

**Chemistry Local Safety Team Meeting Minutes APPROVED**

Name of Team: Chemistry Local Safety Team

Chair(s): Derek Gates &amp; Monica Clarkson

Date: November 21, 2024

Time: 11:02 am

Location: Online Zoom Meeting

**AGENDA:**

<ol style="list-style-type: none"> <li>1. Roll Call</li> <li>2. Approval of Previous LST Meeting Minutes</li> <li>3. Additional Agenda Items &amp; Approval of Agenda</li> <li>4. Review Central Accident/Incident Reporting System (CAIRS) report of Accidents/Incidents <ul style="list-style-type: none"> <li>• Monthly Incident List &amp; Statistical Summary Report</li> </ul> </li> <li>5. Review Workplace Safety Inspections (including any changes to equipment, machinery or work processes that may affect the health or safety of workers)</li> </ol>	<ol style="list-style-type: none"> <li>6. Review Education and Training</li> <li>7. Ongoing Business – Status of Action Items, Review of Previous Minutes</li> <li>8. New and Other Business</li> <li>9. Next Meeting</li> <li>10. Meeting Adjournment</li> </ol>
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**1. ROLL CALL**

Worker Representatives	Work Location	Present	Regrets	Absent
Guillaume Bussiere	Chemistry - Teaching Faculty	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>
TBD	Chemistry – Graduate Student	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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><b>CHEM Glass Waste</b>            Previous discussions and notes can be found at <a href="https://chem.ubc.ca/safety/chemlst">https://chem.ubc.ca/safety/chemlst</a> 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><b>LST Comments:</b> No updates at this time.</p>			
134771/134769	C	July 12, 2024	<p><b>Cart Struck Against NMR Magnet</b></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	In Progress	IP

**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><b>Root cause:</b> Procedures not followed; magnetic materials were used in the vicinity of an unshielded 500MHz NMR.</p> <p><b>Actions and Resolutions:</b></p> <ol style="list-style-type: none"><li>(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.</li><li>(2) Review and/or provide working alone procedures.</li><li>(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.</li><li>(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</li></ol>			
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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 <a href="http://www.cairs.ubc.ca">www.cairs.ubc.ca</a>.</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><b>LST Comments:</b> All items except for item 3 have been completed. The group does have quench procedures but are in the process of updating them.</p>			
135253/135250	C	Sept 25, 2024	<p><b>Petroleum Ether Drum Leak</b></p> <p>Staff removed a new, unopened 200L/55gal drum from a pallet with a drum dolly. After ~10mins that staff member saw a puddle underneath the drum. They put the drum back on the dolly and up righted the dolly so that the bottom of the drum was higher than the (unopened) top of the drum. There was a small hole in the bottom of the drum. The petroleum ether was spraying out of that hole. The two staff in the room exited and left the door open for ventilation, and contacted the safety officer, myself and</p>	MC/PD/KB/JS	Complete	C

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

			<p>911 to report the ongoing spill. The safety officer reported the incident to campus security. The spill had the potential to be large, due to the total volume but was leaking at a slow rate. One staff member donned their respirator and placed a plastic barrel in a manner to catch the solvent spraying out of the drum. The fire department, then the hazmat team took charge of the scene. The decision made by the hazmat team was to upend the drum onto the top of the drum and put some wax over the hole in the bottom (now the top) to temporarily seal the drum. They also added absorbent material to the drum to soak up the spilled petroleum ether. Then they handed the scene back to our safety officer. Sumas was dispatched to UBC the following day to pick up the drum for disposal. Because the drum was upside down at this point there was no safe way to dispense or transfer the solvent to another drum, therefore it had to be disposed of.</p> <p><b>Resolutions:</b></p> <ol style="list-style-type: none"><li>(1) Chem Stores staff to notify the supplier of the deficiencies of the drum.</li><li>(2) Replace the dolly or remove the sharp edges from the dolly.</li></ol> <p><b>LST Comments:</b></p> <p>The supplier of the drums confirmed that the drums are not re-used. They suggested the staff to use secondary containment for the drums when dispensing solvents. It was suggested that the edges of the drum dolly could be rounded-off but it is not required. Staff will monitor the drums and will notify the CHEM LST with any additional concerns.</p>			
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4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:						
135845/135841	C	Oct 17, 2024	<p><b>Heat Lamp Burn</b> Student was carrying out a spray coating procedure where their hand would be exposed to a heat lamp, while wearing PPE required in the SOP (lab coat, nitrile gloves, goggles, closed toed shoes and long pants). During the procedure the student left their hand under the heat lamp past the point of pain. When they took their hand out they noticed their finger was red and a large blister had formed. The injured student notified another student in the lab who contacted UBC first Aid and their direct supervisor. The group safety officer was also notified. First Aid was administered by UBC first aid and the injured student filled out their UBC CAIRS report.</p> <p><b>Resolutions:</b> (1) Get heat protecting gloves to guard against heat. A nitrile glove to be worn over top of that to guard from chemical exposure. (2) Consider moving heat lamp further away. (3) Update the SOP to include the use of heat resistant gloves as PPE, train individuals, and to remind users of the dangers of heat exposure from the heat lamp. (4) Train everyone with the updated procedures.</p> <p><b>LST Comments:</b> The heat lamp position was changed to be placed at the back of the hot plate so that the individual's hand would not be under the heat during the procedure. Heat resistant gloves were provided. The spray coating SOP was updated to include the use of heat resistant gloves, change in heat lamp position, and how to avoid exposure to heat. Everyone was re-trained with the updated procedures.</p>	MC/CZ/JH	Complete	C



4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:						
			JOSHC Comments: MC to check if the heat lamp came in contact with the individual's hand.			
136067/136055	C	Nov 14, 2024	<p><b>DCM Spill</b> A bottle of DCM (approx. 1-2 L) was placed on the floor next to a storage cabinet. A worker was putting away an acid bottle into the storage cabinet and opened the cabinet door located directly next to the DCM bottle. When they opened the cabinet door to make space for the acid bottle, the DCM bottle got knocked over onto the floor. The bottle shattered and the contents of the bottle spilled to the floor. None of the solvent spilled onto the worker. The worker immediately opened the window and evacuated to the lab next door. The lab door remained closed. They informed every one of the incident. Another lab occupant called the safety officer to request what to do. Safety officer told them to call 911 and go outside to the muster location to wait for the fire department. Safety officer called campus security notifying them of the incident and requested for SRS to be contacted. The fire department and hazmat responded.</p> <p>PPE: safety glasses, lab coat, closed-toed shoes and long pants were worn.</p> <p><b>Resolutions:</b> (1) Provide group with emergency spill procedures and request for PI to review and train at next group meeting. (2) Remove all chemicals being stored on the floor.</p>	MC/DG	In Progress	IP



4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:					
			<p>(3) Notify and train everyone that chemicals cannot be stored on the floor.</p> <p>(4) Follow up with the lab to see if they have enough storage and if needed, suggest to dispose of any items that are no longer needed.</p> <p><b>LST Comments:</b> Item 2 has been completed. All items are in progress. Item 4 was added to verify if the group has adequate storage for the materials and if needed, suggest to dispose of any items that are no longer needed.</p>		

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
Feb 2024	C	<p><b>CHEM Shops &amp; Services</b></p> <p>The remaining shops (CHEM D116/118) and services (CHEM D315) areas were recently inspected in February. Only one deficiency was noted.</p> <p>Mar 2024: No updates Apr 2024: No updates Aug 2024: No updates Sept 2024: No updates Oct 2024: Tabled</p> <p><b>LST Comments:</b> The chemical inventory was updated.</p>	MR/TC	Completed	C



5. REVIEW OF WORKPLACE SAFETY INSPECTIONS (including any changes to equipment, machinery or work processes that may affect the health or safety of workers)					
August 2024	C	<b>CHEM A Research Labs</b> The second round of inspections took place this August. <b>LST Comments:</b> 98% of the deficiencies have been completed	MC	In Progress	IP
Nov 2024	C	<b>CHEM Faculty and Staff Office Inspections</b> The faculty and staff offices were inspected this month. Only minor deficiencies have been noted. <b>LST Comments:</b> Thank you to Tori, Nicky and Ken for participating in the inspections.	TC/MC/KM/NG	Completed	C
Nov 2024	C	<b>CHEM Building Inspections</b> All of CHEM A, bThe faculty and staff offices were inspected this month. Only minor deficiencies have been noted. <b>LST Comments:</b> Thank you to Tori, Nicky and Ken for participating in the inspections.	NG	Completed	C

\* *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	<b>UBC CHEM Fire Extinguisher Training</b> Please contact <a href="mailto:safety@chem.ubc.ca">safety@chem.ubc.ca</a> 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	<b>CHEM LST Safety Minutes</b> Prepare 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	<b>Development of Departmental SWPs</b> <a href="https://chem.ubc.ca/safety/chemlst">Previous discussions and notes can be found at https://chem.ubc.ca/safety/chemlst</a> within the January 18, 2024 CHEM LST minutes. <b>LST Comments:</b> Referred Forward.	DG	Referred Forward	N/A
Dec 2021	C	<b>Earthquake Securing Straps for Large Dewars and Compressed Gas Cylinders</b> <a href="https://chem.ubc.ca/safety/chemlst">Previous discussions and notes can be found at https://chem.ubc.ca/safety/chemlst</a> within the January 18, 2024 CHEM LST minutes. <ul style="list-style-type: none"> <li>Nov 2023 Update - The scope of the project has been re-defined and is in progress. The Mech Shop will continue to work with Building Operations to complete this project.</li> <li>Feb 2024 Update - Proposal was drafted for CHEM C, and was sent to Building Operations as a service request for carpenters.</li> <li>March 2024 Update – In progress.</li> <li>April 2024 Update – CHEM C upgrades have been completed.</li> <li>May 2024 Update - A four-cylinder rack was missed during the upgrades. However, it has since been identified and is on a list to be secured.</li> <li>July 2024 Update - Carpenters have been scheduled secure equipment and compressed gas cylinders in CHEM A224, A220, &amp; A216 during the last week of July.</li> <li>August 2024 Update - Audit for CHEM A will start next term. A request to secure some of the CHEM A 4th floor labs are in progress.</li> <li>September 2024 Update - Ryan labs on the fourth floor have been completed.</li> </ul> <b>LST Comments:</b> No updates.	MR/KM	In Progress	IP



7. ONGOING BUSINESS – Status of Action Items (includes review of previous meeting minutes)					
Feb 2021	C	<b>Dispensing LN2 Safely - Training</b> It would be useful to have an informational course and quiz available to the department as a training tool for dispensing liquid nitrogen. <b>LST Comments:</b> This item has been referred forward.	MR	Referred Forward	RF
N/A	E	<b>Needle SWP</b> Rich will work with CHEM to help provide a SWP for working safety with needles. <b>LST Comments:</b>	MC/RW	N/A	IP

8. NEW & OTHER BUSINESS					
<ul style="list-style-type: none"> <li>General discussion items (list actionable items below)</li> </ul>					
Item #	Priority	Discussion and/or Action Items	Assigned To	Date to be Completed	Status
N/A	N/A	<b>Safety Education and Training Assistance</b> 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.	N/A	N/A	IP
N/A	E	<b>CHEM LST Member Updates and Concerns – Round Table</b> Are there any safety concerns or updates that were not discussed? <b>LST Comments:</b>	N/A	N/A	N/A
N/A	E	<b>SRS Updates</b> <b>Recommended items to discuss at JOHSC/LST Meeting</b> <b>Safety Day Key Highlights</b> Thank you to everyone who was able to attend Safety Day 2024! We hope you all enjoyed the event.	N/A	N/A	N/A

**8. NEW & OTHER BUSINESS**

Key highlights from the speaker sessions are now available on the Safety Committees website. Please visit the [Safety Day page](#) to learn more. We hope this information sparks continued dialogue in your committees.

**Safety Day Feedback Survey**

A Safety Day feedback survey was sent out on October 23<sup>rd</sup> to everyone who registered for Safety Day. The survey will remain open till Monday, Nov 4<sup>th</sup>. Your responses provide valuable feedback on the aspects you enjoyed and ideas to improve future events. Three lucky winners will be chosen for completing the survey. A member of Safety & Risk Services will reach out to the winners directly for details on claiming your prize.

**CAIRS**

On Oct 14<sup>th</sup> there was a cybersecurity attack on CAIRS in an attempt to flood our system with numerous report submissions using the public facing forms. We would like to reassure you that this attack was unsuccessful, no information was compromised and your privacy and user data remains fully intact. IT Cybersecurity acknowledged the attack attempt and confirmed no further action is required as none of the attacks were successful.

As CAIRS allows submissions from individuals who are visitors, contractors, and others who do not have a Campus-Wide-Login (CWL) these attacks are a known complication. It's important to note that genuine submissions from these reports help us identify deficiencies, hazards, and other gaps that may otherwise be missed and contribute to the overall health and safety at the university and off campus locations.

The cybersecurity attack created 446 CAIRS reports which then generated and triggered an enormous amount of email notifications. We sincerely apologize for any notifications you may have received during this event, these reports have been deleted and no further action is required from users. All information on our



8. NEW & OTHER BUSINESS				
		<p>website is secure and requires a CWL to access, so if you have any additional questions or concerns, please do not hesitate to reach out to us at <a href="mailto:ubc.cairs@ubc.ca">ubc.cairs@ubc.ca</a></p> <p><b>Informational Items</b></p> <p><b>Daylight Savings Ends</b></p> <p>A reminder that daylight savings ends on November 3 at 2:00 am. To help you feel safe when the sun goes down, have a look at the following UBC-V campus information and resources:</p> <ul style="list-style-type: none"><li>• Travel with colleagues or friends</li><li>• Contact the <a href="#">AMS Safewalk Program</a> (operates from 8pm-2am)</li><li>• Contact <a href="#">Campus Security</a> to accompany you across campus after 2am</li><li>• Know the location of <a href="#">UBC Blue Phones</a> (download the <a href="#">UBC Safe App</a> for quick access to this)</li><li>• Use the <a href="#">Translink Community Shuttle</a></li><li>• Use main pathways and avoid short cuts</li><li>• Report malfunctioning/burnt out lights to <a href="#">Building Operation Service Centre</a></li><li>• Dial <b>911</b> if you need emergency assistance</li></ul> <p><b>LST Training</b> You can register LST training <a href="#">here</a>.</p> <p><b>WorkSafeBC Inspection Reports (IR)</b> There were no inspection reports received since the last co-chair email.</p>		



9. NEXT MEETING	
Date:	Dec 19, 2024
Time:	11:00 am
Location:	Online Zoom Meeting

10. MEETING ADJOURNED	
Time:	11:36 am

**LEGEND**

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