



M E M O R A N D U M

Date: October 17, 2022

To: Chemical Hygiene Committee

From: J. Marvin Pratt, Director of Environmental Health and Safety

Subject: Chemical Hygiene Committee

Present: Blain Wells, Betsy Tamietti, Marvin Pratt, Kenny Wahl, Kristopher Blee, Kevin Patton, Charles Sellers

Absent: Daniel D. Clark

The Chemical Hygiene Committee meeting commenced at 2:30 p.m. via Zoom meeting.

I. Welcome

Marvin Pratt, Director of Environmental Health and Safety, explained the Chemical Hygiene Committee is required by Cal/OSHA when you have laboratory use of chemicals; small scale, non-production labs. We meet twice a year. There is a Chemical Hygiene Plan which makes sure we comply with the Lab Safety Standard. Periodically we will review the Chemical Hygiene Manual. We will ask everyone to review that manual prior to the next meeting. This is one of the routine activities we ask the committee to be involved with.

II. Review of Accident/Incidents

a. Chemical spill in SCI 340 on 8/23/22

Kenny Wahl, Hazardous Materials Manager, shared a picture of a chemical spill in Science 340 on August 23, 2022. It was a one-gallon bottle of DMF. No one was injured. A researcher was reaching for a bottle behind this bottle and it was knocked from the top shelf of the flammable cabinet. Blain Wells explained Monica So and her student that were present threw down some absorbent pads from the spill kits. This contained the spill so it didn't spread. It was localized to this one area. Over two liters went into the universal absorbent booms. This left some residue on the floor which turned into a sticky, honey like substance. This caused the pads to become stuck to the floor. When they were pulled up, they tore. Professional

cleaners, NRC Environmental Services, Inc., arrived the next day. The cost for cleanup was \$2,332.84. They used all the proper equipment, left it not sticky.

Mr. Pratt asked what is the difference in the cost of a regular bottle versus vinyl coated bottle. Mr. Wells explained that the vinyl coated bottles are approximately double the cost of regular bottles. Mr. Wells asked us to consider what size bottles we buy. A one-liter bottle would be preferable as it would mitigate the spills. Mr. Pratt asked how do we continue to engage faculty and/or researchers on these best practices. Kristopher Blee suggested that when EHS is touring Biology labs, the lab faculty should be present. Mr. Pratt stated this is part of the annual inspection process. Mr. Pratt reported that we have discussed how to educate new faculty on proper lab procedures. Mr. Wells asked if there are suggested guidelines for purchasing in the Chemical Hygiene Plan. Mr. Wahl reported that the Chemical Hygiene Plan has a section about buying smaller quantities of chemicals that can be used up within six months to a year.

b. Bottle found under sink in Ayres 120 on 9/23/22

Ayres 120 is the larger lecture room. It is not a lab, but has a demonstration area in the front of the classroom. Two bottles were found under the sink that was locked. The bottles were labeled at one point, but the labels have degraded over time. From the pictures shared, Mr. Wells was able to identify the chemicals. We present this as a reminder that not everything happens in a lab. Mr. Pratt inquired if there is a close out procedure so that chemicals do not get orphaned somewhere. Mr. Wells reported that there is not a process for this in Chemistry. Betsy Tamiatti reported this is a problem in Biology when faculty retire, also. She recommended the faculty have some responsibility for cleaning out their own labs. Mr. Pratt suggested that RSS can help with this moving forward. Mr. Pratt reported that we are getting better at capturing older chemicals. RSS has helped us with this. Mr. Pratt doesn't remember if teaching labs were included in this. Mr. Wahl reported that if there is a teaching lab, the area might be used by several faculty members. Mr. Wells reported that chemicals are stored by the course number in Chemistry. Mr. Wells said there are not formal inventories of the labs at this point. Ms. Tamiatti reported that in Biology there is one class that stores quite a few chemicals, so they have completed an inventory in RSS and do the inspections in RSS. Charles Sellers said all the Agriculture labs occur in Plumas 333. The chemicals there are all inventoried. Mr. Pratt said that if there is an inventory of a lab, then there is an inspection component of the lab in RSS.

III. Other

Mr. Wells reported that a lot of the flammable cabinets in the Science building under some of the fume hoods have been retrofitted for California compliance with auto closures. When the doors are open the actual mechanism to close the door is exposed. This closure mechanism can knock the bottles over. Mr. Wells felt this is something that should be looked at.

Kristopher Blee reported that in his lab when he put up a small amount of additional shelving he made sure there was an earthquake lip. He says several shelves that were part of the original building construction or are old lack the earthquake lips. He feels this will come up in the inspection of our labs. Dr. Blee also bought a flammable cabinet to use, but it is not vented to the outside. Mr. Pratt reported that most flammable cabinets are not vented to the outside, unless they have gases stored in them. The flammable cabinets are built to starve any flames inside from oxygen. Dr. Blee said he has secondary working solutions in his lab, most commonly these are salts that are very water soluble. Holly Swan wanted these labeled with labels that state 'not a hazardous solution'. Dr. Blee asked if our own stock rooms come up with their own labeling procedures, is that all right? Mr. Pratt stated that he wanted everything standardized as much as possible. Some challenges are that different departments have different levels of support for making labels, etc. Mr. Wahl presented the Hazardous Materials and Hazardous Waste Labeling Guide for examples. The lab bottles should also have a label 'not for human consumption'. Ms. Tamietti reported that on the lab entry doors there is a sign that no food or drink is allowed.

Mr. Wahl picked up some chemistry waste bottles and placed the bottles in our high hazard storage area. The next day when he went back, he noticed a spill of purple liquid. A full bottle cracked open unattended. The spill began eating the paint off the shelf. Strong acids and bases were contacted by the spill. It has not yet been cleaned up. We should not be mixing incompatible wastes. This can make explosives. Nitric acid is a key component of many explosives. This was the second significant incident within the past year. No one was nearby, no fire occurred. We will follow up with this at our next meeting. Ms. Tamietti asked if Mr. Wahl knew this was an incompatible mixed solution when he picked it up. Mr. Wahl reported that concentrations are not listed on the labels, so if diluted significantly or reacted already, they'd not be considered to be a concern. Mr. Wells added that these labels are sometimes leaving off water.

Mr. Wahl reported that December 2023 MSDS online will no longer be supported by the CSU system. We all need to be using RSS instead.

There being no further business, the meeting adjourned at 3:30 p.m.