THE UNIVERSITY OF TENNESSEE KNOXVILLE

Laboratory Safety Committee
Meeting Minutes
February 13, 2025
STK 119B/C

Attendance (in person):

Member	Department	Pres.	Abs.	Member	Department	Pres.	Abs.
Doug Aaron	MABE	☒	☐	John Kobza	ISE	☒	☐
Michael Allen	TCE	☐	☒	Mariano Labrador	BCMB	☒	☐
Pamela Andrews	KRSS	☐	☒	Bryan Lord	Facilities	☐	☒
Chris Baker	EHS (Lab)	☐	☒	Grace Loy	IAMM	☒	☐
Michael Blum	A&S	☐	☒	Elysia Mann	Art (2D)	☐	☒
James Cantu	EHS (OHSS)	☐	☒	Bob Martin	EECS	☒	☐
Carolina D. Carter	EHS (Lab)	☒	☐	Kristen Massey	ORIED	☐	☒
Christine Cheney	Physics & Astronomy	☐	☒	Larry McKay	**Vice-Chair:** A&S	☐	☒
Matthew Cooper	Psychology	☒	☐	Natalie Metzger	EHS (Lab)	☐	☒
Steve Crouch	UTIA Safety	☒	☐	Sarah Mobley	**Chair**: CEE	☒	☐
Paul Dalhaimer	CBE	☐	☒	Katie Morgan	Nursing	☐	☒
Ampofo Darko	Chem	☒	☐	Chris Morris	IAMM	☒	☐
Brad Day	ORIED	☐	☒	Scott Moser	EHS (Lab)	☒	☐
Emily Deem	EHS (Lab)	☒	☐	Allan Patchen	EPS	☐	☒
Mark Denavit	CEE	☐	☒	Brian Payne	EHS (AD)	☒	☐
Taylor Do	EHS (Lab)	☒	☐	Jacob Payne	UTIA Safety	☐	☒
Bill Dunne	Tickle COE	☐	☒	Brian Ranger	EHS/Lab	☒	☐
Gerald Egeland	MSE	☒	☐	Michael Ratliff	NucEng.	☐	☒
Jennifer Ferris	GSM	☐	☒	Darcy Rathjen	ORE	☐	☒
Jason Fogarty	Theatre	☐	☒	Tim Rials	UTIA	☐	☒
Billy Garner	EHS (Lab)	☒	☐	Anujit Sarkar	Nursing	☐	☒
Adrian Gonzalez	CEE	☒	☐	Ryan Setzer	EHS (IWS)	☐	☒
Linda Hamilton	EHS (Lab)	☒	☐	Marsha Smith	EHS (Rad)	☒	☐
Terry Hazen	CEE/EPS/Micro	☐	☒	Timothy Sparer	Microbio	☐	☒
Sally Horn	Geography	☐	☒	Daniel Thomas	EHS (Lab)	☒	☐
Randy Huelsman	Facilities	☐	☒	Joseph Williams	EEB	☐	☒
Anneke Janzen	Anthropology	☐	☒	Ling Zhao	Nutrition	☒	☐
Jennifer Kirkpatrick	Art (3D)	☐	☒				

Other Guests:	Department	Pres.	Abs.				
Luke Blentlinger	Proxy for Sally Horn	☒	☐			☐	☐
Melissa Weaver	Proxy for Jennifer Ferris	☒	☐			☐	☐
		☐	☐			☐	☐
		☐	☐			☐	☐
		☐	☐			☐	☐

Agenda:

i. Opening Welcome!
ii. Approval of Minutes
iii. Safety Culture Minute
iv. Committee Reports
  a. Lab Safety Culture Awards (Carter)
  b. Institutional Biosafety Committee (Thomas)
v. Special Topic Discussion
  a. Lithium Ion Battery Storage and Disposal (Moser)
  b. New Federal DURC/PEPP Process (Thomas)
  c. Emergency Call Boxes (Aaron)
vi. Incidents/Concerns
  a. IAMM Flood (Moser, Garner)
vii. LSS updates (Hamilton)
viii. Items from the floor?
  a. Experience Provider Report Out
ix. Next meeting March 13, 2025 Same Location??

Attachments and References:

- Agenda
- January LSC Meeting Minutes

Topic Summaries:

I. **Introductions/Opening**
The LSC Chair, Dr. Sarah Mobley, opened the meeting at 1:30pm.

II. **Approve Minutes from Last Meeting** (January 9, 2025)
The minutes from 1/9/2025 were approved as written with 3 abstentions.

III. **Safety Culture Minute**
Dr. Mobley showed appreciation for EHS for hosting Lab Safety Awareness Week (LSAW) this week. Carolina D. Carter added that the week has been successful. Grace Loy and Chris Morris were the first LSAs to partner with EHS for LSAW, and Carolina thanked them for their help. There were a variety of talks and activities, including a talk from a faculty member at IAMM, EHS Assistant Director, Brian Payne, and Y-12 engineer, Garrett Carter. The activities included a vendor fair, Bingo, Lab Safety Jeopardy, a crossword puzzle, and a word search. All activities had good participation.

IV. **Committee Reports**

Carolina D. Carter shared an update on Lab Safety Culture Awards. For 2025, all four quarterly topics are available for review. The Winter quarter's topic is a creative advertisement for your lab that showcases your lab's safety culture. A new addition is the acceptance of nominations for people that are practicing lab safety, partners with EHS, and/or influences a healthy and safe work environment. Nominations can be for students and PIs. This nomination does not have to align with the current quarter's submission. At the end of the year, one nominated individual will be selected by the voting panel to win the Smokey's Choice Award and will be invited to the Lab Safety Culture Awards Dinner.

V. **Special Topic Discussion**

a. **Emergency Call Boxes**

Doug Aaron described a recent event in SERF where during a power outage, a faculty member attempted to make a call through RingCentral and discovered it did not work. RingCentral operates through the Internet and is inaccessible when the power is down. In the event of a power outage, cell service would have to be relied upon instead of RingCentral. This presents an issue in locations on campus where cell service is unreliable. Doug and a staff member have been visiting the labs and buildings where their faculty have research spaces to evaluate the cell coverage. Doug asked the members of LSC to consider the cell coverage in the spaces they work in and if they rely on internet to contact others. OIT has been receptive to these concerns and is willing to consider installing emergency call boxes. LSC members agreed this is important. Mossman and Dabney Buehler were mentioned as notorious for poor cell coverage. A member voiced concerns about how these call boxes would be installed in new vs. older buildings. It was agreed that for buildings that have not yet been constructed, a request for emergency call boxes to be installed upon construction would be prudent. A survey will be sent out for LSC members regarding cell coverage in workspaces.

b. **Lithium-Ion Battery Storage and Disposal**

Scott Moser gave a presentation on lithium-ion battery safety. Lithium-ion batteries are currently the industry standard of rechargeable batteries due to the higher energy density than legacy batteries. Battery packs are arranged as multiple cells in a series. There are failure scenarios such as thermal runway (i.e. rapid self-heating of a cell) that should be considered. Storage temperature should be considered – the cells should be maintained at recommended operating temperatures. The fire hazard is due to the high energy density and flammable organic electrolyte. Ignition of lithium-ion batteries can result from physical damage, electrical abuse, temperature, or manufacturer defect. The severity of the reaction depends on battery size, the chemistry of the battery, construction of the battery, and the state of charge of the battery (i.e. higher charger = larger fire). Scott recommends purchasing batteries from a reputable manufacturer and storing them away from combustible materials. In addition, batteries should be removed from devices for long-term storage. If possible, store batteries in metal storage cabinets at 50% charge, and never charge one-time use batteries. There are also LiPo safe bags for safe battery storage that contain fires if they occur. Keep batteries away from water, seawater, strong oxidizers, and strong acids. When you notice that cells do not hold a substantial charge, properly dispose of them. At UTK, undamaged batteries can be disposed of through UTK recycling. Damaged batteries require hazardous waste disposal. As an emergency response, there are steps that you can take to prevent a fire. These steps should only be taken if they can be done safely. First, disconnect the battery, then remove it from the equipment or device. Place the battery in a metal or other container and call EHS or KFD for information on proceeding. Scott notes to not use a Class D fire extinguisher because it will not be effective. A member inquired about the policies for bringing battery-powered scooters or skateboards into buildings. UT transportation policy states that specifically only battery-powered scooters are not allowed in academic buildings, while housing is more restrictive in what lithium-ion batteries are allowed in the dorms. There was also concern for electric vehicles. Another member expressed concern for server backups, asking how they are kept safe if they are lithium-ion batteries. Another safety tip was to watch for bulging batteries – immediately dispose of any battery cell that bulges or looks expanded.

c. **New Federal DURC/PEPP Process**
Daniel Thomas gave a brief overview of changes to the federal policy on Dual Use Research of Concern (DURC) and Pathogens of Enhanced Pandemic Potential (PEPP). The purpose of this policy is to provide oversight of research that could be misapplied to do harm, and pathogens that have been modified to enhance transmissibility or virulence. The policy is meant to go into effect on May 6, 2025. However, possible changes to the Office of Science and Technology Policy may affect the implementation of the policy. In the policy, there are two categories described. Category 1 describes oversight of DURC, while Category 2 describes oversight of PEPP. Within the provisions of the policy, the principal investigator (PI) would perform an initial self-assessment during the grant application. If their work would fall under Category 1 or 2 of the policy, the PI would notify the funding agency and the Institutional Review Entity (IRE). This may be a subcommittee of the Institutional Biosafety Committee (IBC), or its own committee. The IRE would then perform their assessment of the proposed research to designate a category. It is the responsibility of the institution to ensure PIs are aware of and following this policy. Category 1 research involves risk group 3 and risk group 4 agents, which are not used at UTK. There are several specific experimental outcomes that need to occur in combination with risk group 3 or 4 agents to be considered Category 1. Category 2 research involves agents that are reasonably anticipated to result in a PEPP in combination with specific experimental outcome listed in the policy. Daniel described his intentions to talk with potential stakeholders, including this overview for the LSC.

VI. **Incidents/Concerns**
Chris Morris and Scott Moser discussed an incident in an IAMM lab. Water on the floor was reported to Chris, and he traced the water back to a flooded lab. The water was coming out of a chilled water valve in a fume hood. The chilled water valve was incorrectly clamped. The water was turned off, and Scott Moser was contacted to respond. Chris noted a positive of the setup was that the water valve was in secondary containment. However, it was connected to the main water system for main water supply, instead of a self-contained, recirculating chiller unit. Chris noted that this occurrence has happened repeatedly at IAMM, so they will do a water connection demonstration at Lab Safety Day. A member of the STAR team will now be present at every inspection to ensure the water connections are correct. In addition, Chris is requesting any new water connections be made by Facilities Services.

VII. **LSS Updates**
Linda Hamilton shared highlights from the LSS annual report from 2024. In total, there were 300 lab safety reviews with 470 total findings. The number of total findings has decreased from last year. The findings closure rate was 97%, which is comparable to past years. The most common finding was improper chemical waste management and expired training. There were a few notable disruptive events, such as the move of auctioned equipment in Physics, which caused equipment and property damage. In addition, hazardous legacy chemical inventory discovery, with the planning and disposal, was a huge cost to the university. LSS provided training on hazardous waste management, lab safety and biosafety, radiation safety and laser safety, shipping, and permits. LSS also developed new trainings on UTK hazardous waste/chemical spills management, safe sharps use and management, and three new radiation safety training modules. LSS engaged with stakeholders in 2024 through safety talks for academic courses, 10 Mindfulness Minute communiques, Lab Safety Awareness week in February, Lab Safety Culture Awards throughout the year and the celebratory dinner in December, and touchpoints with department heads and LSAs during pre-review meetings at the beginning of the audit cycle. In addition, the positive culture framework initiative began with TCE. In 2025, LSS plans to review and update UTK EHS safety manual program plans, procedures, and guidance documents. In addition, Safety Stratus assets, inspections, and occupational health modules should be fully implemented. Other E-learning improvements will also be implemented. LSS will continue to host Lab Safety Awareness week, Lab Safety Culture Awards, and the positive culture framework initiative. Members debated whether there was actually a reduction in

incidents, or if there is still a reluctance to report them. It was noted that beliefs and attitudes may be hard to change, but people may be more aware and knowledgeable.

VIII. **Items from the Floor**

Sarah Mobley shared the Mindfulness Minute that was distributed during Lab Safety Awareness week. The topic was lab interactions with Facilities Services. The communique highlighted steps that lab members can take to better support Facilities Services when they perform their duties in the labs. Members expressed interest in asking representatives from Facilities Services to join an LSC meeting for a talk.

IX. **Next Meeting**

Thursday, March 13th, 2025, from 1:30pm – 3:00pm EST in STK 119B/C.

[Meeting Adjourned at 2:49pm]