NPS Defense Energy Program Presents:

# DEFENSE ENERGY SEMINAR

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## Safety of Lithium Ion Battery System for Navy Applications

2 May 2014 – ME Auditorium 1300

## With Guest Lecturer Mark Tisher

Project Engineer, Power, Energy and Interconnect Technology Division, Naval Surface Warfare Center, Crane Division

#### Abstract:



Mark Tisher

This talk focuses on the Navy's Lithium Battery Safety Program. The speaker will discuss the requirements for deploying lithium battery powered applications as required by NAVSEA INST 9310.1B, and provide an overview of the processes and activities involved. Also to be discussed are program responsibilities and procedures defined by NAVSEA Technical Manual S9310-AQ-SAF-010 including exceptions, system design, use, packaging, storage, transportation, disposal, emergency response procedures, and safety assessment testing.

The Navy has implemented a new High Energy Storage System Safety Manual that applies to large format lithium batteries aboard platforms in the Navy Vessel Register. This manual introduces unique requirements on top of 9310 for these platforms.

Other organizations with prominent roles in lithium battery safety such as Underwriters Laboratory (UL), United Nations (UN)/Department of Transportation (DoT), Federal Aviation Administration (FAA), Radio Technical Commission for Aeronautics (RTCA), Society of Automotive Engineers (SAE), and Department of Energy (DoE) will be discussed.

Time will be set aside for questions and answers. Participants are encouraged to ask questions regarding lithium battery safety during development, deployment, operations, and life cycle support.

### **Biography:**

Mark Tisher received a BSEE degree from the University of Akron in 1987 and has been an electronics engineer at NSWC Crane for 23 years, serving in both technical and management roles.

Currently serves as Task Manager for Lithium Battery Safety tasking and has served as a Technical Agent for the Naval Ordnance Safety and Security Activity (NOSSA) since January 2006. He was a member of the ASDS Battery Event Root Cause Analysis Team.



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