#### SUBMITTAL FOR 2004 SECRETARY OF NAVY DEFENSE ENVIRONMENTAL QUALITY – INDUSTRIAL INSTALLATION

### INTRODUCTION

Mission, Population, and Acreage. The Naval Air Depot Cherry Point (NAVAIRDEPOT CP), North Carolina, is one of three U.S. Navy depots under the Naval Air Systems Command, headquartered in Patuxent River,

Maryland. It provides the highest standard in warfare technology through supremacy in naval aviation technologies. NAVAIRDEPOT CP mission is to support NAVAIR in providing the war fighter with Absolute Combat Power through technologies that deliver dominant combat effects and matchless capabilities. NAVAIRDEPOT CP provides depot maintenance, engineering and logistics support on a variety of aircraft, engines, and components for all branches of the U.S. Armed Forces. The depot's customers include: U.S. Navy and Marine Corps activities, foreign nations, U.S. Air Force activities,



U.S. Army activities and other federal agencies. As a service provider specializing in support of Marine Corps aircraft and engines and components, NAVAIRDEPOT CP is the only source of repair within the continental United States for many jet engines and rotary wing engines, as well as turbofan vectored thrust engines. NAVAIRDEPOT CP is currently eastern North Carolina's largest industrial employer and a true national asset. The depot employs 4,000 civilian, military and contractor personnel, who work in a wide variety of skilled technical and professional positions. The depot sits on nearly 150 acres. The depot facilities are spread over more than 100 buildings and structures with a capital value of more than \$969 million.

### BACKGROUND

**Organization and Staffing.** The Industrial Environmental Program Division (IEPD) was re-organized in October 2003. Due to command attention to the environment, the IEPD re-organized into five teams with a total staff of 43 employees: Air Quality, Water Quality, Land Quality, Pollution Prevention and Hazardous Waste Handlers including environmental protection specialists, engineers, chemists, industrial hygienist, scientists, and support staff. NAVAIRDEPOT CP fosters an environment that capitalizes on innovative ideas using limited resources; working effectively in teams; a commitment to consider the environmental effects of all mission-critical decisions; and assuming a leadership role to protect, restore and enhance the environment in all business decisions.

**Environmental Aspects.** Along with NAVAIRDEPOT CP's continued emphasis on quality, service, and teamwork, the depot stresses the importance of environmental protection and preventing an adverse environmental impact. The operations and activities, including metal fabrication, finishing, plating, coating and stripping, conducted at the depot are in support of the mission and require the delivery, storage, and use of hazardous materials, the generation of hazardous wastes, and the release of pollutants to the media (e.g. air emissions and water). NAVAIRDEPOT CP holds a Title V Air Permit. While the depot has no other environmental permits, their operations do generate wastes and consume resources managed under permits or regulations under the responsibility of the Marine Corps Air Station Cherry Point (MCAS CP). The "environmental aspects" are those operations and activities at the depot that have the potential to impact the environment. The following impact ranking matrix lists the depot's top environmental aspects:

Activities, Aspects, and Impacts (26 October 2004)																										
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La quin N X Y Pu Category	Activities	Criteria Pollutants	Н	T		Asbestos	Heavy Metal	IWTP	Organic Compounds	Ā	Sanitary Sewer	Storm Water	Water Usage	Landfill	Energy Use	HM Stora	Employee Exposure	Air Quality	Hazardous Waste	Water Quality	Solid Wast	Hazardous Material	Safety	Production Impact	Probability o Abnormal Threat	Total Rank
	Plating, Cadmium	Y	Y	Y	Y	Ν	Y	Y	Ν	Ν	Ν	Ν	Ν	Ν	Y	Ν	Y	4	5	3	1	4	4	5	5	2625
45 surface treatment/coating	Plating, Chrome	Y	Y	Y	Y	Ν	Y	Y	Ν	Ν	Ν	Ν	Ν	Ν	Y	Ν	Y	5	4	3	1	4	4	5	5	<u>2625</u>
48 surface treatment/coating	Plating, Silver/Copper	Y	Y	Y	Y	Ν	Y	Y	Ν	Ν	Ν	Ν	Ν	Ν	Y	Ν	Y	4	4	3	1	4	3	5	5	<u>2375</u>
41 surface treatment/coating	Painting, Aircraft	Y	Y	Y	Y	Ν	Y	Ν	Y	Ν	Ν	Ν	Ν	Y	Y	Ν	Y	5	3	3	2	4	5	5	4	2200
43 surface treatment/coating	Painting, Parts	Y	Y	Y	Y	Ν	Y	Ν	Y	Ν	Ν	Ν	Ν	Y	Y	Ν	Y	5	3	3	2	3	5	5	4	2100
42 surface treatment/coating	Painting, Engine	Y	Y	Y	Y	Ν	Y	Ν	Y	Ν	Ν	Ν	Ν	Y	Y	Ν	Y	5	3	3	2	3	5	5	4	2100
47 surface treatment/coating	Plating, Other	Y	Y	Y	Y	Ν	Y	Y	Ν	Ν	Ν	Ν	Ν	Ν	Y	Ν	Y	4	5	4	1	4	3	5	4	2100
37 surface treatment/coating	Anodizing, Chrome	Y	Y	Y	Y	Ν	Y	Y	Ν	Ν	Ν	Ν	Ν	Ν	Y	Ν	Y	5	4	3	1	4	3	5	4	2000
5 Depainting	Depainting, Aircraft Chemical	Y	Y	Y	Y	N	Y	Y	Y	Ν	N	N	Y	Y	Ν	N	Y	5	4	4	2	4	5	5	3	1800
7 Depainting	Depainting, Chemical, Tanks	Y	Y	Y	N	Ν	Y	Y	Y	Ν	Ν	Ν	Ν	Y	Ν	N	Y	5	4	2	2	4	3	4	4	1280
36 surface treatment/coating	Anodize, Sulfuric Acid	Ν	Y	Y	Y	Ν	Ν	Y	Ν	Ν	Ν	Ν	Ν	Ν	Y	Ν	Y	3	3	3	1	4	3	5	3	1275
46 surface treatment/coating	Plating, Nickel	Y	Y	Y	Y	Ν	Y	Y	Ν	Ν	Ν	Ν	Ν	Ν	Y	Y	Y	4	3	3	1	5	3	4	4	1216
4 Cleaning	Parts Cleaning, Varsol	Y	Y	Y	Ν	Ν	Y	Ν	Ν	Y	Ν	Ν	Ν	Ν	Ν	Ν	Y	3	3	2	1	3	3	4	5	1200
21 Manufacture	Engine Rework	Y	Y	Y	Ν	Ν	Ν	Ν	Ν	Y	Ν	Ν	Ν	Y	Y	Ν	Y	3	2	1	3	3	3	5	3	1125
32 non specific	Fuel/Defuel	Y	Y	Y	Ν	Ν	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Y	Ν	Y	2	2	2	1	3	3	4	5	1040
8 Depainting	Depainting, PMB	Y	Y	Y	Y	Ν	Y	Ν	Ν	Ν	Ν	Ν	Ν	Y	Y	Ν	Y	5	4	1	3	2	5	5	2	1000
6 Depainting	Depainting, Aluminum Oxide	Y	Y	Y	Y	Ν	Y	Ν	Ν	N	N	Ν	N	Y	Y	Ν	Y	5	3	1	2	2	5	5	2	900
38 surface treatment/coating	Glass Bead Blast	Y	Y	Y	Y	Ν	Y	Ν	Ν	Ν	Ν	Ν	Ν	Y	Y	Ν	Y	5	3	1	3	1	5	5	2	900
2 Cleaning	Parts Cleaning, Aqueous	Y	Y	Y	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	3	1	3	1	2	2	5	3	900
3 Cleaning	Parts Cleaning, Organic, non Varsol	Y	Y	Y	Ν	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Y	3	2	2	1	3	3	4	4	896
19 Manufacture	Composite Part Rework	Y	Y	Y	Ν	Ν	Y	Ν	Y	Ν	Ν	Ν	Ν	Y	Y	Ν	Y	3	3	1	2	3	5	4	3	816
53 Testing	Test Cells	Y	Y	Y	Y	Ν	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Y	Ν	Y	5	2	1	1	3	4	5	2	800
52 Testing	Penetrate Inspection	Y	Y	Y	Ν	Ν	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Y	Ν	Y	3	2	1	1	3	2	4	4	768
40 surface treatment/coating	Painting of Cans for Components and Engines	Y	Y	Y	Y	N	Y	N	Y	N	N	N	N	Y	Y	N	Y	5	3	2	2	3	5	3	4	720
35 surface treatment/coating	Alodining	Ν	Y	Y	Ν	Ν	Y	Y	Ν	N	Ν	Ν	Ν	Ν	Ν	Ν	Y	2	4	2	1	3	3	4	3	720
20 Manufacture	Electronic Rework	Y	Y	Y	N	Ν	N	N	Ν	N	N	Ν	Ν	Y	Y	N	Y	3	2	1	2	2	4	5	2	700
23 Manufacture	Grinding/Sanding	Y	Y	Y	Y	N	Y	Ν	Ν	Ν	Ν	N	N	Ν	Y	Ν	Y	3	3	1	1	2	5	4	2	480
17 Manufacture	Airframe Rework	Y	Y	Y	N	Ν	N	N	Y	Ν	Ν	Ν	Ν	Y	Y	Ν	Y	3	3	1	3	3	5	5	1	450

**Outreach.** NAVAIRDEPOT CP provides access to its Environmental Policy on its external web page <u>http://www.nadepcp.navy.mil/</u>. NAVAIRDEPOT CP has published articles regarding environmental improvement projects as well as general ISO information in the following publications: NADEP environmental newsletter; NADEP News (monthly); MCAS CP Windsock; and the Navy's Environmental Magazine "Currents." Environmental personnel have made presentations at several conferences including: Fleet Environmental Information Exchange and the Joint Services Environmental Management Conference.

The depot instituted an environmental stewardship recognition program to recognize employees who demonstrate strong and active support for the environment throughout the depot. NAVAIRDEPOT CP environmental staff are involved in a number of local, state and federal groups addressing environmental issues: Carolina Recycler's Association, DoD Pollution Prevention Team, Local Emergency Planning Committee, Academy of Certified Hazardous Materials Managers and State Military Environmental Issues Working Group (SMEIWG) (Air Quality Program Manager is the Co-Chair for Air Committee).

NAVAIRDEPOT CP environmental staff provides EMS assistance to MCAS CP, Portsmouth Naval Shipyard, Hampton Roads Region, Red River Army Depot, Pope AFB, and Naval Air Depot, Jacksonville.

In 2004, NAVAIRDEPOT CP applied to participate as the "Environmental Steward" under the North Carolina Environmental Stewardship Initiative sponsored by the North Carolina Department of Environment and Natural Resources, which is designed to promote a partnership between the regulated community and regulator, and encourage superior environmental performance by North Carolina's regulated community. The following web page <u>http://www.p2pays.org/esi/</u> provides information on the Stewardship Initiative. An "Environmental Steward" is an organization that has shown a commitment to exemplary environmental performance beyond compliance and has demonstrated a mature EMS with aggressive environmental goals and integrated EMS into cores business practices.

<u>Communication and Internal Audits.</u> NAVAIRDEPOT CP established environmental specific meetings and communication networks at all levels of the organization to include: Production, Business Office, Facility Engineering, Materials Engineering, Maintenance, Unions and support areas. Under the EMS, all levels of the organization are held accountable for environmental compliance. The NAVAIRDEPOT CP EMS utilizes a customized Intranet web page, which allows for multi-user computer access, and is a major key to the success of the program. This web page is the backbone of the EMS and provides for minimizing the administrative burden to carry out traditional management system process of Plan, Do, Check and Act.

The integration of our EMS into our core business processes is exemplified by the existence of our integrated Command Monitoring Team. This team does common audits incorporating quality, environmental, safety, and health. To ensure that these areas are in compliance with their EMS requirements, internal audits are performed on a scheduled basis by this trained team of command employees. The team performs all internal audits for ISO 14001, ISO 9001, AS 9100, and OHSAS 18001 (the Integrated Audit) at the depot. The purpose of an Integrated Audit is to ensure the proper implementation and maintenance of all the standards and to ensure that documented procedures are being followed and relevant corrective actions are taken whenever necessary.

# **PROGRAM SUMMARY**

The EMS requires that the depot, through teams, consider the means to identify actual and potential environmental impacts from products, practices and processes, and consider significant impacts in setting objectives, targets and plans, as well as, regulatory and financial requirements.

**Integration of EMS into Core Business Functions.** NAVAIRDEPOT CP's Environmental Management System (EMS) is a "state-of-the-art" system that focuses on continual improvement for environmental performance and is utilized in the same manner for continual improvement for safety, quality and other areas

deemed critical by the organization. This integrated approach at NAVAIRDEPOT CP is cost effective and utilizes existing management procedures to minimize problems with any new efforts. By integrating EMS into core business processes, the EMS effort is used to identify and implement improvements which contribute to making NAVAIRDEPOT CP operation more cost effective in accomplishing the primary mission of providing quality aircraft for DoD. The EMS approach implemented references the environmental compliance and other required EMS functions already present at the depot. The depot has taken a pro-active approach to perform a self-evaluation and develop an EMS. As a first step, a comprehensive Phase I Audit "GAP Analysis" of the facility was completed in December 2002 to evaluate the existing environmental practices with respect to the ISO 14001 Standards. *NAVAIRDEPOT CP received its Certificate of Conformance to the ISO 14001 Standard for EMS on 01 November 2003 at all levels of the organization two years prior to CY 05 as required by EO 13148, a significant accomplishment.* 

NAVAIRDEPOT CP has a 5-year strategic plan, which includes an initiative to incorporate environmental stewardship in all processes.

<u>Policy Statement.</u> The following policy statement represents the shared vision and commitment of the depot: The depot is committed to "continually investigating pollution prevention opportunities and incorporating the best ideas into our process, paying particular attention to that portion of our work having significant environmental interaction, maintaining programs that promote continual compliance with local, State, and Federal environmental regulations, providing the framework for setting and reviewing environmental objectives and targets, continually evaluating our work, correcting deficiencies, and updating our methods, and training our workforce to assure individual competence and responsibility." To sustain the commitment to the depot's environmental policy, the requirements of the EMS apply to all employees activities, equipment and materials.

**Objective and Targets.** The depot reviews and updates the environmental objectives and targets with respect to the goals of the depot and in support of the depot's environmental policy. In setting objectives, the following ideas are considered: environmental activities, aspects and impacts, legal and other requirements, current and available technology, financial constraints and budget requirements, views of interested parties, current operations and feedback from the participants. The table below shows the depot's achievements of objective and targets.

The EMS Team (the "Team") consists of representatives from all organizational areas of the depot. The primary function of the Team is to ensure that the implementation and continual improvement of the EMS is consistent with the environmental policy. The Team also establishes objectives, targets and plans. The Team provides technical guidance, resources, and support in the implementation of the EMS and in the development and introduction of any corrective measures to ensure continual improvement. The Team has the authority, resources, and support in the implementation of the EMS and in the development and introduction of any corrective measures to ensure continual improvement and introduction of any corrective measures to ensure continual improvement and introduction of any corrective measures to ensure continual improvement and introduction of any corrective measures to ensure continual improvement. The Team members are fully familiar with the environmental aspects and the legal requirements concerning the regulated materials at the depot. The EMS Team prepares and provides a monthly status to the EMS Team Chair at the monthly EMS meetings, who in turn presents such reports along with corrective action recommendations and requirements, if so needed, to the ISO 14001 Representative.

<u>Management Review</u>. The Executive Leadership Committee (ELC), which serves as management review board, holds meetings twice per year to update top management on progress of the EMS; the EMS team holds monthly meetings. The ELC consist of the Commanding Officer, Executive Officer and Department Heads. The ELC's mission is to review and provide support to the EMS and ensuring its continual improvement in the area of environmental compliance.

# ACCOMPLISHMENTS

As evidence to the success of the EMS at NAVAIRDEPOT CP, since implementation, many improvements for the environment have been identified and implemented. After two years experience, the top successes to date are listed below:

**Objective** (a): Reduce the amount of new varsol used by 10 percent by FY 05.

> By FY 04, reduced by 35 percent

**Objective** (b): Reduce the amount of paint use and waste generated by 5 percent by FY 04.

➢ By FY 04, reduced by 17 percent

**Objective** (c): Reduce the amount of methylene chloride used in the Strip Hanger by 30 percent by FY 04.

➤ By FY 04, reduced by 44 percent

**Process Modification or Improvement.** The NAVAIRDEPOT CP focuses on specifying processes that are at the leading edge of technology to obtain the highest quality parts. By accepting pollution prevention as a primary goal, NAVAIRDEPOT CP reviews processes to identify alternatives to prevent a significant environmental impact. One of these processes, improved paint gun washers, proved most successful, and was approved in FY 02. The paint gun washers extend the solvent life, by recycling the solvent, thus avoiding disposal and material costs. The use of this equipment improved efficiency and reduced labor hours.

**Improved Material Management.** During FY 02 and FY 03, NAVAIRDEPOT improved the Consolidated Hazardous Material Reutilization and Inventory Management Program (CHRIMP) by adding more data analysis activities into the program. All operational level activities are on-line with the Hazardous Material Management System and all HM procurement authority has been centralized in one group source. This improvement to the depot's CHRIMP reduced hazardous material procurement, hazardous waste and improved shelf-life management but also enabled the depot to comply with numerous recordkeeping, monitoring and reporting requirements that otherwise would have to be managed manually. Use of the Hazardous Material Management System improved efficiency and reduced labor hours.

Affirmative Procurement. NAVAIRDEPOT CP has long been purchasing and using environmentally friendly materials. In compliance with Executive Order 13101 the Depot has ensured that its employees involved with purchasing functions have received Affirmative Procurement training. As of CY 02 the depot had 5-contract specialist trained through the Defense Acquisition University and 105 purchase cardholders trained through the Depot's training program. Additional training was provided online via the DOD DAIWA and E-Business web sites. The scope of this training included the importance of purchasing "Environmentally Preferable" products, while utilizing the EPA's Comprehensive Procurement Guidelines.

<u>Management Commitment to meet and go beyond compliance.</u> NAVAIRDEPOT CP is always going beyond the regulatory requirements including:

- ✓ An annual internal compliance assessment of all environmental programs
- ✓ Developing a Transportation Involvement Program to encourage carpooling
- ✓ Eliminating a coating containing calcium chromate, which reduced chromate emissions
- ✓ Eliminating an estimated 18,456 pounds of mixed waste by going to smaller two part paint kits
- ✓ Installing HEPA filters to reduce air emissions
- ✓ Installing 2 stage bag out filters, which reduce if not eliminate the loss of dust from plastic media blasting systems
- ✓ Installing a real time data system for 100 air emission source control devices. Information including differential pressure is tracked to schedule maintenance and proper work practices such as door status and airflow can be monitored for all devices from a central location

- ✓ Installing a Data Sonde monitoring equipment. This system is used to monitor storm water data for MCAS CP storm water permit requirements.
- ✓ Marking all exterior drains with warnings that communicate that the discharge enters surrounding surface water
- ✓ Reducing toxic air emissions by 59 percent by 02
- $\checkmark$  Reducing the aromatic solvents emissions by 6600 pounds
- ✓ Reducing Glycol Ether emissions by 3300 pounds

NAVAIRDEPOT CP continues the use of a Hazardous Material Management System that currently tracks approximately 2,000 chemicals products from receiving, directly into operations, and handling byproduct and waste materials. This system has shown to be very effective in managing shelf life and efficient use of products that reduce waste volumes. Highlights of the system include: any new products require the approval by materials engineering, safety and environmental prior to purchase; every container of material is tracked from "cradle to grave" by a unique serial number and specific manufacture information; a distribution network that traces products to select distribution centers where material consumption is managed. Employees are required to check out materials and return by the end of each shift.

<u>Achievements and Awards.</u> NAVAVNVDEPOT CP's success has been built on a history of excellence: May 2004 – Depot received OHSAS 18001 certification at <u>ALL</u> levels of the organization; November 2003 – Depot received ISO 14001 third party certification at <u>ALL</u> levels of the organization; July 2003 – Depot received AS9100 certification at <u>ALL</u> levels of the organization; February 2003 – Depot completed maintenance on its first UN-1N Huey; Calendar Year 2002 – NAVAIR Aviation Safety Award winner for most outstanding Naval Air Depot; November 2002 – Depot re-certified to the ISO 9001:2000 Standard; and June 2002 – Material Resource Planning (MRP II) was implemented facility-wide.

NAVAIRDEPOT CP has applied for and received numerous state and federal environmental awards which describe many of the waste reduction activities implemented: Governor's Award for Excellence in Waste Reduction 1995, 1996, 1997, and 1999; Reliability Based Maintenance Award 1999; Chief of Naval Operations Environmental Quality Awards 1996 and 1998; and Secretary of Navy Environmental Award Runner-up 1998.

<u>Challenge.</u> Due to the long history of environmental improvements and staying on the leading edge of pollution prevention efforts, further improvements require new technologies

<u>**Outstanding Accomplishment.</u>** What does NAVAIRDEPOT CP consider its most outstanding accomplishment?</u>

- ✓ <u>ALL</u> areas of the facility are included in EMS, which create ideas for improvements and EMS awareness
- $\checkmark~$  EMS structure puts the focus on continual improvement
- $\checkmark$  EMS is embedded into the core business functions
- $\checkmark$  EMS is transparent to the organization
- EMS has received outstanding compliments from environmental management professionals from government and private industry

Because of the above highlights, the EMS at NAVAIRDEPOT CP provides for a minimal effort to maintain registration to the ISO 14001 standard. And, whether or not the EMS is registered to the ISO 14001 standard, this approach to an EMS truly minimizes the traditional EMS efforts while providing a tool for continual improvement.