

WORKER INITIATIVE AND BEST PRACTICES AT NAS KINGSVILLE PREVENT A HIGH VOLTAGE MISHAP

Naval Air Station (NAS) Kingsville, Texas, signed onto the Department of Labor, Occupational Safety and Health's (OSHA's) *Voluntary Protection Program (VPP)*, a program created to bring managers, employees, and OSHA together into a collaborative relationship that would supplement the Navy Occupational Safety and Health (NAVOSH) Program. NAS Kingsville's goal in adding on the supplemental *VPP* program was to promote awareness of and responsibility for safe and healthful work practices. The purpose of applying the *Management Commitment and Employee Involvement* component of the *VPP* at NAS Kingsville was to find out whether implementing private sector *Best Practices* would enhance its work safety record and reduce costs.



T-45A Goshawk assigned to the "Golden Eagles" of Training Squadron Twenty Two (VS-22) is maintained at NAS Kingsville

Carolyn Scheible, NAS Kingsville's Occupational Safety and Health Manager, wanted to initiate a shift in the perception of responsibility for occupational safety. Managers and employees assumed that the Safety Office was primarily responsible for workplace safety and that their role was one of reacting to events after the fact. The Occupational Safety and Health Manager set out to change that perception through



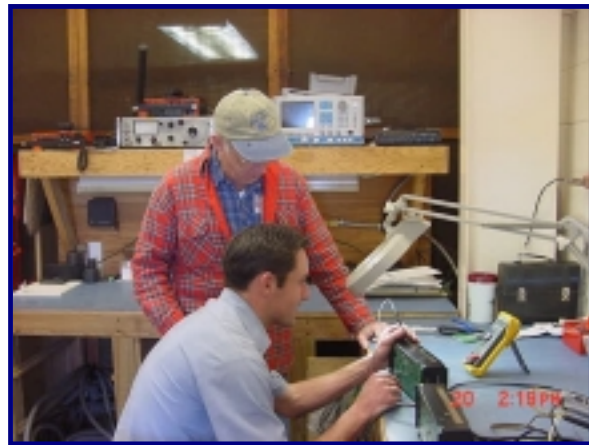
NAS Kingsville Electronics Technician (ET1) works on Runway Lens Cart

implementation of the *Management Commitment and Employee Involvement* component of *VPP*.

Under the direction of Ms. Scheible, NAS Kingsville managers and employees integrated private industry *Best Practices* into the NAVOSH Program. These *Best Practices* included holding effective safety meetings that produce results and identify hazards in work areas; developing job hazard analyses to call attention to hazardous working conditions; holding pre- and post-job briefings to identify and resolve potential risk factors; a worker safety

team that conducts workplace safety inspections; and an incentive program designated the *Passport to Success*, a program that acknowledges and rewards individual employees who take the initiative to instruct coworkers and to communicate safety program advantages to other employees. The overall program was so designated to establish the *Management Commitment and Employee Involvement* program at the workshop level.

Safety meetings are forums for safety managers to pass on to employees information that NAS Kingsville and other Navy commands have learned in finding and correcting root causes of mishaps and near misses and by taking action on employee reports on safety concerns. Operational Risk Management (ORM) and hazard analyses, two of the established methods for identifying and controlling occupational hazards, had already been built-in to the NAVOSH Program. Employees and managers agreed that the customary pre- and post- job briefings that utilized these hazard analyses substantially increased employee hazard awareness. Hazard analyses also boosted employees' confidence in their ability to recognize the inherent and potential hazards associated with their specific work tasks and their capacity for developing strategies to control those hazards.



Electronics personnel at work on electronics bench at NAS Kingsville.

The *Passport to Success* program, which is patterned on the Navy's highly successful Personnel Qualification Standard (PQS) program, provided an opportunity for NAS Kingsville supervisors and employees to use *VPP Best Practices* to prevent work-related mishaps and injuries and actively take the lead on safety matters that affected their and their coworkers' well-being. They convened effective safety meetings in their work groups, reviewed industrial hygiene reports with co-workers, and conducted workplace inspections to expedite change in the perception that the primary responsibility for the NAVOSH Program resided with the safety staff to the knowledge that responsibility resides with supervisors and workers.

A work crew that was tasked with repairing an underground concrete sewer line demonstrated how a *Best Practice* provided them the expertise

and self-sufficiency to recognize and control a serious safety hazard. Their recognition of the hazard and their initiative in responding to it prevented a serious mishap with personal injuries and disruption of air station operations.

A three-man work crew had been dispatched for the routine repair of an underground concrete sewer line at NAS Kingsville. Prior to the initiation of digging at the site, supervisors and employees developed a *job hazard analysis* and the supervisor provided a pre-job brief on safety hazards and safe work precautions. The pre-brief review of records included identifying the location of underground utilities and the hazards associated with excavating in the vicinity of underground utilities. The supervisor informed the crew that no underground electrical utilities were known to be in that location, but if the crew were to find a red warning ribbon, they should expect to encounter an electrical power line approximately 18 inches below that ribbon. In that case, all work would shut down, and an electrician would be called to assess the situation.

During excavation, a crewmember dug down to where the concrete sewer pipe encasement was described on the survey records. The encasement was located where indicated on the drawings; however, the concrete was stained with a red dye. Although there had been nothing on the digging permit to indicate any red ribbon or red dye in the excavation area, and no electrical underground utilities were known to be in that location, the excavation worker immediately stopped work on his own initiative. He contacted the high voltage electrician who rechecked site records. The electrician confirmed that no high voltage lines were indicated in that location. The excavation crew then asked the supervisor and electrician to come to the excavation site to inspect it before they restarted work to open the encasement.



Work crew digs up sewer line for repair at NAS Kingsville as supervisor monitors.

Upon inspection of the excavation site, the electrician determined that the survey records were inaccurate and that a live high voltage line was buried in the concrete encasement. The buried high voltage line provided

electrical power to an aircraft flightline runway. Cutting the high voltage line could have resulted in a mishap with serious injuries or fatal electrocution of one or more excavation workers. Additionally, a sudden and complete power failure would have made the affected runway unsafe for aircraft taking off and landing.

The electrician and supervisor attributed the prevention of a high voltage electrical mishap with a high probability of serious, even fatal, injuries, property damage, and interruption of flight operations to the excavation crew's implementation of VPP *Best Practices*. Application of the *Best Practice* had resulted in routine job pre-briefings and job hazard analyses and the work crews' recognition and effective management of the high voltage hazard.

The perception of safety responsibility at NAS Kingsville changed due to the integration of industry *Best Practices* into the safety program at the air station. NAS Kingsville employees are now active participants in their NAVOSH Program and take responsibility for their safety. As the result of internal reviews of hazards during safety meetings and pre/post job briefings, first line supervisors actively engage in identifying and evaluating safety hazards associated with the tasks assigned to their employees. Workers are empowered to initiate safety improvements in their work assignments, and supervisors support workers taking the initiative when indicated.

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