

MEETING MINUTES

Chemical Hygiene Committee

Date | time 10/21/2021 2:00 PM | Location Zoom

In Attendance

Mark Woods, Chemistry Professor (Chair) | Scott Jaqua, Asst. Director of EHS, RSO, CHO | Lindsay Henderson, Laboratory Safety Specialist | Shuvasree Ray, Chemistry Professor | Kim Brown, Biology Professor | Jen Morse, ESM Professor | Drake Mitchell, Physics Professor | Becca Wilson-Ounekeo, ESM Lab Manager | Xavier Oberlander, Art Program Assistant | Ben Hughes, Student Representative from MME (Jiao Lab) | Alexandra Franco, Laboratory Technician in Geology | Nic Meier, Chemistry Stockroom Manager (SRTC) | Comedy Millar, Research Integrity Administrator | Mike Wendel, Biology Teaching Lab Manager |

Absent

Shannon Roth, Assistant Director of Research Integrity | Elliott Gall, MME Professor |

Discussion and Approval of the 05/19/2021 Meeting Minutes

Narrative:

Mark asked the committee to review the meeting minutes from the previous meeting. Once reviewed the
committee was asked for a motion to approve. Kim motioned to approve and the motion was seconded by
Becca. The committee unanimously voted to approve the meeting minutes as is.

Incident Report Discussion

Narrative:

- Lindsay reviewed the incidents that were reported since the previous meeting:
 - The first incident involved an FPM employee who was responding to a high temp event in one the chemistry stockroom's spaces. The work required moving ceiling tiles to find the velocity sensor. The employee failed to wear gloves (or any PPE) while moving the ceiling tiles. The tiles were being moved by popping up the tile with his knuckles. Shortly after leaving the space the employee noted a burning sensation on his knuckles. He then rinsed his hands with water and later reported that there was no leftover redness or pain. Joshua tested the ceiling tiles to see what their pH was registering as, in case somehow there was acid residue. No residue was found.
 - Lindsay provided a follow up with an in-person science building safety training with several FPM crews.
 - The second reported incident a hydraulic oil spill of about seven gallons in the ISTAR space. Subsequent investigation shows that the float switches were not wired correctly and the controller was only operating off of the top float. This situation was in effect for ~ 13 years without an overflow. A possible stuck top float may have caused the overflow.
 - Additional safety floats might be added to both the bearing pump reservoir and one of the bearing return pump reservoirs to shut down the system if either a too low situation in the bearing pump reservoir occurs or a too high situation in the bearing return pump reservoir.
 - The third reported near-miss/incident was a report of a nitrogen cylinder with a regulator on it left in the hallway near the ESM office. This cylinder was left by an outside party HVAC contractor. The contractor responded promptly when notified that this is a safety issue.
 - The committee noted that this would be a good opportunity to notify all contractors/vendors about what our policy for this type of work is on campus.

The final reported incident involved a student inhaling fumes from the copper cycle lab during the final boil/dry step in the general chemistry teaching lab. The student felt some burning sensations in their nose and throat. This step is not performed in a fume hood. There may have been some residual HCl in the beaker before the dry step, which means the student may have skipped the final rinse steps prior to the final heating by accident.

Labeling Standards for New Compounds Discussion and Demo

Narrative:

- Mark introduced this topic as a piece that is still needed for our chemical labeling section in the CHP. His lab pioneered the use of the Avery labeling system for designing labels for new and possibly novel chemical compounds. He mentioned that the compounds are drawn through ChemDraw (which PSU has a site license for).
- The chemistry stockroom also uses the Avery system for labeling many of the chemicals that are sent out through them. Nic presented a demo of the Avery online labeling system for the committee.
 - o https://www.avery.com/industrial/ghs-and-chemical-labels/ghs-wizard
 - o The Avery system is free to use. User will need access to a laser printer and label paper from Avery.
 - This (or something like this) system is a great alternative to making labels that are more informative and have better lasting power than a sharpie and lab tape.

Action Items:

Mark will discuss this system with a couple of the synthetic chemists (such as Dave Stuart) to see if this
could solve some of their issues with labeling. After these discussions, language will be crafted to
incorporate this standard into the CHP.

Discussion on if Undergraduate Researchers Should be Restricted to Work During Certain Hours

Narrative:

- An incident occurred in the Engineering Building last Spring that involved two undergraduates working unsupervised at about 3am. They were working on a project for a capstone course and had been given prior approval to work in the building at this time by the professor on record of the course. The late hours were part of an accommodation made to abide by some of the Covid room capacity standards. The incident involved some degree of fatigue on the student's part.
- Should the Chemical Hygiene Plan place some limits on when undergraduate students can be working in the laboratory? Should supervision be required during certain hours of the day?
- Is this even under the committee's purview?
- The Faculty Lead should be responsible for performing a protocol hazard assessment prior to any work being done by undergraduates.
- The committee is divided on if this issue should fall into the committee's charge and if it should be included in the CHP.

Action Items:

Mark is going to put together some wording so that this topic can be discussed further in the future. Such
as... "Undergraduate students performing research or work on campus for an academic course during antisocial hours must have clear permission from the Faculty Lead to be conducting that work during that
specified time. It is the responsibility of the Faculty Lead to ensure the at the undergraduate student(s) is
adequately trained to perform the duties expected during the designated time period."

Next Meeting

11/18/2021 2:00 PM, Zoom