

MINUTES

LABORATORY AND CHEMICAL SAFETY COMMITTEE

Wednesday, July 28, 2010 (2101G McGavran-Greenberg)

Members Present: Lorraine Alexander, Catherine Brennan, Kimberlie Burns, Howard Fried, James Gilbert, Karen Hogan, Rihe Liu

Members Absent: Erik Alexanian, Pat Boone, Bruna Brylawski, Rita Fuchs-Lokensgard, Katherine Hamil, Mary Beth Koza, Susan McMahan, Kirby Zeman

Meeting commenced at 3:02 pm.

Updates to Laboratory Safety Manual (Chapters 1-5)

Gilbert discussed the revisions that were made to the Laboratory Safety Manual. Fried had a question about why references to cost were removed and it was explained that because cost numbers change rapidly over time it is too difficult to keep these up-to-date. Burns had a question about the requirement that reproductive hazards be kept in locked cabinets and after discussion it was decided that this section of the manual will be changed to read more as a recommended practice than a requirement. Brennan informed the committee that in the future an annual update of the Laboratory Safety Manual will occur and be brought to the committee each year. The committee voted and approved the revisions presented.

Nanotechnology Safety Policy

Brennan presented the new Nanotechnology Safety Policy to the committee. Liu requested that the scope of the policy be changed from 1-100 nm to 1-500 nm since several research groups on campus perform research in this size range. The addition of disposal procedures was requested and added to the "Responsibilities of Principal Investigators" section of the policy. While discussing the policy, further changes to the *Nanomaterial Risk Level* table were addressed, specifically adding more information to the table regarding nanomaterials mixed with biologicals (tissue and fluids) and radio-labeled nanomaterials. Committee members also suggested that the online Laboratory Safety Plan (LSP) provide and capture more information relating to researchers that use nanotechnology in their laboratory. EHS will look into adding a new section in the LSP that has specifics on hazardous waste and emergency procedures for nanomaterials. After discussion, the committee voted and approved the policy presented.

Injuries and Incidents, April-June 2010

The Committee reviewed the log of injuries and incidents for the 2nd Quarter 2010.

INJURY
Employee was bitten by mouse on right index finger. The wound was treated at UEHC, TDAP was given, and employee counseled on wound care.
Post-doc was bitten by mouse on right pinky finger while trying to mark mouse's tail. Employee observed break in skin but could not locate hole in glove. The wound was treated at UEHC and employee counseled on wound care.
Employee was bitten by mouse on knuckle of right ring finger. The employee was evaluated at UEHC.
Post-doc was bitten by mouse on left thumb while attempting to anesthetize mouse. The wound was treated at UEHC, TDAP was given, and employee counseled on wound care.
Outer chamber of glove box in lab contained Kim-wipes used to clean up tetraethylorthosilicate spill. When employee opened chamber residual vapors irritated his eyes. The employee flushed eyes for 10-minutes using eyewash then went to UEHC for follow-up.
Lab assistant was changing bulbs for a plant incubator and received an electric shock when putting one end of fluorescent bulb into light socket. The employee's right arm tightened up for a second and he also felt a tingling sensation in his left arm. The employee experienced tunnel vision, sat down for a few minutes, and noticed a small blister on right index finger. After resting for 30-minutes, the employee decided to go to Campus Health Services for follow-up. Received wound care and an appointment was made with Burn Clinic.
Employee was emptying autoclave after cycle and escaping steam burned employee's face. Employee went to UEHC and was referred to Burn Center and ophthalmology for eye evaluation. Burn Center counseled employee on wound care.
Employee in synthetic organic chemistry lab was in the process of preparing sample for NMR analysis. While attempting to pipet a sample, the employee stabbed her right hand with 9" glass pipet. Employee went to the UNC Emergency Room where protruding glass was removed. After further examination and x-rays the wound was cut open and remaining glass was removed. Employee received one-stitch on

wound. Follow-up with hand clinic did not reveal any complications.
Lab employee was working at bench and cut part of her right hand on microtome blade affixed to shelf with tape. Blade is stored this way to prevent cuts, but apparently blade had slipped. Wound treated at UEOHC and employee counseled on wound care.
Research Specialist working with nasopharyngeal cultures was trying to remove glass pipet from vacuum tubing when pipet broke and employee received a small puncture wound on left thumb. Employee washed the wound, let it bleed, and applied alcohol. Employee evaluated at UEOHC and offered HIV/Hep C testing but employee declined.
Graduate student working in Biological Safety Level 3 lab making bacterial dilutions punctured right index finger on piece of broken glass pipet that had not been cleaned up properly. Pipets had not yet been used in experiment. Employee followed lab procedures for possible exposure including washing wound while letting it bleed and taking Doxycycline antibiotics. Evaluated at UEOHC the next day and prescribed Doxycycline for 10-days.
Research Associate Professor was disconnecting glassware from vacuum pump drying apparatus and had to use force. When glass separated, a broken piece cut the employee's right arm. Employee went to UEOHC and was referred to emergency room. The emergency room cleaned the wound and placed 8 stitches. Employee was counseled on wound care and to take acetaminophen or ibuprofen for pain.
Research Professor was returning mice to DLAM facility, slipped on wet floor in facility, fell forward and hit right knee on floor. "Wet Floor" signs were not posted. Employee went to UEOHC and was referred to UNC Prompt Care Clinic for x-rays. X-rays were negative. The Prompt Care Clinic recommended rest, ice, anti-inflammatory medication (e.g. ibuprofen) and a hinged Neoprene knee sleeve.
Employee discarding pipets that contained cells of human origin tried to dispose pipet to overfilled waste container. Pipet bounced back which caused around 0.2 mL of cell suspension to fly into right eye. Employee removed contact lens and flushed eye for 10 minutes. Blood sample was drawn at UEOHC 10 days after incident and negative results were conveyed to the employee one week later.
Graduate student was dispensing acetone and dropped bottle. Some acetone splashed on face and ran down into left eye. Employee went to UEOHC and was transported to Eye Clinic.
Research technician mixed Promega RNA lysis buffer with bleach, which potentially generated both hydrochloric acid and cyanide gases. Employee experienced breathing distress and blurred vision and went directly to UEOHC. Symptoms subsided and employee was sent home for the day with instructions to follow-up with emergency room if condition worsened.
Research assistant performing DNA purification experiments combined contents of vacuum flask with bleach. This caused a reaction which generated corrosive vapors. Employee diluted contents of flask with water then disposed down the sink with running water. Employee inhaled vapors during disposal and experienced breathing difficulties. Employee assumed he inhaled chlorine gas and went to UNC Emergency Room. Received EKG and chest x-ray and discharged after all examinations were normal.
Post-doctoral employee in lab reported to UEOHC with dark spots on hand. Condition believed to be due to silver nitrate exposure. Condition had resolved within 10 days.

For incidents, there were 9 odors, 7 requests for investigations, 6 chemical spills, 4 laboratory hoods, 3 fire alarms, 2 gas leaks and 2 mercury spills.

Other Committee Business

Brennan introduced new committee member Karen Hogan at the beginning of the meeting. At the end of the meeting Brennan mentioned that she had met with legal regarding the *Minors in Labs Policy*. Several questions have come up this summer about high school students who are over the age of 18 and whether they fall under the policy since they are not minors. An update on the requirements of the policy will be presented at the next meeting.

Meeting adjourned at 4:00 pm.