Modernization and its Effect on Hazardous Material Management

Reducing environmental risks.

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MK3 Smith begins a scheduled maintenance task. Step 1: Clean starter.

"Hmmm ... There are five possibilities in the locker. Clean with what? Is it hazardous? Do I need gloves? Eye protection? Additional personal protective equipment?

What do I do with it when I'm finished?"

A typical cutter storage shed. USCG photo by LT Andrew Joca.

You may have heard about one of the Commandant's modernization efforts—implementing a single standard logistics business model—and are now wondering, "What does this mean for me?" While I would enjoy detailing all aspects of this important modernization effort, this discourse will focus on managing hazardous material, or HAZMAT.

HAZMAT Management

Although HAZMAT management is not our concentration at this time, one key feature of this standard logistics business model is its primary emphasis on unit support designed to deliver operational capability while managing life cycle costs and regulatory compliance. A HAZMAT management program is designed to increase productivity through better tracking for procedures, procurements, inventory, usage, and disposal. The U.S. Coast Guard aviation program has successfully used this model for many years.

For hazardous material management, this standard business model (policy, processes, IT, and organizational construct) provides important inherent safeguards. The model's configuration-based, maintenance-driven design promotes systematic control of hazardous material through the approved chemical list (ACL). The ACL process requires first consideration be given to those chemicals already in the USCG's inventory. Only when supported by requirements are new items introduced to the approved chemical list.

This process offers several benefits and safeguards, including:

- a reduced hazardous material inventory footprint;
- centralized management of required chemicals;
- reduced probability of non-compliance;
- chemicals qualified as "appropriate" by material/industrial specialists;
- posture is known for hazardous materials.

Since the model is configuration-based and maintenance-driven, we can develop extremely detailed operations and maintenance procedures that identify the specific chemicals required to operate and maintain each asset. This means that we can ascertain the breadth and depth of all hazardous material use. Once the hazardous material (with its associated quantity) has been defined, a hazardous material management (HAZMART) program can be established to push support to units.

Hazardous materials remediation. USCG photo by PA2 Lisa Hennings.

A Coast Guard pollution investigator inspects an oil barrel. USCG photo by PAC Donnie Brzuska.

Units will no longer have to individually establish relationships with other organizations to provide hazardous materials, nor will they be left to their own devices to determine an appropriate chemical. Cautions and warnings associated with the chemicals identified will appear on each maintenance procedure card, reducing the probability of mishaps and/or equipment failures due to material/chemical incompatibility. For example, one over-the-counter "green" cleaner deteriorates aluminum, which eventually induces system failure.

How soon before operational units will have access to centralized hazardous material capability? Probably by 2011. Surface asset maintenance procedures for legacy assets are being reworked today (asset type by asset type) with an estimated completion of FY10's first quarter. An analysis of existing hazardous material management practices and footprint will be initiated in FY09. This will be a six-month effort, including developing a plan of action and milestones to initiate a USCG-wide HAZMART program.

About the author:
Mrs. Shelley Diedrich has been a member of the U.S. Coast Guard civilian workforce for seven years, with 20 years of experience in program and logistics management as a civil servant with the Department of the Navy. Mrs. Diedrich has served as logistics manager for the vessel logistics system; team leader for the Business and Processes Analysis Branch; and most currently as deputy of the Logistics Transformation Program. She is a recipient of the Commandant's Bronze Medal.

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