

**Chemistry Local Safety Team Meeting Minutes APPROVED**

Name of Team: Chemistry Local Safety Team

Chair(s): Derek Gates & Ken MacFarlane (sub)

Date: Sept 21, 2023

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 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"/>
Patrick Dever	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"/>
Cameron Zheng	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 type="checkbox"/>	<input checked="" 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	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. <ul style="list-style-type: none"> • 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. 	DG/MC	In Progress	IP

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

			<ul style="list-style-type: none">• 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.• 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.• Chem Tech Services have provided us with a stencil for this project. Spray painting has started and is in progress. <p>LST Comments: Spray painting is in progress.</p>			
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4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:						
131636/131638	C	July 5, 2023	<p>Back Strain Student Worker emailed Thursday July 6th to report a sore back from working in Chemistry Stores on Wednesday July 5th. The student worker reported that they had woken up on Friday June 30th with back strain, which occurred from home activities. They worked a 3-hour shift on June 30th and experienced no additional strain. They returned to work again on July 5 for a 3-hour shift. During this shift, they removed a box located on a higher shelf, which weighed about 40 lbs and may have aggravated the back pain to return. The incident was first reported by the student worker on July 6th to their supervisor.</p> <p>Actions and Resolutions: (1) Notify worker to communicate to their supervisor of any circumstances that may aggravate a pre-existing condition so accommodations can be made. (2) Remind worker that they must report all first aid incidents to UBC First Aid in the event of an incident. (3) Review and provide training to worker for lifting overhead. (4) Remove any heavy items that are being stored up high. Items 1 and 2 have been completed.</p> <p>LST Comments: All corrective action items have been completed. This incident can be closed.</p>	MC/CZ/KB	Complete	C



4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:						
131691/131698	C	July 14, 2023	<p>Release of Heavy Metal and Acidic Waste</p> <p>A bottle of waste Raney Ni in acid was not completely reacted and the glass bottle was stored in the acid cabinet (under the fume hood) for the CHBE level 2 fume hood shutdown. The glass bottle was completely sealed and built-up pressure and burst. Two employees found the spill, neutralized with base and used the spill kit to clean up the neutralized material.</p> <p>Additional comments from investigation:</p> <p>The Raney nickel waste was being collected over a long period by various users. The waste was not being quenched immediately, so the users were not aware of who left the waste. In addition, the current researchers were unaware of the amount of Raney nickel included in the waste. Quenching an unknown amount of any material can be very dangerous. Also, in preparations for a scheduled fume hood shut down, the lab users decided to quench the existing Raney nickel waste. They did not have proper quench procedures available to them and they were not trained. The researchers were also unaware of the amount of Raney nickel that was inside the waste. They started to quench the unknown amount of Raney nickel two days before the shutdown. They assumed that the quench process was completed, so they closed the lid of the glass waste container and placed it in directly below the fume hood inside of the chemical storage cabinet. When the lab users arrived a couple days after. They noticed that the glass waste container, which contained the Raney nickel waste was broken with its contents spill inside the cabinet of the chemical storage cabinet. They tested the pH of the spill and neutralized it with materials from</p>	MC/CZ	Complete	C

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

		<p>the spill kit. They used a brush and dust pan to collect the neutralized waste.</p> <p>The spill kit did not have spill procedures nor did it include pH paper.</p> <p>Actions and Resolutions:</p> <p>(1) Create a SWP detailing the proper quenching procedure for Raney Ni and include detailed spill clean-up procedures. SWP should include proper training, handling, storage, and quench procedures for Raney Ni and its disposal.</p> <ul style="list-style-type: none">• Do not store Raney nickel waste for long periods of time. As soon as it is possible the waste must be properly quenched and properly disposed of. If you cannot immediately quench and dispose of the Raney nickel waste the waste must be properly labeled with the chemical name and contents, contact name, contact information, hazardous statement, and date.• During the quenching process, remove any flammables from quenching space.• During the quenching process, unplug/de-energize equipment next to reaction site. <p>(2) Purchase cut proof gloves.</p> <p>(3) Add pH paper and spill procedures to the spill kit</p> <p>(4) Provide researchers information about the lab exit protocols for when someone is leaving the lab and will not be returning.</p> <p>It was emphasized that waste disposal and training should be a part of the procedures. In addition, there are other methods to achieve hydrogenation and it was suggested to the research group to use Raney Co, which is less reactive</p>			
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4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:						
			<p>and much easier to handle and dispose of. It was also noted that venting caps that are available.</p> <p>LST Comments: All corrective action items have been completed. This incident can be closed.</p>			



4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:						
131749/121750	C	July 27, 2023	<p>Trifluoroacetic acid (TFA) skin contact</p> <p>The injured student was performing a peptide cleavage reaction in the fume hood. This requires the use of concentrated trifluoroacetic acid (TFA). The student had clamped a glass column with fritted disk (approx. 20-30 mL) to a stand in the fume hood and was getting ready to rinse the sides of the column with TFA using a glass Pasteur pipette. Before beginning the rinse, they accidentally pressed the bulb of the pipette and approximately 1 mL of TFA squirted onto the student's shirt. The pipette was being held towards the student's direction and not the column. The sash of the fume hood was close to the required mark. The student was not wearing goggles nor a lab coat at the time of the incident. Nitrile gloves and long pants were being worn. The student was previously trained, was following previously established procedures, and has been doing this task regularly for over a year.</p> <p>After the skin contact, the student asked another student present in the lab for help. This student guided the injured party to a drench hose which was located directly behind the fume hood and began rinsing the affected areas for 5 minutes. The student was able to remove the drench hose from the holder and use it directly on their body. After 5 minutes the water from the drench hose started to warm up, which caused the chemical burn to feel worse. At this time, the Chemistry Safety Program Officer was contacted. The Safety Officer recommended that the injured party use the emergency shower for a minimum of 15 minutes, while they contacted UBC First Aid and notified the SRS pager. The student went to the other eyewash/shower station located within the same room but declined to use it. The student used the showers on the lower level of Chem D, at</p>	MC/CZ/KM	In Progress	IP

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

		<p>which time they realized they had additional chemical contact on their left leg. All affected areas were rinsed for a minimum of 15 minutes. After the area was rinsed, the student was driven to the UBC hospital by UBC First Aid/Campus Security at around 10:30a. The injured party saw a doctor at the hospital.</p> <p>Actions and Resolutions:</p> <p>(1) Review the existing SWP procedures and update deficiencies. Include items listed below.</p> <ul style="list-style-type: none">• Pasteur pipette should be pointed away from the user• All required appropriate PPE should be worn at all times in a lab• Make sure the fume hood sash is at the appropriate level and to use a shield if the sash is unable to protect the user from being sprayed• To add a comment that holding the column at the time of the rinse is not recommended. <p>(2) To remind and train workers to wear the appropriate PPE required for the task.</p> <p>(3) Once procedures have been updated provide training to the research group.</p> <p>(4) To provide research group with proper emergency procedures for chemical exposure and to highlight that UBC First Aid must be called for emergency response.</p> <p>(5) Submit a service request to BO for the plumbers to temper the drench hose station to meet the required temperature range 15 to 30 degrees Celsius.</p> <p>(6) Notify and train students and workers that in the event that clothing is contaminated with a hazardous material, all clothing must be removed and an emergency shower must be used to wash all affected areas appropriately. The SDS will state how long the affected areas should be washed.</p>			
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**4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:**

			<p>This incident was recently discussed at the August FOS JOHSC meeting. It was suggested that the Chem LST discuss the lack of PPE being worn by the individual while working in the lab. In addition, it was suggested that the Chem LST discuss ways to encourage individuals to remove contaminated clothing that has been exposed with chemicals and to use the emergency shower located within the lab. It was suggested to install permanent shower curtains.</p> <p>DG to discuss at the next faculty meeting.</p> <p>LST Comments: Items 4 and 5 have been completed. All other items are in progress.</p> <p>This item will be discussed at the next faculty meeting on Sept 28, 2023.</p>			
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4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:						
131883	C	Aug 28, 2023	<p>Accidental Needle Stick Student visitor (non-worker) was consolidating and disposing of waste solutions from experiments. The waste solutions were located in 700 uL micro plastic centrifuge tubes, which were too small to permit a 1 mL syringe to suck up the liquid for disposal. The student attached a clean needle to access the solutions. After transferring several aliquots of waste solution to a temporary waste receptacle, the student accidentally poked their left, index finger. The syringe and needle had been emptied at that point, such that there was only residue in the needle and no pressure/contact on the syringe plunger. The student was wearing nitrile gloves. The needle stick initially bled, but had stopped within about a minute.</p> <p>The residue in the needle was fish gelatin (0.5% w/v), phosphate buffered saline, and quantum dot materials ("super-QDs" at pM concentrations (i.e. sub-nM), estimate sub-ug quantities of material).</p> <p>After the needle stick, the student rinsed the affected finger under tap water for 5 min then reported the accident to a graduate student. The graduate student advised the student to rinse the finger under water for 10 more minutes. During this time, two graduate students collected information about the incident, called the departmental safety administrator, and called UBC first aid.</p> <p>UBC First Aid arrived quickly and provided a band-aid. First aid dropped the injured student and another accompanying student off at UBC hospital.</p>	MC/CZ/JH	Complete	C

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

			<p>Student returned to Chemistry Building at 12:40 pm. Met with supervisor. Assisted in completion of this incident report. Student resumed work in the afternoon.</p> <p>Actions and Resolutions:</p> <p>(1) Student advised to not use a syringe with needle unless absolutely necessary. In the case of this task, it would have been more appropriate to use a micropipette, instead of a needle and syringe.</p> <p>(2) Full research team provided with a refresher session on needle safety.</p> <p>(3) Provide correct tool. Micropipette moved to room E314.</p> <p>(4) The group already has an existing needle and syringe procedure. Chem LST to provide research group with additional needle handling procedures.</p> <p>LST Comments:</p> <p>All corrective action items have been completed. This incident can be closed.</p>			
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4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:						
131988/ 131992	C	Sept 12, 2023	<p>Reaction Vessel Explosion</p> <p>A reaction was set up in a 20 mL high pressure vessel (thick-walled glass vessel with Kontes valve) and put that in a room temperature oil bath. The temperature of the reaction [1-octene (0.25 g), tantalum species catalyst (0.2 g), Azure B (0.61 g) in toluene (13-15 mL)] was raised to 120 C and the fume hood sash was closed before stepping away from the fume hood. The tantalum catalyst is (L)(Cl)Ta(CH₂SiMe₃)₃ where L is a cyclic amidate ligand. The oil bath temperature was controlled by feedback from a temperature probe back to the hot plate-stirrer. About 10 min later a popping noise was heard in the fume hood, which was heard by the experimentalist. The experimentalist checked the reaction vessel and learned it had broken due to pressure build up. The oil bath captured the broken glassware and reaction mixture. There was a small spill due to an overfull oil bath. The hot plate/stir plate was turned off, the contaminated oil was disposed in chemical waste, the broken glass was cleaned and disposed in glass waste and the stir plate was wiped clean. The researcher and the witness were both wearing full PPE (long pants, closed-toe shoes, lab coat, safety glasses and glove). No blast shield was in place. The fume hood sash was fully closed. The glassware appears to have failed at a reasonably low pressure as the broken glassware was found in the oil bath or directly adjacent to the oil bath. There was no evidence that any glass had hit the fume hood sash.</p> <p>Campus security was called but there was no answer for over 20 minutes. Ultimately, SRS was notified via email. There were no injuries so UBC First Aid was not required.</p>	KM/CZ/JH/DG	In Progress	IP

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

			<p>Actions and Resolutions:</p> <p>(1) Review safe laboratory protocols for super-heated reactions.</p> <p>(2) Develop a Safe Working Procedure for heated sealed reactions. Work procedure should include the use of a blast shield, specifications for total volume of reaction compared to volume of reaction vessel, maximum scale of reaction permitted, inspection of glassware for flaws prior to reaction being setup, PPE requirements (consider if a face shield should be worn from start of heating until thermal equilibrium reached), fume hood sash closed during heating, notification of co-workers, completion and posting of the overnight reaction form on the fume hood with the safety precautions. Consider using thicker-walled glassware that is coated with latex.</p> <p>(3) Notify UBC SRS that the CHEM LST was not unable to get through to UBC SRS to immediately report the incident. Chem safety staff to notify UBC SRS with their concerns and request for Campus Security to improve training.</p> <p>LST Comments:</p> <p>All corrective action items are in progress. It was suggested that the procedures should include that the individual should monitor the reaction until the desired temperature has been achieved. It was recommended that a special coating be lined along the glass walls for added support.</p>			
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**4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:**

132059	C	Sept 19, 2023	<p>Glass cut from Pasteur pipette During a lab exam for chem 211 students, a student had cut (minor cut) themselves on their finger while picking up a Pasteur pipette. Upon further observation it was identified that the pipette was already chipped. The pipette was either new (i.e., unused) or used only for transferring water. UBC First Aid was called. The student felt faint and sat down in the office area while waiting for UBC First Aid (Campus Security) to attend to the cut. The student was picked up by a family member and chose to go home as they were feeling faint.</p> <p>The student was wearing long pants, closed-toe shoes, lab coat, and safety glasses.</p> <p>Actions and Resolutions: (1) Remind students to get enough sleep and eat prior to the lab. (2) Remind students about the safe handling of glassware, including inspecting prior to use.</p> <p>LST Comments: Investigation is in progress. All corrective action items are in progress.</p>	KM/tbd	In Progress	IP
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4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:						
132060	C	Sept 19, 2023	<p>Severe Glass Cut During the lab exam, the student was preparing a solution in a 50 mL volumetric flask. The student put the cap on it to mix the contents of the flask and presumably the student used excessive force and broke the tip of the glassware in doing so. During this motion they cut themselves on the piece of glassware. The student reported to the teaching assistant. One technical staff member applied gauze to the cut while the other called 2-2222. The Security phone was not answered for a few minutes, during which time the technical staff decided to walk the student to Urgent Care for treatment. Security answered as they were leaving the lab and the security staff member instructed them to proceed to Urgent Care by foot.</p> <p>The volumetric flask contained copper nitrate ($\text{Cu}(\text{NO}_3)_2 \cdot 2.5\text{H}_2\text{O}$) with an approximate concentration of 3.2 mg/L. The student was wearing safety glasses, lab coat, closed toed shoes and safety glasses.</p> <p>Actions and Resolutions: (1) Remind students to handle glassware carefully and to not rush.</p> <p>LST Comments: Investigation is in progress. All corrective action items are in progress.</p>	KM/tbd	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	C	Demo Lab Areas <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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: In progress.	BH/KM	On hold	IP
			KM	In Progress	IP
May 2023	C	Chem Shops and Service Spaces Chem shops and service spaces (E214, E215, E313, D112, D124, D116, D118, D120, D128, & B460) were inspected this May. <ul style="list-style-type: none"> The noted deficiencies included, labels/signage were missing and items were being stored on the floor. 65-70% of the deficiencies have been completed all other items are in progress. LST Comments: All deficiencies from the May inspections have been resolved. However, inspections for some of the spaces are pending.	MR	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)**

July 2023	C	<p>Chem A Research Labs All research spaces within Chem A were inspected in July.</p> <ul style="list-style-type: none"> A lot of deficiencies were noted and are in progress. <p>LST Comments: 65% of the deficiencies have been completed. All other items are in progress.</p>	MC	In Progress	IP
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* *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	The UBC CHEM Fire Extinguisher training for the new fall semester has been scheduled for October 10, 2023. 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	Prepare meeting minutes and to post approved minutes to UBC Chemistry Safety website and upload a copy to the FOS JOHSC site.	MC	Ongoing	N/A
2020	C	<p>Develop review process for SWPs before being posted onto Safety webpage;</p> <ul style="list-style-type: none">• SWP to have Risk Assessment information incorporated• Include resources about compatibility and storage of chemicals• The Chem LST has a student worker available this summer to help draft SWPs for the department. DG to provide a list of priority SWPs that should be drafted.• The student worker has drafted an SWP for handling alkyl lithium compounds, which are in the first stages of development. They will be contacting DG soon for next steps.• It was requested for the student worker to draft an SOP for needle and syringe use. <p>LST Comments: SOPs are being developed and have been saved on a departmental shared drive. If you are interested in using any of the documents, please email safety@chem.ubc.ca.</p>	DG	Ongoing	IP



7. ONGOING BUSINESS – Status of Action Items (includes review of previous meeting minutes)					
Dec 2021	C	<p>Earthquake Securing straps for large Dewars; and, Lab installations for Compressed Gas Cylinder tie-downs</p> <ul style="list-style-type: none">• 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.• Parts have been ordered for the items remaining in Chem D's knuckle.• Buildings Chem B and E have been completed.• The outstanding items for Chem D's knuckle are now completed, which completes the Chem D building. Chem C224 is in progress. The next steps are to start working on Chem A.• Buildings Chem C and D have been completed. Inspections of Chem A have begun and are currently in progress. <p>LST Comments: In progress.</p>	MR	In Progress	IP
Feb 2021	C	<p>LN2 Safety Training – TM working on setting this up as an actual course with a quiz and certificate</p> <ul style="list-style-type: none">• TM is working on the processes required for this course <p>LST Comments: This item has been referred forward.</p>	MR	Referred Forward	RF



Nov 9, 2022	C	<p>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.</p> <ul style="list-style-type: none">• First year labs have been 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.• 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.• In addition to the evaluation of the use of halogenated solvents on the bench top, the Chem LST has been asked to evaluate diethyl ether, ethyl acetate, acetone and toluene use. The Chem LST with help of teaching faculty and staff are reviewing each of the specific labs and providing assistance with risk assessments to reduce exposure.• For one of the experiments the 3rd and 4th year analytical labs have stopped using chloroform on the bench top and have switch to DCM. The amount of DCM used is in trace amounts and is below the allowable limit. In addition, the Mass Spectrometry (MS) experiment does use halogenated reagents in a trace amount, which is loaded in a fume hood and then transferred into the MS directly. Also, please note this item was discussed at the faculty meeting on March 23, 2023. Updates on halogenated solvents were discussed.	KM/MC/ DG/BH	In Progress	IP
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**7. ONGOING BUSINESS – Status of Action Items (includes review of previous meeting minutes)**

		<ul style="list-style-type: none">Using halogenated solvents on the bench top is not acceptable. Due to the limited number of fume hoods in the teaching facilities modifications have been made for lab experiments to continue. In particular, adjustments to the second-year organic labs have been made to ensure that there are no halogenated solvents being used on the bench top, unless they are closed/capped. <p>LST Comments: Modifications were done to the teaching labs over the summer. An update will be provided when MC returns.</p>			
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July 2023	C	<p>PPE Requirements in Chem Stores</p> <p>It was confirmed through UBC SRS that there are no regulatory requirements for wearing PPE in Chem Stores for shopping. Depending on the task being done, staff are required to wear basic PPE and any additional PPE as required. It is recommended that at minimum everyone should wear safety glasses (new suggestion), lab coat (new suggestion), long pants and fully foot encompassing liquid-resistant shoes, especially in areas where solvents/chemicals are located (Solvent Shed & Chemical Room).</p> <p>DG to discuss this at next faculty meeting.</p> <p>It was discussed that while shopping in Chem Stores, customers should wear safety glasses, a lab coat, long pants and fully foot encompassing liquid-resistant shoes. However, this request could be hard for staff to enforce since a lot of customers do not come to buy hazardous materials. Instead, some customers come to buy gloves or pick up non-hazardous items. In addition, there are common areas of Chem Stores where individuals transporting hazardous materials would be in very close proximity to other individuals (staff, visitors, other customers, etc.). In these cases, it would be recommended that everyone should wear all the suggested PPE, rather than trying to decipher if an individual has come to pick up a hazardous material or not. Also, in the event of a hazardous spill or incident, individuals would have a barrier of protection.</p> <p>Aug 2023 Update: In addition to the current requirements of wearing closed-toed shoes and long pants, anyone entering Chem Stores will be required to wear eye protection effective immediately. Spare safety glasses will be provided. An email will be sent to notify the department. An audit to assess PPE requirements for all service areas are in progress.</p> <p>LST Comments: This will be discussed at the next faculty meeting on Sept 28, 2023.</p>	N/A	N/A	IP
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7. ONGOING BUSINESS – Status of Action Items (includes review of previous meeting minutes)					
July 2023		<p>Earbuds and headphone Use</p> <p>There was an incident on campus where an individual was calling for help for over 8 minutes. Unfortunately, the other individuals in the lab could not hear the call for help because they were wearing headphones/earbuds that restricted them for hearing anything else. The individual was very distressed at the time. At UBC Chem, depending on the supervisor, there are both the “no earbud/headphones policy” or the “only one earbud policy”. Wearing headphones or both earbuds at a time are not allowed. The Chem LST will review this policy.</p> <p>DG to discuss this at the next faculty meeting.</p> <p>LST Comments:</p> <p>This item will be discussed at the next faculty meeting on Sept 28, 2023.</p>	N/A	N/A	IP
May 2023	E	<p>Preventative Maintenance – Fume Hood Sash/Cable Audit</p> <p>A mandatory fume hood sash/cable audit is currently being done by Building Operations (BO). The audit started at the beginning of May and will be continuing until the end of the summer. A level 1 shut down is required for the audit. If BOs find any deficiencies during their audit, they will contact us at a later time, and provide us with further instructions.</p> <p>The audits for buildings A, D and E have started and are in progress. Buildings D and E have been completed.</p> <p>Any emergency repairs have been prioritized.</p> <p>LST Comments:</p> <p>The audit for all buildings (A,B,C,D&E) have been completed. BO will now be focusing on repairing any non-urgent deficiencies.</p>	MC	In progress	IP



7. ONGOING BUSINESS – Status of Action Items (includes review of previous meeting minutes)					
July 2023	C	<p>UBC Chem Safe Transport of Hazardous Materials</p> <p>It was recommended that the UBC Chem Safe Transport of Hazardous Materials SWP be updated. A draft of the SWP was sent to the Chem LST in July.</p> <p>The SWP was discussed and minor edits were suggested. For now, this item will be discussed offline.</p> <p>LST Comments:</p> <p>The Safe Transport of Hazardous Materials was recently updated and sent to the department on Sept 6, 2023. It was requested for DG to discuss this at the next faculty meeting on Sept 28, 2023. This item is completed and can be closed.</p>	MC	Complete	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
Aug 24, 2023	E	<p>UBC CHEM Fire Drill</p> <p>A fire drill was conducted on August 24, 2023 for CHEM A, B, C, D and E. The evacuation times are as seen below.</p> <p>CHEM A - 5 min 39 sec CHEM B - 2 min 46 sec CHEM C - 7 min 47 sec CHEM D - 4 min 30 sec CHEM E - 6 min 48 sec</p> <p>LST Comments:</p> <p>For Chem A and E the Building Wardens reported that some Floor Wardens did not check in at the time of the drill. It was later identified that the Floor Wardens</p>	MC	N/A	C



8. NEW & OTHER BUSINESS					
		<p>were located in another building within the Chemistry Complex or they were not on campus.</p> <p>For Chem C, it was noted that both the primary and secondary Building Wardens were not present for the drill. At the time, Chem C only had 2 occupants present. Both occupants evacuated immediately but went to the incorrect muster location. Both have been notified of the correct muster location.</p>			
N/A	E	<p>CHEM LST Member Updates and Concerns Are there any safety concerns or updates that were not discussed?</p> <p>LST Comments: DG – Nothing to report. MC – Tabled. KM – Nothing to report. MR – Nothing to report. KB – Nothing to report. GB – Tabled. BH – Nothing to report. TC – Nothing to report. PD – Nothing to report. CZ – Nothing to report. JH – Nothing to report. RW – The Chemical Lab Inventory project is now complete in Chemistry. Overall, 100% of submission of inventories was received from the department. In addition, nearly 100% of the lab visits were completed.</p> <p>It was reported that Workrite lab coats have been recently recalled. The material of the lab coats was found to be carcinogenic. This item was requested to be discussed at the next faculty meeting.</p>	N/A	N/A	N/A
N/A	E	<p>SRS Updates</p> <p>Recommended items to discuss at JOHSC/LST Meeting Safety Day Registration Closed</p>	SRS Updates	N/A	N/A

**8. NEW & OTHER BUSINESS**

Safety Day Registration is now closed as we've reached capacity. If you want to be added to the waitlist, cancel your registration or have other questions, please email Shilan.keshvadi@ubc.ca.

An email will be going out next week to everyone who registered to confirm their registration so if we are notified of any cancellations, there will definitely be opportunity to move from the waitlist to being registered for the event.

UBC Safe Vancouver

UBC Safe App is the official mobile safety app of UBC Vancouver (Point Grey). This multi-function app allows you to receive important safety push notifications, safety information, contacts, maps and procedures — all in one place! Download the **UBC Safe Vancouver app** and make sure you turn on [push notifications](#) to receive timely updates and urgent notifications. The mobile safety app is available for download on the [iOS/Apple Store](#) for iPhone or [Google Play Store](#) for Android. The UBC Safe App is free and recommended for UBC students, faculty, staff and campus visitors.

Informational Items**LST Training**

Resister [here](#) for LST Training.

LST Training	
Part 2a	Part 2b
TBD	TBD
TBD	TBD

WorkSafeBC Inspection Reports (IR)

There were two WorkSafeBC Inspection Reports 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.

**8. NEW & OTHER BUSINESS****1) AUGUST 11, 2023 – IR# 202316973099A**

Description: On August 8, 2023, a worker was working with a high voltage machine. As their hand passed by an insulated wire, a discharge of electricity (arc) resulted in the worker's hand receiving an electrical shock.

- The machine was pulled from service until a full investigation is completed.
- There were zero (0) orders issued to the University.

JOHSC/LST General Learnings/Discussion Points:

- It is important to conduct a pre-use inspection and scheduled preventative inspections as per the manufacturer's manual to prevent injuries due to faulty equipment.
- To ensure quality, check for certification marks such as CSA or cUL or cETL on purchased electrical products or equipment
- A pre-use and/or preventative maintenance inspection checklist specific to the tool, vehicle, machine, or equipment should be used. Items of deficiency are identified and documented in the corrective action report following the inspection checklist.
- As a reminder, an incident believed to have resulted in a serious injury, such as life-threatening conditions, as well as incidents that had the potential for causing serious injury (near miss) must be reported to Campus Security at 604-822-2222 as part of the incident response following the necessary emergency responses.
- Information regarding what to do in the event of a serious incidents or possible serious incident can be found on the [SRS Website](#).
- Encourage everyone to report incidents and near misses into [CAIRS](#) within 48 hours of the occurrence so that a preliminary investigation can be completed within 48 hours as required by [section 71 of the Workers Compensation Act](#)
- Reminder that incident investigations must be completed within 30 days, with description, unsafe conditions, contributors, causes, corrective actions, and worker rep participation.



8. NEW & OTHER BUSINESS				
		<p>CHEM LST Comments: It was suggested that this be discussed at the next faculty meeting.</p> <p>2) AUGUST 25, 2023 – IR# 202316973103A</p> <p>Description: This Inspection Report documents the receipt and acceptance of the employer's full Incident Investigation Report (EIIR), relating to an incident which occurred on July 19, 2023, when a worker who was involved in an incident while riding a motorized scooter and sustained injuries.</p> <ul style="list-style-type: none">• There were zero (0) orders issued to the University. <p>JOHSC/LST General Learnings/Discussion Points:</p> <ul style="list-style-type: none">• Reminder that incident investigations must be completed within 30 days, with description, unsafe conditions, contributors, causes, corrective actions, and worker rep participation.		



9. NEXT MEETING	
Date:	October 19, 2023
Time:	11:00 am
Location:	Online Zoom Meeting

10. MEETING ADJOURNED	
Time:	11:53 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