## Fleet Memorandum #4 (Post for Public Review)

## Overview

On June 9, 2009 a crewman was preparing to cut a piece of flat iron on the back deck of the R/V GeoExplorer for repair work. When the crewman turned on the gas and attempted to light the cutting torch, it did not light and a fire started near where the hose meets the gauges. It was discovered that there was a hole in the in the acetylene hose, which was the point of the fire. A hot work permit had been filled out and a fire watchman was on stand-by. The fire watchman attempted to put out the fire with his extinguisher and discovered that it was non-operational due to saltwater corrosion. The pin could not be released when the handle was depressed. A second extinguisher also failed to operate due a bent pull pin. However, two other fire extinguishers were found and used to put out the fire. Additionally, the fire hose was turned and used to cool down the immediate area. Damage to the vessel was minimal due to the cooperation and quick actions of the crew.

## Mitigation

Any fire aboard a vessel is serious. This is a major non-conformity. Recommendations to mitigate future issues include the following:

- 1. Ensure that the person welding is competent and fully versed in welding/cutting operations. The Chief Engineer is likely the best person to evaluate competencies with respect to welding/cutting.
- Prior to beginning welding/cutting operations a visual inspection needs to be made of the welding equipment and work site. A checklist is being developed to prompt equipment and site inspection.
- 3. NS-5 prompts monthly fire-extinguisher inspections; however, based on this incident vessels should inspect their extinguishers in a more rigorous manner. It should not take an incident to determine that extinguishers are not fully functional.
- 4. Conduct detailed fire drills, ensure crew familiarity with fire and safety plan so that they know where their equipment is located.
- 5. Ensure adequate supply of back up material for welding operations including hoses, torches, flame arrestors, and gauges.
- 6. Ensure that the bridge is aware of welding/cutting operations.