

Research and Academic Safety Policy

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This policy sets the expectations to drive our safety culture in academic and research activities that involve potentially hazardous materials or equipment, occurring in laboratories, shops, or studios affiliated with the Ann Arbor campus. The policy is issued by the department of Environment, Health & Safety (EHS) in collaboration with the Executive Leadership Team (ELT) that oversees and provides direction for the Research Safety First Initiative. The ELT is comprised of the following: the Provost and Executive Vice President for Academic Affairs, the Executive Vice President and CFO, the Vice President for Research, and the Executive Vice President for Medical Affairs. The policy is endorsed by the ELT and applies to all faculty, staff, students and visitors in university research and academic areas (teaching labs, shops, studios, etc.) as defined above or when conducting university related active laboratory or field research in other locations. This policy will also be reviewed every three years to ensure any necessary changes needed are updated.

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#### **SUMMARY**

The University of Michigan (U-M) is committed to:

- Ensuring safety is a core institutional value.
- Promoting a culture of safety among faculty, staff, students, and visitors.
- Providing a safe and healthy place to work, study, live, or visit.
- Protecting the natural environment.
- Complying with all applicable workplace safety, health, and environmental rules and regulations.

Standard Practice Guide 605.01 Safety. Health and Environmental Policy identifies the general responsibilities for various university groups for promoting a safe and legally compliant culture. The university's academic, research, clinical, and operations units will assess the safety and environmental impact of lab and research projects and will implement strategies to reduce the risk. University units with specialized health and safety requirements for their operations, based upon federal, state, or other organization rules, must develop specific policies and procedures that are consistent with SPG requirements and external legal obligations.

All faculty, staff, other employees, students, and visitors, must be aware of the responsibilities outlined below and adhere to them while in university laboratories or when conducting university research regardless of location.

A culture of safety is a shared responsibility. Everyone must accept responsibility for the wellbeing of themselves as well as those around them; enabling everyone to go home at the end of the day as healthy as when they arrived. To fulfill this commitment all members of the U-M research community have the following general responsibilities. For members of the U-M research community, specific responsibilities that are part of this general role are outlined in Appendices I and II. An individual's particular role in a research setting may vary and certain points listed below may not apply in their assigned role.

NOTE: In cases of clinical research, the clinical lab setting brings a special set of challenges and the special safety needs of clinical research employees and subjects need to be appropriately addressed. In addition to this Policy, Clinical Research Faculty must also adhere to U-M Health System (UMHS) policies and procedures.

GENERAL RESPONSIBILITIES- These responsibilities are specific to research and are **in addition to** the general responsibilities outlined in <u>SPG 605.01</u>.

### All faculty, staff, other employees, visitors, and students must:

- Ensure that safety is a priority and a core value.
- Adhere to all department/division/laboratory/school/college (unit) rules and precautions about working alone, work environment, time at work, and appropriate use of all safety equipment and supplies including personal protective equipment (PPE), fume hoods, etc.
- Receive and understand safety training appropriate to their level of activity in the laboratory. For anyone working in research, this includes the EHS Laboratory Safety Training Course and any additional training programs identified and provided by EHS, UMOR, or Unit for Laboratory Animal Medicine (ULAM) specific to actions being performed or materials being handled.
- Take responsibility for personal safety as well as the safety of others in the work area. Notify everyone in the immediate vicinity of hazardous situations or operations and follow all alarms, warnings, and direction from emergency management staff.

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### Anyone in a management, supervisory, or mentorship role must:

- Assume all appropriate steps to ensure staff, students and visitors comply with applicable safety requirements.
- Implement corrective and preventive actions in a timely manner as directed.
- Follow your unit's safety accountability plan for appropriate escalation of issues that cannot be resolved.

# REPORTING AND RESOLVING HEALTH AND SAFETY ISSUES IN RESEARCH AND ACADEMIC LABS:

#### Issue Identification and Resolution

Anyone, including outside inspectors or visitors, may identify a safety or environmental concern within a laboratory or research activity. The expectation is that any identified issue is immediately corrected if possible, or is corrected within a reasonable period of time. Items that require additional resources for correction should be elevated as appropriate within the unit. Units should follow their safety accountability plans and escalation procedures to ensure that deficiencies are corrected.

Emergency Situation: In an emergency situation, defined as an injury requiring medical attention, fatality, environmental release, or fire, the first call must be to DPSS (dial 911 from any U-M phone or on a personal cell phone and identify you are calling from a U-M facility), who will dispatch the appropriate responders including police, fire, medical, or EHS. The emergency responders will contain and control the immediate situation and make the area safe for re-occupancy or make recommendations for any long term follow up that may be necessary. EHS and DPSS will determine if there are immediate reporting requirements to federal or state agencies, and will notify the appropriate executive officers of the incident. The laboratory director will follow their unit established reporting requirements.

Non-Emergency Situation: For any non-emergency situation, the concern should be reported to the laboratory director who will in turn alert EHS to the matter by completing the EHS Incident & Near Miss form; however anyone has the option of contacting EHS directly at 734-647-1143 or through DPSS after hours at 734-763-1131. EHS staff will work with the laboratory to investigate the issue and identify corrective measures. Resolving the issue in a timely and sustainable manner is the responsibility of the faculty member in conjunction with their unit. The concept is to resolve the matter quickly and within the unit most directly affected; however matters may require escalation up to the facility manager, chair, unit safety committee, safety accountability lead, or up to the dean's office for assistance. EHS in conjunction with the Research and Academic Safety Committee, will also report issues or raise questions to the appropriate administrative authority so that action can be taken to prevent or correct safety concerns. A notice for correction, with a timeline, when serious safety non-compliance is identified may be issued by EHS or the Research and Academic Safety Committee. Units will be expected to follow their safety accountability plan for the resolution of issues. The Research and Academic Safety Committee will monitor the unit progress and will escalate the matter to higher administrative levels when corrections are not accomplished in a timely manner, or when there is repeated failure to correct less serious non-compliance or safety problems. All levels of the organization are expected to help resolve the safety or environmental issue.

Near Miss: Any time there is a near miss in a laboratory setting there is an opportunity to learn and help prevent future incidents. The laboratory director must complete and submit an <a href="EHS Incident & Near Miss">EHS Incident & Near Miss</a> form in order to help continually improve the safety culture. The information provided will be used by the unit safety committee and EHS to help improve safety systems and training opportunities — the intent of reporting is to be informational, not punitive in nature.

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## **Ability to Suspend Work**

Any faculty, staff, student or visitor working in a research or academic laboratory setting has the ability to suspend **their** work if they believe there is a safety or environmental issue to deal with. The issue must be reported immediately to the laboratory director or their delegate so that the issue can be quickly resolved and work can continue.

#### **Authority to Stop Work**

Faculty and staff are empowered and obligated to stop activities that present an **immediate danger** to personnel, visitors, users, contractors, the public, or the environment. This authority is referred to as "stop-work authority." Individuals who exercise "stop-work authority" are also obligated to immediately report this action to their laboratory director, department chair, unit safety committee, and EHS. Once work has been stopped it may not resume until the laboratory director, unit safety committee, and EHS have verified that appropriate hazard control measures are in place. The Research Health & Safety committee should also be made aware of this issue and resolution.

In situations of serious or continued non-compliance with or violations of policies, rules or regulations pertaining to laboratory and research safety, the appropriate authority may issue a "stop-work authority" order to a laboratory or research program until the issue is satisfactorily resolved. If there is a dispute regarding the severity of the matter and need to stop work, the Executive Director of EHS is the final authority.

#### **Imminent hazard situation**

The Executive Director of EHS, or designee, may issue an immediate Stop Work Order to the appropriate administrative authority in an imminent hazard situation that may cause death, serious injury, or significant harm to the environment if not immediately corrected. The Order must be respected and adhered to by the faculty, staff, students, and visitors engaged in the unsafe situation;. The Order may not be lifted until the concern(s) can be properly addressed.

#### **Final Reporting/Closeout**

During the correction of safety or environmental issues the laboratory director is responsible for the process, working with EHS, unit safety committee, and other unit individuals. Following completion of the actions the laboratory director must notify EHS of the corrective action completed. EHS will determine if reporting to federal or state agencies is necessary and notify appropriate executive officers prior to filing the reports. EHS will then compile information regarding the issue and resolution, and report to the Research and Academic Safety Committee, which will in turn determine the need to raise any issues/concerns to the executive officers.

#### Fines by Outside Agencies

Under federal and state laws, government agencies have the authority to levy fines against the unit or individuals within the unit for failure to follow appropriate laws and regulations. The unit responsible for the research will be responsible for paying the fines if they have not been following established precautions or clearly stated procedures.

#### REFERENCES

- SPG 605.01Safety. Health and Environmental Policy
- SPG 601.24 U-M Business and Finance Authority Delegations
- SPG 303.3 Policy Statement on the Integrity of Scholarship and Procedures for Investigating Allegations of Misconduct in the Pursuit of Scholarship and Research
- UM Office of Research
- UM Department of Environment, Health & Safety

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## APPENDICES

- I. Role Specific Responsibilities for Individuals in Laboratory or Research Settings II. Role Specific Responsibilities for Individuals and Groups in Administrative Roles

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# APPENDIX I: ROLE SPECIFIC RESPONSIBILITIES FOR INDIVIDUALS IN LABORATORY OR RESEARCH SETTINGS

#### **Graduate Student Research Assistants/Trainees**

- Take initiative to engage in safety conversations with lab supervisor and EHS staff.
- Report any missteps in laboratory safety directly to the laboratory director for resolution and correction.
- Be professional, assertive, proactive and equitable when evaluating and implementing safety practices.
- Suspend work if they believe there is an imminent safety or environmental issue.

#### Post-Doctoral Trainee/Fellow

- Take initiative to engage in safety conversations with the lab supervisor and EHS staff.
- Report any missteps in laboratory safety directly to the laboratory director for resolution and correction.
- Be professional, assertive, proactive and equitable when evaluating and implementing safety practices.
- Suspend work if they believe there is an imminent safety or environmental issue.
- Oversee the safety of members of the research or academic groups that the postdoc is mentoring.
- Ensure that compliant safety practices are observed in all labs where students and trainees do collaborative experiments and share resources.
- Reinforce the lab safety culture established by the laboratory director for the entire laboratory.
   Contribute in a supporting role to assist the laboratory director's responsibilities of recordkeeping regarding training requirements, identification and communication of potential hazards and emergency procedures, and oversight of the use of appropriate lab clothing and protective equipment.
- Engage in frequent communication across the entire lab group to be certain there is a common
  understanding regarding regulations, compliance, policies and best practices so that proactive
  considerations can be addressed with the laboratory director. Postdocs who are involved in
  day-to-day management of lab operations and other lab-specific responsibilities must also
  assume lab manager responsibilities listed below.

## Laboratory Director (Faculty/Lab Manager/Supervisor)

- Oversee the safety of all members of the research group, as well as individuals visiting the lab, and ensure that best practices are observed. The laboratory director must be vigilant to ensure that compliant safety practices are observed in all labs where students and trainees do collaborative experiments and share resources.
- Receive reports of and respond to any missteps in laboratory safety and ensure resolution and correction.
- Suspend work if they believe there is an imminent safety or environmental issue.
- Notify both EHS and the unit safety committee of potential safety hazards, exposures, accidents, injuries, illnesses, spills, releases, near misses, or other regulatory and environmental issues.
- Identify potential hazards, emergency procedures, and proper protective equipment; ensuring its use as common practice.
- Ensure that accurate records are kept to validate completion of appropriate training.
- Set the tone for health and safety practices in the classroom and laboratory, and report to supervisors or instructors any potentially unsafe practices or serious hazards.
- Engage in frequent communication with the entire lab group to be certain there is a common understanding of regulations, compliance, policies, and best practices.

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- Communicate on behalf of the laboratory with directors, deans, and compliance officers within the University about laboratory safety policies and practices.
- Respond in a timely manner to all reports of failures of individuals to adhere to safety or regulatory requirements.
- Escalate any issues that are not able to be resolved according to your unit's safety accountability plan.

#### **Department Chair**

- Ensure timely actions are taken by the laboratory to protect personnel and facilities and to remain in compliance with all applicable codes and regulations. Follow your unit's safety accountability plan for appropriate steps for resolution and escalation of issues.
- Set a positive example for safety by modeling established safe work practices, by implementing
  corrective actions brought to their attention by a laboratory, EHS, or a safety oversight
  committee, and by having an unbiased consideration for all safety questions or concerns raised
  by those working in a laboratory.
- Ensure all new research and laboratory processes are evaluated and approved for possible safety and environmental issues in order to mitigate those issues before initiation.
- Adhere to the EHS procedures for the commissioning (<u>Laboratory Commissioning Guideline</u>) or decommissioning (<u>Laboratory Decommissioning Guideline</u>) of laboratory spaces to ensure safety and environmental measures are in place, or to ensure hazards are removed when an operation ends.
- Establish and promote department safety mechanisms as warranted by the size or complexity of
  the department, and assign unit level safety coordinators with authority to correct or elevate
  safety matters as defined in your unit's safety accountability plan to help drive safety through the
  organization, while addressing concerns quickly and effectively.
- Respond in a timely manner to all reports of failures of individuals to adhere to safety and regulatory requirements.

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# APPENDIX II: ROLE SPECIFIC RESPONSIBILITIES FOR INDIVIDUALS AND GROUPS IN ADMINISTRATIVE ROLES

## <u>Safety Accountability Leads (Individual appointed by Dean or Director)</u>

- Serving as the main contact for the unit's safety accountability plan.
- Ensuring oversight of the implementation of the Research Safety First initiative for their unit.
- Administering an effective unit safety committee with ongoing review of performance.
- Coordinate and engage with the unit safety committee chair on priorities of the safety initiative to
  ensure planning and resources are in place as needed. This requires integration of the plans to
  meet the unique needs of the specific school or college as well as stakeholder engagement to
  increase buy-in at the unit level.
- Ensuring there is an adequate mechanism in place for safety concerns or suggestions to be reported locally and that this is known to your community.
- Promoting professionalism in the workplace into unit activities (promotions, reviews, faculty development) that include safety as a key element.
- Monitoring quarterly unit scorecards provided by EHS, and developing action plans to move their unit toward a sustainable inspection-ready safety culture.
- Resolve issues that the unit safety committee brings per the safety accountability plan non-compliance process.
- Working with the Research and Academic Safety Committee to promote campus-wide consistency with safety requirements, including consequences for unresolved issues.
- Engage with the Research and Academic Safety Committee as needed to resolve issues or discuss ways to enhance safety across campus.

## <u>Facility Managers/Department Managers/Key Administrators/Chief Department</u> Administrators

- Maintain an understanding of requirements for laboratory and research safety.
- Complete training recommended by EHS for general knowledge of lab and research safety compliance. Refer to the <u>UM Chemical Hygiene Plan</u> for more information on training.
- Assist the laboratory director with accomplishing corrective actions, maintenance, repair, or renovation procedures in order to correct infrastructure issues that impact safety or environmental compliance in the academic and research areas.
- Ensure adequate security measures are in place to meet federal security requirements on select research materials or operations.
- Adhere to the EHS procedures for the commissioning (<u>Laboratory Commissioning Guideline</u>) or decommissioning (<u>Laboratory Decommissioning Guideline</u>) of laboratory spaces to ensure safety and environmental measures are in place, or to ensure hazards are removed when an operation ends.
- Respond in a timely manner to all reports of failures of individuals to adhere to safety or regulatory requirements.

#### <u>Unit (School/College/Department) Safety Coordinators</u>

- Act as safety liaison and assume the authority delegated by the dean or chair (or within your units safety accountability plan) to deal with safety or environmental issues that arise during operations.
- Disseminate all safety and environmental information to appropriate personnel in the department. This may be educational material, posters, signage, or specific changes in safety or environmental rules or practices.
- Work with academic or research faculty and staff in resolving questions or raising concerns to

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- appropriate authorities.
- Notify both the unit safety committee and EHS of potential safety hazards, exposures, accidents, injuries, illnesses, spills, releases, near misses, or other regulatory and environmental issues.
- Attend Safety Coordinator Meetings and any other training recommended by EHS or safety oversight committees.
- Respond in a timely manner to all reports of failures of individuals to adhere to safety or regulatory requirements.

## **Unit (School/College/Department) Safety Committees**

- Coordinate and engage with unit safety accountability lead on priorities of the Research Safety
  First initiative to ensure planning and resources are in place as needed. This requires integration
  of the plans to meet the unique needs of the specific school or college as well as stakeholder
  engagement to increase buy-in at the unit level.
- Monitoring quarterly unit scorecards provided by EHS, and developing action plans to move their unit toward a sustainable inspection-ready safety culture.
- Resolve issues that arise per the safety accountability plan non-compliance process.
- Promote safety and make appropriate recommendations regarding research and academic operations specific to their unit or community members.
- Review incident reports and near miss reports in a timely manner and make appropriate safety recommendations to the laboratory director and department chair.
- Work with EHS and the Research and Academic Safety Committee to promote safe and healthy
  work practices within the unit. This could include hosting focus groups, town halls or sending out
  directed communications in effort to address a specific issue or to enhance our safety culture
  overall. This may include setting priorities and goals based on current trends and analysis of a
  unit's activity in regard to deficiencies or incidents in the unit.
- Set a positive example for safety by modeling established safe work practices, encouraging the
  reporting of concerns and near misses, implementing corrective actions brought to their attention
  by EHS or a safety oversight committee, and having an unbiased consideration for all safety
  questions or concerns raised by those working in the laboratory.
- Bring issues to an appropriate University safety oversight committee for discussion and/or assistance.

## Research and Academic Safety Committee

The Research and Academic Safety Committee is responsible for enhancing the safety culture in our research and academic spaces with activities that involve potentially hazardous materials or equipment, occurring in laboratories, shops, or studios affiliated with the Ann Arbor campus. The Research Safety First initiative is focused on establishing accountability processes for each unit across campus and establishing a culture of "safety first, safety everyday" where safety is a part of everything we do. The committee will monitor compliance with rules and regulations applicable to various types of research conducted at U-M and liaise with the unit safety committees focused on research and academic safety. This committee will function in a similar way as other university research oversight committees, such as the Institutional Biosafety Committee, Institutional Review Boards, Radiation Policy Committee, University Committee on Use and Care of Animals, and the Controlled Substances in Research Review Committee. This committee is composed of faculty and staff with expertise in the area of oversight, and its recommendations may be driven by regulation or best practices.

#### **Deans, Research Associate Deans, and Directors**

 Appoint a safety accountability lead for your unit to serve as the main contact for the unit's safety accountability plan and to Ensure oversight of the implementation of the research safety first

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initiative for their unit.

- Endorse your unit's safety accountability plan.
- Recognize and promote sound safety and environmental practices to set a positive tone for faculty, staff, and students to follow.
- Take appropriate steps to create a culture that supports reporting issues in an environment free of reprisal.
- Serve as role models and lead by example to demonstrate that safety and environmental protection are important facets of all university operations.
- Provide support for mitigating risks to provide a safe and compliant work environment.
- Empower unit safety committees and safety coordinators with authority to correct or elevate safety matters before they become major problems.
- Act to correct safety or regulatory deficiencies when brought to their attention.

### **Executive Leadership Team and Executive Steering Committee**

The following areas comprise the ELT and ESC and provide leadership direction and guidance to the Research and Academic Safety Committee on efforts to enhance our campus culture:

- o Office of the Provost and Executive Vice President for Academic Affairs,
- o Office of the Executive Vice President and Chief Financial Officer
- o Office of the Vice President for Research
- o Office of the Executive Vice President for Medical Affairs.
- Report to the senior leadership on issues related to laboratory and research safety as appropriate.
- Receive and analyze reports and recommendations from university research oversight committees regarding laboratory and research safety.
- Secure resources necessary to ensure optimal functioning of departments charged with health, safety, and regulatory compliance such as EHS, UM Office of Research, and committees charged with oversight of laboratory and research safety.
- Serve as role models and lead by example to ensure that the culture of research safety permeates all facets of the university environment.