Safety Coordinator Bootcamp

Spring 2018 Safety Coordinator Bootcamp

Monday, April 2, 2018
Palmer Commons: Great Lakes Room
9:00a-1:00p
U-M Laboratory and Research Safety Initiative

Kevin Hegarty
Executive Vice President and Chief Financial Officer,
Office of the President
U-M Laboratory and Research Safety Initiative

Karl J. Jepsen, PhD
Henry Ruppenthal Family Professor and Associate Chair of Research, Department of Orthopaedic Surgery, Medical School
Chair, U-M Laboratory and Research Safety Committee (LRSC)
Thank you...

...for taking the time to help strengthen the culture of safety
Together we will
Strengthen
the culture of safety
Safety is everyone’s responsibility

Everyone has a right to work/learn in a safe environment.

Everyone has a responsibility to make the work/learning environment safe.

http://spg.umich.edu/policy/605.01

Concerns:

General concern that safety is not a core value at UM
Lack of robust accountability and governance structure
UM needs more coordinated effort to ensure uniform compliance with general safety standards.

Historical facility lab design and infrastructure does not always provide efficient means to be safety compliant under current regulatory requirements.
Safety culture: attitudes, beliefs, perceptions, and values shared among employees in relation to safety in the workplace.

National Research Council
A strong culture arises because of a constant commitment to safety throughout the organization, not because of a set of rules....
- supports free exchange of safety information
- emphasizes learning and improvement
- assigns greater importance to solving problems than to placing blame
Strengthening the culture of safety

Major efforts to date...
- Strong leadership position for strengthening the safety culture at UM President, Vice Presidents, Deans, Research Deans

- Establishing the infrastructure to initiate and sustain a culture shift
Challenges

Not unique to U-M; these are shared by research institutions across the nation

1. Cutting-edge research that changes over time
2. New students/trainees and high turnover of personnel
3. Infrastructure (e.g. open-bay design, costs)
4. Regulatory authority of EHS is not prescriptive
5. Inconsistent follow-through in correcting deficiencies (knowledge- and behavior-based)
6. Lack of awareness of safety incidents and near-misses
7. “Inertia”
8. What is our “denominator” for incidents and near misses?
9. Academic pressure for outcomes
10. Many others
# Laboratory and Research Safety Committee (LRSC)

**S. Jack Hu, PhD**  
Vice President for Research

**Kevin Hegarty**  
Executive Vice President and Chief Financial Officer

## LRSC Membership

<table>
<thead>
<tr>
<th><strong>Faculty / Staff</strong></th>
<th><strong>Compliance</strong></th>
<th><strong>EHS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Medical School</td>
<td>- UMOR</td>
<td>- Executive Director</td>
</tr>
<tr>
<td>- School of Nursing</td>
<td>- Provost Office</td>
<td>- Laboratory Safety Manager</td>
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<tr>
<td>- Kinesiology</td>
<td>- Medical School</td>
<td>- Biosafety Officer</td>
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<tr>
<td>- College of Engineering</td>
<td>- ACUO</td>
<td>- Associate Director of Research and Operations Safety</td>
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<td>- School of Dentistry</td>
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<td>- Laboratory Safety Project Manager</td>
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<td>- LS&amp;A</td>
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<td>- School of Public Health</td>
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<td>- College of Pharmacy</td>
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<td>- LSI</td>
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<tr>
<td>- Music, Theater, Dance</td>
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<tr>
<td>- Architecture/Urban Planning</td>
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<tr>
<th><strong>Trainees</strong></th>
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<td>- UROP Program Officer</td>
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<tr>
<td>- Undergraduate and Graduate students</td>
</tr>
<tr>
<td>- Postdoctoral fellow</td>
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LRSC Mission

*strengthen the culture of safety at U-M through enhanced oversight and accountability in the academic and research settings*

The LRSC has oversight responsibility for academic and research activities that involve potentially hazardous materials or equipment, occurring in laboratories, shops, or studios affiliated with the Ann Arbor campus.
Strategy

Priorities
Maximize outcome while minimizing burden
Non-punitive information to drive change

An example of this approach working:
Clinical Healthcare: MARCQI
(Michigan Arthroplasty Registry Collaborative Quality Initiative)

This template is recommended:
APLU (Association of Public Land-grant Universities)
ACS (American Chemical Society)
NRC (National Research Council)
Strengthening the culture of safety

**Too little oversight**
- No change
- Continued potential for harm

**Too much oversight**
- Police state
- Burden
- Blame and train

**Balance oversight and burden**
Non-punitive information
Education
Cooperation
Increased productivity
15 Unit-level Safety Committees Established (schools, colleges, UMOR units)
15 Safety Unit Committees

1. Architecture and Urban Planning
2. Art and Design
3. Engineering
4. Institute for Social Research
5. Libraries
6. Life Science Institute
7. Literature, Science, and the Arts
8. Medicine
9. Music, Theater, and Dance
10. School for Environment and Sustainability
11. Health Sciences Safety Committee
    Dentistry, Kinesiology, Nursing, Pharmacy, Public Health, Social Work
12. Mobility Transformation Center
13. UM Transportation Research Institute
14. UM Energy Institute
15. Functional Magnetic Resonance Imaging

http://research.umich.edu/research-smart/research-smart-safety-committees
Previous working relationship

(Not a closed-loop system)
Ultimate Target: Inspection Ready 24/7/365

Institutional Leadership
S. Jack Hu, VP Research
Kevin Hegarty, VPF-CFO

LRSC

Unit-Level Safety Committees and Safety Coordinators

Academic / Research setting
Faculty, Staff, Trainees
Safety Coordinators

EHS
Inspections
Metrics of success
Incidents
Near miss reports

TRUST

TRUST
Using information to drive change

Start thinking about...
- What information is meaningful?
  - for unit? for UM?
- How do we make this information effective?
- What are our reasonable target numbers?
- Time frames?
- Measures of our success?
- Anonymized data?
What we need from the Safety Unit Committees and Safety Coordinators

1. Take on a strong leadership position
   - Be visible to your community
     - Faculty/Staff/Trainees
     - Chairs/Deans
   - Reach out – town hall style meetings
     give faculty/staff/trainees a voice
     listen to them
   - Lead by example
   - Demonstrate that safety is a core value for your unit and the institution

2. Setting clear expectations that change needs to happen – locally and campus wide
   - Clarify roles, responsibilities, and accountability
     - safety and productivity are not competing interests
   - Clarify roles of the institution
     - promote safety
     - provide resources and training needed to work safely
   - Clarify roles of the individual
     - day-to-day actions and practices that lead to safe practices

3. Promote partnerships between faculty/staff/trainees and EHS staff
   Help change the perception of EHS staff as compliance regulators
   to EHS staff as collaborators
What we need from the Safety Unit Committees

4. Envision the path needed to achieve a successful outcome
   - Milestones
   - How do we measure success?
   - Uniformity of safety culture across campus?
   - Communication goals –
     Faculty/Staff/trainees
     Safety Units
     LRSC
     UM Leadership

5. Find the opportunities
   - To make the safety culture campaign visible
   - To show strong leadership
   - To listen
   - To clarify
   - To provide feedback
   - To educate
   - To facilitate

Pendulum model:
- reactionary, inconsistent, frustrating

Moving the needle toward a successful outcome
- consistent and persistent message
Laboratory and Research Safety Initiative

Safety Coordinators
Tentative Program (Subject to change)

8:30a-9:00a  Check-in and coffee

9:00a–9:15a  Introductions and Welcome
  Kevin Hegarty
  U-M Executive Vice President and Chief Financial Officer

9:15a–9:40a  Research Smart Initiative Background
  Karl J. Jepsen, PhD
  Henry Rumpenthal Family Professor and Associate Chair of Research, Department of Orthopaedic Surgery, Medical School Chair, U-M Laboratory and Research Safety Committee (LRSC)

9:40am-10:00a  What is a Safety Coordinator? Roles & Responsibilities
  Jonah Lee, PhD
  Research Safety Initiative Coordinator

10:00a-10:15a  Break

10:15a-11:00a  Module I
  Risk Assessment
  Incident and Near Miss Reporting

11:00a-11:45a  Module II
  Inspections
  Resources

11:45a-12:15p  Working Lunch

12:15p–1:00p  Module III
  Experiential Learning Exercises
  Conclusion/Summary
Welcome!

Some reminders as we get started:

• We want you to get the most out of this
• Housekeeping
  • Terminology reminders
• Ground Rules
• Itinerary is a guideline but relatively fluid
How do we best engage with you and your units to:

- Establish **Commitment**
- Improve **Communication**
- Enable **Cooperation**

We will be exploring these questions and more throughout the day
15 Safety Unit Committees

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2. Art and Design
3. Engineering
4. Institute for Social Research
5. Libraries
6. Life Science Institute
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http://research.umich.edu/research-smart/research-smart-safety-committees
Purpose/Mission

Building a new community

• That has authority
• That has reach
• That is reliable
• That is important

• And that communicates!
So where do we start?

We need to start with you!

Please introduce yourself to your table
1. Who are you?
2. Why are you here?
3. What do you MOST want to learn about Bootcamp?
4. How are you planning on using or sharing the information learned, when you get back to your unit?
5. When you are not at work, what do you enjoy doing?
Safety Coordinators

Laboratory and Research Safety Initiative
Safety Coordinators
Roles and Responsibilities

Safety coordinators are **liaisons** between their departments, researchers, and Environment, Health & Safety (EHS). They help to **resolve issues** by answering researcher’s questions, correcting or elevating issues, and disseminating information about safety and environmental health issues and topics.

You were personally selected
Experts view things differently
EHS values

• The EHS department promotes health, safety and environmental compliance within the U-M campus community.

• EHS programs will incorporate the values of quality, responsibility, accountability, trust, clear communication, diversity, flexibility, and respect in all of our actions.
Who is EHS?

- Industrial Hygienist
- Certified Safety Specialist
- Microbiologist
- Lawyers
- Toxicologist
- Hazmat professionals
- Geologist

- Biochemist
- Masters in Business Administration
- Public Health Scientist
- Biologist
- Civil Engineers
- Environmental Scientist
- Chemical Engineers
Compliance Groups and Guidelines

- **MiOSHA** – Michigan Occupational Safety and Health Administration
- **ANSI** - American National Standards Institute
- **DEQ** – Department of Environmental Quality
- **AAALAC** - Association for Assessment and Accreditation of Laboratory Animal Care International
- **NIH** – National Institutes of Health
- **FAA** - Federal Aviation Administration
Regulatory Standards

- **Applicable MIOSHA Standards**
  - Air Contaminants Standard (contains personal exposure limits for many chemicals found in labs)
  - Bloodborne Infectious Diseases Standard
  - Hazardous Work In Laboratories Standard (where CHP requirement, among other things, comes from)
  - Formaldehyde Standard
  - Personal Protective Equipment Standard
  - Respiratory Protection Standard

- **American National Standards Institute (ANSI) Standards**
  - ANSI Z87.1 Standard for Occupational and Educational Eye and Face Protection
  - ANSI Z358.1 Standard for Emergency Eyewash and Shower Equipment
EHS Staff AND Safety Coordinators

• Safety professionals responsible for ensuring the University is compliant with regulatory requirements via, not limited to but includes, program development, inspections, and training.

• Safety Coordinators are responsible for being a liaison to help University departments with safety related questions or concerns by redirecting to EHS.
  – You should be communicating and asking for consulting, guidance, and clarification
  – But! You also can resolve issues! You do not ONLY redirect to EHS

Academic Laboratory and Research Policy
Tentative Program (Subject to change)

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Experiential Learning Exercises
Conclusion/Summary
MODULE I
Risk Assessment

What do you think is the purpose?

Risk Assessment

Discussion
Risk defined

• Possibility of loss, injury, disease or death

  – Is the probability of risk acceptable?

  – Are the control measures adequate to mitigate the risk and lower the probability to an acceptable level?

  – What is the perception of risk?
Risk Assessment and Management

- Risk Identification
  - Adverse events
- Risk Estimation
  - Probability of adverse event
- Risk Management
  - Controls to mitigate identified risk

Every research lab, shop, studio, etc. has a unique set of risks that should be assessed, identified and managed prior to beginning work.
Hierarchy of controls

- Elimination: Physically remove the hazard
- Substitution: Replace the hazard
- Engineering controls: Isolate people from the hazard
- Administrative controls: Change the way people work
- PPE: Protect the worker with personal protective equipment
Personnel Risks

People contribute to risk as much as the materials

- Attitude regarding safe practices determines behavior
- Training: How much? and How often?
Risk Assessments prevent accidents

3 Causes of Accidents

DIDN’T HEAR
Safety Instructions

DIDN’T SEE
Safety Hazards

DIDN’T SPEAK
Safety Concerns
Risk Assessment Case Study

• What is the issue?
• What is the context of the problem?
• What key facts should be considered?
• What alternatives are available?
• What would you recommend — and why?
Risk Assessment Case Study

• A PhD candidate in the Art department plans to exhibit some of their performance work in the Gallery. One performance involves working with and “reconstituting” dried human blood.

• The dried blood will be collected from glucose test strips of a relative that has diabetes. The PhD student will be the only one handling the blood flakes. Dried blood will be scraped into a glass mortar dish, crushed and ground into a fine powder, reconstituted with water and finally used to paint the bottom of the student’s feet for the performance.

• Spectators will be present for the performance. The PhD student was told to contact EHS to determine if this something that can be safely performed?
Risk Assessment Case Study

• A new professor is just setting up his research lab and the focus of his work is arbovirus/ host interactions.

• The researcher is planning to set up an incubator to grow mosquitoes, infect them and small animals to compare the molecular differences of virus in an animal host versus mosquito host.

• What should be considered?
Risk Assessment

1. What is your role as Safety Coordinators?
2. Who do I need to include?
3. What is the role of EHS?
4. What is the followup?

Questions
Challenges
Goals
Incident and Near-Miss Reporting
Incident and Near-Miss Reporting

What do you think is the purpose?

Incident and Near-Miss Reporting

Discussion
Laboratory Research – The Good and The Bad

- The University of Michigan is a leader in cutting-edge research. However, incidents and near-misses are an unavoidable by-product.
Accidents Happen....

• U-M laboratories are not immune from incidents and near-misses.
• Last year, there were 81 incidents and near-misses reported to U-M EHS.
• And these were just the incidents that were reported...
Incident vs Near Miss

- **Near Miss** - "close call" is an unplanned event that has the potential to cause, but **does not** actually result in human injury, environmental or equipment damage, or an interruption to normal operation.

- **Incident** - An unplanned or unintended work-related event(s) which result in property damage, personal injury, work process stoppage or interference, or any combination of these conditions.
Lessons Learned

• When incidents and near-misses occur, it is important to document the circumstances surrounding each occurrence.

• Collecting and using this type of data helps EHS determine where to focus our time and resources without assigning blame.

• The lessons learned from these incidents can be shared with other laboratories that are performing similar research activities.
How To Report....

• Reporting an incident or near-miss is easy to do.
• A link to the Laboratory Incident and Near-Miss Report Form can be found on the homepage of the EHS website.
• The Form can be completed and submitted online.

A laboratory fire due to improperly stored (incompatible) chemicals.
How should I report?
Form Details

• The Laboratory Incident and Near-Miss Report Form is a summary of the event in question.

• Some details that will be required include:
U-M EHS Follow-Up

- U-M EHS will investigate each incident and near-miss and provide follow-up to the lab if necessary.
- Follow-up can be a phone call, email, or a laboratory visit.
- U-M EHS will help the lab with applicable corrective actions.
- Any lessons learned in a given event will be shared with you and others who are involved with similar activities.
Incident/Near Miss Case Study

• **Near Miss**

  A laboratory researcher working with level II pathogens was picking colonies with toothpicks. The used toothpicks were discarded into a biohazard bag. As the individual reached for the biohazard bag to discard a toothpick, their right thumb poked another toothpick.

  No evidence of a hole was observed even when the glove was tested by filling with water. (UM 8/3/17)
Incident/Near Miss Case Study

• Incident

While working in a machine shop an individual was struck in the chin with a 1 cm drill bit piece. The individual was improperly using the CNC milling machine to drill holes causing the drill bit to break into pieces and shoot out of the milling machine. (UM 5/14/15)
Incident and Near-Miss Reporting

1. What is your role as Safety Coordinators?
2. Who do I need to include?
3. What is the role of EHS?
4. What is the followup?

Questions
Challenges
Goals
**Tentative Program (Subject to change)**

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Incident and Near Miss Reporting

11:00a-11:45a  
**Module II**  
Inspections  
Resources

11:45a-12:15p  
**Working Lunch**

12:15p-1:00p  
**Module III**  
Experiential Learning Exercises  
Conclusion/Summary
We don’t know what we don’t know,

So how are we supposed to ask?
MODULE II
MODULE II
Safety Inspections
Safety Inspections

What do you think is the purpose?

Safety Inspections

Discussion
Types of Inspection Reports ...

EHS Inspections:
Lab, Shop/Studio,
Biosafety, Laser,
Radiation, etc.

Lab, Shop/Studio,
Self-Inspections

Laboratory
Self-Inspections

Unannounced
Lab Visits

Shop/Studio
Self-Inspections
EHS' Lab Safety Inspection Process!

**EHS' Lab Safety Inspection Process**

1. **Start:** Conduct periodic lab inspection based on Lab Hazard Rank.
2. **Deficiency Found?**
   - Yes
     - **Inevitable Hazard Found?**
       - Yes: Take immediate action to eliminate risk of serious injury or death.
       - No: Issue report within 1 week.
   - No: Issue report within 1 week. 60 day deadline to correct standard deficiencies.
3. **Critical Deficiency Found?**
   - Yes: Correct during inspection? (Yes/No)
     - Yes: Issue notification same day. Re-inspect Critical Deficiencies within 2 business days.
     - No: Issue report to PI, OSEH Mgr or OSEH Director per office policy #12.
   - No: Issue report to Chair and copy PI. Save email to Solve.
4. **Critical Deficiencies Corrected?**
   - Yes: OSEH Mgr sends Chair and copies PI with new 2 business day deadline.
   - No: Critical Deficiencies Corrected?
     - Yes: OSEH Mgr sends Chair and copies PI with new 2 business day deadline.
     - No: Repeat this process from start until all issues are resolved.

**Inevitable Hazard:** There is high probability that immediate serious physical harm would result if the situation is allowed to continue. Examples may include major toxic chemical release, inappropriate work operations such as work with highly hazardous materials without proper controls, exposed or damaged electrical components, etc.

**Critical Deficiency:** Creates an unsafe condition where there is a reasonable probability that if allowed to continue will result in serious physical harm, fire, or significant environmental impact.
The **Safety Coordinator’s Role**?!?!?

1) Assist/conduct annual (*ideally*) self-inspections (**lab, shop, studio**, etc.)
2) Assist the Lab Director, Lab Manager, Facilities Manager w/ correcting deficiencies ID’ed in EHS’ Safety Inspections and Lab Visits
3) Contact EHS Staff for assistance & consultation re: Safety Inspections and/or Lab Visits
## 2016 Lab, Shop & Studio Inspection Summary:

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<tr>
<th>College / School</th>
<th>Laboratories (#s and SF)</th>
<th>Shops / Studios (#s and SF)</th>
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<tr>
<td>COE</td>
<td>618</td>
<td>84</td>
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<td>LS&amp;A</td>
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<td>Pharmacy</td>
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<td>SNRE</td>
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<tr>
<td>Public Health</td>
<td>69</td>
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<tr>
<td>UMTRI / Mcity</td>
<td>4</td>
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<td><strong>Totals</strong></td>
<td><strong>3,980</strong></td>
<td><strong>81</strong></td>
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Frequency of Lab & Shop inspections are based on their respective “Hazard Rating”
2016 Radiation Safety Inspections

- Quarterly Radiation Safety Inspections: 2302
- Lab Decommissionings: 87
- Laser Safety Inspections: 100
- Laser Lab Visits: 420
### 2016 Top Compliance Issues

<table>
<thead>
<tr>
<th>Issue</th>
<th>Count</th>
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<tbody>
<tr>
<td>Door Sign Deficiencies</td>
<td>270</td>
</tr>
<tr>
<td>Chemical Storage Deficiencies</td>
<td>281</td>
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<tr>
<td>Chemical Labeling Deficiencies</td>
<td>274</td>
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<tr>
<td>Chemical Inventory Deficiencies</td>
<td>263</td>
</tr>
<tr>
<td>Chemical Hygiene Plan Deficiencies</td>
<td>468</td>
</tr>
<tr>
<td>Postings and Notices Not Posted</td>
<td>457</td>
</tr>
</tbody>
</table>
2016 Laboratory Visit Data
266 visits

- No Door Sign: 13
- No CHP Binder: 1
- Eating & Drinking: 88
- Containers Not Labeled: 10
- Improper Lab Attire: 138
- No Cylinder Restraint: 5
- Waste Not Closed & Dated: 40
- Hood Sash Open: 42
- Eyewash Not Accessible: 10
- Flammables Not In Cabinet: 1
2016 Top Compliance Issues

- Missing Shop Door Signs/Contact Info: 25
- Missing Required Postings: 55
- Machine Shop Equipment - Not Secured: 12
- Pedestal/Bench Grinder Deficiencies: 17
- Hazard Communication Plan Deficiencies: 43
- Eyewash Equipment Issues: 29

Shops
Tools and Resources ...

2. EHS’ website
3. MI Safety Portal
4. Research Smart Website
5. Training requests

I haven’t found anything wrong, **yet**. But it’s OK for you to go ahead and worry a bit longer!
Safety Inspections

1. What is your role as Safety Coordinators?
2. Who do I need to include?
3. What is the role of EHS?
4. What is the followup?

Questions
Challenges
Goals
Resources

EHS Documentation

Training, SOP’s & Chemical Inventory
Documentation

What do you think is the purpose?

Documentation

Discussion
Blue Binder

1) Training Records
2) CHP- Chemical Hygiene Plan
3) SOPs- Standard Operating Procedures
4) Chemical Inventory
1) Training Records

- All laboratory personnel must be trained in General laboratory safety (EHS) and their respective specific lab training (EHS and/or Laboratory Director recommended)
- Training must be recorded, current, and accessible for all personnel
1) Training Records
2) CHP- Chemical Hygiene Plan

- A written plan for each laboratory that guides and outlines the responsibilities of safety
Blue Binder

1) Training Records
2) CHP- Chemical Hygiene Plan
3) SOPs- Standard Operating Procedures

• As part of risk assessments and regulatory standards SOPs should provide protocol and safety information for all procedures in the laboratory
  • for “particularly hazardous substances” such as select carcinogens, reproductive toxins, and substances that have a high degree of acute or chronic toxicity.
Compressed Gas Use

Issue Date: <MM/DD/YY>
Revision Date #: 08/08/17

This standard operating procedure (SOP) outlines the handling and use of compressed gases. Compressed gases come in a large variety of sizes and pressures. Review this document and supply the information required in order to make it specific to your laboratory. In accordance with this document, laboratories should use appropriate controls, personal protective equipment, and disposal techniques when handling compressed gases.

Description

A compressed gas is any mixture or material in a container with either an absolute pressure exceeding 40 psi at 70°F or an absolute pressure exceeding 104 psi at 130°F. Any liquid flammable material having a vapor pressure exceeding 40 psi at 100°F is also considered a compressed gas.

Potential Hazards

The large amount of potential energy contained in a compressed gas cylinder makes it a potential rocket or bomb if the pressure is released through rupture of the valve or container failure.

Compressed gases may also be toxic, flammable, or explosive – check the safety data sheet for more information. Safety considerations for these properties must also be followed.

Use this space to modify the potential hazards as they pertain to your work location.

Engineering Controls

Storage of compressed gas cylinders requires sturdy chains secured to a wall or cabinet, and/or a cylinder stand. If the process does not permit gas use and/or storage in well-ventilated areas (i.e., lab
Standard Operating Procedures

SOP’s are our step by step instructions on how to do a particular task, process, procedure, or experiment.

Why do we need them?
Consistency, accident prevention, and risk assessment.
Blue Binder

1) Training Records
2) CHP- Chemical Hygiene Plan
3) SOPs- Standard Operating Procedures
4) Chemical Inventory
Chemical Inventory

A current laboratory inventory must be maintained in the online EHSA inventory system.
Welcome to MI Safety Portal!

Quick Links

> Incident and Near Miss Report Form
> Work Connections' Illness and Injury Submittal
> Reporting Incidents
> Chemical Inventory Help (PDF)
> Safety Inspections Closeout Help (PDF)

System Updates & Other Announcements

Available Modules:
- Inventory
- Safety Inspections
- Incident & Near-Miss Reporting (later in 2018)

Click on an icon below to access that Module.

If you any questions, please try MI Safety Portal's online help first or send an email to MiSafetyPortal@umich.edu

ehsa.oseh.umich.edu/ehsa/
Documentation

1. What is your role as Safety Coordinators?
2. Who do I need to include?
3. What is the role of EHS?
4. What is the followup?

Questions
Challenges
Goals
Tentative Program (Subject to change)

8:30a-9:00a  Check-in and coffee

9:00a-9:15a  Introductions and Welcome
Kevin Hegarty
U-M Executive Vice President and Chief Financial Officer

9:15a-9:40a  Research Smart Initiative Background
Karl J. Jepsen, PhD
Henry Ruppenthal Family Professor and Associate Chair of Research, Department of Orthopaedic Surgery, Medical School Chair, U-M Laboratory and Research Safety Committee (LRSC)

9:40am-10:00a  What is a Safety Coordinator? Roles & Responsibilities
Jonah Lee, PhD
Research Safety Initiative Coordinator

10:00a-10:15a  Break

10:15a-11:00a  Module I
Risk Assessment
Incident and Near Miss Reporting

11:00a-11:45a  Module II
Inspections
Resources

11:45a-12:15p  Working Lunch

12:15p-1:00p  Module III
Experiential Learning Exercises
Conclusion/Summary
MODULE III
Purpose/Mission

Building a new community

• That has authority
• That has reach
• That is reliable
• That is important
• That communicates
How do we best engage with you and your units to:

• Establish **Commitment**
• Improve **Communication**
• Enable **Cooperation**

We will be exploring these questions and more throughout the day
Building Strong Safety Cultures

- Leadership in Safety
- Positive Attitude for Safety
- Safety Education
- Institutional Support
- Collaborative Interactions
- Promoting Safety

Strong Safety Culture

American Chemical Society
Let’s practice!

**Target:** Inspection ready 24/7/365
Small Group Examples

• Scenario

A graduate student approaches you and asks: "My PI wants me to start a new project, but I am not familiar with some of these new protocols, I was told you as a Safety Coordinator can help me?"

  o Identify the topic? (e.g. risk assessment)
  o What is the safety coordinator role?
  o Who do I need to communicate this with?
  o What is the follow-up?
Small Group Examples

- **Scenario**

- A Lab Director is inviting a visiting lab group from England to come and tour their facility and asks:

- "Do I need to do anything special? We might be doing some experiments in front of them as a demonstration, but otherwise they will not be touching anything....I think?"
  - Identify the topic? (e.g. risk assessment)
  - What is the safety coordinator role?
  - Who do I need to communicate this with?
  - What is the follow-up?
Small Group Examples

• Scenario

• A UROP student from a neighboring lab gets injured, and someone was told to come get you "Help!!!"
  o Identify the topic? (e.g. risk assessment)
  o What is the safety coordinator role?
  o Who do I need to communicate this with?
  o What is the follow-up?
Small Group Examples

• Scenario

• Your department chair asks a question in the next faculty and facilities meeting: “How can they get a new lift put on the receiving dock quickly”
  o Identify the topic? (e.g. risk assessment)
  o What is the safety coordinator role?
  o Who do I need to communicate this with?
  o What is the follow-up?
Small Group Examples

• Scenario

• An electrician from Facilities & Operations comes by and asks you if you know who is supposed to replace one of the lights on the fume hood in the shared spaces down the hall: "F&O doesn't do that, so call someone about it, okay bye."
  o Identify the topic? (e.g. risk assessment)
  o What is the safety coordinator role?
  o Who do I need to communicate this with?
  o What is the follow-up?
Small Group Examples

- **Scenario**

  - A brand new graduate student walks right by you holding an unmarked bottle of liquid with no gloves on
    - Identify the topic? (e.g. risk assessment)
    - What is the safety coordinator role?
    - Who do I need to communicate this with?
    - What is the follow-up?
Small Group Examples

• Scenario

• Can you create your own?
• Can a Lab Director or Lab group create their own?
• Could everyone take 5 minutes out of their own meetings to go over a case study/small group example?
  o Identify the topic? (e.g. risk assessment)
  o What is the safety coordinator role?
  o Who do I need to communicate this with?
  o What is the follow-up?
Summary

• Safety Coordinator Accountability

• ASK FOR HELP!
  – Safety Committees
  – EHS
  – Unit/Department Contacts
  – Other resource/administrator programs both locally and campus-wide

15 Safety Unit Committees

1. Architecture and Urban Planning
2. Art and Design
3. Engineering
4. Institute for Social Research
5. Libraries
6. Life Science Institute
7. Literature, Science, and the Arts
8. Medicine
9. Music, Theater, and Dance
10. School for Environment and Sustainability
11. Health Sciences Safety Committee
   Dentistry, Kinesiology, Nursing, Pharmacy, Public Health, Social Work
12. Mobility Transformation Center
13. UM Transportation Research Institute
14. UM Energy Institute
15. Functional Magnetic Resonance Imaging

http://research.umich.edu/research-smart/research-smart-safety-committees
15 Safety Unit Committees

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14. UM Energy Institute
15. Functional Magnetic Resonance Imaging

http://research.umich.edu/research-smart/research-smart-safety-committees
THANK YOU

Thank you for being a safety coordinator.

You are an important part of our research community and your efforts do not go unnoticed.

FROM THE RESEARCH SMART TEAM

RESEARCH.UMICH.EDU/RESEARCH-SMART
RESEARCH SMART

Safe Research is Smart Research

The University of Michigan strengthens and sustains the quality of its research by instilling a strong culture of laboratory and research safety.

Strengthening the research safety environment at U-M

1. Enhancing a cooperative culture of safety around all research activities
2. Improving communication, awareness, and resource assessment across campus
3. Establishing commitment to using proper safety procedures in all research activities
4. Identifying best practices and strategies that may serve as a model for others

U-M Laboratory and Research Safety
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**Safety Coordinator’s Notes**