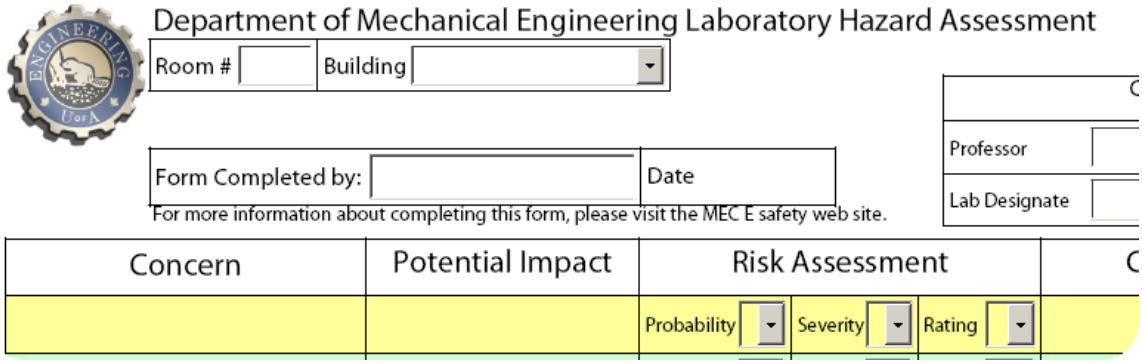
Department of Mechanical Engineering Laboratory Hazard Assessment

This document outlines how to complete the hazard assessment form.

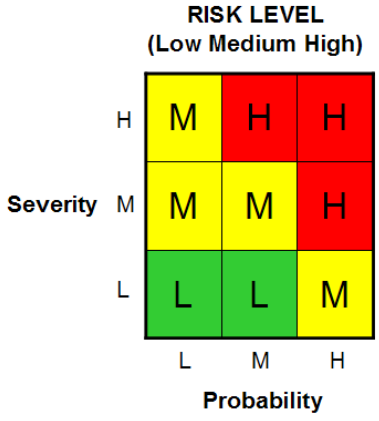
Purpose: A hazard assessment is used to identify, quantify, and control hazards or risks. This is a proactive approach to safety wherein possible risk exposures are identified to insure a safe work environment.



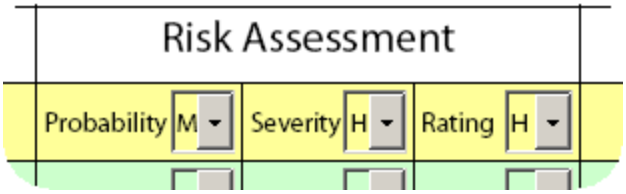
1. **Room and Contact Information:** The room number of the laboratory should be entered. If your group works in two different labs, for example, a hazard assessment must be completed for EACH lab. The lab designate is the person, e.g., graduate student, who is responsible for daily operations in the lab as outlined by the professor in charge. The form can be completed by either the lab designate or the professor.

2. **Concern**: This is a hazard in its various forms, e.g., deviation from proper operating procedures, a piece of equipment, a chemical, etc. A brief description should be given here.

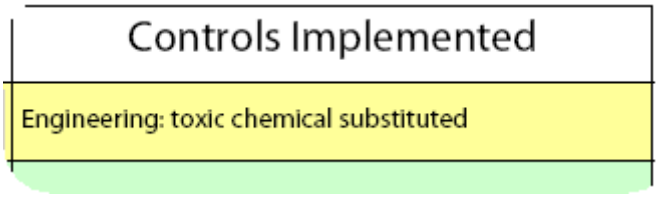
3. **Potential Impact:** This is the impact of losses that could occur as a result of the identified concern. The explanation of this criterion influences the severity rating of the Risk Assessment. For example, if the potential impact of a concern is death then the severity rating would be high (H).
4. **Risk Assessment**: In this section the risk level is assessed for the identified concern using the following matrix:



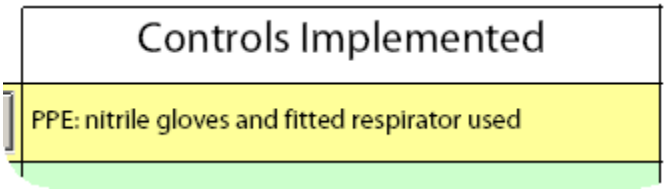
Example: Using this matrix to evaluate a concern with a severity rating of high (H) and a probability of medium (M) would result in a risk level of high (H). If the overall risk level is high, this means that the concern should be avoided as it represents an unacceptable hazard. This example would be entered in the hazard assessment form in the following manner:



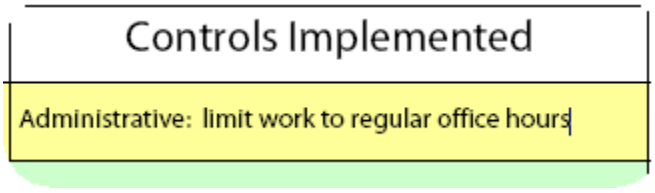
5. **Controls Implemented**: This category lists the plans or strategies to mitigate the impact of the identified concerns and may include (but are not limited to these):
   a. *Engineering Controls* (most effective): This approach to risk prevention attempts to modify the process to eliminate the identified concern. For example, if the above concern (in section 4) were a dangerous chemical an engineering control would be to use a substitute that is less toxic. Entered into the form, this entry would look like:



   b. *Personal Protective Equipment* (PPE): The use of personal protective equipment is the last resort when mitigating safety risks. If all other avenues have been exhausted, the only alternative may be to use PPE. If a toxic chemical cannot be avoided then proper PPE will be required resulting in the following entry:



   c. *Administrative Controls*: These strategies attempt to modify the activities within the laboratory through established rules. For example, if a toxic chemical is necessary to use then an administrative control may be to limit its use during regular office hours. This policy insures that, should an incident occur, people would be available to respond immediately. The entry in the form would look like:



6. **Once this form is complete, please have the principle investigator (i.e., the person in charge of the laboratory space) sign and date this form.**
7. **Please post this form in the sleeve provided in your laboratory.**