

Agenda – November 24, 2020
Group 9 (College of Engineering) Health and Safety Committee

1. Attending

Michael Domar or Carter Beamish, AA
Colleen Irvin, BioE
Sean Yeung or Michael Brett, CEE
Michael Pomfret, CEI
Kameron Harmon, ChemE
S. Honeydew or M. Glidden, CoE DO
Alex Lefort or Adrian dela Cruz, CSE
Mike Kane or Ary Prasetyowati, ECE

Andreea Minea or Erin McKeown, EH&S
Stacia Green, HCDE
Sheila Prusa or Neelu Rajvanshi, ISE
Dzung Tran or Bill Kuykendall, ME
John Young or M. Weaver, MoES/NanoES
Tatyana Galenko, MSE
Christine Kang, UAW 4121 (ASE)
N. Shane Patrick or Maria Huffman, WNF

2. Previous Meeting Minutes

- Oct 2020 – approve? Corrections/additions?
- Minutes posted at <https://www.engr.washington.edu/mycoe/safety#> and safety boards.

3. Department Incident Reports (use “5 Why’s” analysis for one report)

- CEE @ More – DNP combusted in glass column during ozonation experiment (Sep)
- WNF @ Fluke – photoresist bottle split under pressure, exposing employee (Oct)

4. Group Business

- Annual review of UW core [Accident Prevention Plan](#)
- UW [resources](#) for caregiver support

5. UW-Wide Meeting

- October minutes attached
- November agenda attached. Highlights:
 - COVID-19 Update -- Holiday travel guidance, latest from HCTP, What’s New, WA exposure notification app, reminder to review/update/enforce prevention plans.
 - Confined Space Program guest speaker Natalie Daranyi, EH&S -- Program update includes terminology change, updated evaluation form, explicit roles and responsibilities for Entry Supervisor. There is a 30-minute online Awareness course and will soon be a 45-minute course for researchers and academics.
 - Group Reports
 - Group 3 – HUB open for informal study; and can study or eat in Lyceum.
 - Group 10 – college-wide safety suggestion box with \$ incentive.
 - UWPD – moving forward with unarmed responders for lockouts, etc.
 - EH&S – training records reporting tool allows search by org code or mgr

6. Member Updates

Next Meeting: December 29th at 2pm, via Zoom

DRAFT Meeting Minutes

Health and Safety Committee for Group 9 (College of Engineering)

Meeting Date: October 27, 2020 (via Zoom)

Attended

Michael Domar, AA

Colleen Irvin, BioE

Michael Pomfret, CEI

Kameron Harmon, ChemE

Sonia Honeydew, CoE DO

Alexander Lefort, CSE

Mike Kane, ECE

Andreea Minea, EH&S

Stacia Green, HCDE

Sheila Prusa, ISE

Dzung Tran, ME

John Young, MoIES/NanoES

Tatyana Galenko, MSE

Christine Kang, UAW 4121 (ASE)

N. Shane Patrick, WNF

Absent

Sean Yeung, CEE

Erin McKeown, EH&S

Guest Speaker: Natalie Daranyi (EH&S), on Energy Hazards & Controls

- Different types of energy hazards – electrical, mechanical, hydrological, pneumatic, chemical, nuclear, thermal, gravitational, and other energy. Electrical (most common) can be live or stored. Electrical harms include shock, secondary injury, and exposure to electrical arc. Dissipating energy is one of the most common causes of incidents. EH&S has three categories of electrical safety: hazardous electrical safety, electrical safety for electrical workers, and lock out / tag out.
- Hazardous electrical safety – any current can electrocute you to death; humans are more conductive than earth so arcs choose us; electrical fires can be caused by outlets or poor wiring. Ensure any outlets you use in a wet environment are GFCI. See EH&S [Basic Electrical Safety page](#). Both the shop safety and fire safety inspection programs look for hazards.
- Electrical safety for electrical workers (including batteries) – The NFPA 70E electrical code (next update in 2021) is an extensive program addressing safety for qualified electrical workers. NFPA 70E is the default, though WAC 296-24 Part L also applies. Per the 2018 update, NFPA 70E requirements are in place any time an employee could be exposed to >50V (regardless of whether AC or DC), and high voltage requirements apply to exposures >600V. Anytime anyone performs energized electrical work, they must first justify why not shutting down the equipment, and get

DRAFT Meeting Minutes

Health and Safety Committee for Group 9 (College of Engineering)

a permit.

- Lock out / tag out – WAC 296-803 are lock out / tag out regulations for servicing, maintaining, or building equipment or systems. EH&S has a half hour online awareness training anyone can take, and will eventually again provide the two-hour instructor-lead deeper training. All LOTO protocols require periodic review and review by others (another set of eyes). The LOTO program consists of physical controls on equipment (locks and tags), and the LOTO procedure (covering scope, normal shutdown process, affected employee notification plan, identification and magnitude of hazardous energy, location of energy isolating device, and plan for residual energy).
- Examples of energy hazards within CoE: student groups building battery-powered cars; CSE Fabrication Research Lab's electronics workbench (include low-powered electronic devices that are tested with oscilloscope, and some machines with LOTO); Clean Energy Testbeds have a systems integrating lab and battery testing equipment, where LOTO is practiced (up to 300V); CEE high bay where LOTO is applicable, as well as regulations for rigging/cranes/hoists; any shops where equipment needs adjusting (belts, blade changes) would use LOTO if equipment is hardwired (can't just unplug from port for work); thermal energy in form of steam from building outlet for distillation columns and heating experiments in ChemE.
- We should not use LOTO controls for access control (for those who have equipment training); it should only be used for LOTO purpose.
- Question: Is EH&S producing Power Tools Training and Electrical Bench Guidance?
Answer: the Lab Safety Group and Natalie were discussing that but it is on hold while EH&S focuses on COVID-related work.
- Question: Can Natalie help Alex ensure proper procedures are in place for CSE students testing live circuits? Yes, she'll follow up on that.
- Contact: NDaranyi@uw.edu regarding hazardous energy and anything LOTO-related, cranes, hoists, confined spaces, physical safety and shop safety.

Previous Meeting Minutes

- September 2020 – approved.
- Previous meeting minutes are at: <https://www.engr.washington.edu/mycoe/safety#>. EH&S recommends each department/group post paper copies on their safety board and inform employees of the name of their rep; best practice is to post rep name by meeting notes.

Incident Reports

- ME @ VA Puget Sound – rail fell and bruised toe while assembling walkway (Aug). There was more than one staff member working there. The rail was like a folding leg table; there was a miscommunication between the two people as they were

DRAFT Meeting Minutes

Health and Safety Committee for Group 9 (College of Engineering)

moving it, and the leg fell out and hit one person on the toe. The group is reviewing their procedure; revision may include requiring steel-toed shoes for this work and tying up the rail before moving it. Many of us were unaware that CoE even had operations over at the VA, and we're not sure how much EH&S oversight there is at that site. Apparently an ME professor works with some doctors there.

- CEE @ More – DNP combusted in glass column during ozonation experiment (Sep). We previewed this in September but will save official review for November meeting.

Group Business

- Occupant safety during building curtailment – see recent emails “Safety Rules for Space Heaters” and “Safety Alert – Kitchen Fires”. Group has no additional health or safety concerns regarding curtailed buildings.
- Core APP review – each HSC group must review the UW Core “Accident Prevention Plan” annually. We looked at the EH&S website and the 21-page document. Please review it so that we can gather all our comments at our next meeting, November 24th. Sonia will email [link](#).

UW-Wide Meeting

- September minutes in packet.
- October meeting agenda in packet. Highlights included:
 - COVID-19 Update
 - Greek outbreak new cases declining. Any affected get tested and two weeks quarantine (many outside the house). PHKC leads contact tracing. Extending Husky testing program to all in UW community. Some technical hiccups with daily attestation texts blocked by providers.
 - With fewer eating spaces open on campus, students are unmasking to eat in places like SCC carrels that are not cleaned like eating spaces.
 - What's New: in-person events guidance, updated face covering policy
 - If in Husky testing program and come to campus, do both attestations.
 - Biosafety guest Lesley Decker, EH&S
 - Oct is Biosafety Month. 2020 focus: update SOP's & COVID work safety. New biosafety SOP template on website. See EH&S newsletter article.
 - COVID-19 Biological Research at UW: BSL3 where work w/ virus; BSL2+ where work w/ clinical specimens; BSL2 where work w/ fixed/inactive samples. 49 approved BUA's. GS produce COVID-19 daily lit sit rpt.
 - Group Reports – (EH&S) Soon new program tracking use, purchase and disposal of naturally occurring uranium compound; start to include in RUA.
- WNF – regarding the concerns of students eating in carrels in SCC, note that Fluke is not designed as an eating space but people are eating there. Can we get a list of eating spaces open on campus? Sonia will ask EH&S assistance in procuring a list.

DRAFT Meeting Minutes

Health and Safety Committee for Group 9 (College of Engineering)

Department Updates

- WNF – There is a continued rise in interest in returning to research under Phase 2. Our occupancy limits are holding. Lesson learned from our one scare in September: because our enhanced cleaning procedures were well documented, we could reopen quickly after a positive test result; limit your downtime with good documentation! Recently we've had to remind people about 6' distancing as COVID fatigue sets in.
- MSE – We have had two positive cases in MSE. In the first case a lab member had a sick friend and advised EH&S. EH&S contact tracing protocol was not followed in this case (fell through the cracks, maybe) and the department was not advised until the lab member returned from quarantine. There was some concern that EH&S should inform the supervisor so EH&S can advise the supervisor on the wording of HIPAA-compliant departmental notification. (Sonia will ask EH&S whether there has been any change to the policy for employees to advise both EH&S and their supervisor of positive or potential cases.) In our second case, everything went smoothly. EH&S was notified and worked with the Chair. Colleen asks whether Custodial Services automatically completed enhanced cleaning of the potentially exposed area? Normally EH&S works with Custodial Services to ensure cleaning done, but that didn't happen with the case that fell through the cracks. Tatyana also reports that Monday morning they noticed someone broke into two Mueller labs over the weekend. No apparent theft or damage, other than door. Kameron comments that two weeks ago on a Saturday night/Sunday morning someone broke entry door glass at Benson but did not enter the building.
- ME – Students are returning to labs. We have maintained limited occupancy.
- HCDE – We are starting to work on acquiring ABET accreditation for the first time.
- ECE – Regarding previously reported vandalism, UW Facilities removed exterior benches and de-energized nearby outdoor outlets, and did a great job cleaning up graffiti. Without the benches and outlets available, we have seen a decrease in exterior garbage and graffiti. Regarding student groups applying for access to space during Phase 2, do they need a justification for coming on campus? Sonia will get Mike in touch with Dean's Office staff to discuss.

DRAFT Meeting Minutes

Health and Safety Committee for Group 9 (College of Engineering)

- CSE – The only class occurring in the Gates Center was cancelled, so we have no more classes in the building. We will add cameras to the Fab Lab to ensure lab members are following safety protocols, and to allow an electronic “buddy” for the buddy system. We already had cameras elsewhere in Gates so we already had signs at the entrances warning of camera use on the premises. We just needed a WiFi camera system and a hard drive. There was no rule about the audit record since our purpose is safety, not recording. There is only local access to the stream, so no privacy concern. Shane says at WNF they have had cameras in lab spaces for ages, and it is not a concern because not publicly viewable – access is limited to lab staff.
- ChemE – There have been about three attempts to illegally enter Benson over the last two weeks, including someone checking all the exterior doors last week. UWPD has responded well to our calls.
- CEI – Like WNF, there is increasing interest in returning to labs but we maintain our COVID plans and don’t expect to increase capacity. There are some plans to expand the number of zones and have smaller zones. No complaints of non-compliance.
- BioE – We have not had any break-ins or attempts, but lots of tailgating at Foege North. Our Chair will remind everyone about building security – don’t allow tailgaters and don’t tailgate (just use your own card)! We have casual interactive space on each floor where people eat without a mask, and it’s been difficult to enforce physical distancing so we’ll remove all but one chair at each 4’ table, and add signage about maximum occupancy per table. We are not allowing seminar room reservations and have closed the student lounge. We’ve asked students to leave the building after their classes, to limit studying in the building. Alex notes that if you have room dividers you can use those to direct traffic, as they did at CSE.
- AA – We are hiring a Facilities Manager. We are going to campus to monitor halls before and after classes. A student car was broken into, but it was off campus.

Next Meeting

- November 24th, 2020 at 2pm via Zoom. Please review UW’s core Accident Prevention Plan in preparation for our official annual review.



University of Washington Accident / Incident Report

Report Number: 2020-09-029

Contact EH&S at 206-543-7262

Person Reporting Incident

Last Name: [REDACTED]	First Name: [REDACTED]
Phone:	Email: [REDACTED]
Occupation/Position: [REDACTED]	Department: ENG: Civil and Environmental Engineering-Kolodziej Lab JM Student
Date Reported (yyyy/mm/dd): 2020/09/14	Time of Reporting: 10:50 PM

Person Involved or Affected

Last Name: [REDACTED]	First Name: [REDACTED]
Phone:	Email: [REDACTED]
Occupation/Position: [REDACTED]	Department: ENG: Civil and Environmental Engineering-Kolodziej Lab JM Student

Incident Details

Date of Incident (yyyy/mm/dd): 2020/09/11	Time of Incident: 12:15 PM	When Shift Begins: N/A
Campus: Seattle	Incident Location/Parking Lot: MORE HALL	
Room: 324	Other:	

Incident Details:

During a gas phase ozonation experiment, the ozonation reactor, a glass column packed with ~ ~1 gram solid phase powder of N,N'-Di-2-naphthyl-p-phenylenediamine (DNP, CAS NO. 93-46-9), begins to sparkle ~30 s after initiation of the ozone flow. After short sparkling (~2 s), the chemical burnt quickly with visible flame that lasted for a few seconds (<5 seconds). The flame then extinguished as the 1 gram of chemical was consumed. The reactor column was burnt to black and the plastic column head was melted from the heat. The researcher stopped the ozone reactor immediately upon seeing the flame. No personnel injury was involved.

Attachment: **No**

Supervisor

Last Name: Kolodziej	First Name: Edward
Phone: +1 253 692-5659	Email: koloj@uw.edu
Occupation/Position: ASSOCIATE PROFESSOR	Department: UWT: School of Interdisciplinary Arts and Sciences

Classification

Level 1:
Property damage only,

Type of Incident

Injury Description: **Property Damage Only,**

Body Parts Affected: **None,**

Cause of Injury or Damage: **Chemicals, Tools, Instruments,**

Slip, Trip, Fall Details

Slip:

Trip:

Fall From Same Level:

Fall From Elevated Height:			
Stairs:			
Contributing Factors			
Equipment:			
Environment: Chemicals,			
Policies / Procedures: Inadequate Planning, Preparation,			
Human Factors:			
Suggested Corrective Actions to Prevent Reoccurrence			
Undertake hazard assessment, Change/review work procedures,			
Suggested corrective action by the affected party			
<p>This chemical reacted much faster with ozone than we expected, and the reaction released enough heat to cause a couple seconds of flame as the residual mass oxidized. We had been working with related chemicals previously that were much slower reacting, so we were caught by surprise at the fast and highly exothermic reaction.</p> <p>To correct this situation, we need to prepare better by decreasing the ozone concentration and using even less mass in the ozone reactor. We also need to distribute the mass more broadly in the reactor system (e.g. dispersed on a glass plate) versus using the packed column design. This would have limited the amount of heat that can be released and prevent the system from reaching an ignition temperature which was exacerbated by the inability of the glass column to distribute reaction heat away from the chemical reactant. There is little way to predict reaction kinetics beforehand, so we need to evaluate new reactions very slowly and carefully, using less mass and dispersing it more widely in the system to keep reaction temperatures lower.</p>			
Supervisor's Comments			
<p>Root Causes: (Please look at all the factors that may have contributed to the accident. Such factors may include equipment, environment, policies, procedures, and personnel.)</p> <p>Fast reaction kinetics suprised us. Too much mass (1 g) in the column. packed column design concentrated heat generated all in one place, prevented system cooling from the air and glass column and allowing reaction temperatures to rise much too fast. We weren't careful and thoughtful enough about this being a possibility. Working with similar compounds that reacted much more slowly gave us a fast sense of security and safety about the gas phase ozone system and what might happen there.</p>			
<p>Recommendations/Preventive Measures: Disperse mass in the reactor more widely. Use lower mass of reactant. Use lower concentration of ozone. Very small scale preliminary trials.</p>			
Corrective Actions Target Date (yyyy/mm/dd): 2020/09/14		Corrective Actions Complete Date (yyyy/mm/dd): 2020/09/21	
<p>Other Comments: The safety report and proposed next steps have been distributed to the research group. We also are making a safety poster about the gas phase ozone reaction that we observed, and posting it near the reactor to remind future users of this possibility.</p>			
EHS Review			
Last Name: Konnur	First Name: Manisha	Phone Number: +1 206 221-1759	Email: mkonnur@uw.edu
Occupation/Position:		Department:	
Comments: forwarded to Susan Wagshul-Golden - MK			



University of Washington Accident / Incident Report

Report Number: 2020-10-051

Contact EH&S at 206-543-7262

Person Reporting Incident

Last Name: Patrick	First Name: Nicholas
Phone: +1 206 221-1045	Email: patricns@uw.edu
Occupation/Position: RESEARCH SCIENTIST/ENGINEER 3 (E S 8)	Department: ENG: Collaboration Core - WNF Staff
Date Reported (yyyy/mm/dd): 2020/10/30	Time of Reporting: 03:46 PM

Person Involved or Affected

Last Name: [REDACTED]	First Name: [REDACTED]
Phone:	Email: [REDACTED]
Occupation/Position: [REDACTED]	Department: ENG: Collaboration Core - WNF Staff

Incident Details

Date of Incident (yyyy/mm/dd): 2020/10/30	Time of Incident: 9:00 AM	When Shift Begins: 7:30 AM
Campus: Seattle	Incident Location/Parking Lot: FLUKE HALL	
Room: 127B	Other:	

Incident Details:

Summary: In troubleshooting the facility's automated track coating system (RiteTrack SVG-90S) for resist pump/purge issues, following an SOP created based on a procedure recommended by the system manufacturer, a 1 gallon bottle over-pressurized and split, resulting in a large spray of photoresist over the area and the employee.

Detail: The RiteTrack SVG-90S is an automated wafer handling and photoresist coating track system designed to support up to 4 different resists, 2 different developers, and vapor priming. One of the resist channels (Chemical: AZ10XT) has been experiencing excessing air during dispensing. The manufacturer suggested, after other probabilities were ruled out, that air at the pump may be the culprit and suggested pressurizing the bottle to force resist and any air through the pump in order to fully purge the line for that channel. As pressurizing a bottle creates a hazardous energy situation, an SOP was created prior to attempting the procedure. This SOP was approved by the facility's safety manager.

The employee was assisting the tool engineer to perform this maintenance function. After swapping out the bottle seal to enable the nitrogen feed tube to be connected, the employee slowly opened the nitrogen line to pressurize the bottle. The tool engineer was observing the flow from through the pump and channel, and noted it was slowly beginning to move. They called for the valve to be opened more, which the employee complied with, and the bottle suffered a catastrophic failure, splitting open vertically along a seam. The pressure resulted in a spray of the chemical over the area and over the employee.

The employee halted the flow of nitrogen and with assistance from the tool engineer and other another member of staff, removed the affected clothing and exited the facility. The employee was wearing the full standard cleanroom attire which consists of a cowl, double face masks, full coverall suit, over boots, double nitrile gloves, and safety glasses. This largely protected the employee from any direct contact, but some time later (~1 hour), the employee noticed that some of the chemical must have bled through the suit and made contact with their skin, notably on their upper right arm. The employee immediately showered thoroughly to remove any remaining traces.

Immediately following the incident, all non-staff occupants were directed away from the area and out of the room where the incident occurred and the tool engineer began cleanup using absorbent media, cleanroom wipes, acetone, and isopropyl alcohol. The employee reported no symptoms, other than being understandably shaken and a bit adrenaline flushed. The employee was encouraged to review the SDS and seek medical attention should they have any concerns. Even after discovering the chemical on her skin and taking steps to remove it, the employee reported no symptoms and that they were not seeking medical care. As of the time of the report this remained the case.

ON FILE: Affected/Injured Employee's date of birth, gender, date of hire, and hours of employment.

AZ10XT's primary hazard statements are "flammable" and "may cause dizziness or drowsiness", signal word "warning", and does contain chemicals with established exposure limits. This material is a UV-sensitive photoactive polymer suspended in an organic solvent and used primarily for patterning in micro- and nanofabrication. The most concerning health impact is that to the central nervous system with absorption through the skin being strongly indicated as a vector of concerning exposure. First aid involves rinsing with propylene glycol or ethanol, which were not available at the time the employee discovered the skin contact. Alternate first aid of rinsing with plenty of water was followed ASAP in the form of the employee showering. Employee still reported no symptoms hour later, but as onset can be delayed, employee was again encouraged to seek medical attention or to at least advise those around her of the exposure and the symptoms they should be mindful of that would indicate they may require immediate emergency treatment.

Attachment:Yes

Supervisor

Last Name:Patrick	First Name:Nicholas
Phone:+1 206 221-1045	Email:patricns@uw.edu
Occupation/Position:RESEARCH SCIENTIST/ENGINEER 3 (E S 8)	Department:ENG: Collaboration Core - WNF Staff

Classification

Level 1:
Injury or Exposure, no first aid required,

Type of Incident

Injury Description: Mental, Emotional Distress, Other,
Body Parts Affected: Arms,
Cause of Injury or Damage: Chemicals, Involved in or Saw an Upsetting Event, Other,

Slip, Trip, Fall Details

Slip:
Trip:
Fall From Same Level:
Fall From Elevated Height:
Stairs:

Contributing Factors

Equipment: No Guards/Barriers, Other,
Environment: Chemicals,
Policies / Procedures: Inadequate Instructions, Procedures,
Human Factors: Inadequate, Improper PPE,

Suggested Corrective Actions to Prevent Reoccurrence

Undertake hazard assessment, Change work area layout / design, Change/review work procedures, Provide PPE,

Suggested corrective action by the affected party

Employee suggests equipping feed system with over-pressure relief valve.

Supervisor's Comments

Root Causes:
(Please look at all the factors that may have contributed to the accident.Such factors may include equipment, environment, policies, procedures, and personnel.)
Insufficient barriers and engineering control systems
Insufficient PPE
Insufficient survey of possible hazards associated with process due to assumption of safety of a manufacturer recommended workflow.

Recommendations/Preventive Measures:

Resurvey process - Evaluate for safer alternatives, evaluate bottle pressure tolerance.
Require chemical aprons, gloves, and full face shields when process is conducted.
Evaluate possibility of installing plexiglass or other barrier around bottles to prevent spray of chemical and any possible shrapnel.
Evaluate secondary containment to capture bulk of resist in unintentional release
Place pressure regulator on nitrogen feed line to limit delivery pressure.
Evaluate possibility of over-pressure release valve being added to bottle sealing cap.

Corrective Actions Target Date (yyyy/mm/dd):
2020/11/30

Corrective Actions Complete Date (yyyy/mm/dd):

Other Comments:

Due to level of custom fabrication and hardware possibly needed to correct this issue, I am setting a goal of 30 days to correct. Process will not be repeated until further control and safety precautions are in place.

EHS Review

Last Name: **Konnur**

First Name: **Manisha**

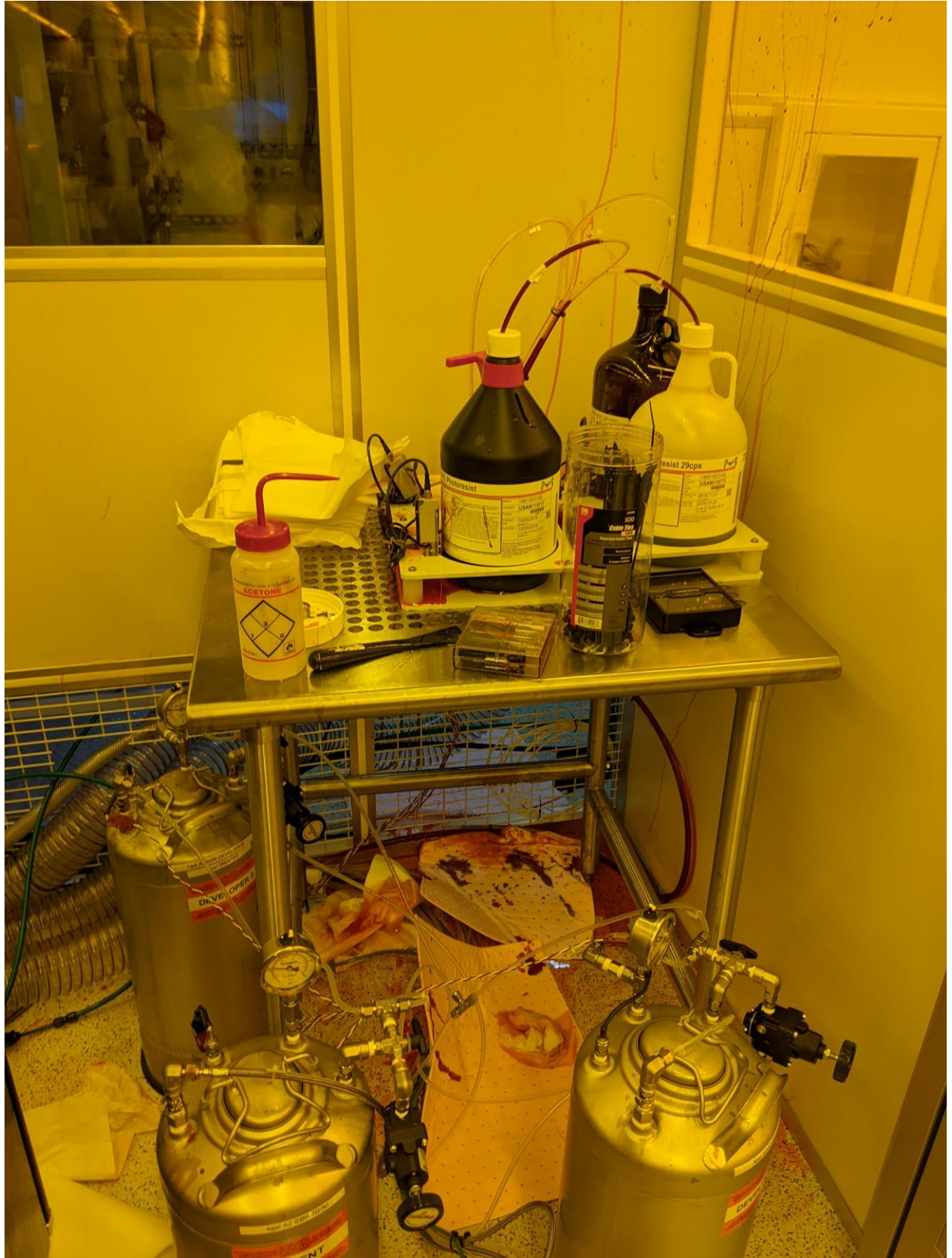
Phone Number: **+1 206 221-1759**

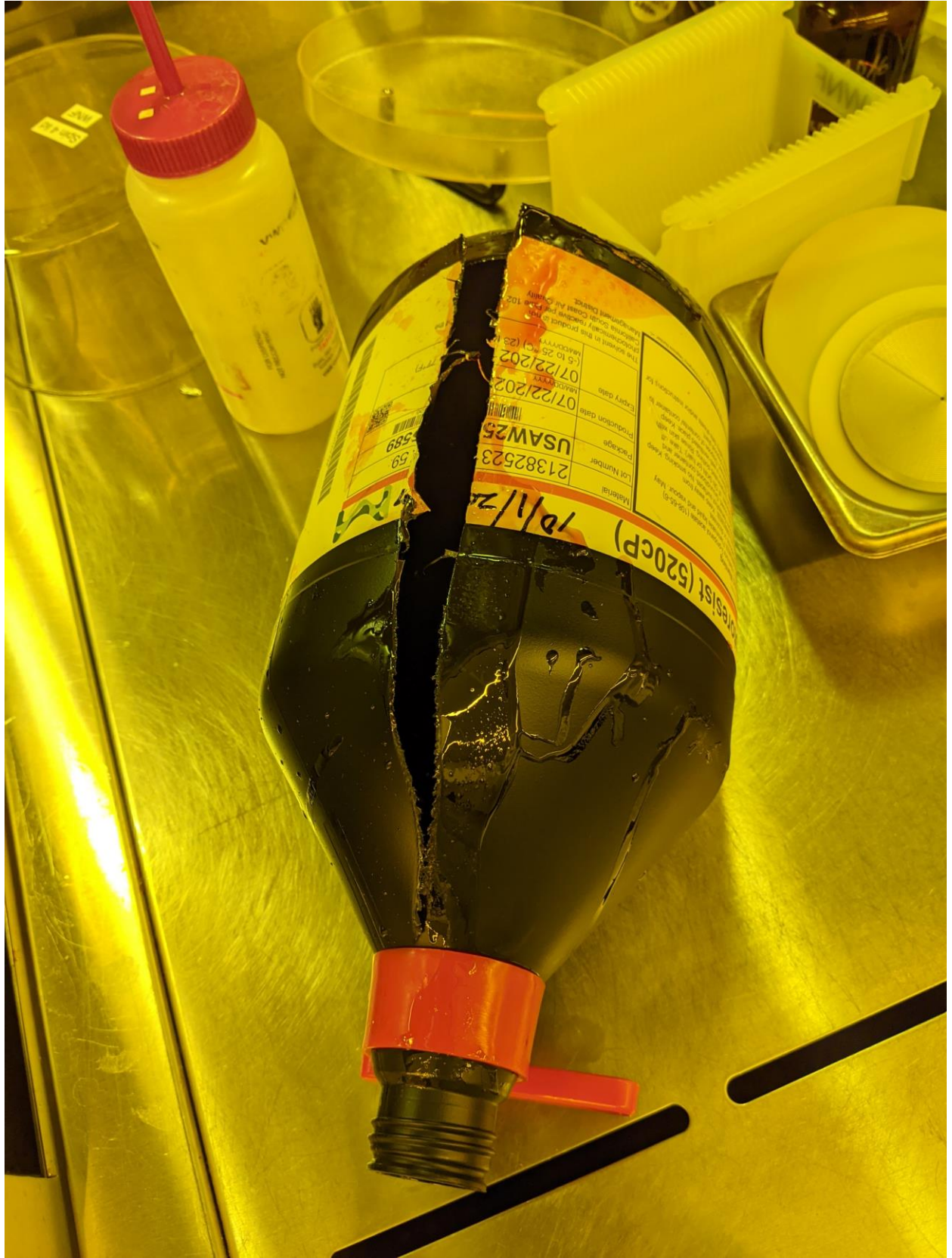
Email: **mkonnur@uw.edu**

Occupation/Position:

Department:

Comments: **Forwarded to Tracy Harvey, Ellie Wade - MK**







University of Washington Accident / Incident Report

Report Number: 2020-10-051-A

Contact EH&S at 206-543-7262

Person Reporting Incident

Last Name: Patrick	First Name: Nicholas
Phone: +1 206 221-1045	Email: patricns@uw.edu
Occupation/Position: RESEARCH SCIENTIST/ENGINEER 3 (E S 8)	Department: ENG: Collaboration Core - WNF Staff
Date Reported (yyyy/mm/dd): 2020/10/30	Time of Reporting: 06:40 PM

Person Involved or Affected

Last Name: [REDACTED]	First Name: [REDACTED]
Phone:	Email: [REDACTED]
Occupation/Position: [REDACTED]	Department: ENG: Collaboration Core - WNF Staff

Incident Details

Date of Incident (yyyy/mm/dd): 2020/10/30	Time of Incident: 9:00 AM	When Shift Begins: 7:00 AM
Campus: Seattle	Incident Location/Parking Lot: FLUKE HALL	
Room: 127B	Other:	

Incident Details:

Summary: In troubleshooting the facility's automated track coating system (RiteTrack SVG-90S) for resist pump/purge issues, following an SOP created based on a procedure recommended by the system manufacturer, a 1 gallon bottle over-pressurized and split, resulting in a large spray of photoresist over the area and one other employee. This employee was not affected, but was overseeing the work being performed. Full details in parent report.

Attachment: **No**

Supervisor

Last Name: Patrick	First Name: Nicholas
Phone: +1 206 221-1045	Email: patricns@uw.edu
Occupation/Position: RESEARCH SCIENTIST/ENGINEER 3 (E S 8)	Department: ENG: Collaboration Core - WNF Staff

Classification

Level 1:
Injury or Exposure, no first aid required,

Type of Incident

Injury Description: None,
Body Parts Affected: None,
Cause of Injury or Damage: None,

Slip, Trip, Fall Details

Slip:
Trip:
Fall From Same Level:
Fall From Elevated Height:

Stairs:

Contributing Factors

Equipment: **No Guards/Barriers, Inadequate Guards/Barriers, Other,**

Environment: **Chemicals,**

Policies / Procedures: **Inadequate Instructions, Procedures, Inadequate Planning, Preparation, Other,**

Human Factors: **PPE Not Used,**

Suggested Corrective Actions to Prevent Reoccurrence

Undertake hazard assessment, Change work area layout / design, Change/review work procedures, Provide PPE,

Suggested corrective action by the affected party

See main report.

Supervisor's Comments

Root Causes:

(Please look at all the factors that may have contributed to the accident. Such factors may include equipment, environment, policies, procedures, and personnel.)

Insufficient barriers and engineering control systems

Insufficient PPE

Insufficient survey of possible hazards associated with process due to assumption of safety of a manufacturer recommended workflow.

Recommendations/Preventive Measures:

Resurvey process - Evaluate for safer alternatives, evaluate bottle pressure tolerance.

Require chemical aprons, gloves, and full face shields when process is conducted.

Evaluate possibility of installing plexiglass or other barrier around bottles to prevent spray of chemical and any possible shrapnel.

Evaluate secondary containment to capture bulk of resist in unintentional release

Place pressure regulator on nitrogen feed line to limit delivery pressure.

Evaluate possibility of over-pressure release valve being added to bottle sealing cap.

Corrective Actions Target Date (yyyy/mm/dd):
2020/11/30

Corrective Actions Complete Date (yyyy/mm/dd):
2020/10/30

Other Comments:

See main report - corrections marked complete only because "child" reports like this one won't allow anything other than "Final" submission.

EHS Review

Last Name:

First Name:

Phone Number:

Email:

Occupation/Position:

Department:

Comments:

U-WIDE HEALTH AND SAFETY COMMITTEE

10/14/2020 Meeting Minutes | 1:00 p.m. - 2:30 p.m. |

Elected Member*	Appointed Member*	Faculty Senate Member*
<input checked="" type="checkbox"/> Ryan Hawkinson (1)	<input checked="" type="checkbox"/> Mark Pekarek (2)	<input checked="" type="checkbox"/> Ian Bennett
<input checked="" type="checkbox"/> Carmen Parisi (1)	<input checked="" type="checkbox"/> Kurt Oglesby (3)	
<input checked="" type="checkbox"/> Erick Rostad (2)	<input type="checkbox"/> Beth Hammermeister (4)	
<input checked="" type="checkbox"/> Tony Colinares (3)	<input checked="" type="checkbox"/> Liz Kindred, Vice-chair (5)	
<input checked="" type="checkbox"/> Christine Aker (4)	<input checked="" type="checkbox"/> David Zuckerman (10)	
<input checked="" type="checkbox"/> Michael Sage (5)		
<input checked="" type="checkbox"/> Eric Camp (6)		Environmental Health & Safety Members**
<input checked="" type="checkbox"/> Tamara Leonard (6)	Labor Union Member*	<input checked="" type="checkbox"/> Katia Harb
<input checked="" type="checkbox"/> Martin Arroyo (7)	<input checked="" type="checkbox"/> Ann Aumann, SEIU 925	<input checked="" type="checkbox"/> Denise Bender
<input checked="" type="checkbox"/> Alexa Russo (7)	<input checked="" type="checkbox"/> Paula Lukaszek, WFSE Local 1488	<input checked="" type="checkbox"/> Erin McKeown
<input checked="" type="checkbox"/> Wade Haddaway (8)	<input checked="" type="checkbox"/> Christine Kang, UAW 4121	<input checked="" type="checkbox"/> Andreea Minea
<input checked="" type="checkbox"/> Christopher Barrett (8)	<input checked="" type="checkbox"/> Amanda Clouser, UAW 4121	<input checked="" type="checkbox"/> Manisha Konnur
<input checked="" type="checkbox"/> Sonia Honeydew, Chair (9)	<input type="checkbox"/> Vacant, ASUW	<input checked="" type="checkbox"/> Jenna Gravley
<input type="checkbox"/> Colleen Irvin (9)		
<input type="checkbox"/> David Warren (10)		
Guests**	Ex-Officio Member**	Ex-Officio Member**
<input checked="" type="checkbox"/> Lesley Decker	<input checked="" type="checkbox"/> Tracey Mosier, UWF	
<input checked="" type="checkbox"/> Kristi Kilgore	<input checked="" type="checkbox"/> Chris Pennington, UWF	<input type="checkbox"/> Felicia Foster, AGO
<input type="checkbox"/>	<input checked="" type="checkbox"/> Ken Nielsen, Risk Services	<input checked="" type="checkbox"/> Nancy Gwin, AGO
<input type="checkbox"/>	<input checked="" type="checkbox"/> Rick Gleason, DEOHS	<input checked="" type="checkbox"/> Lt. Chris Jaross, UWPD
<input type="checkbox"/>	<input checked="" type="checkbox"/> Steve Charvat, UWF EM	
<input type="checkbox"/>	<input checked="" type="checkbox"/> Barry Morgan, UWF EM	

Quorum is 12 or more of voting members

X - attended meeting

*** voting members**

**** non-voting member**

Agenda

1. **Call to Order**
2. **Attendance/Quorum**
3. **Approval of the 9/9/2020 meeting minutes**
4. **COVID-19 Update**
5. **UW Biological COVID-19 Research**
6. **Organizational Group Reports**
7. **Union Reports**
8. **Ex-Officio Reports**
9. **EH&S Updates**
10. **Good of the order**
11. **Adjourn**

Recorded by Manisha Konnur

This meeting was conducted on Zoom to adhere to physical distancing protocols during the COVID-19 pandemic per guidance from the Washington State Department of Health, and the Centers for Disease Control and Prevention.

1. **Call to Order**

Sonia Honeydew called the meeting to order at 1:05 pm. She announced the meeting was being recorded, asked that attendees mute themselves when not speaking, and described that votes will be conducted by asking those who oppose or abstain to indicate so.

2. **Attendance/Quorum**

Sonia conducted attendance and quorum was met.

3. **Approval of September meeting minutes**

September meeting minutes were approved as amended.

4. **COVID-19 Update**

Katia Harb provided the following COVID-19 updates.

The Greek Row Outbreak - Katia said that the outbreak officially started on September 11 and a week later there was a significant increase in the number of COVID-19 positive cases. There are over 240 COVID-19 positive cases across the 17 Chapters (Out of which, 10 are sororities and 7 are fraternities). There is a steady decrease in the number of new COVID-19 positive cases over the last week. EH&S is coordinating regularly with the National Greek Community and Chapter presidents in the Office of Fraternity and Sorority Life, to follow public health protocols and



provide guidance and support through the isolation and quarantine process. Katia said that this week, 4 of the 17 houses will end their quarantine period.

Katia reminded the committee of the Husky Coronavirus Testing Program and encouraged everyone to enroll in the study. Currently, UW Club is their primary testing site at UW-Seattle campus. The Odegaard Library testing site will be open once they have enough staff to support.

Katia said that UW employees working on-campus who have enrolled in the [Husky Testing Program](#), are required to complete two attestation reports. One is in Workday and the other comes by email or text messages. Christine Aker pointed out that the daily symptom attestation alert from Husky Testing Program can also be completed through Workday.

Katia said that employees enrolled for the study should contact the Husky Testing Program directly if they have any technical issues, especially if they don't receive the daily symptom attestation alerts via text or email.

Katia presented the new [COVID-19 Case Tracking Dashboard](#). The dashboard gives information on the UW COVID-19 positive cases (does not include cases from UWMC, HMC). Katia pointed out that the dashboard also gives information on the residence hall quarantine capacity. She encouraged the committee to visit the dashboard.

Katia highlighted updates pertaining to:

- [COVID-19 Prevention Guidelines for In-Person Events](#)
- [Face Covering Requirements](#)
- [COVID-19 Case Response Page](#)

Christine Aker from HSC-4 recommended EH&S highlight the policy on mask usage at all times in common spaces, since members have encountered incidents where students are not wearing masks in common areas. Katia said that EH&S will work with Creative Communications on posters for common spaces highlighting the need to wear masks at all times in common areas.

5. UW Biological COVID-19 Research

Lesley Decker, an EH&S Biosafety Officer, provided a presentation on Biosafety Month and UW Biological COVID-19 Research.

Lesley said October is Biosafety Month, and past projects focused on issues like exposure response procedures, sharp safety, research safety, and the biological inventory. This year the [UW Biosafety Month](#) is focused on [updating SOPs](#) and working safely during COVID-19 by regular disinfection of workspace, staggered work shifts and frequent hand-washing. Lesley mentioned that outreach on this topic will be done via emails to principal investigators and lab managers with Biological Use Authorizations, newsletter articles, EH&S webpage announcements, and



presentations at the U-Wide Health and Safety Committee and the Monthly Research Administration Meeting.

Lesley gave an overview of SARS-CoV2 virus' structure and transmission process.

She indicated that SARS-CoV-2 research is occurring in Biosafety Level 2 (BSL-2) or Biosafety Level 3 (BSL-3) areas based on the hazard.

Lesley described the specialized personal protective equipment (PPE) required for a Biosafety Level 3 (BSL-3) laboratory. She indicated that employees working in a BSL-3 are required to get the annual flu vaccine and perform daily COVID-19 symptom attestation before entering the facility.

Lesley said there are 49 approved Biological Use Authorizations in place for work with SARS-CoV-2 materials, and one of those authorizations is a COVID-19 vaccine clinical trial. She said 43 Principal investigators (PIs) are working with SARS-CoV-2 materials. The UW's Institutional Biosafety Committee (IBC) reviews, approves, and oversees this research.

Lesley gave a brief overview of the various types of COVID-19 research being conducted at UW, and then provided some educational resources including the [UW Department of Global Health's Daily COVID-19 Literature Situation Report](#).

6. Organizational Group Reports

HSC 1 – Ryan Hawkinson said that HSC-1 met on 10/14/2020 and discussed OARS reports. They also discussed concerns for working alone. HSC-1 plans on reviewing the UW Accident Prevention Plan at their next meeting.

HSC 2 –Mark Pekarek said HSC-2 met on October 8 and discussed August and September OARS reports.

HSC 3 –Kurt Oglesby said that HSC-3 met on September 16. They reviewed OARS reports and discussed the U-Wide meeting. They also had a brief discussion on the UW SafeZone App.

HSC 4 –Christine Aker said that HSC-4 met on September 22 and reviewed OARS reports. Christine described a particular OARS report where the injured person tripped on the walkway outside the Health Sciences Building (HSB). She said this incident was similar to another incident that occurred in the last few months. She said that the School of Dentistry is working with UW Facilities to fix the walkway.

She said they also discussed the U-Wide meeting, Plexiglass installations, and patient testing. Christine said they also discussed new signage and the fact that Health Sciences contains over 300 restrooms in common areas.



HSC 5 –Liz Kindred said that HSC-5 met last month and did their annual presentations from each hospital on ‘Safe Patient Handling’. Liz explained that healthcare workers are especially vulnerable to injuries when lifting, moving and boosting patients. She said it is a challenge to balance the rehabilitation of patients while keeping staff safe. She said they have installed ceiling lifts and provided staff training on how to use them properly.

Liz reported that HMC now has a security dog, who also acts as a de-escalation therapy dog as well!

HSC 6 –Eric Camp said that HSC-6 met last month. They discussed OARS reports and the U-Wide Claims presentation from last month. They also discussed ergonomics and encouraged employees to complete an OARS report if injured when working from home.

HSC 7 –Martin Arroyo said that HSC-7 met yesterday and discussed the OARS reports. They discussed the COVID-19 dashboard and looked at the EH&S’ website. They also discussed the ‘Great Washington Shakeout’ and impacts on the laboratories, and how they would assist disabled individuals out of the buildings.

HSC 8 –Christopher Barrett said that HSC-8 met last month and discussed the U-Wide meeting. They didn’t have any OARS reports. They also discussed the ‘Great Washington Shakeout’ drill. He said they had invited an EH&S speaker to their next meeting to talk about ‘Indoor Air Quality’.

HSC 9 –Sonia Honeydew said that HSC-9 met on September 29 and reviewed OARS reports. They have a new member representing Mechanical Engineering. Sonia reported that the group members felt confident about their site specific COVID-19 prevention plans and with ‘Building Readiness Guidelines’. They also had a discussion on the UW Facilities Building Curtailment Plans.

HSC 10 – David Zuckerman said that HSC-10 met on September 21. They had a guest speaker, Professor Becky Alexander from Atmospheric Sciences. Professor Alexander is an expert in aerosol chemistry and how aerosols move in the air. David mentioned the topic was timely due to the current air pollution problems from wildfires and the COVID-19 pandemic. They reviewed OARS reports, discussed the U-Wide meeting, contact tracing, and reminded members to get their flu shots.

7. Faculty Senate Reports: Ian Bennett was introduced as the new Faculty Senate member. This was his first meeting and he mentioned that the Faculty Senate had not yet met, so he had no updates.

8. Union Reports:

Paula Lukaszek said that Machinery Mechanics are requesting the installation of an exhaust system to prevent exposures when working with metals. Denise Bender offered to follow up with



Paula Tracey Mosier, UW Facilities, indicated that Denise can obtain additional information from Joe Grojean.

Christine Kang and Amanda Clouser indicated they had no updates.

Ann Aumann also indicated that she had no updates.

9. Ex-Officio Reports:

UW Facilities: Tracey Mosier and Chris Pennington had no updates.

Emergency Management: Barry Morgan said that the Great Shakeout is tomorrow, October 15, at 10:20 am. Barry said that Housing and Food Services has set up five health and safety PPE vending machines. The machines contain hand sanitizer, masks, and more. Their locations are shown on the Emergency Management website.

Barry indicated various stake holders (School of Pharmacy, Seattle King County Public Health, and the City of Seattle) are working on a COVID-19 vaccine distribution plan for the University.

UWPD: Lt. Chris Jaross said UW Police is meeting with Intercollegiate Athletics about the upcoming football season. There are four games planned at this time. Lt. Jaross said that tailgaters may be an issue, and that UWPD plans to meet with Transportation Services next week to develop a plan to safely dealing with tailgaters.

DEOHS: Rick Gleason indicated he had no updates.

Attorney General's Office: Nancy Gwin indicated she had no updates.

Claims Services: Ken Nielsen indicated he had no updates.

10. L&I updates:

Erin McKeown reported that there were no new L&I investigations in September.

She said that a compliance investigation related to COVID-19 prevention at the UWMC Eastside Specialty Clinic had not yet closed.

EH&S updates:

Denise Bender said that EH&S is launching a new program this fall related to the tracking, use, purchase, and disposal of naturally occurring uranyl compounds. Joyce Chambers, EH&S Radiation Safety, is the point of contact. There will be an online training for researchers working with these compounds in the future.

Denise welcomed a newly hired EH&S Biosafety Officer, Kristi Kilgore.

11. Good of the Order: Sonia Honeydew reminded the committee that the next U-Wide meeting has been moved to November 18, because of the Veterans Day holiday.

Erin McKeown indicated that Natalie Daranyi has volunteered to provide a presentation on the UW's Confined Space Entry Program at the November U-Wide meeting.

12. Adjourn: The meeting was adjourned at 2:20 pm

DRAFT

University-Wide (U-Wide) Health and Safety Committee Meeting Agenda

November 18, 2020
1:00 p.m. – 2:30 p.m.
Zoom- screen required

Agenda Item	Lead	Process	Time
Call to Order	Sonia Honeydew	Robert's Rules of Order	
Attendance/Quorum	Sonia Honeydew	Discussion	5 min
Approval of meeting minutes	Sonia Honeydew	Discussion	5 min
COVID-19 Update	Katia Harb	Discussion	15 min
Confined Space Program	Natalie Daranyi	Presentation	15 min
Organizational Group Reports*	Committee members	Discussion	20 min
Union Reports	Union representatives	Discussion	5 min
Ex-Officio Reports	Ex-Officio members	Discussion	10 min
EH&S Updates L&I Update Committee changes	Erin	Discussion	10 min
General updates	Katia or Denise		
Good of the Order	Sonia Honeydew	Discussion	5 min
Adjourn	Sonia Honeydew	Robert's Rules of Order	

*Organizational Group Reports include topics covered at their most recent meeting

Please send ideas for agenda items to the co-chairs Sonia Honeydew and Liz Kindred at least 2 weeks prior to the scheduled meetings.