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About This Training Resource

If you’re an afloat safety officer or division officer, you have a challenging, important role at your command. This series multi-page reference resources will help you meet your bi-monthly training requirements. Modify and use them at quarters or muster.


Send your feedback and suggestions to LTJG Melissa Balint at melissa.balint@navy.mil.

A Real-Life Spill Incident

Are you familiar with your ship’s oil and hazardous substances spill contingency plan for reporting, containing and recovering from spills? Consider the following.

About 30 gallons of JP-5 aviation fuel spilled during a fuel-cell-maintenance leak check on an aircraft while underway. The cause of the spill was a moderate leak from fuel-dump valve flange in the transition section of the aircraft. Using absorbent pads and barrier socks from a fuel-spill kit, Sailors contained the JP-5 within the footprint of the aircraft on flight line concrete. Fuel didn’t enter the drain.

Lessons Learned: JP-5 on deck was quickly contained due to immediate response by emergency reclamation team personnel using absorbent materials. The response team responded quickly and contained the spill immediately. The aircraft was not moved until it was deemed safe and secure.

Best Practices: Having the required personnel, a spill kit and training were the key factors in containing this spill.

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Preventing Oil Spills

Oil spills can be prevented, especially if human error was the primary cause. Train Sailors how to stop spills at the source.

- Provide situational-awareness training on what to inspect, identify and report while on duty to prevent spills from occurring.
- Verify that PMS and good housekeeping practiced.
- Review checklists and standard operating procedures annually prior to your duty section’s oil/hazardous materials spill-response drill.
- Maintain topside watches at all potential spill locations.
- Arrange for direct lines of communication between fueling locations and fuel transfer pump stations.
- Provide on-the-job training on how to read and respond to alarms, how to check valves, and how to transfer oil. Use the existing checklist and other procedures for valve alignment and transfer operations. Double check the valve alignment of all the transfer system valves.
- Only perform the operation with trained personnel. Don’t rush, especially on Friday afternoons!

Oil and Hazardous Materials Spill-Response Kits

Are your MARK-II Oil Containment Kits and Hazardous Material Spill Kits fully stocked and accessible for quick use, inspected monthly and replenished as required? Both kits are capable of handling a spill of 30 gallons. It is vital that you are aware of the contents of the kit so you monthly inventory is accurate and complete. These are kits you never want to use, but it is critical they are available and fully stocked.

Per NSTM 670-8.5, all ships shall maintain at least one Oil Spill Containment and Cleanup Kit, AEL 2-550024006. Additional information can be found in the Oil Spill Response Kit Instruction Handbook (S9593-DV-HBK-010).

Per NSTM 670-8.5.2, All ships shall maintain, the following Hazardous Material Spill Response Kits: AEL -2550024007 (for surface ships), 2-550024008 (for small craft), 2-550024009 (for mine countermeasure vessels), and 0-006350027 Otto II Fuel Spill Kit (for submarines).

Additional information can be found in the Hazardous Material Spill Response Kit Instruction Handbook (S9593-CJ-MAN-010). A Spill Kit Checklist can be found in APPENDIX I of NSTM 670, Vol. 3.

The Oil Spill and the HM Spill Kit Response AEL and the Instruction Handbooks can be found on the TDMIS website at https://mercury.tdmis.navy.mil/cert/certtest.cfm or on the Navy SEIC website at https://wwwa.nko.navy.mil/portal/shipboardenvironmentalinformationclearinghouse/.
Responding to Spills of Oil and Hazardous Substances (OHS)

Use Material Safety Data Sheets (MSDSs) for guidance during all OHS spill-response operations. MSDSs shall be the primary source of product safety information, including health hazard data and precautions for the safe use and handling of OHS.

MSDSs also provide basic information for PPE usage that must be supplemented by an on-site assessment.

Additional safety information for spill response operations can be found in NSTM Chapter 670 Volume 2, the HMUG. Contact the DCA for appropriate storage locations of OHS Spill Response Kits.

Source: NSTM 670-8.6.

Hazardous Materials

- Only issue enough hazardous material for the Sailor to complete the job.
- Work with your assigned Consolidated Hazardous Material Reutilization and Inventory Management Program (CHRIMP) manager to ensure your program is properly tracking hazardous materials from receipt to off-load.
- Recycle hazardous materials as much as possible. Order only what you intend to use.
- Never discharge lubricating oils into the bilge, into oily waste holding tanks, or into waste oil tanks.
- Collect all synthetic lubricating oils and hydraulic oils and store them in separate containers.
- If you do not have a dedicated collection system, use 5-gallon or 55-gallon steel drums.
- Label containers for storage until available for shore off-load.
In the Event of a Hazmat Spill

Ensure the Sailor has read the Material Safety Data Sheet (MSDS) and understands spill control measures prior to checking out hazardous materials. In the event of a spill, that individual needs to be able to:

- Provide emergency responders with the identity of spilled material, the source of the spill and how much was spilled. Remember, spill kits can handle up to 30 gallons of spilled material.
- Don the necessary PPE, especially in an Immediate Dangerous to Life and Health Environment (IDLH)
- Arrange first aid for injured personnel until medical arrives (e.g., corrosive material exposure may require the use of eye wash or deluge shower).
- Understand the behavior of spilled material to be able to anticipate the movement of the spill (e.g., Leakage to lower deck passage from amidships toward galley) and order all personnel to evacuate from areas that may be exposed to the spilled material, especially when working with vapors.
- Prevent spills from entering other compartments by any means that do not involve personal exposure to the spill (such as closing drains, ventilation ducts, doors, hatches).
- Disperse gases or vapors to weather through the use of blow-out (forced exhaust) ventilation or by natural ventilation such as opening doors or hatches. If atmosphere is suspected to be flammable or explosive, only explosion-proof fans shall be used for blow-out ventilation.
- Eliminate any fire or explosion hazards such as electrical equipment, incompatible materials, and open flames.
- Understand hazardous characteristics to identify at what temperature a fire or explosion could occur (e.g., flash point).
- Look for health effects (e.g., fainting, dizziness, skin or eye irritation, nausea).
- Know if the spilled material is incompatible with other substances or reactive with air or water. If so, this may affect your approach to firefighting.
- Anticipate that dangerous vapors could be drawn into ship’s ventilating system.
- Be aware of other substances in the compartment that would play a role in a fire or explosion or is incompatible with the spilled material.