

# Laboratory Safety Committee Meeting Minutes September 20, 2021, Zoom Meeting

Attendance according to zoom:

Member	Department	Pres.	Abs.	Member	Department	Pres.	Abs.
Doug Aaron	MABE	$\boxtimes$		Mariano Labrador	BCMB	$\boxtimes$	
Michael Allen	TCE	$\boxtimes$		Yingkui Li	Geography	$\boxtimes$	
Shawn Campagna	ORE		$\boxtimes$	Brian Long	Chemistry	$\boxtimes$	
James Cantu	EHS	$\boxtimes$		Bryan Lord	Facilities	$\boxtimes$	
Christine Cheney	Physics & Astronomy		$\boxtimes$	Larry McKay	Vice-Chair -A&S	$\boxtimes$	
Lori Cole	IACUC/OLAC	$\boxtimes$		Ahmad Mitoubsi	EHS/Lab	$\boxtimes$	
Matthew Cooper	Psychology	$\boxtimes$		Sarah Mobley	CEE	$\boxtimes$	
Steve Crouch	UTIA Safety	$\boxtimes$		Scott Moser	EHS/Lab	$\boxtimes$	
Paul Dalhaimer	CBE	$\boxtimes$		Jacob Payne	UTIA Safety	$\boxtimes$	
Bill Dunne	Tickle COE	$\boxtimes$		Sandra Prior	EHS	$\boxtimes$	
Gerald Egeland	MSE	$\boxtimes$		Sarah Pruett	ORE		$\boxtimes$
Scott Emert	Nuclear Eng.	$\boxtimes$		Brian Ranger	EHS/Lab	$\boxtimes$	
Jennifer Ferris	GSM	$\boxtimes$		Darcy Rathjen	JIAM	$\boxtimes$	
Casey Fletcher	ART	$\boxtimes$		Marsha Smith	EHS/Rad	$\boxtimes$	
Jason Fogarty	Theatre		$\boxtimes$	Cynthia Swift	CEB	$\boxtimes$	
Sharon Hale	CEE		$\boxtimes$	David White	UTIA		$\boxtimes$
Linda Hamilton	EHS/Lab	$\boxtimes$		Andre Zeumault	EECS	$\boxtimes$	
Terry Hazen	Chair-CEE/EPS/Micro	$\boxtimes$		Ling Zhao	Nutrition	$\boxtimes$	
Randy Huelsman	Facilities	$\boxtimes$			Grad Student Rep		
Lee Jantz	Anthropology	$\boxtimes$		Mike Rotella	EHS/Guest	$\boxtimes$	
Jeremiah Johnson	Microbiology	$\boxtimes$		Kim Harmon	EHS/Guest	$\boxtimes$	
John Kobza	ISE	$\boxtimes$		Brian Payne	EHS/Guest	$\boxtimes$	
				Viktor Nemykin	Chemistry		$\boxtimes$
				Joseph Williams	EEB (new)	$\boxtimes$	
				Allen Patchen	EPS (new)	$\boxtimes$	

# Agenda:

- I. Introduction of new LSA's
- II. Approve Minutes from Last Meeting
- III. LSS update-lab safety visit program
- IV. Tech Tools Updates
- V. LSC Working Groups
- VI. Hazardous Waste Report updates
- VII. Incidents/concerns
- VIII. Success Stories
- IX. New Business
- X. Next Meeting

# **Attachments and References:**

- 2021 Lab Safety Reviews (YTD)
- EPA-TDEC inspection report
- Chemical Spill DBH
- Needlestick
- Communications Chart
- Ethidium Bromide Waste
- Whistle Blower Communication
- DO Chemical Storage Room

### Due to COVID-19, the zoom meetings will continue until further notice.

# **Topic Summaries**

**Introductions:** Allen Patchen (EPS) & Joe Williams (EEB)

#### **Approve Minutes from Last Meeting**

Minutes from the 6/21/2021 meeting were approved.

### LSS update-lab safety visit program (progress to date)

Brian Ranger gave a brief overview of the Lab Safety Reviews. Eight labs are still in the review process. Two labs in Materials Sciences & Engineering had serious findings and were categorized as "stop work." The predominant findings are minor. Several departments have labs with commendations that are practicing safe lab practices. Except for the labs in progress, most have a 100% resolution rate on correcting audit findings. The top 10 common findings include door signs, hazardous waste training, spill response plan, weekly eyewash test, chemical inventory, lab safety training, LS-CHP available, hazardous waste storage area labels, chemical labeling, and first aid kit management. A few departments such as Nuclear Engineering, Chemistry, Art, Chemical & Biomolecular Engineering, Mechanical, Aerospace, & Biomedical Engineering, and a few departments on the Ag Campus are scheduled for audits in early October.

# **II.** Tech tools updates

#### a. BioRaft.

Brian Payne notified the committee that BioRaft had been shut down officially at the end of August. The project team is still in the process of interviewing vendors and viewed 14 software packages. We have two viable software packages and possibly a third. A meeting invite will be sent to the broader stakeholder group and an opportunity to provide feedback.

- i. James Cantu notified the committee that the Chemical Inventory site is available as a temporary replacement to BioRaft. James expressed thanks to Jessica Woofter's efforts in establishing and managing the site. If any issues occur, members are encouraged to contact James and Jessica. Moving forward, the project team is looking for a system that will match up SDS and manufacturing information.
- ii. Brian Long asked if one software management system is going to encompass all EHS data management and functions. James indicated this was the case and that the project group is looking for an SMS to encompass EHS needs and data management.

#### b. Canvas training Q/A

James Cantu addressed a request for access to the Canvas training records. James is in the process of working with OIT to see if the observer function will allow for groups to access records. Canvas catalog is not an option for organizing departments.

i. Sarah Mobley asked if it would be possible to make modules available so that the departments could post them internally.

- ii. Joe Williams asked if there would be a way to notify individuals about recertification requirements. James indicated that currently available learning management systems do not have a mechanism for automated training notifications.
- c. CEE departmental dashboard (Mobley)

Sarah Mobley demonstrated the Civil and Environmental Engineering Teams group. Each PI within the department has access to a general channel as well as their assigned channel. The General group channel are templates and general guideline documentation. The individual PI channel is space to track SOPs and training records. Each faculty member (PI) has access to an Excel workbook that tracks annual reviews, lab locations, training records, SOP lists, task lists, and chemical inventory information. This process provides a noninvasive method for checking on training for LSAs. Sarah will make the workbook available to the LSC.

### III. Lab Safety Committee working groups-meeting outcomes & next steps

a. Communications – progress updates/next steps

Matthew Cooper presented a flowchart to the committee depicting the day-to-day lab safety business processes. James Cantu presented a flowchart to the committee depicting the whistleblower communication process. The purpose of these flowcharts is to provide PIs and LSAs with three flowcharts illustrating the day-to-day process, whistleblower communication process, and the CorVel accident process.

b. LSA-brief update on program document

Brian Ranger notified the committee that the LSA Program Document (LS-005) is posted to the EHS Safety Manual online on the EHS website. Brian will be reaching out to the committee to collect suggestions for an onboarding process relative to the LSA Program, such as a training overview of LSA expectations.

c. KPI's - recommendations submitted

Brian Ranger notified the committee that the key performance indicator recommendations had been submitted, and the LSA program documentation has not changed them. Implementation of those recommendations is currently beyond the committee's scope, and Brian will pull the recommendations for the next meeting.

d. HHCC

Larry McKay notified the committee that the HHCC is slowly making progress. The next step is to develop a draft and the review process to engage its committee. The draft will need to be reviewed and approved by the general counsel for liability issues.

#### IV. Hazardous Waste Report

a. EPA/TDEC findings

Mike Rotella shared the results from the June EPA and TDEC inspections. There were nine different violations, of which five were related to universal waste. One of the violations pertained to the SERF waste room, and three pertained to the labs. They sampled 100 labs, and 20% of them had violations. The violations consisted of no proper waste labels on chemicals. There is a new rule that

all chemicals must be properly labeled and have indicated the appropriate hazard by circling the word or associated pictogram. The other issue was keeping container lids closed, screwed caps screwed tight, and Ziploc bags zipped tight. The major issue is correctly assessing a chemical is hazardous or nonhazardous. Mike indicated that the hazardous waste training would be revised to reflect the findings and issues addressed in inspections, such as the use of flasks for chemical storage. Flasks are not an appropriate primary method for storing liquid chemicals. Ziploc bags inside the cans have also been frequently used, and cans can be counted as open containers. Additionally, 15% of all findings were old chemicals over 35 years old and should be disposed of properly.

- i. Hazen indicated LSS should be looking for outdated chemicals during inspections.
- ii. Brian suggested hosting an old chemical removal day similar to what has been successfully implemented by peer groups. Brian also indicated that open container findings include funnels sticking out of bottles. Additionally, lines running into a cap, but one of the ports is open to the air, is considered an open container. He cautioned that once a hazard label is on a chemical, it should always be closed unless directly adding something to it at that time.

### b. Ethidium bromide gel management – new procedure

Mike Rotella and Brian Ranger discuss with the committee about the hazardous waste designation change for ethidium bromide. Brain shared new procedures for low concentration solid wastes containing ethidium bromide, particularly agarose gels used for electrophoresis. The major change is the hazard labeling from the yellow and red label to a nonhazardous blue and white label. It is also recommended to use a reusable 5-gallon bucket with a screw-top lid and stick the new label on the front.

i. Lori Cole asked the committee about the requirement in the Lab Animal Facilities to use the yellow sharps containers for chemotherapeutic sharps. Is that information being disseminated, and is this a requirement for the facilities? Mike indicated this requirement is in place and that EHS would provide the containers upon request.

#### **V. Incidents/concerns**

#### a. Chemical spill/exposure

Brian Ranger and Scott Moser notified the committee of chemical exposure that occurred this past June. Students working in Dr. Brian Long's lab were exposed to a minor spill of a volatile lachrymator, methanesulfonyl chloride, a toxic corrosive (GHS Category 1). The spill occurred when the reagent bottle slipped out of a clamp, and the students were working near the spill. The vapors from the spill caused minor eye and throat irritation to the students. They immediately flushed their eyes and consumed lots of water. There were no other adverse effects. Brian and Scott met with students to perform a follow-up incident analysis. CorVel medical triage advised that additional medical consultation would not be necessary. Additionally, it was noted that there was confusion about internal guidance for reporting incidents and CorVel procedures.

- i. Sandra Prior is working with Brian Guard to research the process and create guidelines for reporting incidents.
- ii. Lori Cole noted that from the animal research side, they were also having issues with CorVel when an animal-related incident occurs, which could be a zoonotic hazard. There was not a consistent answer relating to rabies exposure procedures.

#### b. Needlestick injury

Ahmad Mitoubsi notified the committee that a needlestick injury occurred in BCMB this past August. The incident involved a graduate student who had punctured his finger with a needle while working with human cells. Ahmad followed up with the student. They explained they were working in the lab using the tip of a bent needle to lift a glass slide from the bottom of a plastic microplate, the needle slipped, and they accidentally punctured their thumb. CorVel instructed the student to seek medical attention in the Emergency Room (ER). The PI felt concerned about the student contracting COVID while visiting the ER and called CorVel back to get approval for the student to seek medical attention at an urgent care facility. The urgent care facility physician requested the student to return for more blood work in the following intervals of 4 weeks from the day of the incident, six weeks from the first return visit, and six months from the second visit. The student has been cleared to continue working by the physician and wants to monitor progress over time. Corrective actions included not to bend, shear, break, or recap needles, as well as using fine tip forceps to lift coverslips.

#### c. Stop Use

Brian Ranger notified the committee that LSS performed a site safety review for the MSE chemical storage room at Dougherty 100A during August 2021. The space had accumulated several hazardous chemicals and was not conditioned in any way to mitigate temperature fluctuations. Additionally, there was no apparent ownership over the space, and the Department Head was unaware of the space. A "Stop Use" was put in place for the space, and Brian worked with Drs. Gerald Egeland and Veerle Keppens on a remediation plan. Some of the chemicals have been neutralized and removed with the help of Mike Rotella, and the hydrogen cylinders have been removed. Brian will begin working with the department to determine what needs to be in that space, build a chemical inventory, and update door signage. The Stop Use was lifted after Dr. Keppens approved the remediation plan.

#### d. Corrosives cabinets/inserts in SERF

Brian notified the committee about concerns he raised with Randy Huelsman about flammable cabinets installed at SERF that have been repurposed for corrosive cabinets. Some of the cabinets are badly rusted, and the shelving has collapsed. A systemic solution is needed for getting proper corrosive inserts under the cabinets. Randy indicated that he spoke with Drs. Bill Dunne and Larry McKay about the issue. Both were very receptive to the correction and agreed to co-fund a solution. Randy is currently researching vendors. Dr. McKay indicated that the next steps were to scope the problem, alternatives, and cost of the project that would involve several cost centers to fund. Brian thanked Dr. McKay, Dr. Dunne, and Randy for recognizing this issue and coming up with a plan to remediate the issue.

#### VI. Success Stories

#### a. TCE lab commissioning/decommissioning

Gerry Egeland notified the committee he recently decommissioned a lab with a very heavy vacuum system, a large customized table bolted to the floor, a large laser system, some magnets, and three laser tables. He was able to rehouse a lot of the equipment and surplused two vacuum pumps in addition to a few pieces of furniture. He also removed the hazardous waste, and Doug Aaron took on the residual chemicals.

i. Doug Aaron notified they had to request one deep cleaning, but Gerry took on an enormous amount of work and did an excellent job.

- ii. Additionally, Brian notified the committee that Paul Dalhaimer decommissioned Dr. Frymier's space, and it was done efficiently so that the lab space is in good shape.
- iii. Hazen requested that a lessons learned style document be generated for success stories.

VII. New Business - None

VIII. Next Meeting - October 18, 2021, 1:30-3:00 pm; Zoom Meeting