

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

Name of Team: Chemistry Local Safety Team

Chair(s): Derek Gates & Monica Clarkson

Date: July 17, 2025

Time: 11:02am

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ken MacFarlane	Chemistry - M&P, Director, Finance and Operations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sebastian Medrano	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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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
Rich Wambolt	UBC Safety & Risk Services	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Peggy Paduraru	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
137128	C	Apr 14, 2025	Liquid Nitrogen Dispense Station Malfunction At approximately 5:00 PM on April 14, a message from an Electronics Shop staff member stating that a researcher had reported continuous nitrogen purging into a dewar in the liquid nitrogen (LN2) dispensing room. The researcher suspected a possible leak and reported that the electronic shut off valve was not responding. The researcher was able to connect with CHEM staff over the phone to assess the situation. Upon review, it was suspected to be a	KM/MC/SM	In Progress	IP

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

		<p>malfunction in the solenoid valve. Given the potential safety risk of excess nitrogen filling the room, the researcher contacted 911, and the fire department responded. The CHEM staff member was able to give direction to the fire fighters. The fire fighters with appropriate safety equipment (oxygen masks) and cryogenic gloves, were guided to enter the room and shut off the manual shut off valve.</p> <p>Actions and Resolutions:</p> <p>(1) Update and provide operating procedures for liquid nitrogen dispense station.</p> <ul style="list-style-type: none">• Reassess emergency access protocols to external shutoff valves. <p>(2) Improve training with an emphasis on trouble shooting and emergency shut off procedures.</p> <ul style="list-style-type: none">• Improve after-hours incident response plans for critical infrastructure.• Ensure individuals are trained and equipped to handle similar incidents safely. <p>(3) Check to see if monthly inspections are being done and if needed add a note to test electronic shut off valve button and the manual shut off. The solenoid valve is tested regularly.</p> <p>(4) Review and possibly upgrade the solenoid valve reliability and maintenance schedule.</p> <p>(5) Improve signage for emergency response procedures and for manual shut off valve</p> <p>May Update: Procedures have been updated and solenoid valve has been replaced. Solenoid valve gets tested daily.</p>			
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4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:						
			<p>Individuals are getting trained by the machine shop staff, and once training has been completed, they are provided with a fob to access the dispensing station. It was discussed that training and the documentation of training needs to be improved.</p> <p>LST Comments: In progress.</p>			
137475	C	July 7, 2025	<p>Pd/C spark with small flame Was attempting a Pd/C reduction of 4,4'-bromobenzophenone to the corresponding methylene (reducing carbonyl). 3.4 g of ketone, 507 mg of 10% Pd/C. 20 mL of MeOH (0.5 M). I was following a literature preparation on the exact scale reported in the paper from a reputable lab in Germany. The procedure called for the inverse addition to that which I normally conduct Pd/C reductions. The paper called for dissolving ketone in MeOH then add Pd/C then switch to H₂ atmosphere (I usually add solids including Pd/C, switch to N₂ atmosphere then add MeOH followed by switching to H₂ atmosphere so there is no possibility of ignition even if the Pd/C sparks upon MeOH addition). I was skeptical of this addition so I removed everything not related to the setup from my hood except from a waste container that was capped closed (in other words there was no organics in my hood). I had a beaker of water for quenching weigh paper/spatula and a bottle of sand in case of fire. The specifics of the incident: to a flask from an oven cooled under vacuum and backfilled with N₂ I added ketone. evac and back filled 3x with N₂ then added MeOH. under positive N₂ pressure attempted addition of Pd/C and upon the last quarter of Pd addition a spark formed and a small fireball shot out the top of the</p>	KM/JH/MC	C	Complete

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

		<p>flask. The solvent and reaction mixture was not consumed and the volume looked similar to the initial amount. H₂ had not been added to the reaction setup yet (still under N₂), my H₂ balloon was outside of my hood on the bench next to the hood. The sash was lowered almost all of the way during the addition of Pd/C. After this I decided to just quench the reaction with water and set it up again the next day using my normal protocol. Incident around 5:10 pm.</p> <p>CHEM LST: PPE worn was fire resistant lab coat, safety glasses, long pants, closed-toed shoes, and gloves.</p> <p>Actions and Resolutions:</p> <p>(1) Update procedures to follow the group procedures (add solids including Pd/C, switch to N₂ atmosphere then add MeOH followed by switching to H₂ atmosphere) for Pd/C reduction of 4,4'-bromobenzophenone, and not to use the suggested steps as outlined in the literature.</p> <p>(2) Remind student to report incidents that involve any fire to campus security at 604-822-2222.</p> <p>LST Comments:</p> <p>All items have been completed.</p> <p>RW noted that it is recommended to reach out to the group who published the article to request the procedures.</p>			
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**4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:**

137485/137501	C	July 8, 2025	<p>Minor Cut</p> <p>The student was wearing a lab coat, safety glasses, long pants, closed-toed shoes, and gloves. They were removing solvent from a vial, which was attached to a Schlenk line via a septum and glass adapter, to remove volatiles. After cooling and backfilling the vial with nitrogen, the student tried to remove the glass adapter from the Schlenk line tubing. The glass adapter was hard to remove so they used extra force to remove the adapter from the tubing. Upon removing the glass adapter, it broke and the glass cut the student's finger through the glove. The glass adapter was clean. The student then removed their gloves and washed their hands for 5 minutes and then called UBC First Aid.</p> <p>Actions and Resolutions:</p> <p>(1) Remind student to wear cut proof gloves when removing glass from tubing. (2) Provide cut proof gloves.</p> <p>LST Comments:</p> <p>All items have been completed. It was suggested to put the vial into a Schlenk flask or to blow air or nitrogen into the vial. The 11-dram vial is not designed to be put under vacuum pressure.</p>	MC/JH	C	Complete
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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)					
<i>Attach inspection checklist(s) and report(s) to these meeting minutes and use this table to record discussion and new recommendation(s)</i>					
Item # (Use Inspection #)	Priority	Discussion/Comments/Recommendations	Assigned To	Follow up: Date Pending	Status
March 2025		CHEM A All research labs and offices located in CHEM A were inspected in March. LST Comments: All but one of the labs have completed the outstanding items.	MC	N/A	IP
May 2025		CHEM B, C & Spill Kits All the CHEM teaching labs and spill kits were inspected in the May. LST Comments: There were only a few deficiencies to note.	MC	N/A	IP
June 2025	C	CHEM D & E The second round of inspections for research labs and offices located in CHEM D and E were inspected in June. LST Comments: Reports are in progress.	MC	N/A	IP
July 2025	C	Technical Services Areas The annual safety inspections for the electronics shop, the machine shop and the IT room were inspected in July. LST Comments: Reports are in progress.	MC/JS/TC	N/A	IP



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.	GS	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. Mar & May 2025 - Double restraints for cylinders were installed in CHEM A319. LST Comments: No updates at this time.	SM/KM	In Progress	IP



7. ONGOING BUSINESS – Status of Action Items (includes review of previous meeting minutes)					
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.	SM	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: No updates at this time.	MC/RW	IP	IP
N/A	N/A	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. <ul style="list-style-type: none">• MC to draft procedures, and will reach out for everyone's comments. LST Comments: No updates at this time.	N/A	R	IP
N/A		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. <ul style="list-style-type: none">• MC to check records to see if drop off frequency has decreased post pandemic.• Three new carts with additional shelving have been provided in Cage 2. We	MC	R	C



7. ONGOING BUSINESS – Status of Action Items (includes review of previous meeting minutes)					
July 22, 2022	C	<p>CHEM Glass Waste – Incident 129681/129682 Previous discussions and notes can be found at https://chem.ubc.ca/safety/chemlst within the January 18, 2024 CHEM LST minutes.</p> <p>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 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: MC spoke to Gary Wolfram, the Head of the UBC Waste Management team, in June. It was discussed that the glass waste pails are not transported off of the CHEM site. The Building Operations waste team dumps the contents of the pail into a truck, and then immediately returns the pails back into the room.</p> <p>MC labelled most of the remaining metal glass waste pails this June. All outstanding items have been completed.</p>	DG/MC	R	C

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>CHEM Annual Fume Hood Flow Tests CHEM annual fume hood flow tests have begun and is scheduled to be completed by May 1.</p> <p>Flow tests have been completed. Most of the re-tests for fume hoods with user error have been completed and have passed. The fume hoods which failed due to mechanical error have been submitted to Building Operations for their review.</p> <p>LST Comments:</p>	MC	R	C



8. NEW & OTHER BUSINESS					
		Waiting for the BO Engineer to review the deficiencies. The engineer has started to review the deficiencies.			
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: Ken – The fume hood digital display installations and upgrades have started in CHEM A. The basement and first floor installations and upgrades have been completed.</p>	N/A	N/A	N/A
N/A	E	<p>SRS Updates</p> <p>Recommended items to discuss at JOHSC/LST Meeting</p> <p>Safety Day Awards This is a friendly reminder to submit your committee’s nominations for the Safety Achievement Award by July 11, 2025.</p> <p>If your committee has demonstrated exceptional dedication in promoting a safety culture, implemented effective safety initiatives, or introduced innovative ideas that addressed health and safety concerns, we encourage you to submit a nomination. This is a valuable opportunity to highlight and celebrate the collective commitment of your committee in fostering a culture of safety and care within UBC.</p> <p>No achievement is too small! Please submit your committee’s nomination using the following link: Safety Day 2025 Award Nominations.</p> <p>To help inspire your submissions, we’ve included examples of submissions from the previous years below:</p> <ol style="list-style-type: none"> 1. Increasing Ergonomics Awareness such as hosting information sessions about how to adjust your office furniture and more 	N/A	N/A	N/A



8. NEW & OTHER BUSINESS					
		<ol style="list-style-type: none">Distribution of quarterly posters outlining the committees work, membership and initiatives to workers across campuses doing similar workIdentified a safety concern with the emergency eyewash pressure and temperature, worked with Building Ops to test and identify root cause.Collated safety information regarding emergency plans, exits, designated meeting areas and more into a central repository for all buildings on campus the department's personnel must work in.			
		<p>After nominations are closed, SRS will present the nominations for YOU (JOHSC/LST members) to vote on to select the winners. This will be sent out in the August co-chair email. We look forward to your nominations!</p>			
		<p>Weather and Thermal Stress Safety</p> <p>UBC has taken steps to plan for extreme heat events. Given the high temperatures, we wanted to provide some resources and information to help you and your loved ones stay cool and safe.</p>			
		<p>The following air-conditioned UBC buildings are open to the public:</p>			
		<ol style="list-style-type: none">Irving K. Barber Learning Centre (Monday-Sunday, 6:00 a.m. to 12:00 a.m.)Koerner Library (Monday-Thursday, 7:30 a.m. to 8:00 p.m.; Friday, 7:30 a.m. to 5:00 p.m.; Saturday and Sunday, closed)			
		<p>Visit the Weather and Thermal Stress Safety page for the most updated information about UBC's on-campus cooling centres.</p>			
		<p>Informational Items</p>			
		<p>LST Training</p> <p>You can register for the LST training here.</p>			



		<p>WorkSafeBC Inspection Reports (IR)</p> <p>There were three inspection reports received since the last co-chair email.</p> <ul style="list-style-type: none">a. IR202517748036A & 202517748038A – inspection at Chemistry A following a spill<ul style="list-style-type: none">i. All hazardous material spills must be handled using proper containment, cleanup, reporting, and use of appropriate PPE. Spill kits should be stocked and accessible in areas where hazardous substances are used.ii. Investigations to be completed in 30 daysiii. Report all incidents in 48 hoursb. IR202521070060A – Workspace inspections following a fall into a confined space, several orders issued and outstanding<ul style="list-style-type: none">i. serious or life-threatening injuries must be reported to Campus Security after contacting 911ii. A confined space is an enclosed or partially enclosed area with limited or restricted means of entry or exit and not designed for someone to work in regularly.iii. review your confined space programiv. Promote the development and regular review of inventories for hazardous spaces, equipment, or processes.v. ensure workers are appropriately trained			
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8. NEW & OTHER BUSINESS					
			<ul style="list-style-type: none">vi. Encourage units to clearly assign supervisory responsibilities for all work and ensure supervisors have the necessary training to support safe execution of tasks.vii. Reinforce the importance of rescue and emergency planning. Document rescue procedures and complete drills that test response readiness.viii. Support discussions around hazard assessments and safe work procedures.ix. When work processes or conditions change, assessments and procedures should be updated to reflect the new risks		

9. NEXT MEETING	
Date:	September 18, 2025
Time:	11:00 am
Location:	Online Zoom Meeting

10. MEETING ADJOURNED	
Time:	11:29 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