Chemistry Local Safety Team Meeting Minutes

APPROVED

Name of Team: Chemistry Local Safety Team		Chair(s):	Derek Gates & Monica Clarkson
Data	Fobruary 16, 2022	Time:	11:01 am
Date:	February 16, 2023	Location:	Online Zoom Meeting

AGENDA:

- 1. Roll Call
- 2. Approval of Previous LST Meeting Minutes
- 3. Additional Agenda Items & Approval of Agenda
- 4. Review Central Accident/Incident Reporting System (CAIRS) report of Accidents/Incidents
 - Monthly Incident List & Statistical Summary Report
- 5. Review Workplace Safety Inspections (including any changes to equipment, machinery or work processes that may affect the health or safety of workers)

- 6. Review Education and Training
- 7. Ongoing Business Status of Action Items, Review of Previous Minutes
- 8. New and Other Business
- 9. Next Meeting
- 10. Meeting Adjournment

1. ROLL CALL				
Worker Representatives	Work Location	Present	Regrets	Absent
Guillaume Bussiere	Chemistry - Teaching Faculty			
Karen Button	Chemistry – M&P, Stores Manager			
Ken MacFarlane	Chemistry - M&P, Director, Finance and Operations			
Tony Mittertreiner	Chemistry - M&P, Director, Technical Services			
Ben Herring	Chemistry – Research Tech			
Ben Nadeau	Chemistry – Graduate Student			
Cameron Zheng	Chemistry – Graduate Student			

Employer Representatives	Work Location	Present	Regrets	Absent
Derek Gates	Chemistry – Faculty, Co-Chair			
Monica Clarkson	Chemistry - M&P, Co-Chair & Safety Program Officer			



Chemistry

Faculty of Science

Resources/Guests	Work Location	Present	Regrets	Absent
Peggy Paduraru	UBC Safety & Risk Services			\square
Richard Wambolt	UBC Safety & Risk Services	\square		

2. APPROVAL OF PREVIOUS LST MEETING MINUTES					
(Statement to indicate minutes of previous meeting have been read & acknowledged and to record any corrections to it)					
Are the minutes approved?	Yes ☑	No □			
3. ADDITIONAL AGENDA ITEMS & APPROVAL OF AGENDA					

3. ADDITIONAL AGENDA ITEMS & APPROVAL OF AGENDA		
Is the agenda adopted?	Yes ☑	No

4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:

See attached incident report:

• Monthly Incident List & Statistical Summary Report (make note of trends etc. For any general CAIRS information that requires discussion or action, please record under "New Business". Any incident specific items and follow up requests are to be listed below)

(* See Legend at End for Priority and Status Codes)

Item # (Use CAIRS Incident ID #)	Priority	Date	Action Plan (Actions Taken/Need to be taken)	Assigned To	Follow up: Date Pending	Status
129082 /129101	С	Mar 1, 2022 (onset)	 Repetitive Motion Injury Ergonomics assessment done by Ergonomics Program Lead, Abigail Overduin. New furniture/equipment is being purchased and is currently be tested. The furniture has been tested and has been found to be working effectively for the individual. Additional furniture is currently being ordered. LST Comments: After a full assessment, the two stools and 3 chairs are being ordered. This item is now closed. 	KM	Complete	С

4. REVIEW CA	IRS REPO	RT OF ACCIDEN	TS/INCIDENTS:			
129681 / 129682	C	Jul 22, 2022	 Grad student removed Pasteur pipette with phenylbis(trimethylsilyl)phosphine residues on it from glovebox and discarded it into plastic glass waste bucket with plastic bag liner. The plastic bag liner was ignited by chemical residues that remained in the pipette. Lengthy discussion regarding glass waste buckets; no recommendations established. DG conducted a straw poll of faculty at the Sep 29 Faculty Meeting. Faculty are in favour of metal glass waste containers. Response from the Waste Management team from Building Operations was received on Dec 19, 2022. They have discontinued the metal pails. If the department would like to purchase and re-stock the metals pails, the Waste Management team would service them as needed. Monica to check if there are still any discontinued pails available for use. LST Comments: Metal pails are currently still available to UBC Chem and are still being circulated. There is approximately a 50/50 ratio of metal to plastic pails, which are in circulation within the department. After further discussions with UBC Waste Management, they have agreed and confirmed that it is okay for us to label and use the existing metal pails with "UBC CHEM". Once the metal pails have been labelled, the waste management team will be trained to deliver the metal pails to the department. Signage with instructions will be posted in the glass waste room to encourage synthetic lab users to use the metal pails. 	DG/MC	In Progress	IP
130684 /130682	С	Jan 20, 2023	Rubbed Abraded, Sharp Contact While loading a double cylinder cart, worker experienced a minor scrape on their leg. The worker was loading a compressed gas cylinder tank onto the cart and had placed	MC	Complete	С



4. REVIEW CAI	RS REPOF	RT OF ACCIDEN	TS/INCIDENTS:			
			their leg next to the cart for support, in which time their leg rubbed against the cart resulting in a minor scrape. Worker reported the incident to their supervisor within 24 hours. Actions and Resolutions: (1) Supervisor to review compressed gas cylinder handling procedures with all staff, and to emphasize to not place one's hands or legs in the direction of where the cylinder is being placed. (2) Safety staff to send a reminder to supervisor and staff about emergency response procedures, including reporting all incidents to www.cairs.ubc.ca. LST Comments: All corrective actions have been completed. Worker has indicated for future that they are more comfortable using the single cart. In addition, the cart was inspected			
130660 /130638	С	Jan 24, 2023	Exposure to Noise The worker was troubleshooting pneumatic isolators which lift our low-vibration concrete slab. This involves making small adjustments to the levelling valves which respond to disturbances by flowing or releasing air from the cylinder. The worker had the appropriate tools, a manual for the isolators, and was following all previously established protocols for working in this confined space. During the process of adjusting the levelling valve the isolator unexpectedly raised to the maximum height while communicating with another worker to increase the pressure input to the system. At that point a different isolated (than the one adjusted) had a sudden, loud release of air from an overpressure valve and dropped. The loud noise in the small space impacted the worker's hearing as reported directly to the supervisor, and later through the submitted CAIRS report when symptoms persisted	MC/BN	In Progress	ΙP



4. REVIEW CAIRS REPORT OF ACCIDEN	ITS/INCIDENTS:		
	longer than a few hours. Note that the other workers		
	present above the confined space were not impacted and	1	
	stated the incident was not noticeably loud. As the	1	
	overpressure valves have not to our knowledge released air	1	
	in this manner in the 11 years since installation, we are		
	investigating whether there is an issue with the isolator or	1	
	components, or this incident was caused by the attempted	1	
	adjustments.	1	
	Actions and Resolutions:	1	
	(1) Add requirement to wear hearing protection when		
	occupying space under false floor. Ear plugs are currently	1	
	available to be used immediately, and over-ear protection		
	is being ordered.		
	JOHSC/LST Items	1	
	(1) Please send the existing SOP for working in a confined	1	
	space and any other related SOP to the CHEM LST at	1	
	safety@chem.ubc.ca.		
	(2) Supervisor to update the SOP to include that hearing	1	
	protection such as earmuffs should be worn while working		
	below the floating floor located in BRIM 047C.		
	(3) Supervisor to notify all workers and students that the	1	
	SOP has been updated to include hearing protection while		
	working below the floating floor located in BRIM 047C.	1	
	(4) Chem safety staff to send emergency response	1	
	procedures to supervisor and worker. Supervisor to discuss	1	
	the emergency response procedures to all workers and	1	
	students.	1	
	(5) Chem LST to contact Sonam from UBC SRS to confirm if	1	
	over the ear protection is appropriate.		
	LST Comments:		
	All corrective actions from the original investigation have		
	been completed. Item 5 is a follow up question from the		
	FOS JOHSC, which is still in progress.		

4. REVIEW CA	AIRS REPO	RT OF ACCIDEN	ITS/INCIDENTS:			
130683 /130697	С	Feb 2, 2023	Fall From Elevation Staff member was standing on single-step stool placed on top of a chair to reach sample that was stuck in the solids Nuclear Magnetic Resonance spectrometer. The stool and chair tipped over when the staff member tried to step down and the staff member fell and hit their head on the floor. Another worker was present and helped stable the injured staff member. After a couple minutes, UBC First Aid was called. First Aid attended to assess injury and decided to transport worker to UBC Urgent Care Actions and Resolutions: (1) Purchase additional step stools and ladders so that there is one stool per spectrometer, and to make sure there is one ladder per room. (2) Notify workers of requirement to report incidents to supervisor ASAP. (3) Review procedures for accessing top of spectrometers with all staff. LST Comments: All items are in progress. The manager and staff are assessing which stools and ladders to purchase. If possible, we should consider purchasing ladders with hand rails for extra support.	MC/KM	In Progress	IP
130724 /130731	С	Feb 9, 2023	Student losing consciousness in teaching lab The student approached the Teaching assistant complaining that they were feeling hot and unwell and needed to step out briefly. The TA called me over, and the student was quickly worsening. They mentioned feeling dizzy, and I directed them to come to the technician's office to sit down. A few seconds later they began struggling to standing and lost their vision. The TA quickly grabbed the student to prevent them from falling and we put the student into a chair. The student complained of being hot	MC/CZ	Complete	С



4. REVIEW CAIRS REPORT OF ACCIDEN	TS/INCIDENTS:	
	and we insisted they remove their lab coat. Roughly 3	
	minutes later the student began losing consciousness. I told	
	the lab technician to call 911 immediately. In that time the	
	student completely lost consciousness. We got 911 on the	
	phone, and during the conversation (maybe 2-3 minutes	
	later), the student regained consciousness. We held 911 on	
	the phone for another few minutes, and the student	
	seemed to be quickly recovering. After assessing the	
	student, we ended the call with 911 without requesting an	
	ambulance. We then called Campus security who sent over	
	two workers. In this time, the student seemed to improve	
	well. They were communicative and cogent. After Campus	
	security had completed their assessment and report	
	(roughly 20 minutes), the student was given the choice	
	(making it clear there were no consequences) of continuing	
	or leaving and coming in another day to finish the	
	experiment. The student decided to continue after taking a	
	brief walk with the lab technician for some fresh air	
	outside, and roughly 10 additional minutes of relaxing.	
	I made sure to have the student send me a message upon	
	arriving home safely, which I received that evening.	
	Actions and Resolutions:	
	(1) Better regulate the room temperature of the	
	undergraduate teaching labs located in Chem C224/226.	
	Facilities staff to submit a request to UBC Building	
	Operations to help moderate the temperature of the labs.	
	LST Comments:	
	Temperature control board had been damaged during the	
	freezing temperatures right before the winter break. A	
	service request to reduce the heat was submitted weeks	
	before this incident. Due to the CAIRS incident the service	
	request was prioritized and the temperature is now	

4. REVIEW CAI	RS REPO	RT OF ACCIDEN	TS/INCIDENTS:			
4. REVIEW CAI	C C	Feb 13, 2023	manageable. All corrective actions have been completed. This item can be closed. Small Fire inside lab oven At around 11:30 am the molecular sieves from a THF/Toluene solvent bomb were placed in the oven to dry. Prior to placing the molecular sieves in the oven, the solvent had not completely dried. Two of the students in the lab heard a popping noise from the oven and noticed that the door had opened and a small flame was coming from the oven. One of the neighboring students grabbed an ABC fire extinguisher to extinguish the fire in the oven. The ABC fire extinguisher was successful in putting out the fire. The incident was immediately reported to the supervisor. There was a site visit by the supervisor, safety staff, and the grad student shortly after the incident. Nobody was hurt. Actions and Resolutions: (1) A SOP will be provided for use of the lab oven, including prohibited items and SOP will be created to notify and train all lab personnel. (2) Reminder to all lab personnel to wear all basic PPE (lab	MC/CZ	In Progress	IP
	С	Feb 13, 2023	Actions and Resolutions: (1) A SOP will be provided for use of the lab oven, including prohibited items and SOP will be created to notify and train all lab personnel.	MC/CZ	In Progress	IP

5. REVIEW OF WORKPLACE SAFETY INSPECTIONS (including any changes to equipment, machinery or work processes that may affect the health or safety of workers)

Attach inspection checklist(s) and report(s) to these meeting minutes and use this table to record discussion and new recommendation(s)

Item # (Use Inspection #)	Priority	Discussion/Comments/Recommendations	Assigned To	Follow up: Date Pending	Status
Sep 2018	С	 Demo Lab Areas BH will oversee day-to-day processes KM/HW cleaned-up benchtop areas on Mar 10; sorted out chemicals for disposal on Mar 16 and plan to attend for further clean-up/disposal processing on Mar 25 in the Demo Room Jose has a TA organizing the Demo Kits Lab Tech & TA working on Demo Kits Inspection of the demo areas have been completed. All items listed above are on hold or in progress as follow up items. LST Comments: No updates at this time. 	BH/KM KM	On hold In Progress	IP IP

^{*} GI- General Inspection

LI - Lab Inspection

S&SI Shops & Services Inspections

6. EDUCATION AND TRAINING

(General discussion, RMS Courses, external training opportunities etc. For all actionable items please list below)

Item#	Priority	Discussion/Comments/Recommendations	Assigned To	Follow up: Date Pending	Status
Feb 21, 2023	E	Next UBC CHEM Fire Extinguisher Training will be held on Feb 21 st at 1:30 pm	MC	N/A	N/A
March 28, 2023	E	Next UBC CHEM Fire Extinguisher Training will be held on Mar 28 th at 1:30 pm	МС	N/A	N/A

7. ONGOING BUS	7. ONGOING BUSINESS – Status of Action Items (includes review of previous meeting minutes)				
Original Item #	Priority	Action Plan (Actions Taken/Need to be taken)	Assigned To	Follow up: Date Pending	Status
Ongoing		Review/approve previous meeting minutes; MC to post to Department Bulletin Boards & ChemNet Portal; and send a copy to the JOHSC	МС	Ongoing	N/A
2020	С	 Develop review process for SWPs before being posted onto Safety webpage; SWP to have Risk Assessment information incorporated Include resources about compatibility and storage of chemicals LST Comments: No updates at this time. 	DG	Ongoing	IP

7. ONGOING	BUSINESS -	Status of Action Items (includes review of previous meeting minutes)			
Dec 2021	С	 Earthquake Securing straps for large Dewars; and, Lab installations for Compressed Gas Cylinder tie-downs TM advised that Bldg E completed as at Sept 15/22; Due to new equipment installation in C224 they will be installing the straps there next; and TM is reviewing Bldg D – Knuckle compile list and that will be next A proposal for securing compressed gas cylinders for D240 has been established. If approved the upgrades will occur by the end of February. LST Comments: Parts have been ordered for the items remaining in Chem D's knuckle. Buildings Chem B and E have been completed. Buildings Chem C and D are nearly completed. 	TM	In Progress	IP
Feb 2021	С	LN2 Safety Training – TM working on setting this up as an actual course with a quiz and certificate • TM is working on the processes required for this course LST Comments: This item has been referred forward.	TBD	Referred Forward	RF
Jan 2022	С	BldgOps has implemented an inspection/maintenance review for Backflow Valves HW advised that KM was told that carpenters would start work during the week of Aug 29 th but no one showed up; KM will follow-up in the next couple weeks; LST Comments: Plumbers have confirmed the annual 2022 backflow testing of Chem C benches & Chem C/D/E Main Building Backflows are complete. They are now looking at the schedule for 2023 testing. This item is now complete.	KM	Complete	С
Oct 2021	С	RCMP BDU attended for removal of peroxide formers DG/KM to draft SWP for monitoring and inspection procedures for peroxide formers; and to prepare recommendations to be submitted to Dept Head for review/response UBC SRS is currently working on an updated SWP for peroxide-forming compounds and will share the documents with Chemistry once complete. LST Comments: In progress.	RW	In Progress	IP



7. ONGOING BUS	INESS –	Status of Action Items (includes review of previous meeting minutes)			Ī
Mar 2022	С	 RW (UBC/SRS) raised concerns regarding volume of Non-Regulated Waste being generated by ChemDept DG spoke with specific Pl's and reviewed issue at the Faculty Meeting (Mar 24/22) to address this problem Efforts will be undertaken to reduce waste processed DG is reviewing ongoing issues and corrective measures with UBC/ESF Should waste stream poster be posted in labs? UBC/ESF notified DG (Aug 15/22) that they have made some policy changes, updated the NR Waste Yellow Tags and will continue to monitor this process; DG to review at Faculty Meeting (completed in May 2022). HW circulate an email on Aug 23/22 to Chem Dept with the new UBC/ESF NR waste protocol This concern was discussed at a faculty meeting in May 2022. Currently waiting for a response from UBC ESF. 	DG/MC	In Progress	IP



7. ONGOING BU	SINESS – S	tatus of Action Items (includes review of previous meeting minutes)			
	С	 Disposable glove recycling program KM advised that it is for all types of disposable gloves KB advised that KM and her attended a tour to see how this program works and review options; they had discussions on how this could be setup within Chem Dept and are currently looking at cost issues; Vitacore will be used as a recycling program in the near future to help the department to recycle any uncontaminated disposable gloves, which are currently being thrown in the garbage. Chemistry stores will have a location where people can come to drop off any used gloves. A bin for the gloves is currently placed in the shipping and receiving area of Chem Stores. An email will be circulated to notify the Department. LST Comments: The disposable glove recycling program was circulated to the Department via the Chemistry Newsletter. The bin is currently located in B170 B, which is located within Chemistry Stores. This item is now complete. 	км/кв	Complete	С
Nov 2022	E	Chemical Inventory Initiative The Chemical Safety Team is launching a new initiative to help laboratories manage their inventories and enable an increasingly evidence-informed approach to Chemical Safety programing moving forward. The Team will be reaching out to researchers located on Point Grey Campus to review their chemical inventory records and storage locations. SRS has requested for Chemistry to start gathering inventories for the Chemical Inventory Initiative. • MC sent RW & PP a list of spaces for Chemistry. • Next step is to start collecting inventories from teaching labs and researchers. LST Comments: RW will send an email to MC for wide distribution to the department in the coming weeks.	RW/MC	N/A	N/A

7. ONGOING BUSIN	ESS – Status of Action Items (includes review of previous meeting minutes)			
Nov 9, 2022 C	 Two staff raised concerns regarding the use of dichloromethane (DCM) in the open lab. One experiment in first year and two experiments (3 lab sessions) in 2nd year. First year labs are being moved off of the bench and into the fume hoods going forward. Air changeovers were discussed for each lab. Preliminary calculations were also presented. MC to request for SRS to double check the proposed calculations. MC and KM to discuss this concern with the course lab director to see what changes can be made to the experiments that use DCM outside of the fume hood. We are discussing all of the available options with teaching faculty and staff. LST Comments: The CHEM LST, has discussed, reviewed and considered best practices of the DCM exposure concerns. This has also been discussed with the Head. Going forward, the Chemistry teaching labs will no longer be permitted to use DCM on the bench top. If possible, experiments should be moved into a fume hood. If one must use DCM on the bench top the vessel must be capped or closed at all times. With the help of the course instructors, we are identifying which labs have been affected. In this process, we are also identifying what other chemicals are being used on the bench top and will be helping with risk assessments. 	KM/MC/DG	In Progress	IP

Chemistry

Faculty of Science

8. NEW & OTHER BUSINESS

General dis	General discussion items (list actionable items below)						
Item #	Priority	Discussion and/or Action Items	Assigned To	Date to be Completed	Status		
Feb 2023	E	Recommended items to discuss at JOHSC/LST Meeting Peter Joseph Leaving UBC Peter Joseph, Associate, Safety Programs Management & Systems is leaving UBC on January 27, 2023. Peter has been the University's key point of contact for accident investigations and CAIRS and will be deeply missed. In the meantime, any questions regarding CAIRS can be sent to ubc.cairs@ubc.ca . Building Emergency Response Plan (BERP) The BERP template has been updated and accompanied by a list of changes. Please remember to annually review the BERP for your building and distribute a final copy to all the building occupants. Remember to schedule an annual fire drill once within a calendar year! Instructions on how to schedule a drill is included in the BERP along with guidance on what to do for persons requiring assistance. Informational Items Freezer Challenge Does your lab have refrigerators, freezers, or cold rooms for sample storage? If so, join the International Laboratory Freezer Challenge! Compete with labs to improve sample accessibility & integrity, reduce costs, and improve energy efficiency for cold storage in your lab! UBC labs on both Vancouver and Okanagan campuses will win prizes for their participation in the Freezer Challenge and that participation automatically helps UBC compete internationally with other universities to win the challenge! Learn more here: https://sustain.ubc.ca/international-freezer-challenge	SRS Updates	N/A	N/A		

8. NEW & OTHER BUSINESS

Pink Shirt Day

On February 22, wear pink to show your support for an end to bullying and harassment in our communities. At UBC, we strive to provide a safe, respectful and productive environment for our faculty, staff and students. The UBC Respectful Environment Statement outlines our principles about creating a respectful environment for all. Visit https://www.pinkshirtday.ca/ for more information.

LST Training

New dates have been released for LST training. You can register for LST training here.

LST Training				
Part 2a	Part 2b			
February 15 th	February 22 nd			
9:30am –	10:30am –			
11:00am	12:00pm			
April 11 th	April 13 th			
1:00pm –	10:00am –			
2:30pm	11:30am			

Seminar: Everything you need to know about occupational sensitization Whether you work in a lab, animal facility, workshop, museum — or even an office, you may come into contact with sensitizers at your workplace.

<u>UBC Safety & Risk Services</u> has invited industry and academia experts to educate the community on why sensitization is an important workplace safety issue and how to protect yourself.

Event details:

- Who: Everyone (UBC and non-UBC members)
- When: March 10, 2023 from 2:00 pm-5:00 pm
- Where: In-person (Earth Sciences Building 1012) or virtual



8. NEW & OTHER BUSINE	8. NEW & OTHER BUSINESS				
	Register and learn more about the seminar				
	Upcoming Workplace Accessibility events				
	A highlight of two Workplace Accessibility events offered by the <u>Centre for</u>				
	Workplace Accessibility that help remove barriers for faculty and staff with				
	disabilities or ongoing medical conditions.				
	Low Vision in the Workplace				
	Thursday, February 23 11-00 a.m. 12-00 a.m.				
	• 11:00 a.m 12:00 p.m.				
	Online via Zoom				
	Accessibility Features on Windows OS & Mac OS				
	 Online, ongoing, asynchronous, self-paced 				
	Note: this previously available course has now been updated to include Mac OS.				
	These courses are available through the Workplace Learning Ecosystem (WPL) —				
	a centralized, searchable digital catalogue of learning offered by UBC and				
	available to employees.				
	WorkSafeBC Inspection Reports (IR)				
	The state of the s				
	There were two inspection report received since the last co-chair email. As				
	always, the "WSBC IR Summary" attachment provides a brief summary for the				
	inspection report and some discussion points to consider.				
	The second secon				



9. NEXT MEETING				
Date:	March 16, 2023			
Time:	11:00 am			
Location:	Online Zoom Meeting			

10. MEETING ADJOURNED		
Time:	11:48 am	

LEGEND

PRIORITY:		STATUS:	
Α	High Risk, Immediate Response within 1-2 days: Potential for causing loss of life, body part and/or extensive loss of structure, equipment or material.	N	New
В	Moderate Risk, response as soon as possible within 1 week: Potential for causing a serious injury, illness or property damage.	R	Repeat
С	Low Risk, response as soon as possible; Next regular inspection or further investigation required: Probable potential for causing a non-disabling injury or non-disruptive property damage.	С	Complete
D	Reminders	IP	In Progress
E	Information	RF	Referred forward

Send a copy of the meeting minutes to the JOHSC. Highlight important items that must be reviewed/discussed at next JOHSC meeting.

Monthly Distribution and Posting of Approved Meeting Minutes (Required):

- All LST members
- Appropriate JOHSC