

## HPMI Policies and Procedures 2011

The High-Performance Materials Institute (HPMI) is a leading center in the composite R&D. HPMI consists of multidisciplinary professional researchers: students, staff and faculty. HPMI is dedicated to the following missions:

- Conduct and promote a broad range of multidisciplinary research and integration to improve the performance and affordability of advanced composite materials and structures;
- Expand the pool of well-educated and multidisciplinary trained engineers and scientists for a technology sector of national and global significance; and
- Work with technology transfer and economic development professionals in commercializing composite technology and increasing economic impact.

Fulfilling our missions requires setting standards of excellence in professionalism and efficiency that will lead to a productive, safe and enjoyable working environment. Fulfilling our missions will also ensure that HPMI student researchers further their careers in challenging and rewarding future employment.

You should be proud of your research, and we encourage you to inform people about HPMI and your work. However, many of our research projects are proprietary and specific technical details should not be shared with others without proper agreements. If anyone asks detailed technical questions, consult with your advisor and W. Frank Allen ([fallen@fsu.edu](mailto:fallen@fsu.edu)) for guidance.

The following standards are established to ensure a safe and productive working environment. This should also be considered as part of the professional training, which is expected in industry.

### 1. Laboratory Safety – First and Foremost

All HPMI personnel must complete the university safety program at least once per year and fully obey and follow the laboratory safety rules and requirements.

- a. In case of emergency, call 911 immediately.
- b. Obtain certification on equipment before you use any equipment or device in any HPMI labs. Review the Equipment Management Program policies and procedures.
- c. Avoid operating potential hazardous equipment, handling hazardous material or engage in any dangerous activity when alone in the lab. If you are working alone on relatively low-risk experiments, ensure a responsible person is aware that you are working alone. Always use the buddy system for high hazard operations. Obtain permission from your supervisor before working with high hazard operations (hazardous chemicals, hazardous equipment or hazardous processes).
- d. Follow a written protocol for each high hazard experiment that includes emergency response procedures.
- e. Become familiar with the location and operation of safety equipment like safety showers and fire extinguishers. Know the locations of the closest telephone and fire alarm pull stations.
- f. If operating any equipment that will generate at a temperature greater than 300°C after 5:30 pm, a responsible person must remain in the building and check on the equipment at least once every 30 minutes. Notify your advisor and Mr. Allen via email regarding the equipment in operation. Multiple equipment may be monitored by more than one person, but the person must be familiar with the equipment and the experiment being conducted.
- g. Read MSDS sheets for any chemical you are working with and have the applicable sheets readily available. Review other resources as needed to obtain safety information. Understand the hazardous properties of chemicals. Know what to do if a chemical exposure occurs. Know what to do in case of a chemical spill. Know where chemical spill kits are located and how to use them. Clean up chemical spills only if safe. Call the after-hours emergency telephone number for assistance with clean up operations if needed.
- h. Ensure chemicals are properly stored based upon potential hazards.
- i. Follow the MSDS instructions to select and utilize personal protection equipment (PPE) during experiments.

- j. Wear safety equipment such as safety glasses, gloves, and lab coats while operating the machines or performing chemical experiments.
- k. Ensure all beakers and containers with chemicals are clearly marked as to what chemical is in the container. Avoid marking the lids of the containers since they may become separated from the container.
- l. Hazardous waste:
  - i. No chemical waste can be disposed of in a standard drain.
  - ii. Dispose of hazardous waste in the proper container.
  - iii. On the container, clearly label the waste that is being disposed of.
  - iv. Ensure the tops of hazardous are securely closed.
  - v. When container is close to being full, call 644-0971 for pickup. Do not remove the container from the lab.
- m. Do not wear lab coats or gloves in the lounge area or outside of the laboratory wing of the building. Use the service elevator if you must go to another floor.
- n. Do not reuse disposable gloves and dispose of gloves in the trash.
- o. Always wear closed-toe shoes in the labs. (No sandals)
- p. Report any accident, incident or unsafe condition to your supervisor immediately.
- q. Ensure anyone around your equipment is wearing the proper safety equipment and observing safety procedures.
- r. Ensure your lab and work areas are clean and secure:
- s. No eating, drinking, or smoking in the labs, unless the labs have been designated for eating and drinking by Environmental Health and Safety.
- t. Do not disconnect or remove lab equipment or computers.
- u. Exit the building immediately at the sound of a fire alarm.
- v. Report broken equipment to the lab engineer, Jerry Horne. Label the equipment as broken.
- w. Do not attempt to operate or repair equipment unless you are certified.
- x. Restrict and control contact with nanotubes. Ensure nanotubes do not become airborne in an unprotected area.
- y. Attend all safety seminars and training sessions. Lab Safety training is offered at HPMI each semester. A schedule for other general lab safety training offered may be found at <http://www.safety.fsu.edu/trainingcalendar.html>
- z. Keep your work area and lab cleaner than you found it.
  - i. Ensure your area is cleaned prior to leaving the area
  - ii. Dispose of razor blades in the proper receptacle and do not leave in your work area.
  - iii. Dispose of gloves in the trash.
  - iv. Remove any item that may be a trip or fire hazard.
  - v. Keep combustible materials, for example excess paper and cardboard boxes, to a minimum.
  - vi. Dispose of cardboard boxes when discarded by flattening the boxes and placing them by the dumpster.

*Violations of these rules are grounds for dismissal from the program.*

## **2. Building rules**

- a. While you may eat and drink in designated areas, ensure areas remain clean.
- b. The break rooms are available as a privilege. Failure to keep the area clean may result in being restricted from the break room or dismissal from HPMI.
- c. No smoking within 50 feet of the building.
- d. Cubicles and desks will be assigned on a priority basis of Staff, Post-Docs, Doctoral students, Masters students and undergraduates.
- e. If you move furniture, ensure you move it back to the original location.
- f. Do not post messages, signs or banners on walls.
- g. Students should park behind the building to save parking spaces for visitors.
- h. When you leave HPMI, inspect your lab working areas to ensure you clean out, properly dispose of, or turn over any materials or samples. Also, check out with your advisor, the

Operations Director, and Mr. Jerry Horne, which will include returning keys and informing who now has responsibility for materials or samples you are leaving behind.

### **3. Laboratory rules and ethics**

- a. Each lab space is assigned a lab supervisor who will be responsible for the cleanliness and safety conditions in the lab.
- b. Supervisors are responsible for ensuring that each lab worker is provided safety training specific to the hazards of the laboratory operations. This training is on-the-job training provided in the laboratory by supervisors or other senior laboratory personnel.
- c. For energy efficiency and safety, close fume hoods when not in use, and do not raise hoods above the designated height. Also, utilize fume hood log books for experiments.
- d. All equipment, tools and materials are shared, but these resources are assigned to different groups and researchers for management purposes. Obtain permission to use equipment, tools or materials not assigned to you.
- e. Provide only constructive comments to other researchers and be respectful to other researchers' work.
- f. All unattended research setups must have your name and contact information clearly visible.
- g. Do not stop or disturb other people's experiments or take another person's tools or supplies without permission, unless due to safety concerns.
- h. For major equipment and tools, the responsible researchers must coordinate times of use to ensure that all projects have access to resources. If a major facility or tool is required for more than 3 days, obtain your advisor's permission.
- i. Use lab equipment and computers for instructional or research purposes only.
- j. Do not copy any computer programs.
- k. Do not save your personal programs or data to the laboratory computers.

*Violations of these rules are grounds for dismissal from the program.*

### **4. Equipment training and certification (HPMI Equipment Training Program)**

- a. HPMI has established an equipment training and certification program, which is discussed in a separate document. Ensure you become familiar this program prior to using any equipment.
- b. Non-HPMI personnel using HPMI equipment must have prior approval. Find the request form on the resource forms of the HPMI website ([www.hpmi.net](http://www.hpmi.net)).

### **5. Security**

- a. Never prop an outside door open. FSU police will respond when doors are left open after hours.
- b. Do not open the large bay door after normal working hours without notifying FSU police. (644-1234).
- c. Your FSU ID card serves as your access to the building and labs. Access for labs is assigned by W. Frank Allen based upon recommendation and approval of the researcher's advisor.
- d. Everyone should swipe his or her own card when entering after hours. Be aware of "piggy-backers," meaning other people entering the building or a lab after you swipe your card. The person swiping the card will be the person recorded and may be held responsible for any damage.
- e. The last person to leave the laboratory must ensure:
  - i. All equipment is turned off (unless designated by another researcher to remain in operation).
  - ii. All doors are locked.

### **6. Academic eligibility for HPMI personnel**

- a. Undergraduate students must have a 3.0 cumulative GPA or work demonstrating their ability to maintain a 3.0 semester GPA while working 10 hours per week in order to be a candidate for employment by HPMI.
- b. Undergraduate students who fall below a 3.0 semester GPA during any semester while they are employed by HPMI are subject to have their employment terminated.
- c. Graduate students pursuing a M. S. degree must have a 3.3 cumulative GPA in order to be a candidate for employment by HPMI.

- d. Graduate students pursuing a M.S. degree who fall below a 3.3 semester GPA during any semester while they are employed by HPMI are subject to have their employment terminated
- e. Graduate students pursuing a Ph.D. degree must have a 3.5 cumulative GPA in order to be a candidate for employment by HPMI.
- f. Graduate students pursuing a Ph.D. degree who fall below a 3.5 semester GPA during any semester while they are employed by HPMI are subject to have their employment terminated.
- g. If any student deems that exceptional circumstances led to their poor academic performance and subsequent termination, they may appeal the decision and provide an adequate explanation to the HPMI Director, in writing, within 5 days of their notice of termination. Decisions regarding appeals are final.

## **7. Export Control Information**

- a. Many of our research projects are proprietary and specific technical details should not be shared with others without proper agreements. If anyone asks detailed technical questions, consult with your advisor and W. Frank Allen for guidance. However, some are designated as export control, which may be referred to as ITAR (International Traffic in Arms Regulations) or EAR (Export Administration Regulations).
- b. Only U.S. citizens or Permanent Residents are eligible to be authorized for export controlled projects and information.
- c. Room 104 or Lab 228 in the Materials Research Building are designated as the export control areas. No foreign nationals can enter these areas.
- d. Export Controlled data shall not be accessible to unauthorized persons. This includes briefings or even oral discussions that might release controlled data.
- e. Controlled data shall not be released to third parties via reports or briefings without written authority of the originating organization.
- f. Any duly authorized data transfers shall be performed through the Document Control Manager (W. Frank Allen) who will provide designation, tracking and documentation of all such transfers.
- g. Controlled data shall not be reproduced by users. If additional copies are needed, they shall be generated and inventoried by the Document Control Manager.
- h. Controlled data shall be under the physical control of an authorized person at all times. When not in use, data shall be in a locked container or desk; electronic files or programs should be closed so that access to them is denied to unauthorized users.
- i. If access to controlled data is infrequent, it should be returned to the Document Control Manager for long-term secure storage.
- j. If controlled data becomes obsolete or is no longer needed, it should be returned to the Document Control Manager for disposition. Unless otherwise directed by the terms and conditions of the specific contract, such data shall be destroyed or obliterated in such a way as to prevent reconstruction and unauthorized use, such as by shredding, disc/media destruction, file erasure, etc. The Document Control Manager shall update the inventory to record the date and means of destruction and who performed it.
- k. Controlled data shall only be displayed or processed in areas where physical access to displays or printouts is limited to authorized persons. If it is impractical to restrict access to an entire area or lab, the operator shall assure that visitors or unauthorized persons are not permitted access to view materials.

## **8. Materials and supply ordering procedures**

- a. PLAN AHEAD – obtaining supplies will take time. Identify materials that will be required or may be required and order early.
- b. Items costing less than \$1,500 can be ordered with a single quotation. Items ranging in cost from \$1,500 to \$25,000 require two competitive quotes (quotes from other vendors) in addition to the preferred vendor's quote. Items costing more than \$25,000 should be handled by their advisor.
- c. Visit the resource forms at HPMI website ([www.hpmi.net](http://www.hpmi.net)) to obtain the form for ordering supplies and for supplemental information.

- d. To avoid overstocking materials, Jerry Horne must approve supply orders and Dr. Jhunu Chatterjee must approve orders for chemicals.
- e. Keep records of orders (vendors and items and dates) that you have submitted for your future reference in the event that follow up inquiries are necessary.

**9. Package pickup (subject to change)**

- a. Items ordered through either university purchasing system will be delivered to the IE main office.
- b. Take the package ONLY AFTER the item has been recorded and ONLY IF your name is on the package.
- c. Questions regarding packages should be directed to John Taylor ([jotaylor@eng.fsu.edu](mailto:jotaylor@eng.fsu.edu), 410-6341) or Shavaughn Robinson ([robinsha@eng.fsu.edu](mailto:robinsha@eng.fsu.edu) 410-6646).

## **HPMI Equipment Management Policies and Procedures 2011**

Two main components make HPMI a major national research center: our people and our equipment. HPMI has acquired many pieces of precision equipment with a value totaling millions of dollars. This equipment must be used with care. To protect our people and our equipment, we have established this equipment management plan. Use of the equipment is part of the **PRIVILEGE** of being an HPMI researcher. Equipment use is not a right. Users have the responsibility to follow this policy to ensure proper use of equipment.

**1. General Information**

- a. Each equipment item is assigned to an HPMI researcher who serves as the equipment manager.
- b. The equipment manager shall train and document HPMI personnel as certified users. The certified user list will be attached to log book and the certification document will be maintained by the Equipment Director.
- c. Users must utilize the equipment use log books and shall keep true and accurate records of all dates and times in which the equipment is in use. Start the log book entry before you start the work.
- d. Improper use, failure to keep work space and equipment clean, or misconduct may result in disciplinary action including termination from the program. Gross misconduct or malicious misuse of equipment will result in termination and possible legal prosecution.
- e. Equipment use not related to HPMI projects must be approved by a PI or the equipment director.
- f. Avoid any operating potential hazardous equipment, handling hazardous material or engage in any dangerous activity when alone in the lab. If you are working alone, ensure a responsible person is aware that you are working alone.
- g. If operating any equipment that will generate at a temperature greater than 300°C after 5:30 pm, a responsible person must remain in the building and check on the equipment at least once every 30 minutes. Notify your advisor and Mr. Allen via email regarding the equipment in operation. Multiple equipment may be monitored by more than one person, but the person must be familiar with the equipment and the experiment being conducted.
- h. Non-HPMI personnel using HPMI equipment must have prior approval. See the request form for training and certification on the resource forms of the HPMI website ([www.hpmi.net](http://www.hpmi.net)). Requestors working in the labs must also read and understand the HPMI Policies & Procedures, which contains safety and security guidelines.

**2. Equipment Managers' Responsibilities**

- a. Provide training and certification for equipment use.
- b. Ensure a logbook is in place and used for assigned equipment. Conduct random checks and report any noncompliance to a PI or staff member.
- c. Post the certified user list in the log book and ensure only trained and certified personnel use the equipment.

- d. Make arrangements with the equipment director if there is need for priority scheduling. Otherwise, schedule on a first-come-first-served basis.
- e. Maintain files of instrument manuals, operating instructions, maintenance and service records for each equipment.
- f. Maintenance: Perform or schedule routine and preventative maintenance and set up and maintain connections between instruments, computers, and printers.
- g. Arrange for repairs and replace consumables and accessories.
- h. Assist in specimen preparation serving as a supervisor/trainer.

### 3. Certified Users' Responsibilities:

- a. Users must read and sign the HPMI policies and procedures, and obtain approval and training from their advisor and receive certification training to operate any item of equipment.
- b. Users must attend Laboratory Safety Training conducted by FSU EH&S as soon as possible. Lab Safety training is offered at HPMI each semester. A schedule for other general lab safety training offered may be found at <http://www.safety.fsu.edu/trainingcalendar.html>
- c. Further safety training on specific laboratory operations is provided by lab supervisors and managers.
- d. The equipment log book **MUST** be filled out **BEFORE** starting use of the equipment. Every field shall be completed. Noncompliance could result in disciplinary actions, including but not limited to loss of privilege of equipment use or termination from the program.
- e. Certified users may make reservations to use equipment anytime the equipment is available; however, be certain you allot sufficient time to complete your work without encroaching into the time reserved by other scheduled users. Make reasonable time estimates when scheduling.
- f. Users are not allowed to reserve more than two time slots within one week without permission of the equipment director.
- g. Cancellation policy: It is the user's responsibility to cancel reservation one (1) day in advance (2 days for SEM and AFM). Failure to do so may result the user being denied use of the equipment for a specified period.
- h. Time slots will be held 30 minutes, after which equipment manager may reassign the time to another user. If you will be late for your scheduled time, you must contact the equipment manager to hold your time slot.
- i. Use equipment appropriately. Careless operation may result in disciplinary action up to termination of employment.
- j. Clean equipment and area after use.
- k. Report any fault or malfunction in the log book and to the equipment supervisor.
- l. Do **NOT** install any software without the approval of the equipment director.
- m. Direct any questions to equipment manager and/or equipment director.

**I certify that I have received, read, understand and agree to comply with the HPMI Policies and Procedures and the HPMI Equipment Management Policies and Procedures for 2011 (09/11).**

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Advisor: \_\_\_\_\_

Email: \_\_\_\_\_

Contact phone #: \_\_\_\_\_

Date: \_\_\_\_\_