

## INTRODUCTION

Fleet Activities (FLEACT), Yokosuka Environmental Division's Environmental Quality Programs are among the largest and most diverse within the Department of Defense (DoD) service components. FLEACT, Yokosuka is a forward-deployed naval base located in the Tokyo Bay area on the Pacific Ocean side of Honshu, one of Japan's five major islands. The Yokosuka naval complex is approximately 43 miles south of Tokyo, and 18 miles south of Yokohama with an Area of Responsibility (AOR) that includes housing complexes in Ikego and Negishi; fuel terminals at Hakozaki and Tsurumi; an ordnance depot at Urago; Yokohama North Dock and the Nagai ULM-4 firing range. As the Navy's largest and most strategically important overseas installation, FLEACT, Yokosuka hosts over 80 tenant commands supporting operating forces throughout the Western Pacific, from Hawaii to the Arabian Gulf. Approximately 30,000 military and civilian personnel and dependents live and work in 1,500 buildings spread over 1,700 acres of land and 8,200 feet of berth with 233 million gallons of Petroleum, Oil and Lubricants (POL) storage facilities. Its primary mission is to maintain and operate base facilities for the logistical, recreational and administrative support/service to Naval Forces Japan, 7<sup>th</sup> Fleet and other forces assigned to the Western Pacific. These include 11 high operational tempo warships forward-deployed to the Yokosuka Naval Complex, among which are the 7<sup>th</sup> Fleet flagship (USS BLUE RIDGE (LCC 19) and the only permanently forward-deployed nuclear aircraft carrier, USS RONALD REAGAN (CVN-76).

## BACKGROUND

FLEACT, Yokosuka's Environmental Division manages over twenty environmental programs integrated through a capstone Environment Management System (EMS). The Division's diverse workforce is staffed with more than 30 U.S. and Japanese environmental professionals composed of engineers, environmental specialists, program managers, program analysts, and technicians. It is organized to focus on compliance, conservation, hazardous waste management, and recycling, while establishing itself as a leader in environmental performance, resource protection, and mission orientation. Its EMS program is rigorously measured against performance metrics in order to monitor and demonstrate continuous improvement of all significant environmental aspects and implement environmentally sound measures in accordance with the Japan Environmental Governing Standards (JEGS) and applicable Japanese and U.S. regulations, laws, policies, and requirements. Through the use of advisory panels and oversight working groups such as Environmental Working Groups (EWG), EMS Management Reviews, Executive Environmental Compliance Boards (EECB), and comprehensive community outreach; FLEACT, Yokosuka strengthens fleet, family, community, and mission readiness and bolsters American – Nippon relations.

## POSITION DESCRIPTIONS

A 15-person team of Environmental Engineers and Technicians ensure compliance with DoD and host nation regulations for nineteen media and conformance of an ISO 14001 based EMS. The team continuously assesses all protocols based on consideration of regulatory requirements,

aspects, vulnerabilities, and risk. They identify, validate, and track all discrepancies to closure and develop, update and review plans. Policies are interpreted and strategies developed for compliance, environmental protection, and pollution prevention. The team reviews work requests and engineering projects for potential impacts and reviews/approves contractor plans and submittals. All work was performed during the achievement period in which the division had an approximate 40% vacancy rate. The team's area of responsibility includes ten separate fence lines located within mainland Japan.

## SUMMARY OF ACCOMPLISHMENTS

Foregoing a normal single annual requirement standard, FLEACT, Yokosuka implemented a continuous fence-line-to-fence-line compliance assessment program that subjects all media areas to internal assessments, including years in which no external assessment is scheduled. Over 80 discrepancies were identified in FY14 and 116 in FY15 (both non-external audit years). A comprehensive Internal Assessment Plan was formalized that details internal Environmental Management Systems (EMS Audits) and Environmental Quality Assessments (EQAs) over a 12-month period. The division is established to ensure all program media areas were covered by a primary manager as well as identifying an alternate who received extensive training to ensure zero loss of program management support to the Fleet. A side effect of this effort was improved teamwork and professional development through extensive cross-training. This established practice proved its worth during the division's extensive period of personnel shortage. Team members attended 100% (over 200) of all pre-constructions meetings. Over 1,000 projects were reviewed with zero delays in work schedules while maintaining a 99% environmental compliance rate for new contracts and strict compliance with recycling program requirements. The environmental team oversaw the development and submission of 46 projects for FY18-22 budget projections, including related statements of work and cost estimates. FLEACT, Yokosuka was also the recipient of 2015's United States Forces Japan (USFJ) Installation Environmental Excellence Award for Compliance, and 2 runner-ups: the Pollution Prevention Award and the Spill Response Award.

**ENVIRONMENTAL MANAGEMENT SYSTEM (EMS):** The environmental team set and achieved more aggressive goals for EMS and expanded the program despite personnel change, increased workload and uncertain funding. Approximately 12,000 aspects and processes were reassessed through tabletop reviews and site surveys of over 2,500 facilities enabling identification, ranking, and establishment of new significant aspects. Over 2,000 bi-lingual credit card-sized EMS information cards were distributed, contributing to a low internal audit findings in the area of Competence, Training, or Awareness. Senior leadership performed a comprehensive program review and the EMS Cross-Functional Team met semi-annually to ensure good feedback and transparency in the policy review process. Two EMS significant aspects (Water Policy Implementation and Hazardous Material Usage) were identified as needing improvement. They highlight the environmental team's commitment to integrating Executive Order (EO) 13423 and 13514 into the EMS program. Awareness training was revamped to provide simplified awareness training in order to improve participation either by online resources and/or face-to-face meetings (in both English and Japanese) with the EMS program manager. Over 600 personnel were trained in each of the performance reporting years. In-house supplemental bi-lingual training/briefs were developed to enhance greater commitment

throughout the FLEACT, Yokosuka community and to provide added support in light of high personnel turnover rates typical of overseas installations. At any given time, the environmental office pursues an installation wide EMS training completion rate of no less than a 93%. The EMS program was measured against performance metrics reported quarterly to ensure continuous improvement in each of its significant environmental aspects and implementation of modern environmental standards in accordance with the Japan Environmental Governing Standards (JEGS) and other applicable Japanese and U.S. laws and regulatory drivers. Through the environmental panels the EWG, EMS Management Reviews, EECB and a robust approach to program management, a variety of public awareness and outreach programs were set up to target areas of interest vital to successfully supporting all the needs of the forward-deployed operating forces of the Western Pacific.

### **WASTE REDUCTION EFFORTS:**

**Waste Diversion:** The diversion rate for construction and demolition debris continues on at an respectable 66%, due in large part to the revision of an environmental Statement of Work template for all new contracts requiring participation in the installation recycling program, a better accounting of recyclable material, and an aggressive campaign by the recycling office to spot check upwards 40% of all construction and demolition contracts while they are being performed.

**Recycling Efforts and Accomplishments:** The Qualified Recycling Program (QRP) is undergoing organizational change while recovering from a 60% vacancy rate of personnel over the past year. Efforts are underway to make a business plan that will focus on opportunities for revenue generation through equipment purchases (shredder, metal deformer, etc.), opportunities from untapped recyclable goods (brass bullet casings, tires and other paper products) and streamlining personnel duties (analysis of labor cost per income generation). Another organizational change was the creation of a QRP oversight board of key COMFLEACT Yokosuka managers involved with base's environmental operations. The QRP Board acts as a sounding board for funding QRP grants, suggestions and keys for larger recycling participation and reviewing QRP operations and budget submissions. Over the period of performance the last two FY's, in FY14 the QRP saw revenues of \$1.0 million and in FY15 \$700K. The 30% drop is still a respectable figure considering the YEN to DOLLAR rate dropped by about 20% and metal commodity prices also dropped significantly impacting recyclable sales.

**Hazardous Waste/Material Reduction:** Reduction of Hazardous Waste saw opportunities for more base patron's participation with a drop off stations for batteries at the two local Navy Exchange stores, both rechargeable and regular cell batteries are being collected. An aggressive EMS program of reducing Hazardous Material (HazMAT) usage is being done in partnership with Naval Fleet Supply Center, Consolidated Hazardous Material Reutilization and Inventory Management Program (CHRIMP). Through CHRIMP, the EMS program hopes to reduce the amount of HazMAT usage and thus keeping the Hazardous Waste stream lower. This program seeks to extend the shelf life of HazMAT through reviewing and extending expiration dates, finding other customers to use left-over HazMAT and product conformity using materials in multiple applications instead of obtaining another product (i.e., one paint color, lubricants). In FY15, the CHRIMP diverted over \$40K worth of HazMAT from being introduced into the production stream.

## ENVIRONMENTAL COMPLIANCE:

**Drinking Water:** A 08 February 2014 Navy Memorandum (5090 Ser N45/14U132588) required all priority areas (i.e., schools, Child Development Centers, Youth and Teen Centers) to be sampled for lead by the end of the calendar year. In response, the installation conducted an aggressive sampling program that required the involvement of a team consisting of environmental professionals from the Production and Environmental Divisions of the FLEACT, Yokosuka Public Works Department (PWD) and Naval Facilities Engineering Command Far East personnel. The sampling team investigated approximately 1,600 kitchen, classrooms, bathroom faucets, bubblers, refrigerated water coolers, and exterior faucets through the summer of 2014. Special care and consideration was taken to minimize impact to the operation of each priority area facility. Results of the initial sampling identified exceedances of lead screening levels of 20 parts per billion (ppb) at 90 locations, which included 35 locations in the newly constructed Ikego Elementary School. Analysis of the data revealed the higher lead levels were the result of fixtures and the team immediately implemented corrective actions to label and secure fixtures that exceeded lead levels. However, the results from the newly constructed elementary school warranted additional actions. In response, the installation immediately provided drinking water throughout the school through individual water containers on a daily basis until planned corrective measures remediated the situation. Following a full protocol retesting and corrective actions involving extensive flushing, the team was able to induce passivation protective layers inside water fixtures. Subsequent reevaluations were immediately conducted and test results for drinking water fixtures returned below 20ppb action level. As of today, FLEACT, Yokosuka is in full compliance with the Navy directive and safe drinking water is available to all priority facilities. In completing this monumental infrastructure task, the PWD



Team that implemented the testing and remediation of providing safe and high quality drinking water was awarded the NAVFACFE Team of Quarter to 32 members.

The establishment of a Drinking Water Monitoring Plan (DWMP) was a major consequence associated with the 2013 External EQA audit. A DWMP was subsequently developed by the FLEACT, Yokosuka PWD Environmental team as a

good faith effort to ensure the plan met 40 CFR 141 requirements. However, it was recognized that full conformance with 40 CFR 141 and CNICINST 5090.1 was dependent on the execution of an Initial Distribution System Evaluation (IDSE). Additionally, the non-monitoring of lead and copper at specific installation locations produced an additional finding in the EQA audit. In order to determine whereabouts of these specific locations, a Material Evaluation (ME) study first had to be conducted. To accomplish this effort, a contract was awarded to conduct the IDSE and ME, and to review and update the DWMP in order to incorporate the results of the aforementioned IDSE and ME into the DWMP.



Other Notable Achievements: A charter was developed and signed by the FLEACT, Yokosuka Installation Commander establishing an Installation Water Quality Board (IWQB). In this charter, goals, objectives, schedule and agenda are outlined to identify the various members' roles and responsibilities. As part of the IWQB, a provisional Operator in Responsible Charge (ORC) and Assistant ORC were also certified in accordance with CNICINST 5090.2.

A Record of Decision, as required by CNIC Memorandum 5200 Ser N4/13U84375, was signed by the FLEACT, Yokosuka Installation Commander declaring that all drinking water systems were fit for human consumption.

### Spill Response:

Spill prevention and response is integrated into base operations and military readiness. All oil or hazardous substance spills are regarded as a danger to the environment and the public's health. Furthermore, oil and hazardous substance spills are viewed as politically sensitive and detrimental to host-nation relations. The FLEACT, Yokosuka Spill Response Team is a coordinated effort across multiple entities providing support with Port Operations responsible for spills in the water and the Fire Department responsible spills on land. The Regional Dispatch Center ensures the proper response team is notified and implements an incident command system to initiate the necessary actions as determined by the degree of the incident. The PWD Environmental Division is a critical element in FLEACT, Yokosuka spill response providing operational expertise in the assessment of needed equipment, personnel, and proper planning to address any given or potential spill situations. Despite the 24/7 installation operational tempo and diversity of environmental receptors, FLEACT, Yokosuka has an established multi-faceted program critical to the successful management of the Spill Response Program.

The PWD Environmental Hazardous Waste Program Manager is the primary Spill Response Program Manager responsible for oversight, administration and budgeting, interaction with Spill Response Team departments, assessment and initiation of training, and directing manpower within the Hazardous Waste branch of the environmental division.

The PWD Environmental Hazardous Materials Program Manager oversees ship re-fueling operations and ensures on-site supervision for all re-fueling evolutions. This oversight provides a rapid response capability in the event of a release and offers FLEACT, Yokosuka situational awareness to prevent reportable incidents. This position has the authority to call



in resources and responders, investigates releases and reports up-to-date information through the chain of command.

The PWD Environmental Storage Tank/POL Manager is responsible for spills from above-ground storage containers and fuel loading/unloading areas. This position ensures enforcement of the Japan Environmental Governing Standards on areas such as secondary containment, rectification of identified structural tank deficiencies and conversion of underground storage tanks to above-ground storage tanks. This individual works and liaisons with the Defense Energy Supply Command managers (who store over 188 million gallons of fuel at 3 storage fuel tank farms) and the Ship Repair Facility and Japan Regional Maintenance Center during the review of their prevention sections in their integrated Spill Prevention and Response Plans.

**COMMUNITY RELATIONS:** The Historical/Cultural Tour remains the largest joint community relations effort with the city of Yokosuka, structured to maintain and strengthen relations with the host nation. Quarterly Installation Friendship-Day Historical Tours attracted over 600 Japanese nationals from the local community and the PWD Environmental team provided tours of the installation's many historic dry docks, buildings, and monuments. Three additional historic tours attracted 13 history students from the Kogakuin University, and 70 visitors including 3 mayors, 1 director of Yokosuka's Board of Education, and 11 members from the Yokosuka Cultural Assets Advisory Board. This year was a special year celebrating the 150<sup>th</sup> Anniversary of the Yokosuka Arsenal, the forerunner of FLEACT Yokosuka. Celebrations and special tours were provided of the industrial areas of the base. Highlighting these tours was a brochure outlining the various historical section of the base and focusing on the historical Dry Docks from the late 1800's and still in use. The PWD Environmental team reached out to the Yokohama Foreign General Cemetery (YFGC) for assistance regarding tombstones of four military personnel who died at the U.S. Naval Hospital in Yokohama in the late 1800's. Their burial records were lost in a fire caused by the Great Kanto Earthquake and the tombstones, stored at the U.S. Naval Hospital, were long forgotten until recently. Diligent work of the CRM team and YFGC rediscovered the history of these four sailors and the tombstones are being returned to the YFGC with proper honors. Started in 2013, the Annual Earth Day Environmental Fair continues to grow and increase environmental awareness. Local companies and organizations share their environmental knowledge and experience with the local base population. These groups included the Miura Peninsula Biodiversity Conservation Network, Miura Peninsula Insect Study Group, and the Japanese Geotechnical Society. Children and students from base schools also learned about natural resources as they were given opportunities to handle live animals, observe insect specimens collected from within the installation and get more information about geological processes and hazards. This past year's highlight was a first time Installation Commander/Skipper's recognition ceremony of 15 volunteer organizations and individuals, who contributed to the installation's aesthetics with clean-up projects, infrastructure improvements and outreach education efforts.