SAFETY OFFICER GUIDE

This guide is intended to help develop consistent and compliant safety documentation in your Safety Binder as well as highlight some of the responsibilities of the Safety Officer. These are the minimum requirements (in no particular order) and groups are welcome to go above and beyond in developing their documentation and to support the safety culture in their lab group. Some tasks (i.e. inventory management) may be delegated to other lab members with oversight by the Safety Officer. Additionally, PIs are encouraged to create a document describing expectations for suitable research progress, lab administrative details, behavior expectations, check-out procedures upon graduation and the like.

Cast of Characters

PI: Principal Investigator. This is your boss.

Department Safety Manager: Debbie Decker. She is your go-to person for safety issues in the department.

Safety Teaching Assistant: currently Kelsey Mesa (Franz lab). This is a grad student in the department who assists Debbie.

Safety Officer: Each lab group in the Chemistry Department must have an assigned safety officer. This is usually a grad student or post-doc. The safety officer should be assigned as delegate in the safety suite (e.g. LHAT, Chemicals, etc.). Other group members can also be assigned as delegates and take on specific safety roles in the lab like inventory management or radiation safety.

Lab Safety Professional: aka EH&S Liaison. Currently Karen Gagnon. This is an EH&S employee who is assigned to the College of Letters and Science to help facilitate safety.

Responsibilities

The PI is ultimately responsible for the health and safety of the people who work for them. They delegate much of this responsibility to the Safety Officer. The department Safety Manager and Safety Teaching Assistant support Safety Officers and provide regular training, collaboration, and networking opportunities.

The Safety Officer facilitates the following activities (described in more detail below):

1. General Responsibilities
    a. Safety Suite (online)
2. Evacuation or Emergency Response and Incident Reporting
3. Orientation and Training

a. Rotation Researchers
b. New Lab Members
c. Ongoing Training – either provided by the Safety Officer or others

4. Safety Documentation and Bookkeeping, including maintenance of the Lab-Specific Lab Safety Plan
5. Chemical and Inventory Management
6. Safety Equipment Inspections and Maintenance of Laboratory Postings
7. Inspection Timeline, including disposition of identified corrective actions

1. General Responsibilities

- Attend quarterly department laboratory Safety Officer meeting
- Train the up-and-coming Safety Officer when the time comes
    - Notify Debbie and/or her TA when the position passes hands

a. ***Safety Suite***: the safety suite is an online tool where the hazard assessment, chemical inventory, EH&S inspections, injury reporting, and waste management reside.
    - ensure that the previous Safety Officer has assigned you as a Delegate the Safety Suite
    - **LHAT**: Lab Hazard Assessment Tool – updated annually by the PI. Changes to the LHAT will require all lab members to log in and review the new hazard assessment. You can also track who has reviewed the LHAT and completed the PPE training.
    - **Chemicals**: online chemical inventory management tool. There is also a phone app available.
    - **SIT**: Safety Inspection Tool – this is where the annual lab safety review report will go. You can see previous reports here as well.
    - **EFR**: Employers First Report – to be filled out when there is an injury. Consult with Debbie Decker.

2. Evacuation or Emergency Response and Incident Reporting

- Take roll call at your labs designated meeting location outside of building
    - Recommended to keep roster or group contact list on hand
- Assure Safety Manager or department leadership that everyone has evacuated from the lab and whether or not all lab personal are accounted for
- If something out of the ordinary happens in the lab, document the incident and discuss with group members.
- If someone is injured, please follow the guidance in the IIPP, page 11.
    - Contact Debbie Decker
    - Fill out Incident Report Form

    - With Debbie, fill out EFR
- If there's a fire or catastrophic failure, evacuate the lab and call 911.

Note: In the absence of the Safety Officer, the lab group must make provisions for this role in case of an evacuation or emergency response

3. Orientation and Training

a. Short Term Researcher Training: Minimum training for researchers who will always be supervised and working for a short time-frame (< 30 days)

- Copy of certificates from required on-line training (UC Laboratory Safety Fundamentals and cryogen safety as a minimum)
    - If the person will not be working with liquid nitrogen or dry ice, the cryogen safety is not required.
- Fill out a site-specific checklist
    - Complete lab walk-through
    - Assign PPE
    - Demonstrate how to access LSP, EAP, CHP and IIPP
- Sign short term researcher training form
    - States agreement they will never work alone
- Have them save your number, Debbie's number and fire/campus emergency number in phone
- Get their cell phone number (add to group contact list only if joining)

b. Initial Orientation (full members assigned a lab key): Includes the rotation training items listed above, as well as the following:

- Add them to LHAT
    - Check they complete the PPE training and certify the LHAT
- PI emails Jenny Tran (Chemistry department facilities manager) to give permission for building and lab keys
    - Scott Berg can provide key card access
- Lab-specific Laboratory Safety Plan (LSP)
- Spill Response Procedures (SafetyNet #13)
- Emergency Action Plan (EAP) – evacuation route and meeting place
- Laboratory Safety Manual, includes Chemical Hygiene Plan (CHP)
- Injury, Illness, Prevention Program (IIPP)
- Complete the cryogen safety training if not done previously
- Read and sign applicable SOPs
    - Typically, members should sign SOPs based on the hazards to which they could be exposed

- Complete necessary Use Authorization trainings (see list below)
- Add cell phone number to group contact list
- Undergraduate Building Access Plan (if applicable)
    - Grants a building key and the ability to work alone on the tasks outlined in the plan

c. Annual Training: for all lab members regardless of start date. Must be documented.

- Lab-specific Laboratory Safety Plan (LSP)
- Spill Response Procedures (SafetyNet #13)
- Emergency Action Plan (EAP) – evacuation route and meeting place
- Laboratory Safety Manual, includes Chemical Hygiene Plan (CHP)
- Injury, Illness, Prevention Program (IIPP)

- ***Use Authorization(s) (if applicable)***
    - **RUA** – Initial + 3 year refresher
    - **BUA** – BSL1 or BSL2 – Initial + 3 year refresher
    - **Laser** – Initial + 3 year refresher
    - **Animal Use** (IACUC protocol)
    - **X-Ray** – Initial + 3 year refresher
    - **Aerosol Transmissible Diseases** – Initial + annual refresher
    - **Blood-Borne Pathogens** – Initial + annual refresher

4. Safety Documentation and Bookkeeping

- ***Safety Binder***: the lab safety binder must include the following:
    - Lab-Specific Safety Plan (LSP)
        - Reviewed and updated annually by the Safety Officer
    - Links page for campus CHP, departmental EAP and IIPP, and "access to SDS"
    - Site-specific orientation and training checklist for each lab member (recommended to alphabetize)
    - CUPA self-inspection checklist
        - Completed annually by Safety Officer
        - Maintain 3 years' worth
    - Recommended to maintain in binder (in addition to above)
        - Completed incident reports
        - Inspection reports and corrective actions – include the reports and notes on how identified issues were corrected
        - LHAT certification, with list of required PPE

Note: Training records must be maintained for a minimum of 3 years. This is a regulatory requirement. It's good practice to retain a records archive in perpetuity (separate binder). Include training records for researchers who have moved on, previous inspection reports, retired SOPs, etc.

- ***SOP binder***
    - Review list of required and recommended SOPs
    - Review and update training when there's a change to the SOP
    - Initial training on applicable SOPs
        - You can have everyone review all the SOPs or only those SOPs which are directly applicable to their work
    - Three-year refresher training
        - Best practice is to also review and update SOPs at this time
    - Maintain accurate chemical lists
        - Best practice is to have this as an Appendix in the SOP as it is more readily updated
        - Should be done when any significant changes are made to the inventory or new projects are started

Recommended Document Review Timeline

Campus and departmental documents are updated by external parties, but you need to verify the links. Lab-specific documents should be updated and reviewed by the Safety Officer, then signed off by the PI.

- Campus documents (CHP) – updated annually
- Departmental documents (IIPP and EAP) – updated annually
- Lab-specific documents (Lab-Specific Safety Plan) – updated annually
- Lab-specific documents (SOPs) – updated every three years, unless revision prompts earlier training

Reminder: annual training on the IIPP, EAP, CHP, spill response and Lab-Specific Safety Plan is required every year (see Section 3c).

5. Chemical and Inventory Management

- Inventory Manager (Safety Officer or other delegate) maintains accurate list of chemicals via Chemicals application
- Responsibility of lab to accept packages and assign proper location
    - Inventory Manager oversees and assists with proper storage and segregation of chemicals
- Inventory is to be certified annually
    - Reconciliation may be completed by EH&S or the lab itself

- Waste streams should be overseen, and pickup coordinated regularly

6. Safety Equipment Inspections and Maintenance of Laboratory Postings

- Check eyewash and safety showers in all lab rooms every month.
    - Keep record on wall near eyewash/safety shower or in safety binder. Display 3 years. Do not initial the tag on equipment as this is for Facilities: Plumbing shop annual inspection.
- Heft test and visually inspect fire extinguishers every month.
    - Make sure plastic tab and the pin is in place and the needle is in the green (if there's a pressure gauge on the extinguisher). Initial tag.
- Maintain a first aid kit and spill kit in each room
- Required laboratory postings list:
    - Evacuation Route
    - Abbreviations List
    - Department Emergency Contact List
    - Spill Response: Safety Net #13 for chemical spills, #127 for biological spills
    - Location of safety binder (e.g. Safety Binder Located in Room #) for labs with multiple locations
    - Group Contact List (update quarterly or when significant changes to roster)
    - UC Davis Emergency Response Guide
    - Injury flow chart for where to report
    - Hazard identification door sign(s) on every entrance to the lab or space

7. Inspection Timeline

The Safety Officer is responsible for coordinating the disposition of identified corrective actions and replying to follow-up requests.

- EH&S annual inspection
    - You will receive notification from Karen Gagnon to set a time on SIT (if a delegate)
    - Typically occurs between May to August
- Debbie's annual inspection
    - Occurs annually in fall quarter
    - Acts as the lab's annual self-inspection
- Annual Fire Inspections
    - Debbie will notify department. You are not required to be present but are welcome to join.
    - Typically occurs in March
- CUPA (county)
    - Occurs every 3 years (most recent Spring 2018)

- Debbie will notify department. You are not required to be present but are welcome to join.