VPP STAR STATUS AWARDED TO NORFOLK NAVAL SHIPYARD

On Thursday, 30 March 2006, Norfolk Naval Shipyard (NNSY) became a "Star" site in the Occupational Safety and Health Administration’s Voluntary Protection Program (VPP). The shipyard was awarded VPP Star status in recognition of its success in reducing injury rates and improving safety procedures. NNSY is one of three Naval Sea Systems Command (NAVSEA) shipyards to earn the prestigious title: an OSHA VPP Star site.

VPP is an OSHA cooperative program that rewards employers with outstanding workplace safety and health programs that control hazards and protect workers. OSHA protects the safety and health of workers through enforcement of occupational safety and health regulations; outreach, education, and compliance assistance; and cooperative programs.

OSHA approves successful employers by designating them to one of three VPP program levels: Star, Merit, or Star Demonstration. Star is the highest VPP level. The VPP Star award designation indicates that the organization receiving the award has exceeded the four basic VPP elements:

- Management Leadership & Employee Involvement
- Worksite Analysis
- Hazard Prevention & Control
- Safety and Health Training.

These employers have exceptional management systems and programs that prevent occupational injuries and illnesses. A designated Star site must have had all of its occupational safety and health program elements operating effectively for at least one year, and its injury and accident rates must be below the national average for that industry. The shipyard’s On-Duty Total Case Rate (TCR) has declined 58% in the past five fiscal years from Fiscal Year (FY) 01 to FY05. The TCR declined 51% in the past three fiscal years from FY03 through FY05.
During Big Rock ceremony celebrating NNSY achievements, shop workers and supervisors break the rock in recognition of reducing lost workdays (left) and the rock recognizing wearing of PPE by shipyard workers (right).

More than 2,500 people attended the special ceremony awarding NNSY its “Star.” “It’s you men and women of Norfolk Naval Shipyard that make this a great and safe place to work,” said Shipyard Commander, Captain Joseph F. Campbell. “This is a great day for the Navy and this, our ‘any ship, any time, and any-where shipyard.” The ceremony featured special guests from OSHA and NAVSEA and visitors from local and naval communities. The highlight of the ceremony was the busting of two Big Rocks achieved in FY 2005. One Big Rock was in honor of reducing lost workdays due to injuries, and the other was in recognition of employees proactively wearing their personal protective equipment (PPE) resulting in 21 percent fewer eye injuries. “Results like this take dedication, planning and commitment,” said Steve Witt, Acting Deputy Assistant Secretary of OSHA. In particular, Witt praised the dedication of the shipyard employees in practicing VPP elements, adding, “You’ve demonstrated what it takes to achieve superior results.”

Safety is paramount to the successful accomplishment of NNSY’s mission. The shipyard is responsive to all Federal, State and Local requirements that pertain to the safety and health of NNSY. While compliance alone is a challenging objective, exceeding mere compliance is what started NNSY on the path to VPP Star status. This was accomplished in large part through joint employee and
Examples illustrating how NNSY transformed itself to attain VPP Star recognition:

- NNSY leadership committed to enhance the safety and health management system by implementing the OSHA VPP model. In 2003, NNSY held a shipyard-wide VPP Kickoff where all employees were invited to attend, including representatives of the Regional OSHA office and the shipyard unions (International Federation of Professional and Technical Engineers, Tidewater Virginia Federal Employees Metal Trades Council, and American Federation of Government Workers). Leadership commitment was demonstrated by the public signing of the VPP Commitment Pledge by the shipyard commander, union representatives, and top management. In addition, the shipyard established a VPP Executive Steering Committee along with four VPP focus teams to implement VPP. The committee and teams are comprised of senior management and labor representation. The four focus teams are Education & Awareness, Recognition, Accountability & Leadership, and Prevention & Ergonomics. The initial goal of each team was to increase the shipyard knowledge of VPP and keep safety and health in front of employees.

- NNSY has a unique performance incentive program called the “Big Rock.” The shipyard reserved 75% of its annual awards budget for this program. The Big Rock program selects several major milestones, which if accomplished, ensure success for the shipyard. An example of a Big Rock would be completing a Chief of Naval Operations (CNO) availability (scheduled time period provided shipyard to perform its repairs) on schedule. In the past year, safety goals accounted for 20% of the entire Big Rock incentive. All employees share equally in the rewards. Each time a Big Rock was crushed throughout the year, there was a celebration which included: military upper echelon participation and recognition; actual Big Rocks to bust on a public shipyard platform; and refreshments. The Safety Big Rocks for FY05 related to improvement in personal protection equipment (PPE), regulatory compliance, and reducing the Lost Workday Rate. The overall goal of the Safety Big Rocks was to increase safety awareness. NNSY used numerous avenues to publicize the Big Rock program, including banners on buildings and regular intranet and shipyard newsletter updates.

- NNSY strived to educate their employees about VPP. Banners, posters, flyers, articles in the shipyard newsletter “Service to the Fleet,” and various incentives were utilized to inform and educate employees. In an effort to further enhance the safety and health training provided at NNSY, a new VPP Employee Safety Handbook was created and distributed to all employees in FY05. The handbook is a topical safety reference guide for employees in the event of questions or concerns in specific safety and health areas. It also contains specific information on home safety. In FY06, NNSY implemented an incentive program called the VPP Passport program. The VPP Passport is a book, which lists various safety activities employees can accomplish. The VPP Passport recognizes and rewards individuals who take it upon themselves to educate, communicate, and participate in the program. As part of completing the Passport, employees were tasked to complete a VPP Computer Based Training (CBT) program. The CBT is a two-hour course on VPP and the employee’s role in this initiative.
Examples illustrating how NNSY transformed itself to attain VPP Star recognition (continued):

- **Lean Six Sigma** has been implemented in the shipyard to reduce waste and to improve the “value stream.” The value stream is a collection of all actions necessary to produce a product or service. Non-value added actions are considered waste and are eliminated. A major thrust of Lean Six Sigma is workplace organization. This organization leads to a clean, well-organized and visually pleasing workplace. In addition, it eliminates waste and safety hazards. As part of Lean Six Sigma, standard work practices have been established which are the most efficient, effective and safest way to perform work. Across the shipyard, the side effect of Lean Six Sigma has been improved housekeeping. Good housekeeping practices help to create a safe work environment. Employees take pride in keeping their work areas in excellent condition. NNSY utilized the Lean Six Sigma process to evaluate the tank work evolution. Examples of improvements were the use of a tank mockup area (training platform used to acclimate workers to submarine tank environment) and employees utilizing knee and elbow pads. The result was a reduction in the number of mishaps experienced during shipboard tank work. Specifically, there was a drop in strains, sprains, and contusions from FY04 to FY05.

- In FY05, NNSY used the Lean Six Sigma Process to eliminate waste, reduce errors, and streamline the compensation management process. The ultimate goal was to reduce the Lost Workday Rate, also referred to as the Office of the Secretary of Defense (OSD) rate. A Safety Performance Team (SPT) was established to accomplish this task. Team members came from the Executive Staff (i.e., Lean Six Sigma facilitators), Injury Compensation Program Administrator staff, Production Resources, and the Occupational Safety & Health Division. Team members consulted with the shipyard attorney to review applicable laws concerning workers’ compensation and patients’ rights. Recommendations focused on two initiatives: establishing a firm return-to-work policy and implementing an improved long-term workers’ compensation case management strategy. NNSY implemented several recommendations within these initiatives.  
  As a result, the OSD rate at NNSY dropped significantly from FY04 to FY05.

- NNSY shop safety committees are a proactive force for improving safety performance in the shipyard. Shop safety committees work to achieve goals established by the OSH Policy Council, along with the VPP Executive Steering Committee. Ad hoc committees are formed to address specific issues. For example, an Electrical Safety Committee (ESC) was established in FY05 to track and reduce electrical shocks. The ESC also established three surveillance teams to inspect ships, docks/piers, and facilities, with the primary focus on in-process safety. In addition, the ESC worked to improve electrical safety as follows: purchased new gloves for welding support personnel to reduce shock potential; purchased new electrical power tool test sets; improved tags to display test data for tools; improved non-electrical workers’ training; and purchased electrostatic voltmeters to aid the ESC with determining suspected static shocks.
Examples illustrating how NNSY transformed itself to attain VPP Star recognition (continued):

- NNSY has a proactive Ergonomics Program. The objective is to identify, eliminate and minimize biomechanical risk factors that might cause damage to soft tissue and tendons, tendon sheaths, and nerves and cause muscle sprains, strains, and lower back pain or discomfort. This objective is accomplished by applying sound ergonomic principles and practices when conducting workplace ergonomic analyses in conjunction with the Lean Six Sigma process in order to find opportunities for ergonomic intervention. Listed are some of the ergonomic success stories at NNSY during FY05:

  - **Transducer Track and Trolley System.** Seventy-pound transducers were manually daisy-chained from the topside of the submarine through a narrow tunnel. Workers experienced back injuries, muscle strains, and smashed hands. NNSY designed a prototype transducer track and trolley system. The system reduced the number of workers from five to two, and significantly reduced the risk of sprains, strains and hand injuries. Naval Facilities Engineering Command has provided funding to have track and trolleys built for other commands that work on transducers.

  - **Helmets for Competent Person Gas Monitors.** Navy Competent Persons, who perform confined space entry work aboard ship, had problems with their hard hats falling off their heads when working in tanks. NNSY solved this problem by replacing the standard hard hat with a mountain climbing helmet that meets the ANSI Z89.1 standard. In addition, a light was attached to the helmet. The new helmet eliminated the risk of head injuries. There was no longer a need to hold a flashlight. As a result, the employee’s hands were free to hold onto ladders. Other naval shipyards are now using the new helmet.

  - **Dumping 55-Gallon Drums of Sandblasting Grit.** Manually operated forklift attachments were used to dump 2,300 pound drums of sandblasting grit. The job required two workers 40 hours to dump 30 drums using the forklift attachment. NNSY replaced the manually operated chain and sprocket forklift attachment with an end loader with a drum dumper attachment. The new system allows employees to dump 30 drums in 75 minutes. It is now a one-man operation with significantly reduced potential for personal injury and personnel protected from environmental hazards.

The above examples and others have translated into reduced injuries, more productive work time, and more efficient process controls to support job execution.
NNSY derives numerous benefits from being a VPP Star site. Because NNSY has taken its occupational safety and health programs well beyond the minimum regulatory requirements, OSHA has removed the shipyard from its programmed inspection list. Shipyard workers, however, lose none of their rights; OSHA is required to continue to respond to reports of major mishaps, valid employee complaints, and chemical spill incidents. Additional advantages include fewer work-related injuries and illnesses, improved employee morale, and reduced costs. The entire shipbuilding and repair industry benefits from the NNSY model of excellence that influences safety and health practices industry wide.

For more information on OSHA’s Voluntary Protection Program, how to qualify, a VPP eligibility checklist, and a VPP application, visit these websites:

OSHA VPP
http://www.osha.gov/dcsp/vpp/
VPP Participants’ Association
http://www.vpppa.org/
VPP Eligibility Checklist
http://www.osha.gov/dcsp/vpp/vppflyer.pdf
VPP Application Information, OSHA Instruction TED 8.4