

Departmental Safety Officer Overview

Monday, September 18, 2017 | Agenda

Introductions

Welcome and acknowledgments

Purpose

The purpose of this effort is to build and reinforce a robust network of departmental and unit representatives to facilitate and encourage a positive safety culture.

Background and Scope

Brief History

In recent years the function of lab safety at the University of Tennessee has changed dramatically. National and international attention has shifted towards the dearth of strong lab safety in university settings. Comparisons of industry, national labs, and universities indicate that universities lag in safety knowledge and personal protective equipment usage.

At UTK lab safety was mostly a part of building inspections performed by lab experienced personnel. Reports were in the form of state or conditions found. They did not involve surveys of training records or documentation, and were generally non-interactive with research personnel. Biosafety and Radiation Safety both had formal drivers for records management.

Over the past 3-5 years EHS lab safety has moved toward engaged and collaborative efforts in performing lab surveys. Numerous historical situations have been improved or rectified. The campus Lab Safety Committee has taken formal shape and continues to develop as an organization to promote change.

The next steps involve coordinating representatives of responsible units as departmental safety officers.

Organizational Structure

All Lab Safety

Office of Research
(serves UTK/UTIA)

Public Safety

UTIA

Biosafety

Radiation Safety

EHS - Lab Safety
(serves UTK/GSM)

UTIA Safety Office

Philosophical Perspective and Framework

General Framework

Safety, Regulatory Compliance, Mitigation of Risk, Values

It is important to acknowledge as a group and personally what our values of this process are. We should clearly understand concepts of responsibility, authority, causal relationships and causal attribution. We should understand how we communicate, learn, and change the behavior and culture of lab safety. We should encourage open dialogue regarding our understanding and values. We should encourage examining assumptions and building a common understanding of our goals. Strong dialogue and dialogue groups are an essential part of the APLU guidelines to improve lab safety culture.

Participant created

We are offering a framework, but this will be a living organization. Participant contribution is highly important.

Standard Safety Model



APLU Values

1. **Safety is everyone's responsibility.** Each institution should commit to providing a campus environment that supports the health and safety practices of its community (faculty, students, staff, and visitors) and empowers the community to be responsible for the safety of others. A safe campus environment is a right of employment for all categories of employees. A safe campus learning environment is a right of all involved in education and research.
2. **Good science is safe science.** Safety is a critical component of scholarly excellence and responsible conduct of research.
3. **Safety training and safety education are essential elements** of research and education. They instill a culture of safety in the next generation of researchers and future faculty, and they are important for our students' career development and employability.
4. **An improved culture of safety is necessary** to truly reduce risk throughout the academic enterprise.
5. It is best to **recognize that diverse methods and flexible approaches** will be used by each institution to develop a strong culture of safety, unique to its situation.

(APLU, 2016)

Roles and Responsibilities

The DSO Role

First, we, as a group, should understand that self-organization is important. Choice is important in maintaining autonomy and implementation success. We are goal oriented. We want to achieve specific outcomes in safety, compliance, and risk mitigation. We do want to work within the same general paradigm with the understanding that needs are different and departmental organization, resources, and staffing are different. The APLU task force emphasizes diverse and flexible methods.

The primary role of DSOs is to facilitate and coordinate the health and safety roles and requirements of the responsible unit (department, department head, or unit head).

Currently, this role is not defined in the Lab Safety Policy. It is our intention to point to this document, although we may create an independent DSO Program and Guide as this process develops.

DSO Participants:

- Are diverse
- Have varying experience
- Have varying assigned authority and responsibility
- May operate in groups or may share tasks depending on ability, expertise, and interests

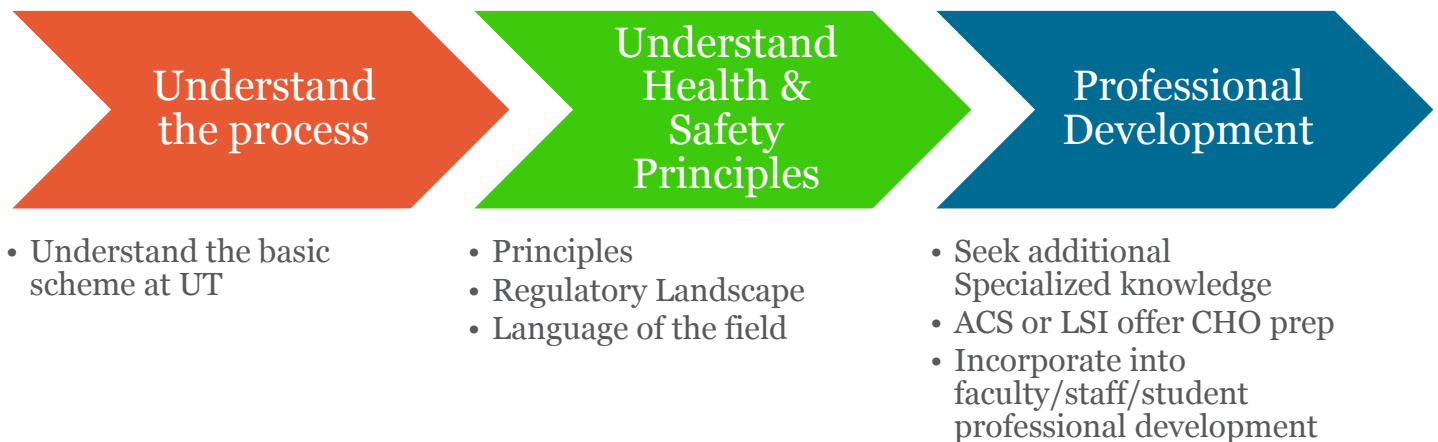
DSO Qualifications

DSOs should

- Have or be granted the **authority** to act within the roles and responsibilities of the responsible unit.
- Know their **knowledge and skillset**
- **Develop** health, safety and compliance knowledge and skills
- **Seek assistance** where needed

Basic DSO development

The following is a suggested path of development



Low Complexity

Data and Demographics

- People
- Locations

Communications

- Facilitate dissemination of information provided by EHS, Bio, Rad, UTIA etc.

General Hazard Assessment

- Door Placards
- Primary Risks
- Secondary Risks
- Hidden Risks

General Lab Safety Training

- EHS hosted
- Departmental (Invited)
- Canvas

Onboarding and Outboarding Process

- Connect people to orientation & commissionings
- Connections to Health and Safety
- Managing responsibility when a PI leaves.

Reporting /Evaluation

- Receive survey reports on behalf of dept.
- Support Accident Reporting

Medium Complexity

Chemical Hygiene Plans

- Best Practice for Dept.
- Motivation & Enforcement
- Review

Chemical Inventory

- High probability of a 3rd party system soon.
- Will require some assistance in role and responsibility identification

Non-Chem Workplans

- Engineering
- Field Work
- Critical Work
- Bio Procedures
- Rad Procedures

Modular/Specific Training

- Generally available or with some preparation & development

Communications

- Interpret information from safety and compliance groups into working plans for responsible unit

Reporting/Evaluation

- Interpret and provide feedback on survey results
- Support Near-miss reporting

High Complexity

Advanced/Uncommon Training

- requires third party expertise or delivery
- requires extensive development

Chemicals requiring approval for use.

- Requires committee coordination
- Help developing the program

Communications

- Coordinate efforts to form workgroups and subcommittees to manage challenges and efforts

Reporting /Evaluation

- Facilitate accident and near-miss investigation with appropriate offices
- Assist in developing corrective action plans

Training

The current training requirements from the Lab Health and Safety Policy: “All students, laboratory staff and visiting scholars working in a research laboratory must take general laboratory safety training initially with a recommended refresher after three years”. (see excerpt below)

EHS’s recommendation is that the training covers awareness of the types of hazards encountered in lab environments, hazard controls, emergency information, and hazardous waste (where we also talk about spills) for any chemical users.



Training and Information

All individuals working or performing research in laboratories are required to participate in safety training relevant to the work and risks pertinent to their research.

All undergraduate students who will be taking courses that include a laboratory component will receive safety training from their instructor or EHS staff.

All students, laboratory staff and visiting scholars working in a research laboratory must take general laboratory safety training initially with a recommended refresher after three years.

Depending on the nature of the research and the hazards present in the laboratory, additional laboratory-specific training must be taken. Successful completion of training must be documented before individuals start working or performing research in the laboratory and again anytime new hazards or procedures are introduced.

The PI or a designated laboratory representative will be responsible for providing laboratory specific training. This training must include special handling and documentation procedures for each type of hazard present, specific operating procedures for laboratory equipment and experiments, PPE required for the work area and emergency procedures.

EHS is available to coordinate with instructors to prepare training programs for teaching laboratories.

Current General Lab Safety Training Scheme

Conducted in two 75-minute sessions with a 15-minute break between

Lab Hazard Assessment and Evaluations

- **Safety Concept Path**
 - Anticipation/Identification
 - Hazard Controls
 - Response to Emergencies and Consequence Mitigation
- **Physical Hazards**
 - Environmental Hazards (Housekeeping, Emergency egress, etc.)
 - Chemically Produced Physical Hazards
 - Equipment Hazards
 - Electrical
 - Other Physical Hazards (Hot cold, cuts and abrasions, RF, NIR, fire, etc.)
- **Chemical Hazards**
 - Modes of hazards
 - Exposure paths
 - Types of health effects
 - Hazard Communication (GHS Standard; pictograms, labels, SDSs)
 - Chemical Hygiene Plans
 - Chemical use, handling, and storage practices
- **Biosafety (where to go for assistance)**
- **Radiation Safety (where to go for assistance)**
- **Compressed Gasses**

Hazard Controls

- **Hierarchy of Controls**
 - Elimination/Substitution
 - Engineering Controls
 - Administrative Controls
 - CHP
 - Other procedures/ Procedure qualities
 - Communications/Inviting questions
 - Personal Protective Equipment (PPE)

Near-misses and Accidents

- **What is an accident? Why are we so poor in reporting them**
- **Near-misses**
 - Lessons learned
 - Accidents averted
- **The nature of accidents**
- **University of Hawaii Explosion Case: The perils of disregarding near-misses**
- **Reporting Conditions**
- **Reporting Accidents and Near-misses**
- **How to get help**
- **Emergency Equipment**
 - Eyewashes
 - Safety Showers
 - Basic Portable Fire Extinguisher

Hazardous Waste

- Legal framework and training requirements and Regulatory Agencies
- Training requirement
- Define and categorize hazardous waste
- Properly manage hazardous waste
- Principles of spill management (contingency plan)
- methods to minimize impact

Reporting Conditions

- a. Any employee or student may report unsafe or potentially hazardous conditions directly to the safety officer and request anonymity.
- b. The reporting of such conditions by an employee shall in no way result in disciplinary action or reprisal against the employee.
- c. The safety officer or appropriate party will investigate the concern, act upon and respond within 15 working days to any person who registers a concern, complaint or report of unsafe conditions.
- d. The safety officer or designee shall maintain a record (log) of all such complaints or concerns and all actions taken. Concerns relating to personal security and potential criminal acts are addressed outside of this policy.
- e. Employees will be informed of their right to report their concerns to TOSHA in addition to reporting their concerns or complaints to the appropriate university official.
- f. The safety officer will annually analyze all employee and student safety concerns based on nature, location, department, and severity. Any identifiable trends based on this analysis will be forwarded to the campus administration with recommendations for action.

Reporting Accidents

- All accidents and near-misses should be reported to your supervisor
- Accidents are reported through risk management
- EHS investigated Worker's Comp. claims as well as accidents and near misses directly brought to EHS attention.

Reporting Near-Misses

- Report to your supervisor, EHS
- Near misses are how we learn and improve.
- Political and social factors make this challenging.
- Fact-finding can be more important than fault-finding.



Getting Help

Emergencies

- EHS is not an emergency service. We train and coordinate with emergency services, but we are not a means to receive emergency services. Never leave a request for emergency assistance as an email or voicemail message.
- For emergencies please call **911** or **865-974-3111** (UT Police).

Urgent Needs

- For needs related to problems that could become worse if not addressed soon, please contact us EHS at **865-974-5084**. If there is no answer (or it is after business hours) and you need immediate assistance please contact UT Police at **865-974-3111** (emergency) or **865-974-3114** (main line). The dispatch officer will alert the person On-Call.

Reporting Hazards/ Requesting Assistance

- Please contact EHS via phone, email, or our reporting form to report a hazardous condition or behavior or to request assistance for any other need.

