

Outlined below is a set of proposed procedures designed to facilitate safety and accident prevention within the School of Technology. While these recommendations are not steadfast rules, these are areas that demand the attention of staff and faculty alike.

General Housekeeping- General housekeeping involves the routine practice of keeping labs and work areas in a neat and organized fashion. It is imperative that good disciplinary practices are utilized in all areas of the workplace so that easily avoided accidents and injuries do not take place. Doing so also conveys a sense of professionalism to those who visit or work in our facilities. Things included in good general housekeeping include; keeping walkways, thoroughfares and hallways free of obstructions, keeping labs and work areas free of clutter, cleaning up spills as they are created, etc. We need to take pride in our facilities and in our workforce, what better way than to provide a clean, safe and pleasant work environment.

Safety Instruction- Any individual working in an area where the potential for injury is significant should receive instruction specific to that area. It is up to the supervisory official or the instructor to provide the training as well as documentation of that training. It is strongly recommended that some type of acknowledgement form be signed by students once they have been advised of the regulations/possible hazards associated with that particular lab. Areas that should be of concern are any instances where heavy machinery is being used, instances where dangerous levels of current and voltage exists, respiratory or vision hazards are present, etc.

Electrical Engineering has developed and implemented an acknowledgment system that is very impressive (Spring 2006). It is recommended that other departments within the school follow their lead and institute similar tracking procedures.

Machinery Maintenance and Repair- The majority of the equipment within the department is 20 + years old. This means that much of the equipment is in need of repair and maintenance. Once the equipment has been repaired to a state of safe predictable usage, regular maintenance for that particular machine should be scheduled in some structured form. Equipment that is not being used on a regular yearly basis should be properly stored, discarded or made available to other departments who may be in need of such equipment. Point of operation guards should be installed in warranted areas. Equipment using fluids for operation should be positioned on top of fire proof, absorbent mats to reduce the risk of fire and possible falls.

Standard Operation Procedures- Any equipment that carries a potential of personal injury should have a written set of operating procedures that include potential safety hazards and how to deal with those situations.

Proper Attire and Safety Glasses (PPE) - Laboratory experiences that require students, staff or faculty to work in an environment where the potential for injury exists should have a defined set of regulations of acceptable attire. Any situation; soldering, machining, working with chemicals, etc, where there exists a potential for eye injury mandates that safety glasses **MUST** be worn.

Chemical Usage, Storage and Hygiene- Chemical usage is not a common practice within the department yet it does warrant certain guidelines and restrictions. Any new chemicals purchased should be purchased through Chemical Stores. This enables the new purchase to be entered into the new chemical tracking system that is currently being instituted. If chemicals are not purchased through Chemical Stores, then they should be contacted so that the proper bar coding label can be attained and affixed to the new purchase's container. Chemicals must be stored in their original containers or appropriate containers that are clearly marked with the original container information. Any time a chemical is used in a lab or work environment, it is required by law that a copy of that substance's MSDS be available (in plain view) for those using that chemical. This requires that some form of notebook or display be created for each room where chemicals are going to be used. Once completed, this information source should be updated any time that a new MSDS is received. Chemicals that need to be included range from common alcohol and solvents to more elaborate chemicals. Students must be made aware of the location of the MSDS manuals and have readily available access to them. Any flammable liquids should be stored in an OSHA approved flammable and combustibles cabinet. Any corrosive or acidic chemicals must likewise be stored in an approved corrosive safe unit. Large quantities of lubricants and petroleum products should be stored on spill platforms. For areas where chemical usage is a regular occurrence, a counter top spill kit should be readily available.

An MSDS list has been posted on the World Wide Web on the School of Technology website. This information is found under the general information tab with a heading of Safety/MSDS. The link is <http://www.tech.mtu.edu/Safety/index.html>.

Safety Information- Any area requiring that special safety precautions be exercised requires visual notification of that particular consideration. Signs for all types of hazardous environments and situations are readily available from safety supply houses.

Fumes and Respiratory Health- Areas where there are regular exposures to fumes or airborne contaminants should have adequate additional ventilation.

Storage of Equipment- Proper storage of equipment is essential for the ongoing safety of faculty, students and staff. Any equipment that is not being used should be stored in such a fashion as to not present a safety hazard for those in that area. Storage of equipment on top of cabinets, the tops of shelving units, or in high places is generally discouraged. If the situation dictates that this practice be used, then any equipment that is being stored in a high area must be stored in such a fashion that: it is not susceptible to movement (i.e. restrained), it is at least 18" below any of the sprinkler nozzles in the room and it is stored in a neat and orderly fashion. In the past, many items have been stored that have not been used for many years. If equipment that is being stored falls into this class, then serious consideration should be given to the need for such equipment.

Extension Cords, Cords, Computer Cabling Etc- The improper use of extension cords presents a serious fire hazard for those who work in the building. Extension cords should never be piggy backed or abused by adding additional splitting devices to the cord. If sufficient outlets are not available to meet the need at hand then more permanent solutions to the problem should be sought. Heavy equipment not being utilized on a

regular basis should be unplugged and any cords laid or draped across common thoroughways should be unplugged immediately after the usage has been completed. Computer cables traversing common thoroughfares should be covered with a cable duct to reduce the risk of potential falls or trips.

Departmental Training- All School of Technology employees are required to review the General Safety, Storage and Handling of Hazardous Materials and Hazard Communications links on the MTU website. A standardized form will be dated and signed signifying that these documents have been reviewed and these forms will be retained in a binder located in the Dean's office. Training is also available in the areas of 15 passenger van operation and proper fire extinguisher usage. In order to check out any of the universities 15-passenger vans, it is mandatory that the driver completes an interactive, CDROM training seminar in the Public Safety office. Fire extinguisher training is not mandatory but is recommended for those who have never actually extinguished a fire using a chemical fire extinguisher. Additional training seminars will be available in the near future.

Noise Hazards- In situations where noise hazards are present, Noise protection of some form should be worn.

Accidents- Any and all accidents need to be reported to the Dean of the School of Technology. Any accident requiring medical attention needs to be reported to the university Occupational Health and Safety office. Paperwork for this is available through the secretaries in the main office or through the School of Technology Safety Liaison. In the event of a serious accident, always seek medical attention immediately. Allow common sense to prevail in these situations.

Departmental Safety Committee – A departmental safety committee should be assembled with representation from each of the individual areas within the School of Technology. This committee will meet on a regularly scheduled basis to discuss and address the department's level of compliance to university standards. The safety committee will meet a minimum of at least once per academic term.

Reviewed, Updated and Approved By:

Safety Liaison: _____ **Date:** 3/10/06

Dean of SOT: _____ **Date:** _____

Safety Liaison: _____ **Date:** _____

Dean of SOT: _____ **Date:** _____

Safety Liaison: _____ **Date:** _____

Dean of SOT: _____ **Date:** _____

Departmental Safety Plan
School of Technology
Updated 3/10/2006

Safety Liaison: _____ **Date:** _____

Dean of SOT: _____ **Date:** _____