

**Naval Air Depot, North Island
2002 ENVIRONMENTAL QUALITY AWARD**

INTRODUCTION

Mission, Population and Acreage. Naval Air Depot, North Island's (NADEP) mission is to provide maintenance, overhaul, repair, logistics and engineering services for operational aircraft, systems, components and engines. With a dedicated, well-trained and experienced work force of over 3400 civilian and 88 active duty military personnel, NADEP performs maintenance on over 150 aircraft and 60,000 aircraft components a year. Depending on the level of work required, aircraft may be disassembled inside and out, right down to the last wire and hydraulic line. NADEP is located on Naval Air Station North Island at the northern end of the peninsula of San Diego and occupies 72 buildings on 358 acres. San Diego Bay borders us on the north and west, the Pacific Ocean is to the south, and the residential neighborhood of the City of Coronado is directly east.

Environmental, Geographical, Political, Economic and Community Setting. The Naval Air Depot came into existence in 1919 as the Assembly and Repair Department of the Naval Air Station at North Island. NADEP became a separate command in 1969 as the Naval Air Rework Facility. Today, NADEP is a full service depot with annual revenues in excess of \$400 million and an estimated economic impact to the San Diego region in excess of \$558 million annually.

As one of the largest industrial complexes in San Diego County, NADEP receives its fair share of oversight by various regulatory agencies. Inspections by the San Diego Air Pollution Control District, the San Diego County Department of Health Services, the California Department of Toxic Substances Control, the Regional Water Quality Control Board, the San Diego Metropolitan Industrial Waste Program and the California Air Resources Board occur frequently throughout the year.



BACKGROUND

Environmental Challenges. The Depot is located adjacent to the City of Coronado, an affluent retirement and resort community with citizens who have the time, resources and knowledge to involve themselves in issues affecting their community. Because of this high level of scrutiny, it is imperative that the Depot be a good neighbor by being sensitive to environmental issues that may impact the community. Because of the variety and amount of industrial activities being performed in a sensitive ecological location, implementing environmental programs and projects is a constant challenge. In addition, we must integrate environmental requirements into our industrial operations without adversely impacting cost, schedule and quality.

Staffing. The Environmental Program Office is part of the Depot's Base Operations Competency. It consists of 31 individuals. The Environmental Planning and Compliance Branch is staffed by 17

environmental engineers and environmental protection specialists' plus administrative staff who work aggressively to address the ever-present array of industrial and environmental challenges. The branch provides all the engineering and technical services to develop and implement NADEP's environmental programs. The Hazardous Material and Waste Control Branch employs 14 hazardous waste disposers. This branch provides hazardous waste collection services for all production and maintenance shops and is integrated into the process of preparing, packaging and tracking all hazardous waste containers for transportation and disposal. This unit also provides chemical handling services for industrial process such as chemical additions. The two branches work in tandem to achieve and, when possible, exceed, environmental compliance requirements. Environmental Programs include:

- *Air Quality Management*
- *Asbestos Management*
- *Safe Drinking Water*
- *Pollution Prevention*
- *Storm Water Management*
- *Hazardous Material Management*
- *Hazardous Waste Management*
- *Water Quality Management*
- *Ozone Depleting Substance Elimination*
- *Solid Waste Management and Recycling*
- *Environmental Management System (ISO 14001 Registered)*
- *Spill Prevention Control and Countermeasures*
- *Underground/Aboveground Storage Tank Management*
- *Emergency Planning and Community Right-to-Know Act*



Management Approach. The Command believes that the implementation of an Environmental Management System (EMS) registered to the ISO 14001 standard is one of the most outstanding features of our environmental program. The overall intent of the standard is to provide the framework for a management approach that enhances an organization's ability to identify and reduce environmental impacts. NADEP's approach is to bring each of the Command's Strategic Business Units into the process, allowing them to set their own goals and objectives. The process begins with each shop documenting its impacts to the environment in the form of a process flow diagram. Environmental impacts can include everything from generation of hazardous waste and air emissions to scrap metal for recycling. Once these environmental impacts are identified, the shop can then set objectives and targets designed to reduce those impacts. These objectives and targets are then reviewed by a team of subject matter experts who screen them not only for environmental compliance, but also for additional factors such as cost and safety. The approved projects are then presented to management for approval. This process ensures "buy-in" from everyone involved. Progress on the approved projects is tracked through a shared database. The EMS also includes an internal audit designed to monitor compliance to the ISO 14001 standard and ensure that continual improvement is occurring. The process contributes to a dynamic sharing of knowledge across various departments within the NADEP since auditors are pulled from all areas of the organization, and auditors are not allowed to audit their own departments. The final step in the EMS process consists of management reviews and identified corrective actions. The NADEPNI Executive Steering Committee reviews the performance and status of the EMS several times a year

and contributes to the continual improvement of the system. The management system has invigorated our pollution prevention program with ownership across the plant, from the shop level to upper management.

Community Committees, Boards and Partnerships. The NADEP has a strong working partnership with its host Command, Navy Region Southwest, and with various local regulatory agencies and community groups. For the past 10 years, NADEP has participated in the annual San Diego Earth Day Event. This broad based environmental forum draws more than 60,000 visitors and provides NADEP with an opportunity to educate the general public about its environmental program and pollution prevention efforts. NADEP personnel visit San Diego City Schools to educate students on recycling and energy conservation issues. NADEP regularly participates in meetings and workshops sponsored by the Industrial Environmental Association, a local group of businesses,



Earth Day 2001

regulatory agencies and community members interested in environmental issues. NADEP, along with our host Command is also a participant in the Navy Environmental Leadership Program (NELP). NELP serves as a test bed for new and innovative technology and focused management that addresses the full spectrum of environmental issues, and exports its successes and lessons learned throughout the Navy and Marine Corps family. NADEP is also a partner in the California Pollution Prevention Partnership (CAP3). CAP3 is an innovative partnership agreement between the Department of Defense and the California EPA. CAP3 supports the development and implementation of pollution prevention initiatives between the regulatory agencies and DoD.

Environmental Plans and Agreements. In accordance with the ISO 14001 standard, NADEP developed its environmental quality procedures. These procedures are controlled documents; they must have revision numbers, authorization signatures, and a distribution list. These documents provide the overall framework for the environmental program. In addition, NADEP maintains plans and procedures specific to each environmental media area. These documents are reviewed and updated on a regular basis. In addition, NADEP has recently negotiated an Interservice Support Agreement with Navy Region Southwest, which outlines the duties and responsibilities for both host and tenant. The NADEP has also entered into an agreement for environmental support with DynCorp, a contractor on base who repairs and maintains aircraft ground support equipment. The NADEP was DynCorp’s provider of choice based on value and cost effectiveness.

NADEP North Island Environmental Plans, Procedures and Agreements	Latest Revision
ISO 14001 Environmental Management System Manual	11/26/02
Air Quality Management Plan	9/26/01
Energy and Water Conservation Plan	4/28/99
Hazardous Materials and Waste Management Plan	4/28/99
Pollution Prevention Program Plan	9/01/01
Solid Waste Recycling Plan	9/28/99

Storm Water and Safe Drinking Water Management Plan	9/28/99
Central Berm Management Plan	1/5/00
Storage Tank Management Plan	12/31/01
Business and Emergency Response Plan	9/30/02
Hazardous Waste Analysis Plan	3/1/98
Self Inspection Plan	2/24/99
Spill Prevention Control and Countermeasures Plan	4/01/01
Interservice Support Agreement Between NADEPNI and Navy Region Southwest	Revision Pending
Memorandum of Agreement Between DynCorp. And NADEPNI	Revision Pending

PROGRAM SUMMARY

Environmental Management Program Objectives. NADEP North Island is committed to protection of the environment and conservation of our natural resources. Our Command has developed a statement of environmental policy which guides our environmental programs.

Statement of Environmental Policy

The Naval Air Depot, as a provider of engineering, logistics, calibration, manufacturing, overhaul and repair services for the U.S. Navy aircraft, ship systems and other general military aircraft and ships, recognizes its responsibility as a steward of the environment. Throughout the span of our activities, NADEP considers environmental stewardship of equal importance to productivity and product quality.

In recognition of this responsibility to our stakeholders, customers, neighbors and others, NADEP commits to:

- Improvement of environmental performance
- Adherence to all relevant environmental legislative, regulatory, permit, and other requirements
- Prevention of pollution; and
- Utilization, development and production of products that minimize environmental impacts to the extent economically and technologically feasible.

It is the responsibility of all NADEP personnel to ensure the protection of the environment, and implement this policy within the span and control of their individual business activities. In order to accomplish this, NADEP communicates this policy to our employees, stakeholders, and interested public.

Our vision of “Beyond Compliance” is demonstrated in our commitment to developing an Environmental Management System and becoming the first federal facility to successfully register

to the ISO 14001 standard. The benefits to the environmental programs at NADEP of ISO 14001 registration include:

- Continual improvement
- Improved community relations and employee awareness
- Improved documentation and control
- Improved regulatory compliance
- Competitive advantage
- Third party verification of environmental quality



Outstanding Features of our Environmental Program.

Recognition. NADEP North Island has received the following awards in recognition of outstanding environmental stewardship.

- 2002 White House Closing the Circle Award – Environmental Management Systems
- 2001 CNO Environmental Quality Award (Individual or Team) – Honorable Mention
- 2000 Environmental Stewardship Award presented by Congressman Brian Billbray (49th Congressional District)
- 2000 San Diego Women Who Mean Business Award – Environmental Protection Category
- 1999 CNO Pollution Prevention Award (Individual or Team) – Honorable Mention

Customer Service. NADEP’s environmental staff is committed to supporting our customers, the NADEP’s industrial production shops. In FY02, we implemented an intranet-based system for production shops to use when requesting chemical handling services. Previously, these services were requested via a trouble call. However, our shop customers were not satisfied with the turn around time on these requests. The new system allows our customers to request services on the NADEP intranet. The customer fills out a simple form on-line for services such as industrial machine cleaning, coolant replacement, or process tank service. The system generates e-mail to both the environmental program office and the chemical handlers. The customer normally receives the requested services within 24 hours. In FY03-04, NADEP plans to expand this service to include pick-up of hazardous wastes and drop-off of empty hazardous wastes containers.

Energy Conservation Program. One of the outstanding features of our program is the inclusion of the Energy and Utilities program in the Environmental Program Office. Opportunities for energy conservation often coincide with pollutant reduction initiatives, leading to a synergistic effect between the different environmental media areas and the energy management team. Often, reducing energy consumption can be a simple matter of increasing awareness. At NADEP, an energy summary report of the top 10 buildings that consume the greatest amount of energy is distributed monthly throughout the plant. The reports provide cost, usage and trend profiles to assist personnel in identifying energy conservation opportunities. A 9% reduction in electricity usage has resulted from these efforts since FY2000. In addition, NADEP received \$600,000 in FY02 and initiated a design contract for 39 projects identified for energy efficiency. A 10% reduction in energy usage along with increased productivity is expected when these projects are implemented in FY04.

Uniqueness and Cost Effectiveness. The most unique feature of the NADEP environmental program is the fact that we continually go beyond regulatory compliance requirements while maintaining our cost effectiveness and operational flexibility. As a result, we are able to fully integrate environmental requirements into our aircraft maintenance and repair mission. We work closely with our industrial planning office to ensure that any new workload or new equipment brought into the plant will not only meet or exceed regulatory requirements but will also minimize environmental impacts in conformance with our EMS.

In FY01-02, projects implemented through our ISO 14001 process have greatly reduced hazardous waste generation and subsequent disposal cost of many waste streams. In FY01, waste disposal costs were reduced 11% over 1998 levels. In addition, NADEP routinely reduces costs by using in-house staff instead of contractors to develop regulatory reports and documentation. Documents such as emission inventory reports, NESHAP semi-annual compliance status reports, the P2 Plan, SPCC Plan, Hazardous Materials Business Plan and Emergency Response Plan are all prepared and updated by our in-house staff, ensuring that this corporate knowledge can be integrated into environmental planning.

Another unique, cost saving feature of our environmental program is the expanded role of our Hazardous Materials Management System, or HMMS. In FY02, we implemented an additional feature which allows us to track the quantity and associated cost of hazardous materials used by an individual aircraft, component, or other work product. This information is used to control costs across the plant and to accurately assess costs for future workload. The system allows for complete inventory control – hazardous material can be easily located within the plant and transferred to the shop where it is most needed. This eliminates excess hazardous materials and ultimately results in reducing the amount of hazardous waste generated.

ACCOMPLISHMENTS

EMS Implementation. The Executive Steering Committee, comprised of the CO, XO and top civilian managers, has made a commitment to environmental stewardship through their support for ISO 14001-implementation plant wide. NADEP's environmental program office has taken a phased approach to implementing the EMS. The initial registration in 1999 included four business units (over 500 personnel): Environmental Program Office, Manufacturing, Materials Engineering Laboratory, and Primary Standards Laboratory. Since that time, three more units have been registered, including Components, Aircraft Services and Industrial Planning. These organizational units include over 50% of the plant. NADEP plans to continue until all units are registered. In addition, the EMS team has also accomplished several registrations for NADEP business units to the ISO 9001:2000 quality management system standard, utilizing the EMS as a foundation. The EMS team is currently merging the two management systems to ensure that even quality initiatives take environmental impacts into consideration.

The benefits of EMS implementation at NADEPNI have been well documented within our shared Lotus Notes database developed entirely in-house. Since EMS implementation in 1999, 54



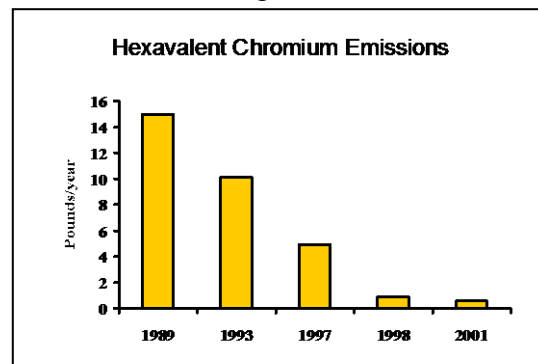
environmental improvement projects have been identified via the EMS process and 24 of those projects have been successfully completed. A sampling of some of the environmental improvements completed and in work in FY01 and FY02 is as follows:

- Build covered/semi-enclosed area over HAZMAT berm to prevent contamination of environment from rainwater. Prevent contamination of HAZMAT stored in berm area from rainwater.
- Repair above ground storage tanks for storage of used solvent for cost savings vice storage in 55-gallon drums.
- Revise NADEP instruction for disposal of equipment containing Mercury.
- Replace walnut shell blasting with plastic media blasting.
- Add sensors and digital controls to building air conditioning actuators.

Another significant accomplishment related to the EMS implementation has been to raise awareness of environmental issues throughout the plant. The training provided by the Environmental Program Office staff ensures that every employee is aware of how they can contribute to the planning process, ensuring involvement at every level of the organization. In addition, our staff has conducted intensive three-day internal auditor training workshops. Until recently, these classes were conducted for in-house personnel only. However, due to the success of the EMS at NADEP, Naval Facilities Engineering Command requested that NADEP personnel train their environmental compliance teams on EMS implementation. In FY02, NADEP conducted two training sessions for personnel from the Southwest and Pacific Divisions of NAVFAC and CINCPACFLT.

Air Pollution Control. NADEP holds individual operating permits for 150 significant air pollution sources. Each permit contains operating conditions for monitoring, record keeping, maintenance and reporting requirements. As a major source of both criteria and hazardous air pollutants, the San Diego Air Pollution Control District inspects the NADEP on a quarterly basis. Despite this high level of scrutiny, NADEP has received no violations over the last three years. In order to manage the large volume of records required to demonstrate compliance, NADEP developed the EnviroCom database, a state-of-the art air quality compliance tool. The database is used to track and monitor both hazardous and criteria pollutant emissions from both significant and insignificant air emission sources. The database was developed entirely in-house and has been in use at NADEP for over six years.

Using the EnviroCom database, NADEP has established complete documentation of both criteria and hazardous air pollutant emissions. NADEP has conducted a large number of source tests to establish reliable, source specific emission factors attendant to numerous emission sources. Total facility emissions are reported annually in NADEP's Air Toxic Emission Inventory report. Ambient air concentrations and associated health risks of toxic pollutants have been established by conducting air dispersion modeling. The highest risk pollutants are then targeted for reduction. Using this process, NADEP targeted Hexavalent Chromium for reduction. As shown in the figure, NADEP has significantly reduced its emissions of this



carcinogenic pollutant over the last five years. In addition, total hazardous air pollutant (HAP) emissions have been reduced by 12 % between 2000 and 2002.

As one of the largest industrial facilities in San Diego County, NADEP has taken a leadership role in the resolution of regional air quality issues. We participate in workshops, working groups and public hearings whenever new regulations are proposed by the local agency. In addition, NADEP is also actively involved in reviewing proposed National Emission Standards for Hazardous Air Pollutants (NESHAPs) currently being proposed by EPA. When the Miscellaneous Metal Parts and Products Coating NESHAP was initially proposed, NADEP actively provided input and comments on the proposed rule through the chain of Command. NADEP believed that the proposed rule could place an unreasonable compliance burden on DoD activities without corresponding environmental benefit. In 2001, NADEP opened its doors to EPA rule makers in an effort to get them to reconsider their proposed rule. The site visit was coordinated through Naval Facilities Engineering Services Center, hosted by NADEP, and brought EPA rule makers together with DoD so that EPA could see first hand how a DoD facility handles the challenges in complying with its current rules and why their new, proposed rule would be detrimental to this effort. As result of this effort and others like it throughout DoD, EPA is now proposing a separate coating NESHAP for military operations.

Water Quality Control

Storm Water Management. Storm water runoff can have a serious impact on the quality of our local bay and beaches. Most beach closures in San Diego are due to storm water run off. Nationwide, as much as 80% of water pollution is caused by storm water run off. NADEP has worked closely with Navy Region Southwest to ensure that Best Management Practices (BMPs) specified in the Storm Water General Permit are implemented. To raise general awareness of this important issue Command wide, environmental staff conducted training with shop personnel as well as sending out “All Hands” e-mails clarifying the requirements on what types of discharges are allowed into storm drains.

During 2002, NADEP also addressed storm water concerns regarding its scrap metal bins. NADEP generates large quantities of scrap metal, which is sorted and placed into bins for recycling. The scrap metal can be contaminated with oil, machine coolant, or toxic metals. These recycling bins are typically located out of doors. NADEP recently purchased and installed covers for all scrap metal bins stored out of doors as a BMP.

Spill Reduction. In 1998, NADEP experienced 32 reportable and non-reportable spills. As part of the ISO 14001 EMS implementation, the environmental team has been able to increase awareness regarding spill prevention and reduce the number of spill events. Beginning in FY1999, all spill events are documented in our shared database and the spill reports are available to all ISO 14001 registered organizational units. The spill reports contain detailed information on location, quantity, and root cause of the spill, whether equipment failure, human error, etc., as well as recommendations that will prevent similar events in the future. These reports are provided to the responsible parties as well as top management. As a result of this increased awareness, spills were reduced by 43% in FY00, 37% in FY01 and 65% in FY02 over 1998 levels.

Toxic and Hazardous Waste Management. NADEP operates a 90-day storage facility that processes hazardous waste generated by the Command. The objective of the Hazardous Waste

Management Program is to implement proper management controls to provide for safe, effective and efficient handling of hazardous waste streams in full compliance with environmental regulations. NADEP's Environmental Program Office has its own waste management operation, with capability for pick-up, tracking, consolidating and packaging hazardous waste. As a result, NADEP deals directly with Defense Reutilization and Marketing Organization (DRMO), making our hazardous waste disposal costs the lowest in the San Diego region.

During the past two years, NADEP continued to implement waste reduction initiatives. In 2001, we began using the Hazardous Materials Management System (HMMS) for cradle-to-grave tracking of containerized and industrial waste. Use of this system allows waste labels to be generated electronically, eliminating the need for artisans to fill out waste labels and streamlining the transfer of drums from the point of generation to DRMO. HMMS also electronically generates waste manifests and work requests to DRMO. The automated system has increased efficiency and reduced costs. NADEP has also implemented an aerosol can puncturing process, allowing aerosol cans to be treated as universal waste instead of hazardous waste. The procedure reduces hazardous waste generation by 5,400 lb per year. Overall, NADEP has reduced containerized hazardous waste by 22.7% between 1998 and 2001. In addition, the source reduction initiatives implemented through our EMS process has resulted in a three-year decreasing trend for Toxic Release Inventory (TRI) reportable chemicals. In 2001, TRI reportable chemicals were down 65% over 1998 levels, and the number of reportable chemicals went from eight to five.

Environmental Compliance Self-Assessment. NADEP maintains an on-going self-inspection program. Our multi-disciplinary environmental specialists continually monitor compliance in over 100 separate production shops, spending more time in the field than the office. When a potential non-compliance is found, the inspector issues a "Potential Notice of Violation" to the offending shop. The shop then has five days to respond to the deficiency, outlining the corrective actions. Compliance histories of individual shops are tracked using an Access database and used to identify when additional training or other assistance is required. Weekly meetings between our Environmental Compliance Manager and Senior leadership ensure prompt action is taken when potentially non-compliant situations develop.



Self-Inspection Program

Interaction With Regulators. NADEP's extensive interaction with regulators has resulted in a mutually beneficial relationship. NADEP regards inspections by regulatory agencies as an opportunity to learn and improve our overall compliance program. Regulators often look to NADEP as experts in aviation maintenance and leaders in environmental excellence. At the close of every inspection, NADEP requests the inspector meet with our Commanding Officer and provide candid feedback. This ensures that our senior leadership has a clear understanding of the any compliance issues that arise during the inspection.

Planning and Budgeting. The environmental planning process has been enhanced by the implementation of the ISO 14001 registered EMS. The EMS enforces a formal planning structure with regular reviews by upper management. Budgetary requirements are submitted and tracked to

ensure that necessary funding for environmental compliance and improvement projects is available. As a Navy Working Capital Fund activity, all requirements must be met with internal funding. In FY01-02 NADEP spent a total of \$5.0 million maintaining full compliance with all regulatory requirements, while continuing to expand our ISO 14001 EMS program and implementing numerous environmental improvement projects that exceeded regulatory requirements.

Training. An environmental program is only as strong as its weakest link. It is vitally important for the success of our mission that each Depot employee is thoroughly aware of the environmental compliance requirements associated with their particular shop, processes, and operations. To ensure this outcome, NADEP environmental staff provides formal and informal training on an almost daily basis. Each of NADEP's 100+ production shops appoints an environmental representative who is responsible to the shop supervisor for ensuring compliance. Each shop representative completes a four-hour environmental awareness and hazardous waste disposal course. All employees within each ISO 14001 registered business unit receive one hour of EMS awareness training. Supervisors and upper management also receive environmental liability training. Informally, environmental staff often schedules short, 20-minute training sessions targeted to a specific shop, or group of shops, to instruct the employees concerning environmental compliance requirements specific to that particular shop or type of work

SUMMARY

The Naval Air Depot, North Island is a leader in environmental stewardship, meeting or exceeding all environmental regulatory requirements. Our environmental program has been highly successful in:

- Implementing an Environmental Management System
- Establishing proactive working relationships with regulatory agencies and community groups
- Educating the workforce to be good stewards of the environment
- Identifying and reducing emissions of hazardous air pollutants
- Reducing hazardous waste streams and associated disposal costs
- Managing hazardous materials to eliminate waste and cut cost
- Reducing storm water run-off
- Reducing spills
- Planning and budgeting to sustain environmental management and compliance far into the future

In addition, our Environmental Program has reduced aircraft maintenance costs, improved efficiency, prevented violations and taken a leadership role in portraying a positive image of the Navy's commitment to environmental stewardship.