

**Chemistry LST Meeting Minutes** **APPROVED**

Name of Team: Chemistry Local Safety Team

Chair(s): Derek Gates & Monica Clarkson

Date: March 20, 2025

Time: 11:01 am

Location: Online Zoom Meeting

AGENDA:

<ol style="list-style-type: none"> 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 <ul style="list-style-type: none"> • 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) 	<ol style="list-style-type: none"> 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
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1. ROLL CALL

Worker Representatives	Work Location	Present	Regrets	Absent
Guillaume Bussiere	Chemistry - Teaching Faculty	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Karen Button	Chemistry – M&P, Stores Manager	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ken MacFarlane	Chemistry - M&P, Director, Finance and Operations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mohamad Rezaei	Chemistry - M&P, Director, Technical Services	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tori Christianson	Chemistry – CUPE 2950, Outreach and Communications	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jeremy Sedgwick	Chemistry – Shops and Services Tech	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ben Herring	Chemistry – Research Tech	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jacqueline Higgins	Chemistry – Graduate Student	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
William Ho	Chemistry – Graduate Student	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Employer Representatives	Work Location	Present	Regrets	Absent
Derek Gates	Chemistry – Faculty, Co-Chair	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monica Clarkson	Chemistry - M&P, Co-Chair & Safety Program Officer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Resources/Guests	Work Location	Present	Regrets	Absent
Richard Wambolt	UBC Safety & Risk Services	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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3. ADDITIONAL AGENDA ITEMS & APPROVAL OF AGENDA

Is the agenda adopted?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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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
129681/129682	C	Jul 22, 2022	<p>CHEM Glass Waste Previous discussions and notes can be found at https://chem.ubc.ca/safety/chemlst within the January 18, 2024 CHEM LST minutes. UBC Waste Management Services is in agreement with the department to allow for the metal glass waste pails to be labelled with spray paint. Labelling the pails will help UBC Waste Management workers to identify and deliver the marked "UBC CHEM" metal pails to CHEM. Several of the</p>	DG/MC	In Progress	IP



4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:						
			<p>metal pails have already been labelled and is still in progress.</p> <p>Mar 2024 - It was noted that the CHEM LST has had a lack of support from UBC Waste Management Services. This item has been flagged to be discussed at the FOS JOHSC.</p> <p>LST Comments: No updates at this time.</p>			
134771/134769	C	July 12, 2024	<p>Cart Struck Against NMR Magnet</p> <p>A worker was asked by another staff member to place ice cream (for department event) into a freezer located inside the NMR lab. The ice cream was brought to the lab using a borrowed cart from CHEM Stores, which contained materials with magnetic properties.</p> <p>A technician was using a cart around the magnet area (500MHz NMR magnet) without realizing there are some magnetic parts in the cart. The cart was pulled to the bottom of the magnet by the force of magnetic attraction. Our engineers have helped to detach the cart from the magnet afterwards. The cart hit the probe, shim stack and BST. We do not know if there are any damages yet. What we do know is one cable is damaged.</p> <p>I was using a cart (metallic, mostly aluminum but some iron probably) to transfer some items in a freezer located on the southeastern corner of the lab. The cart was placed at around 0.5-1 meter away from the spectrometer when I left it to retrieve the items from the freezer. While emptying the freezer I noticed the cart slowly glide toward the spectrometer and accelerated and eventually flew up and got stuck to the bottom of the instrument, near the probe, due to the strong magnetic field. I panicked for a moment and tried to dislodge the cart myself, but did not</p>	MR/MC/ JS/KM	Complete	C

**4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:**

		<p>succeed. I then went to the mechanical shop to ask for the help of a colleague there, and two colleagues arrived and inspected the situation, pointing out that a cord was partially damaged by the pressure between the cart and the probe. They were hesitant to dislodge the cart since they did not wish to damage the magnet and spectrometer further. I texted my manager who was working remotely, and they got in contact with two other colleagues in electronic shop who collaborate with us often. the colleagues from electronic shop arrived and spoke to my manager on the phone, and they decided the damage of spectrometer was probably not the most severe, given the magnet did not quench upon the collision. They decided that they would try to dislodge the cart carefully with some aluminum bars which do not attract to magnets.</p> <p>Root cause: Procedures not followed; magnetic materials were used in the vicinity of an unshielded 500MHz NMR.</p> <p>Actions and Resolutions:</p> <ol style="list-style-type: none">(1) Provide non-magnetic cart available to the NMR labs and train all workers that magnetic carts cannot be used inside the Gauss exclusion zone.(2) Review and/or provide working alone procedures.(3) Review safety rules and emergency response for the NMR lab, with respect to magnet safety and emergency response for magnet quenches. Once procedures have been updated, train and provide procedures to everyone, including staff who service the NMR.(4) Remind all workers that chemical freezers and chemical fridge cannot be used for food storage, and to post "no food and/or drink storage" signage to freezer. It is also required to identify what type of hazardous materials			
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4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:						
			<p>(flammables, non-flammables, etc.) are being stored in the freezer, so please label appropriately.</p> <p>(5) Remind everyone that at minimum safety glasses, closed-toed shoes, and long pants are required when entering the NMR lab.</p> <p>(6) Audit existing equipment (step stools) and tools located in the NMR lab to ensure they contain NO magnetic materials/properties.</p> <p>(7) Remind and train workers not to stand on chairs and not to use chairs as step stools. Please provide an appropriate step stool for all workers.</p> <p>(8) All of the corrective actions above should be added to the NMR safety rules.</p> <p>(9) Safety staff to remind staff that all near misses must be reported to www.cairs.ubc.ca.</p> <p>(10) Assess if freezer needs to be in the space.</p> <p>Sept 2024: The freezer (- 20 deg C) is required in the space for the industrial clients.</p> <p>Nov 2024: all items except for item 3 have been completed. Procedures are available but need to be updated.</p> <p>LST Comments: The procedures have been completed. This incident can be closed.</p>			
136638/ 136641	C	Feb 20, 2025	<p>Glassware Cut Incident</p> <p>The worker was using the building air pressure to remove dried silica from a glass column with frit. The individual was wearing safety glasses, lab coat, long pants, closed-toed shoes and nitrile gloves. While attaching thick Tygon tubing to the end of the column tip, they applied pressure, in which time the glass tip broke and cut their hand. The</p>	MC/WH	Complete	C



4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:						
			<p>individual was not working alone and immediately notified another worker. They called UBC First Aid immediately. UBC First Aid attended and transported the individual to the hospital.</p> <p>CHEM LST Notes: The tubing's inner diameter was a lot smaller the diameter of the tip of the column.</p> <p>Resolutions:</p> <ol style="list-style-type: none">1) Remind everyone that cut-proof gloves are required when attaching/removing tubing from glass connections.2) Please provide and have cut-proof gloves readily available.3) Re-train individual that different types of tubing are available and to use the appropriate diameter.4) Update group procedures to include that cut-proof gloves should be worn while attaching/removing tubing from glass connections. <p>LST Comments:</p> <p>All items have been completed. Suggest group to lubricate joint.</p>			
136671/136672/ 136673/136674	C	Feb 26, 2025	<p>Benzyl Bromide Spill</p> <p>The technician was setting up a large-scale (500 mL) reaction in ethanol. After addition of all potassium carbonate and benzyl bromide, the student tried to get the reaction to stir, but the solid base prevented the stir bar from spinning. The technician then used a large spatula to break up the base. The student accidentally cracked the 1L rb flask, causing the reaction to spill onto the surface of the fume hood. The worker placed paper towels in front of the fume hood grill to prevent the spill from leaking out of the hood and closed the sash. They then called a postdoctoral fellow over to ask for advice as to how to proceed. When</p>	MC/KM	Complete	C

**4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:**

		<p>inspecting the spill, they smelled benzyl bromide and their eyes began to water. They immediately went to the eye wash and evacuated the lab. Another student in the lab then called campus security, dialed SRS, and then reported the incident to the supervisor.</p> <p>FOS JOHSC notes: Campus security did not report the spill to SRS's emergency line. They instead advised the student to contact SRS themselves. The SRS number is a daytime number so the student was unable to get through to them. The student reported this issue to the supervisor and fortunately the supervisor had the SRS Chemical Safety contact's number.</p> <p>Resolutions:</p> <ol style="list-style-type: none">1) New standard operating procedures need to be written for these larger reactions (especially when potent lachrymators are involved).2) Upon inspection of the fume hood, it was not sufficiently clean to accommodate such a large reaction. It did not lead to the accident, but could have exacerbated it.3) Remind workers to report any chemical exposures to UBC First Aid.4) Notify SRS (Dustin Szeto, Sammy Lam, Glen MacNeil) that Campus Security did not report the spill to the SRS after hours number and asked the student to call SRS themselves. <p>LST Comments: All items have been completed.</p>			
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**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
Feb 2025	C	CHEM D & E All research labs and offices located in CHEM D and E were inspected in February and the first week of March. LST Comments: Reports have been sent. The correction of deficiencies is in progress.	MC	N/A	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
N/A	E	UBC CHEM Fire Extinguisher Training Please contact safety@chem.ubc.ca to sign up.	MC	N/A	N/A



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
E	E	CHEM LST Safety Minutes meeting minutes, post approved minutes to the Chemistry website, and upload a copy to the FOS JOHSC SharePoint site.	MC	Ongoing	N/A
2020	C	Development of Departmental SWPs Previous discussions and notes can be found at https://chem.ubc.ca/safety/chemlst within the January 18, 2024 CHEM LST minutes. LST Comments: Referred Forward.	DG	Referred Forward	N/A
Dec 2021	C	Earthquake Securing Straps for Large Dewars and Compressed Gas Cylinders Previous discussions and notes can be found at https://chem.ubc.ca/safety/chemlst within the January 16, 2025 CHEM LST minutes. <ul style="list-style-type: none"> Dec 2024 - Half sized compressed gas cylinders were secured in A120. Feb 2025 - Double restraints for renovated space located on the third-floor have been completed. LST Comments: Double restraints for cylinders were installed in CHEM A319 .	MR/KM	In Progress	IP
Feb 2021	C	Dispensing LN2 Safely - Training It would be useful to have an informational course and quiz available to the department as a training tool for dispensing liquid nitrogen. LST Comments: This item has been referred forward.	MR	Referred Forward	RF
N/A	E	Needle SWP Rich will work with CHEM to help provide a SWP for working safety with needles. The FOS JOHSC has an existing SWP for needles that the CHEM LST may be able to edit and use. MC and RW will review and discuss in the coming weeks. LST Comments: In progress.	MC/RW	N/A	IP



7. ONGOING BUSINESS – Status of Action Items (includes review of previous meeting minutes)					
N/A	N/A	<p>Safety Education and Training Assistance Some groups would like assistance in enforcing safety regulations and would like to see a formal department procedure to help document challenges and encourage improvement in safety culture.</p> <p>LST Comments: MC to draft procedures, and will reach out for everyone's comments.</p>	N/A	N/A	IP

8. NEW & OTHER BUSINESS					
<ul style="list-style-type: none"> General discussion items (list actionable items below) 					
Item #	Priority	Discussion and/or Action Items	Assigned To	Date to be Completed	Status
N/A		<p>Cage #2 – Hazardous Waste Disposal Cage CHEM research and teaching labs are all running at a normal pace now. At its current arrangement, the waste cage is at full capacity and cannot store additional waste safely. The CHEM LST is looking to re-arrange the cage in-order to meet the departments waste drop off needs.</p> <p>LST Comments: MC to check records to see if drop off frequency has decreased post pandemic.</p>	MC	N/A	IP
N/A	E	<p>CHEM LST Member Updates and Concerns – Round Table Are there any safety concerns or updates that were not discussed?</p> <p>LST Comments: No updates and concerns.</p>	N/A	N/A	N/A



8. NEW & OTHER BUSINESS					
N/A	E	<p>SRS Updates</p> <p>Recommended items to discuss at JOHSC/LST Meeting</p> <p>Are you prepared for an emergency? On February 21, an earthquake rattled the UBC Vancouver campus. No damage was reported and there has been no known impact on campus operations. Please contact the Facilities Service Centre at 604-822-2173 if you have noticed any damages. Remember to drop, cover and hold on during an earthquake. Earthquakes can happen suddenly and without warning, so knowing what to do during and after an earthquake is very critical to ensure safety. Learn more about how to prepare for an earthquake</p> <p>Naloxone Kits on campus Due to a significant increase in drug-related overdoses and deaths, the Province of BC declared a public health emergency. Recognizing this critical need for action, the Ministry of Post-Secondary Education and Future Skills convened a Post-Secondary Overdose Prevention and Response Steering Committee. This committee identified three key objectives for the program including awareness, response and access to naloxone (a life-saving medication used to reverse opioid overdoses).</p> <p>As part of this program, the UBC Vancouver campus is installing Naloxone kits in buildings across campus. The priority has been student centric locations including Housing. The project is underway and should be completed in the next few months. The installation has been aided by our partners in UBC Facilities and SHSC Facilities.</p> <p>Updated Inspection Checklist The mandatory sections of the JOHSC and LST inspection checklist have been updated to include items to ensure accessibility for electrical panels, naloxone kits and AEDs. The revised checklist can also be found on the safety committee website along with other checklists based on the area you are inspecting.</p>	N/A	N/A	N/A



8. NEW & OTHER BUSINESS

Informational Items

LST Training

You can register LST training [here](#).

WorkSafeBC Inspection Reports (IR)

There were three inspection reports received since the last co-chair email.

- a. #202516973023A – Burn to Hand
 - i. Complete reports within 30 days
 - ii. Report all incidents into CAIRS within 48 hours
 - iii. After calling 911, you must call UBC First Aid.
- b. R #202516973028A – Tim Hortons General Inspection -one order around keeping the space around electrical panels clear of obstruction
 - i. Inspections need to be completed annually using the checklists provided. The mandatory sections include a line item for ensuring electrical panel accessibility
- c. R #202516973031A – Report of Unsafe Procedures – WorkSafe investigated
 - i. Encourage staff to report unsafe conditions to their supervisor.
 - ii. Supervisors must investigate or act and take any necessary action



8. NEW & OTHER BUSINESS					
		iii. Complete hazard/risk assessments for tasks in your area to ensure proper controls in place			

9. NEXT MEETING	
Date:	Apr 17, 2025
Time:	11:00 am
Location:	Online Zoom Meeting

10. MEETING ADJOURNED	
Time:	11:21 am

LEGEND

PRIORITY:		STATUS:	
A	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
B	Moderate Risk, response as soon as possible within 1 week: Potential for causing a serious injury, illness or property damage.	R	Repeat
C	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.	C	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