From: Officer In Charge, Naval Medical Administrative Unit, Monterey
To: Chairman, Mechanical and Astronautical Engineering Department, Naval Postgraduate School, 700 Dyer Road, Monterey CA 93943

Subj: RECOMMENDED SAFETY AND INDUSTRIAL HYGIENE CONTROLS FOR FUNCTIONAL MATERIALS LABORATORY, ROOM 237, WATKINS HALL, MECHANICAL AND ASTRONAUTICAL ENGINEERING DEPARTMENT, NAVAL POSTGRADUATE SCHOOL, MONTEREY

Encl: (1) Recommended Industrial Hygiene Control Procedures

1. A review of the Functional Materials Lab, Room 237, Watkins Hall was conducted on 6 July 2011 by the NPS NAVOSH Director, Naval Postgraduate School, and the Naval Medical Administrative Unit, Monterey Industrial Hygienist (IH) to assess potential occupational health and safety hazards, as well as to make recommendations to comply with applicable OSH requirements. Enclosure (1) documents comments made in response to the above review of the lab.

2. Neither the NAVOSH Director nor the IH objects to the procurement of the hazardous materials needed for operation of this laboratory if the items presented in enclosure (1) are adequately addressed.

3. Further clarification or consultation with respect to this report is available from both S. Eric Thurston, Industrial Hygienist at (831) 656-2477, e-mail sethurst@nps.edu, and Michael Berry, NAVOSH Director at (831-656-2822, e-mail mberry@nps.edu.

S. E. THURSTON
By direction

Copy to:
NPS MAE Prof C Luhrs
NPS MAE Haz Mat Coor
• The Laboratory Professor indicates that all acids will be handled in the ventilated fume hood. This Industrial Hygienist concurs with this procedures because of the protection afforded.

• Ensure that the laboratory log use is properly completed with each use of the fume hood. The posted procedures observed during the tour of the lab need to be followed during the hood’s use.

• Because of the severity of damage from eye contact, chemical safety goggles rather than safety glasses need to be worn when handling acids.

• To minimize damage from skin contact with acids, neoprene rubber gloves rather the latex or nitrile rubber gloves need to be worn. If this makes handling of the small containers of acids physically impossible, then two pairs of the nitrile rubber gloves need to be worn. Latex gloves are not to be worn during handling of the acids because of their decrease ability for proper skin protection. Because of the possibility of unseen tears of other damage to them, disposable gloves need to be disposed of at the end of the day. Reusable gloves need to be washed with water after handling acids and allowed to air dry prior to reuse.

• The NPS Chemical Hygiene Plan needs to be reviewed and followed for operations performed in this laboratory. The NPS Safety and Occupational Health Director already forwarded a copy of the CHP to the Laboratory Professor.

• A full review of the lab will be made during the upcoming Calendar Year 2011 industrial hygiene survey of the NPS Mechanical and Astronautical Engineering (MAE) Department.
Emergency eyewash/shower stations need to be flow-checked on a weekly basis with the process properly documented and available for review during future inspections.

The lab tour noted the storage of a personal half mask respirator with organic vapor/acid gas cartridges stored in an overhead cabinet. If respirators are to be worn during laboratory operations, their use needs to comply both with the Navy’s OSH Manual (OPNAVINST 5100.23G) Chapter 15 and the Federal OSHA Standard on respiratory protection, 29 CFR 1910.134. Contact the Industrial Hygienist or NAVOSH Office if copies of these documents are needed and/or if respirators are to be worn. The NAVOSH Director requests a two-month prior notification of respirator use if possible so that required elements, such as medical surveillance, training and fit-testing can be conducted in a timely manner.

Personnel using the laboratory need to be included in the Navy’s Enterprise Safety Applications Management System (ESAMS). Please contact Martin Catanese in the NAVOSH Office so that proper accounts can be established and appropriate training on use of this system can be completed prior to use.

If additions to the hazardous materials authorized use list (AUL) are needed, contact the NAVOSH Director prior to procurement or purchase.

The NAVOSH Director will forward appropriate forms, instructions, documents, etc., that may be of use to laboratory personnel in the near future.

If additional safety gear or equipment is needed, a good source is found at [www.lss.com](http://www.lss.com)