Chemistry Local Safety Team Meeting Minutes

**Name of Team:** Chemistry Local Safety Team

**Chair(s):** Derek Gates & Monica Clarkson

**Date:** June 15, 2023

**Time:** 11:01 am

**Location:** Online Zoom Meeting

**AGENDA:**

1. Roll Call
2. Approval of Previous LST Meeting Minutes
3. Additional Agenda Items & Approval of Agenda
4. Review Central Accident/Incident Reporting System (CAIRS) report of Accidents/Incidents
   - Monthly Incident List & Statistical Summary Report
5. Review Workplace Safety Inspections (including any changes to equipment, machinery or work processes that may affect the health or safety of workers)
6. Review Education and Training
7. Ongoing Business – Status of Action Items, Review of Previous Minutes
8. New and Other Business
9. Next Meeting
10. Meeting Adjournment

### 1. ROLL CALL

<table>
<thead>
<tr>
<th>Worker Representatives</th>
<th>Work Location</th>
<th>Present</th>
<th>Regrets</th>
<th>Absent</th>
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</thead>
<tbody>
<tr>
<td>Guillaume Bussiere</td>
<td>Chemistry – Teaching Faculty</td>
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<tr>
<td>Karen Button</td>
<td>Chemistry – M&amp;P, Stores Manager</td>
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<tr>
<td>Ken MacFarlane</td>
<td>Chemistry – M&amp;P, Director, Finance and Operations</td>
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<td>Mohamad Rezaei</td>
<td>Chemistry – M&amp;P, Director, Technical Services</td>
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<td>Ben Herring</td>
<td>Chemistry – Research Tech</td>
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<tr>
<td>Ben Nadeau</td>
<td>Chemistry – Graduate Student</td>
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<tr>
<td>Cameron Zheng</td>
<td>Chemistry – Graduate Student</td>
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<thead>
<tr>
<th>Employer Representatives</th>
<th>Work Location</th>
<th>Present</th>
<th>Regrets</th>
<th>Absent</th>
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<tbody>
<tr>
<td>Derek Gates</td>
<td>Chemistry – Faculty, Co-Chair</td>
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<tr>
<td>Monica Clarkson</td>
<td>Chemistry - M&amp;P, Co-Chair &amp; Safety Program Officer</td>
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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?

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<th>Yes</th>
<th>No</th>
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3. ADDITIONAL AGENDA ITEMS & APPROVAL OF AGENDA

Is the agenda adopted? The agenda was approved with minor edits.

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<th>Yes</th>
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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)

<table>
<thead>
<tr>
<th>Item # (Use CAIRS Incident ID #)</th>
<th>Priority</th>
<th>Date</th>
<th>Action Plan (Actions Taken/Need to be taken)</th>
<th>Assigned To</th>
<th>Follow up: Date Pending</th>
<th>Status</th>
</tr>
</thead>
</table>
| 129681 / 129682                  | C        | Jul 22, 2022 | Grad student removed Pasteur pipette with phenylbis(trimethylsilyl)phosphine residues on it from glovebox and discarded it into plastic glass waste bucket with plastic bag liner. The plastic bag liner was ignited by chemical residues that remained in the pipette.  
- Lengthy discussion regarding glass waste buckets; no recommendations established.  
- DG conducted a straw poll of faculty at the Sep 29 Faculty Meeting. Faculty are in favour of metal glass waste containers. | DG/MC      | In Progress | IP     |
### 4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:

<table>
<thead>
<tr>
<th>ID</th>
<th>Severity</th>
<th>Date</th>
<th>Incident Description</th>
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</table>
| 131306/131331 | C | May 11, 2023 | Inhalation of Barium Hydroxide Octahydrate  
I did not personally witness the incident. It was communicated by a graduate student that one of the volunteers for the Science Rendez-vous event had inhaled a particle of barium hydroxide while weighing out 30 g samples of this substance for one of the demonstrations.  
Summary provided by chem safety staff:  
A volunteer, a couple grad students and a faculty member were preparing for a demo. Everyone was wearing full PPE, |

**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 metal 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.

**LST Comments:** Chem Tech Services have provided us with a stencil for this project. We will start the spray paint the metal pails in the coming weeks.
including lab coat, safety glasses, long pants, gloves and closed toed shoes. The group was going through a checklist, at which time they determined that 6 aliquots of 40 grams of barium hydroxide octahydrate was needed to be prepared for the Hot and Cold Flask Experiment. The volunteer did not have any written instructions or procedures available to them. Instruction was given to them verbally. The SDS was not reviewed prior to the incident. To weigh the 40 grams of barium hydroxide octahydrate volunteer was provided with a spatula, a mini dixie cup and scale to weigh out the reagent. To transfer the reagent from the dixie cup to the falcon tube they were provided with filter paper to make a funnel. The barium hydroxide octahydrate had the same consistency of sand. The bottle of barium hydroxide octahydrate had solidified at the bottom, so the volunteer dug into the bottom of the container with a spatula to get the remaining material out. During the process of transferring the 5th sample from the dixie cup into the falcon tube the volunteer felt a solid object enter your throat. There was no pain or burning sensation, just discomfort in the throat. At the same time a graduate student came to check in on the volunteer. The volunteer notified them that they inhaled the barium hydroxide octahydrate. The grad student immediately notified the faculty member. The faculty member called the Chemistry Safety Officer to ask for instructions. The safety officer notified the faculty member to refer to the first aid instructions in the SDS and to call BC Poison Control. The faculty member instructed the volunteer to drink water as per the SDS instructions and moved the person outside to a well-ventilated area. The safety officer subsequently called UBC First Aid. First Aid arrived within 7 minutes and provided support. BC Poison Control provided instruction
4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:

over the phone. They notified the faculty member that there was no need for the individual to seek immediate medical attention, unless the individual started feeling additional symptoms. The discomfort in the volunteer’s throat persisted until 1 pm, but other than that they felt okay.

Actions and Resolutions:
(1) Update the demo procedures to use barium hydroxide in the fume hood.
(2) Remind supervisor to provide written procedures, training and SDS to volunteers before starting preparations.
(3) Review SDS and determine if barium hydroxide octahydrate is required to be used in a fume hood. If required, add this to the current procedures.
(4) Signage for fume hood in B150A, should include instructions on who to contact to unlock fume hood.
(5) Chem safety staff to send emergency response procedures to faculty member.
(6) Chem safety staff to send Volunteer Accident Insurance to faculty member and to the Chem Outreach Committee.

LST Comments:
All corrective action items have been completed except for item 1. The SDS indicates that barium hydroxide octahydrate should be used in a fume hood.

During the investigation, it was found that the volunteer did not have Volunteer Accident Insurance. Blossom Sobrino confirmed that “volunteer accident insurance only covers accidents where the risk is greater than in a class room setting and covers only major accidents”. Activities in UBC Chem are common to be at a higher risk than in a general class room setting. So, it is recommended that the supervisor/faculty member provide the volunteer with
### 4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:

<table>
<thead>
<tr>
<th>ID</th>
<th>Date</th>
<th>Description</th>
<th>Responsible Parties</th>
<th>Status</th>
<th>Investigator</th>
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<tbody>
<tr>
<td>131343/131352</td>
<td>May 16, 2023</td>
<td>4L Dichloromethane Spill at Chemistry Stores At approximately 15:55 pm, two customers arrived at Chemistry Stores (ChemStores) at B170 of the Chemistry Department to pick up their order (Planon order 201482.00). That order included two 4L bottles of ACS grade Dichloromethane CAS: 75-09-2 (DCM). Due to the stores closing in five minutes, storeperson helped customer collect items by gathering two of the items while the customers were picking the flammable solvents from the solvent shed outside the ChemStores loading bay. The storeperson took two 4L bottles of DCM and placed them on the floor in front of the main bench in front of aisle four. Upon re-entering the stores from the loading bay, the storeperson told the customers to pick up the bottles. The customer picked up one bottle of DCM and immediately slipped from their hand. It hit the floor and shattered. Upon witnessing the accident, the storeperson immediately told everyone in the ChemStores to vacate B170. At that point in time, the other people present in the ChemStores were: 4 customers total, 3 storepersons, stores manager, ThermoFisher Supply Center specialist. The customers did not react at first. The storeperson then placed on their respirator and walked over to the customers to order them to vacate the stores. Stores Manager also reiterated that everyone needed to leave. All of B170 (except for 2</td>
<td>MC/BH/KB/CZ</td>
<td>In Progress</td>
<td>IP</td>
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4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>15:57pm</td>
<td>Stores Manager called Safety Officer to advise what happened, directed to call 911. Exited Stores, remaining two storeperson also exited Stores. Storeperson left the spill cart unused in Stores and exited to the hallway. Safety Officer said they were going to call Campus Security. Campus Security was called at 15:58pm and was directed to notify SRS pager.</td>
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<tr>
<td>15:58pm</td>
<td>Stores Manager called 911 to report spill, request hazmat team. Call lasted 2 minutes.</td>
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<tr>
<td>16:01pm</td>
<td>Stores Manager called Safety Officer to update and walked to front of B wing to wait for fire response. Two storepersons were outside ChemStores controlling access.</td>
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<tr>
<td>16:05pm</td>
<td>Stores Manager called Director, Finance and Operations to advise about ongoing situation. Could hear sirens of approaching fire response during this call.</td>
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<td>Stores Manager met fire response on Main Mall, explained situation/what spilled and showed them to Stores via the outside path to shipping/receiving door. Met Safety Officer there, connected them/fire response. The exterior shipping/receiving door had been left open (with staff person standing outside to control access). Fire response</td>
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</table>
4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:

Took over scene and they controlled entry to building. No staff reentered B-wing 170. I explained to them where the broken bottle was, that the bottle had shattered and that everyone had been evacuated. They asked for spelling of chemical name, provided as dichloromethane and methylene chloride. Campus Security was also present.

Two storepersons and myself stayed on scene with Safety Officer, Director, Finance and Operations and emergency responders. Glass was cleaned up by hazmat crew. They also collected the spill pillows and put them in a plastic bag, and placed them in the fume hood in B170D, the bag was left open to allow the solvent to evaporate. They also brought out boxes of stock that had been splashed by DCM. The boxes were put on the ground outside the shipping/receiving area. The contents were checked and the inner goods were not soaked or damaged, just the exterior cardboard boxes.

Custodians were notified not to enter stores that evening or transit through the room. Notification by Stores Manager to custodian on 4th floor of A-wing, that person then notified the rest of the crew that worked in those two buildings not to enter Chem Stores or transit through to dumpsters/recycling outside. "Do Not Enter" signage was posted at both entry doors to Stores. It was also reported via a service request in Planon.

Fire response/Hazmat crew gave all clear at 17:40pm. No staff reentered B170 until this point. They used a VOC detector and stated the ppm level in stores was 0ppm except at the localized area of the spill right at floor level.
4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:

where it measured 0.6ppm. Safety Officer, Director, Finance and Operations, storepersons and myself secured stock that had been removed from stores (unpacked bags/inner goods from cardboard boxes that were saturated – the goods were brought back into Stores, the boxes were left outside overnight). Storepersons and I collected personal belongings, locked up Stores/set alarm and left.

**Actions and Resolutions:**

1. To update procedures and to provide training for staff for handling solvent bottles to emphasize that they should be placed in secondary containment.
2. Provide and train staff with emergency response procedures.
3. Train staff on spill response procedures for common solvents and other chemicals held in stores as well as other received chemicals.
4. Setup calendar reminders for yearly fit testing of respirators. Due date for next fit-test written on the respirator storage location. Reminder to staff of proper use for respirators. A few staff are not permitted to use their respirators until they have completed the fit-test recertification.
5. Send updated procedures to everyone once completed.

**LST Comments:**

Items 2 and 4 have been completed. The rest are outstanding. RW to help Chem LST with spill response for Chem Stores Staff.

<table>
<thead>
<tr>
<th>ID</th>
<th>Type</th>
<th>Date</th>
<th>Description</th>
<th>Status</th>
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<tbody>
<tr>
<td>131427/131418</td>
<td>C</td>
<td>May 30, 2023</td>
<td>Ethyl acetate spill</td>
<td>MC/CZ</td>
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This report was submitted by an "Interim Supervisor" since the "Direct Supervisor" was unavailable to submit the
### 4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:

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<tr>
<th>Report to meet the 48 hour deadline for WorkSafeBC requirements. This report is based on information received from the Chemistry Safety Officer. The details of the incident, as I have learned them, follow.</th>
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<tbody>
<tr>
<td>A post-doctoral fellow was making a purchase at Chemistry Stores at 1:10 pm. They were waiting to complete their purchase, when another customer accidentally knocked over a metal safety can of ethyl acetate from the top of a cart (cart had a 1-inch lip). The customer who accidentally knocked over the metal safety can was placing a large bag (approximately 50 lbs) of dry ice on top of a cart, which accidentally hit one of three metal safety cans of ethyl acetate also stored on top. One of the safety cans fell from the top level (approximately 3 feet high) of the cart onto the floor. Approximately 10 mL of the ethyl acetate fell out of the can, hit the floor, splashed up, and a drop bounced into the post doc’s left eye. The post doc felt a burning sensation in their left eye for about 5 seconds. The clerk from Chemistry Stores immediately helped the worker to the eye wash station. With help the worker washed their eyes for over 10 minutes. At this time the worker’s eye felt okay and there was no irritation. At 1:17 pm the clerk notified the safety officer of the incident. The safety officer recommended for the clerk to review the SDS for the first aid measures. The SDS indicated, “IF IN EYES: Rinse cautiously with water for several minutes.” The safety officer called first aid at 1:18 pm. UBC First Aid arrived within 5 minutes. The worker’s eyes felt okay and no medical attention was needed at this time. The worker was told that if they felt any irritation to their eyes to go to the hospital. Also noting, PPE is not required to be worn while</td>
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4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:  

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<td>shopping in Chemistry Stores, so none was being worn by the worker.</td>
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<td><strong>Actions and Resolutions:</strong></td>
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<td>(1) Send emergency response procedures to Chemistry Stores Manager. Manager to distribute and discuss emergency procedures with all staff.</td>
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<td>(2) Review and update procedures for dry ice transport and solvent transport. Emphasize in procedures to not overload the cart.</td>
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<td>(3) Confirm through WorkSafeBC and with UBC SRS if safety glasses should be worn while shopping in Chemistry Stores.</td>
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<td><strong>LST Comments:</strong></td>
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<td>All corrective action items have been completed except for item 2, which is in progress.</td>
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<td>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.</td>
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<td>Although there are no regulatory requirements for PPE to be worn in Chem Stores while shopping. It is recommended that at minimum everyone should wear their safety glasses (new suggestion), lab coat, long pants and fully foot encompassing liquid-resistant shoes, especially in areas where solvents/chemicals are located (Solvent Shed &amp; Chemical Room). This item will be discussed further at the next meeting. DG to discuss this at next faculty meeting.</td>
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### 4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:

<table>
<thead>
<tr>
<th>C</th>
<th>June 14, 2023</th>
<th>4L Tetrahydrofuran Spill in Solvent Shed</th>
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<tbody>
<tr>
<td></td>
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<td>There was a 4-litre spill of tetrahydrofuran in the solvent shed outside of Chem Stores today at around 1:30 pm. The incident involved a staff member unloading and re-loading a box of THF bottles. When re-loading one of the bottles, the bottom hit one of the caps of a neighboring bottle. This impact caused the bottle to break and spill its contents on the hands of the staff member, into the box, and on the solvent shed floor. The staff member immediately left the room and washed their forearms appropriately. After their forearms were washed thoroughly, they notified their supervisor. Chem safety officer was called and asked to confirm whether 911 was required to be called. It was recommended not to call 911 until we had further confirmation from SRS. In addition, no one was in immediate danger and the room had been cordoned off. SRS was called to notify them of the incident at which time they confirmed that 911 did not have to be called. “Do not enter” signage was placed on the doors and the area was taped off. Also, UBC First Aid was called for the staff member. They are okay but have been directed to go see a doctor as directed by the SDS. Emergency procedures were followed. Also, a box was being used as secondary containment. However, at the time the staff member was not wearing any PPE besides long pants and closed toed shoes. Going forward the staff will be required to be wear full PPE for these types of tasks. Remaining bottles will not be provided to the research group.</td>
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**Actions and Resolutions:**

| MC/KB/CZ/JS | In Progress | IP |
### 4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:

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<tr>
<td>(1) Contact the supplier and report the recent issues with the 4 L bottles breaking and to ask them if they have heard any similar issues with other customers.</td>
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<tr>
<td>(2) Remind staff that full PPE must be worn while loading and unloading any solvent containers or chemicals from boxes and shelves in Chemistry Stores.</td>
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<tr>
<td>(3) Discuss PPE requirements for customers while shopping in Chemistry Stores.</td>
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**LST Comments:**

It was confirmed through UBC SRS that there are no regulatory requirements for wearing PPE in Chem Stores for shopping. However, full PPE must be worn while loading and unloading any solvent containers or chemicals from boxes and shelves in Chemistry Stores.

Although there are no regulatory requirements for PPE to be worn in Chem Stores while shopping. It is recommended that at minimum everyone should wear their safety glasses (new suggestion), lab coat, long pants and fully foot encompassing liquid-resistant shoes, especially in areas where solvents/chemicals are located (Solvent Shed & Chemical Room). This item will be discussed further at the next meeting. DG to discuss this at next faculty meeting.

At the time of the initial call to SRS/Campus security the person on the phone told us that “first aid did not need to attend”. RW to notify SRS and Campus security about this.

For investigation, check to see if the research group have previous 4 L THF bottles and to compare the old ones with
4. REVIEW CAIRS REPORT OF ACCIDENTS/INCIDENTS:

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<td>the new ones for imperfections and/or changes in the bottles.</td>
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<td>Wait for instructions from RW to see what to do with the other bottles (2 x 4 L THF) that came in with the shipment.</td>
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<td>RW noted that emergency response was followed and that staff immediately evacuated the area. It was also noted, for extra safety measures to evacuate all the people in Chem Stores.</td>
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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)**

<table>
<thead>
<tr>
<th>Item # (Use Inspection #)</th>
<th>Priority</th>
<th>Discussion/Comments/Recommendations</th>
<th>Assigned To</th>
<th>Follow up: Date Pending</th>
<th>Status</th>
</tr>
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<tbody>
<tr>
<td><strong>Sep 2018</strong> C</td>
<td></td>
<td>Demo Lab Areas</td>
<td>BH/KM</td>
<td>On hold</td>
<td>IP</td>
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<td></td>
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<td>- BH will oversee day-to-day processes</td>
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<td>- 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</td>
<td>KM</td>
<td>In Progress</td>
<td>IP</td>
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<td>- Jose has a TA organizing the Demo Kits</td>
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<td>- Lab Tech &amp; TA working on Demo Kits</td>
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<td>- Inspection of the demo areas have been completed. All items listed above are on hold or in progress as follow up items. <strong>LST Comments:</strong> No updates at this time.</td>
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<td><strong>Mar/Apr 2023</strong> C</td>
<td></td>
<td>Chem D &amp; E Research Spaces</td>
<td>MC</td>
<td>In Progress</td>
<td>IP</td>
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<td>All designated research labs and research related office spaces within Chem D &amp; E block have been inspected in March and April 2023.</td>
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<td>The items that were noted in the Lab Safety Inspections were mainly low risk items such as updating outdated signage and providing misplaced signage for chemical fridges. A couple higher risk items were also noted, including a compressed gas cylinder that was being stored on a cylinder cart and peroxide-forming chemicals were not being signed, dated or tested. The higher risk items were addressed immediately with lab visits from MC. A compressed gas cylinder holder was installed within 24 hours and training was provided to lab personnel about proper labelling, storage, and testing of peroxide-forming chemicals. May update - 80% of the deficiencies have been completed. <strong>LST Comments:</strong> 95% of the deficiencies have been completed.</td>
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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)

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2023</td>
<td>C</td>
<td>Chem B &amp; C Teaching Spaces and all of Chem’s Spill Kits. All teaching spaces within Chem B and C, and all spill kits were inspected this May, with the exception of C324 &amp; 326. C324 &amp; 326 inspections have been scheduled for June 12, 2023. LST Comments: All deficiencies in labs were mainly low risk. There were a couple bottles of chemicals that were not labelled properly and have been already addressed. The spill kits were missing a few items which will be replenished this month. It was noted that non-contaminated metal waste bins were not being used in the teaching spaces. Labs B470 &amp; 472 do use air sensitive materials. Is it required for these labs to have non-combustible metal waste bins as research spaces do? It was confirmed that it is required to have non-combustible waste bins. MC to notify technician.</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>Chem Shops and Service Spaces. Chem shops and service spaces (E214, E215, E313, D112, D124, D116, D118, D120, D128, &amp; B460) were inspected this May. LST Comments: The noted deficiencies included, labels/signage were missing and items were being stored on the floor.</td>
</tr>
</tbody>
</table>

* 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)

<table>
<thead>
<tr>
<th>Item #</th>
<th>Priority</th>
<th>Discussion/Comments/Recommendations</th>
<th>Assigned To</th>
<th>Follow up: Date Pending</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>E</td>
<td>Next UBC CHEM Fire Extinguisher Training session has been scheduled on June 20th at 1:30 pm. In addition, training for the new fall semester has been scheduled for August, September and October.</td>
<td>MC</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### 7. ONGOING BUSINESS – Status of Action Items (includes review of previous meeting minutes)

<table>
<thead>
<tr>
<th>Original Item #</th>
<th>Priority</th>
<th>Action Plan (Actions Taken/Need to be taken)</th>
<th>Assigned To</th>
<th>Follow up: Date Pending</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ongoing</td>
<td>E</td>
<td>Prepare meeting minutes and to post approved minutes to UBC Chemistry Safety website and upload a copy to the FOS JOHSC site.</td>
<td>MC</td>
<td>Ongoing</td>
<td>N/A</td>
</tr>
</tbody>
</table>
| 2020            | C        | Develop review process for SWPs before being posted onto Safety webpage;  
• SWP to have Risk Assessment information incorporated  
• Include resources about compatibility and storage of chemicals  
• 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. | DG          | Ongoing                 | IP     |

**LST Comments:**
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.
### 7. ONGOING BUSINESS – Status of Action Items (includes review of previous meeting minutes)

<table>
<thead>
<tr>
<th>Date</th>
<th>Category</th>
<th>Action Item Details</th>
<th>MR</th>
<th>Status</th>
<th>IP</th>
</tr>
</thead>
</table>
| Dec 2021  | C        | Earthquake Securing straps for large Dewars; and, Lab installations for Compressed Gas Cylinder tie-downs  
- TM advised that Bldg E completed as at Sept 15/22;  
- Due to new equipment installation in C224 they will be installing the straps there next; and  
- TM is reviewing Bldg D – Knuckle compile list and that will be next  
- A proposal for securing compressed gas cylinders for D240 has been established. If approved, the upgrades will occur by the end of February.  
- 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.  
**LST Comments:** No updates at this time. |       | In Progress | IP |
| Feb 2021  | C        | LN2 Safety Training – TM working on setting this up as an actual course with a quiz and certificate  
- TM is working on the processes required for this course  
**LST Comments:** This item has been referred forward. |       | Referred Forward | RF  |
Two staff raised concerns regarding the use of dichloromethane (DCM) in the open lab. One experiment in first year and two experiments (3 lab sessions) in 2nd year.

- First year labs 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 regents 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.
## 7. ONGOING BUSINESS — Status of Action Items (includes review of previous meeting minutes)

<table>
<thead>
<tr>
<th>Lab Safety Concerns – Continued</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LST Comments:</strong> No updates at this time. This item is still in progress.</td>
</tr>
</tbody>
</table>

## 8. NEW & OTHER BUSINESS

- General discussion items (list actionable items below)

<table>
<thead>
<tr>
<th>Item #</th>
<th>Priority</th>
<th>Discussion and/or Action Items</th>
<th>Assigned To</th>
<th>Date to be Completed</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2023</td>
<td>CHEM Faculty Meeting – May 25, 2023</td>
<td></td>
<td>DG</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

The following items list below were discussed at the Chem Faculty meeting:

1. **UBC Chem Ergonomics Team**
   - The Chemistry Department has recently established the UBC CHEM Ergonomics Team, who can help individuals with an office ergonomic assessment. If you wish to sign up for an assessment, please email Monica at safety@chem.ubc.ca.

2. **4L DCM bottle broken in Stores**
   - Remind your group members to always use secondary containment when handling/transporting liquids.
   - Review emergency spill response procedures with your group (spill >1 L Flammable, Toxic or Hazardous solvent; clear area and call 911).
   - Remind group members to follow SOP for transport of hazardous chemicals on website.

3. **Ba(OH)2 inhalation by 1 day volunteer – Science Rendezvous**
   - Please be reminded that any volunteers working in your lab, even for 1 day, should have “Volunteer Accident Insurance” insured (cost is nominal - $4 per year).
   - They also must sign the waiver “Assumption of Risks” form.
### 8. NEW & OTHER BUSINESS

- These can be obtained from Molly (ugrad@chem.ubc.ca). Alternatively, contact Monica for questions about volunteers/safety/insurance (safety@chem.ubc.ca).
- This applies also to former Ugrad, MSc, and PhD students who return to finish up a project or train a new student.
- We are working to develop procedures to simplify these processes. Email Derek (dgates@chem.ubc.ca) if you have suggestions.

**LST Comments:**
These items were discussed and can be closed.

<table>
<thead>
<tr>
<th>Date</th>
<th>Category</th>
<th>Action</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2023</td>
<td>E</td>
<td>Preventative Maintenance – Fume Hood Sash/Cable Audit</td>
<td>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. <strong>LST Comments:</strong> The audits for buildings A, D and E have started and are in progress.</td>
</tr>
<tr>
<td>N/A</td>
<td>E</td>
<td>CHEM LST Member Updates and Concerns</td>
<td>Are there any safety concerns or updates that were not discussed? <strong>LST Comments:</strong> RW – It was suggested that tracking and having improved awareness for concerns with items such as defective glassware and solvent bottles should be noted. Currently all feedback for any purchases and items have been provided to KB. KB has been providing feedback to the suppliers.</td>
</tr>
</tbody>
</table>
8. NEW & OTHER BUSINESS

SRS Updates

**Recommended items to discuss at JOHSC/LST Meeting**

**Safety Day 2023 – Save the Date – Tuesday October 3**
We are delighted to announce that Safety Day 2023 has been scheduled for Tuesday, October 3. Building on the overwhelming positive response from our previous events, we have secured the spacious Great Hall in the AMS Student Nest as our venue. We are looking forward to hosting another exciting day with speakers, vendors, food, prizes, and more. More information regarding registration and the agenda for the day will be sent out mid-June as we are in the final stages of confirming the details.

**COVID-19 Signage**
In light of the recent [announcement by the World Health Organization](https://www.who.int) that COVID-19 no longer qualifies as a global emergency, UBC has subsequently [diseased the COVID-19 Campus Rules](https://www.ubc.ca) which provided vital guidance for our community during the pandemic. We kindly encourage all JOHSC/LST members to assist in the removal of COVID-19 related signage within their respective areas. Please spare a few moments to walk through your areas and remove any outdated signage. Should you or any staff in your area have questions or concerns, please do not hesitate to contact [safety.risk@ubc.ca](mailto:safety.risk@ubc.ca) for assistance.

**Informational Items**

**LST Training**
New dates have been released for LST training. You can register [here](#).

<table>
<thead>
<tr>
<th>LST Training</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Part 2a</strong></td>
<td><strong>Part 2b</strong></td>
<td></td>
</tr>
<tr>
<td>June 7th</td>
<td>June 12th</td>
<td></td>
</tr>
<tr>
<td>11:00am – 12:30pm</td>
<td>12:30pm – 2:00pm</td>
<td></td>
</tr>
<tr>
<td>August 16th</td>
<td>August 18th</td>
<td></td>
</tr>
<tr>
<td>11:00am – 12:30pm</td>
<td>1:00pm – 2:30pm</td>
<td></td>
</tr>
</tbody>
</table>
WorkSafeBC Inspection Reports (IR)

There were three 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.

1) APRIL 27, 2023 – IR# 202318447049A
Description:
On April 27, 2023, a worker fell into the access opening for a storm sump located outside the building.
- The worker reported the incident to their supervisor who attended the scene.
- The worker received first aid and was transported to the hospital by UBC first aid.
- There were zero (0) orders issued to the University.

JOHSC/LST General Learnings/Discussion Points:
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.
- Following the preliminary investigation, the employer must, without undue delay, undertake any corrective action determined to be necessary.

2) MAY 1, 2023 – IR# 202316973047A
Description:
On April 28, 2023, a worker was walking on the sidewalk when they fell and sustained fractures to both wrists.
- The worker received first aid and was transported to the hospital by UBC first aid.
8. NEW & OTHER BUSINESS

- There were zero (0) orders issued to the University.

JOHSC/LST General Learnings/Discussion Points:
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

3) MAY 10, 2023 – IR# 202316973048A
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 April 13, 2023 when a worker fell and hit their head.
- There were zero (0) orders issued to the University.

JOHSC/LST General Learnings/Discussion Points:
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: July 20th, 2023
Time: 11:00 am
Location: Online Zoom Meeting

10. MEETING ADJOURNED
Time: 11:56 am

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