriate and applicable requirements were included to meet sustainability policies while meeting mission requirements. To reduce construction waste, project plans were reviewed to ensure that they require recycling of construction and demolition debris. As an example of how the Facilities Division has adopted sustainable practices, a project to demolish an irreparable emergency generator was changed to a recycling opportunity where nine tons of scrap metal were recycled instead of disposing it in the landfill. NAVSUP FLC Pearl Harbor's Facilities and Ocean Terminals Departments coordinated with the Region Recycling Center to have the recycling contractor make an on-site pick up. This project was a huge success and more demolition projects will be converted to recycling efforts.

The Team coordinated with the installation-wide electronic device recycling event held in June 2010 that enabled all NAVSUP FLC Pearl Harbor personnel to participate. Departments collected their excess or inoperable cell phone chargers, printers, fax machines and scanners for this event. These items were then recycled instead of disposed as HW. Thus, NAVSUP FLC Pearl Harbor departments were able to avoid the difficulty in establishing and managing regulated HW accumulation sites. The Team will continue to coordinate future "e-cycling" events with Region and NAVFAC Hawaii partners to dispose electronic products in an environmental sound manner, thus implementing E.O. 13423.

The e-cycling event supplemented NAVSUP FLC Pearl Harbor's on-going participation in the Region recycling program as it continues to implement E.O. 13423. Some of the recyclable items that are regularly turned in by NAVSUP FLC Pearl Harbor offices and shops include: office white and colored paper, corrugated cardboard, paperboard, glossy paper, unpainted and untreated wood, newsprint, ferrous and non-ferrous metals, certain plastics, beverage containers, and other items.



Recycling an emergency generator resulted in no solid waste disposal, added revenue for the Region program and lower project cost.

Environmental Compliance and Management Program

- **Multi-Agency Worst Case Discharge Oil Spill Exercise:** Recognizing the potentially catastrophic impacts following a natural or technical disaster at the NAVSUP FLC Pearl Harbor fuel storage and handling facilities, the Team coordinated with the Region on the triennial worst case discharge (WCD) functional exercise under the National Preparedness for Response Exercise Program as prescribed by the Oil Pollution Act of 1990. While oil spill exercises usually only involve the Navy command whose response plan is being tested, Region decided to conduct its WCD scenario exercise jointly with a private sector company and the Hawaii Area Committee. This enabled the simultaneous evaluation of the Region, Hawaii Area Committee, private sector and NAVSUP FLC Pearl Harbor contingency plans. Personnel from NAVSUP FLC Pearl Harbor received extensive training on the incident command system (ICS), shoreline cleanup assessment, and aerial observer before participating in the functional exercise as members of the Region's ICS-based Spill Management Team



Team member Scott Hedrick, center, reviews booming tactics with the Operations Section Chief and CAPT Lee, Navy Region Hawaii Chief of Staff.

(SMT). NAVSUP FLC Pearl Harbor personnel filled key positions in the ICS Operations, Planning and Logistics Sections. This was a valuable experience as the NAVSUP FLC Pearl Harbor participants were able to work closely with their counterparts in private industry and governmental response management agencies.

- Support Air Force Biosecurity Project: In FY10, the Team assisted Air Force personnel from the adjoining Hickam Air Force Base with their biosecurity efforts to prevent rodents from “hitching a ride” to Wake Atoll. A serious threat to the atoll’s seabirds, some of whom are federally protected species, exists when rodents infiltrate shipping containers and pallets of supplies as they are staged for shipment to the atoll. The NAVSUP FLC Pearl Harbor Ocean Terminals Department helped AF personnel with storing pallets of biosecurity equipment and allowing them to place traps, stations, and indicators in different locations in the warehouse where equipment to be shipped to Wake Atoll is stored. The Ocean Terminals personnel also completed a major milestone for the project...every container that left the dock bound for wake had a bait station and glue board within it. Participating in this AF natural resources protection project demonstrated how the Team works with other agencies in all elements of environmental protection.

- Upgraded Equipment and Vehicle Washing Facility: The material handling equipment (MHE) maintenance shop at Building 449 performs maintenance and repair work on almost all MHE used at Pearl Harbor. Part of that work requires cleaning equipment and vehicle components. Instead of flushing the rinse water into the sewer, the shop supervisor, Mr. Bill Soares, upgraded the facility to use a rinse water collection, filtration and recycling system. This also prevented water pollution by confining the equipment washing to a bermed area.



Vehicle wash water recycling system in action.

- Energy Conservation: In FY 2010 and FY 2011, many incandescent lamps were replaced with high efficient T-8 fluorescent lamps throughout the command. This also retrofitted old T-12 fixtures with T-8 fixtures and higher efficiency ballasts, integrated occupancy sensors on 100% of appropriate spaces, installed electro-mechanical timers to cut-off HVAC equipments during non-usage hours, installed sky lights in industrial areas to promote day lighting, and replaced all identified non-Energy Star qualified appliances across the entire NAVSUP FLC Pearl Harbor footprint with equipment and appliances that have received the Energy Star. Area lighting in the parking areas was also modified, allowing only selected light poles to be energized based on usage and traffic safety. These combined efforts and others resulted in a reduced FY10 consumption of over 57,000 kilowatt-hours. In a pilot study in FY11, two new parking lot lights were installed that were powered by photovoltaic cells. An estimated savings of 100 kilowatt hours per year is expected. As an additional benefit, construction costs were reduced and parking disruptions were minimized since no new power cables were required.



The new photovoltaic powered street lighting system improved safety with no recurring utility cost.

Another upgrade project was executed by the Team that replaced 19 250w high pressure sodium (HPS) warehouse lamps in Building 1757 with 11 125w fluorescent lamps fixtures. This resulted in a projected savings of 2 MWhs a year with no decrease in lighting intensity or worker safety. In addition to the energy savings, the Team also

reduced future HW disposal costs by using lamps that passed the Environmental Protection Agency's (EPA) test for toxic mercury. In the past, the HPS lamps were disposed as HW. In addition, the team also directed the purchase of this same type of fluorescent lamps for all NAVSUP FLC Pearl Harbor warehouse facilities. In this way, NAVSUP FLC Pearl Harbor implemented E.O. 13423, Section 2(e)(i) and SSPP Objective 3 to further reduce hazardous waste generation and off-site transfer of hazardous chemicals while reducing energy use.

The end result of these and other initiatives is that NAVSUP FLC Pearl Harbor has consistently reduced its energy consumption. At the end of FY 2011, the command's electrical energy consumption was 39% below the DoD specified baseline. Because of these successes, NAVSUP FLC Pearl Harbor won three Region Energy Awards in FY 2010.

- **Earth Day events:** The Team organized several events in April, 2010 to coincide with the 40th anniversary of Earth Day. These included a command-wide storm drain stenciling project, an inaugural Earth Day Fair for the command and the taping of a video message for the EPA's 40th anniversary website. The Team recognized that involving all NAVSUP FLC Pearl Harbor personnel would greatly increase everyone's awareness of environmental protection and lead to greater involvement.

For Earth Day 2011, the command Earth Day planning committee prepared several projects which included a tree planting project and coloring contest with the command's partner school, Navy Hale Keiki School, the annual Earth Day Fair, an alternative energy car show, and bike path and beach cleanups. CAPT Polowczyk, Commanding Officer, NAVSUP FLC Pearl Harbor, appeared on a local television news program to promote these Earth Day plans and to describe the command's environmental protection programs.



In April 2011, CAPT Polowczyk, center, and team member Scott Hedrick, right, discussed the need to protect the environment during a live interview on Fox affiliate television station KHON.

JUDGING CRITERIA

Program Management

The Team members tackled a wide range of environmental compliance issues and projects using a number of sources, including federal and state regulations, Navy instructions, executive orders, environmental program plans, and other documents. The Team tracked the progress of each project and ensured that the compliance goal was kept at the forefront, requiring strong understanding of each project and its impact on the other efforts. The Team was able to leverage the capabilities of various departments within NAVSUP FLC Pearl Harbor as well as their NAVFAC Hawaii, Region and Air Force partners to produce effective results in pollution prevention, compliance, energy conservation, hazardous waste reduction and increasing environmental protection awareness. The positive efforts made in FY11 to merge Navy and Air Force programs provided the Team with the momentum to ensure continual improvement of all environmental programs and procedures.

Technical Merit

These projects used the latest technology and best management practices in executing its projects. For example, when the FORFAC operates to reclaim petroleum, it also follows the latest spill prevention, control and countermeasure as well as storm water pollution prevention best management practices to prevent oil or contaminants from getting into Pearl Harbor waters. Tank overfill monitoring, spill response procedures and

other practices are all part of the FORFAC operational procedures. Energy and water conservation methods used the latest technology and administrative measures have produced highly effective results that exceeded Navy conservation goals. The Region CHRIMP program has continued to improve the management of hazardous materials reduced HW generation and increased worker safety.

Orientation to Mission

These projects focused on the need to support the Fleet and other DoD agencies with quality logistics services at the best value. The fuel reclamation process, including the wastewater treatment system, is an example of how the Team used technology to reduce the costs of environmental compliance and, in the case of the fuel, diverted off-specification petroleum from a waste product into a commercial fuel. These operational savings benefited the Fleet at a number of levels, including providing additional capability for NAVFAC Hawaii to service the bilge water needs of the ships and submarines berthed at Pearl Harbor. The CHRIMP program continues to pay dividends through significant cost savings and disposal cost avoidance. Key to any environmental compliance and sustainability program is "buy in" and creating excitement within the organization. Events such as those conducted each Earth Day will help the command workforce understand and support the environmental protection program, thus validating the Team's efforts as it continues its innovative work.

Transferability

Information on these projects was provided to NAVSUP, DLA and Region via command SITREPs, newsletters, and other means. The NAVSUP FLC Pearl Harbor CO is a member of the Region Energy Conservation Board and the command's ability to exceed energy conservation goals were recognized when it received several Region energy awards during the past two years. Methods used in achieving those goals were publicized among the Region, enabling other commands to use those methods and technologies in their own energy conservation programs.

Stakeholder Interaction

Each year's Earth Day Fair provided educational opportunities, and in the case of the Earth Day video message in FY10, brought some much deserved recognition to the hard working military and civilian members of NAVSUP FLC Pearl Harbor. The storm drain stenciling project also provided a sense of personal contribution in protecting the harbor waters. Quarterly newsletters and periodic environmental fact sheets were prepared by the Environmental Coordinator and distributed to all NAVSUP FLC Pearl Harbor personnel. This was done as a way to inform the workforce of various environmental success stories as well as compliance methods for specific programs, such as hazardous waste management. In the biosecurity project, working with the Air Force provided an opportunity for the NAVSUP FLC Pearl Harbor community to assist in ensuring that invasive species would not migrate to Wake Atoll. The multi-agency oil spill exercise provided an important venue for exchanging best practices for effective spill response. Working with Region, NAVFAC Hawaii, Air Force and many other partners within the Pearl Harbor area enabled the Team to share these successes and to obtain ideas for new projects. The Team also coordinated with the Region and NAVFAC Hawaii for projects to ensure that appropriate contact with the civilian stakeholders was made if potential impacts to the neighboring community were anticipated.