

Agenda – August 24, 2015
Group 9 Health and Safety Committee (College of Engineering)

1. Attending:

Chris Adams, MoIES
Emma Alder, EH/S
Arne Biermans, ChemE
Tracy Erbeck, CSE
Sonia Honeydew, DO
Cassie Atkinson-Edwards, HCDE
Fiona Spencer, AA

Tuesday Kuykendall for Karen Wetterhahn, MSE
Bill Lynes for John Young, EE
Norbert Berger, BioE
Bill Kuykendall, ME
Jenny Dutton for Sheila Prusa, ISE
Sean Yeung, CEE

2. Absent

Michael Glidden, DO

3. Previous Meeting Minutes

- June 2015 – approve?

4. Department Incident Reports

- CEE – test tube punctured hand
- AA – air arc
- MSE – chemical reaction in fume hood
- BIOE – slipped and twisted ankle
- BIOE – contractor spilled chemical
- CEE – methanol slid down arm into glove
- DO – cart ran over foot

5. UW-Wide Meeting

- July notes attached
 - Sherry leaving UW after this week – To King Co, Industrial Hygienist. Katia handling her projects.
 - Evac Drill Subcommittee Update -- Put together survey for Bldg Coord summit early Aug, fwded to Charvat to OK and send out. Survey solicits info on their understanding of BC role, support, training.
 - Group Reports – focused on election coordinator selection and complete representation
 - Tour of Bothell campus
- August agenda attached
 - Young Kim is new hire at EH&S Building and Fire Safety
 - Evacuation Drill Subcommittee Update
 - Group Reports

6. Group Business

- Guest Speaker: Siri-Elizabeth McLean of UWEM discusses earthquake preparedness
- Committee Elections via catalyst: status of nominations (8/17-31); elections will be 9/9-9/23.
- How many goggles does your dept request?
- What would be a good week to run all CoE building evacuation drills?
- 8/11 Building Coordinators' Summit Agenda and UWEM Emergency Communications flyer attached

7. Department Updates

8. Next Meeting:

- September 28th at 2pm in CSE 128

DRAFT Meeting Minutes

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

Meeting Date: June 29, 2015

Attended

Michael Glidden, DO
Emma Alder, EH&S
Chris Adams, MoIES
Rep for Tracy Erbeck, CSE
Karen Wetterhahn, MSE

Fiona Spencer, AA
Arne Biermans, ChemE
Cassie Atkinson-Edwards, HCDE
Bill Kuykendall, ME

Absent

Sonia Honeydew, DO
J. Sean Yeung, CEE
Sheila Prusa, ISE

John Young, EE
Norbert Berger, BioE

Previous Meeting Minutes

- May 2015 – approved

Incident Reports

- Dean's Office – fell in office
- CEE – beaker of ethanol caught fire (need to discuss at next meeting)
- ChemE – chemical burn on arm
- ME – thumb crushed by gas cylinder

UW-Wide meeting

- May notes attached
- June
 - Election Year Timeline: a little earlier this year. Min req of H&S cmtes includes greater number elected than appointed. Term of two years. If vacated position, fill before next meeting. Communicate to groups represented. Some flexibility in how compose committee to represent folks. Cmte charter not required but useful – Emma will turn Group 12's example into a template for us. Emma will send us a catalyst survey for nominations, perhaps only one question. HSC is for workers to get involved; how can we encourage that?
 - Evac Drill Subcommittee Update: added director of signal alarm shop; working on catalyst survey for Building Coordinators; making "Beliefs and Barriers" doc for leadership.
 - July meeting at Bothell. Emma will coordinator carpool.

DRAFT Meeting Minutes

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

- Group reports: Group 1 notes the pattern of taking bricks as souvenirs has contributed to one/some slips/trips. Group 4 suggests making safety cards to hang with IDs – Liz Kindred can share their example. Group 8 reports 3 student incidents but none on UW Tacoma property. Also Clover Park CC had a hoax active shooter. Group 10 recommends the EOC tour. Also, Friday Harbor gas leak simulation was interesting as not everyone on island knew it was a drill.
- Ex-Oficio reports: ARCF protestors have made home visits to some people. Last Monday some arrested for trespassing and sabotage (a felony), and construction lost one day of work onsite, where security has been increased.
- EH&S reports: Training update by John Eriksen – now some online classes by vendor Safety Smart, including GHS and Compressed Gas. F.S. group has opened up seats in some of their classes. UW Office of Research has a website with required training for researchers at many depts around campus, including policies and regulations, and a transcript to look up training taken. EH&S My Training allows you to look up EH&S training only, one at a time by UW Net ID or EIN or Stdt#, back to 1983. A system that tells you what training is needed would require a learning management system and that is 2nd or 3rd on HR's list (working on #1 – payroll). Sherry says L&I has a lending library of training and safety videos and some are online.
- L&I Update: MRI – while upgrading magnet, removed panel that should not have been magnetic but it had penetrations that were collectively magnetic so worker pinned between plate and magnet. UWMC – lake water powerhouse entered 1-2x/yr, concern about electrical safety at wet location... cover of electrical conduit left off, and motor concern. Legionella – no exposure or risk, but 12 serious violations, 11 on confined space (permit-required confined space) plus one fall hazard.... There had been some reclassifications of type of space and some lack of signage, so we're working on making sure no one enters permitted confined space who shouldn't. A confined space is considered "permit required" because of hazard like electrical or fan, unless you do paperwork to classify it as "not permit required" so we had some paperwork to do.
- EH&S (Katia) attended Compliance Resource Summit – EH&S Director Jude gave a talk and hopefully will do annually.
- Discussion of who tests call buttons in elevators, as some folks were trapped and found phone didn't work. L&I inspects that for annual permitting; our elev shop does maint and repair... FS will double-check process for inspecting those phones/call buttons.

Group Business

- Enthusiastic conversation about eye safety with guest speaker Phil Numoto of EH&S, who brought examples of protective eyewear. College looking at partnering with all depts to promote safety through dissemination of eye protection – continuing conversation next meeting.

Department Updates

- MoIES – Erg desk
- AA – air arc
- ME – trailer, working on parking location
- CoE – Please provide how many safety glasses you would need as a safety promotion
- CSE. HCDE, Emma, Phil, ChemE, MSE - NA

DRAFT Meeting Minutes

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

Next meeting

8/24, at 2pm in CSE 128. (July meeting is cancelled; August meeting moved from 8/31 to 8/24.)

Accident Summary Report

HSC 9

6/1/2015 to 6/30/2015

<i>Case#</i>	<i>Org Name</i>	<i>Job Title</i>	<i>Date Reported</i>	<i>Employee Activity</i>	<i>Supervisor Corrective Action</i>
2015-06-062	CIVIL & ENVIR ENGINEER		6/17/2015	While capping a glass anaerobic test tube, the tube broke and punctured the left had. Paramedics responded and transported injured person to UW Medical Center Emergency.	A revised capping protocol has been developed and will be implemented as the routine laboratory procedure.
2015-06-097	AERONAUTICS & ASTRO-	RESEARCH SCIENTIST	6/29/2015	During the charging process, a loud bang was heard in the lab. Upon inspection of the experiment it was determined that an air arc had occurred between a brass plate and a wire. There was carbon on the high voltage tape. The plate was discolored and the wire was replaced. The discoloration was removed from the plate by light sanding and the tape was replaced. The system was tested and successfully held off the maximum design voltage. In the last 16 years of operation, this failure has never occurred. Additional inspections will prevent this behavior.	The wire insulation should be inspected regularly. The wire position should be kept away from the grounded plate.



University of Washington Accident / Incident Report

Report Number: 2015-06-062

Contact EH&S at 206-543-7262

Person Reporting Incident

Last Name: ELLIOTT	First Name: NICHOLAS
Phone: +1 206 543-2531	Email: elliottn@u.washington.edu
Occupation/Position: RESEARCH TECH 2	Department: CIVIL & ENVIR ENGR
Date Reported (yyyy/mm/dd): 2015/06/17	Time of Reporting: 09:52 AM

Person Involved or Affected

Last Name: [REDACTED]	First Name: [REDACTED]
Phone: [REDACTED]	Email: [REDACTED]
Occupation/Position:	Department: CIVIL & ENVIR ENGINEER

Incident Details

Date of Incident (yyyy/mm/dd): 2015/06/17	Time of Incident: 9:15 AM	When Shift Begins: N/A
Campus: Seattle	Incident Location/Parking Lot: BEN HALL INT. RSCH	
Room: 478	Other:	

Incident Details:

While capping a glass anaerobic test tube, the tube broke and punctured the left had. Paramedics responded and transported injured person to UW Medical Center Emergency.

Attachment: **Yes**

Supervisor

Last Name: STAHL	First Name: DAVID
Phone: +1 206 685-8502	Email: dastahl@u.washington.edu
Occupation/Position: PROFESSOR	Department: CIVIL & ENVIR ENGR

Classification

Level 1:
 Injuries requiring first aid,
 Injuries requiring medical treatment (go to Level 3 if in-patient hospitalization is required),

Type of Incident

Nature of Injury: **Open Wound : Laceration, Puncture, Scratch, Needlesticks/Sharps,**

Body Parts Affected: **Hands/Wrists,**

What caused the harm: **Other,**

Possible Causes

Equipment: **Defective Tools/Equipment,**

Environment:

Policies / Procedures:

Human Factors:

Suggested corrective action by the affected party

Supervisor's Comments

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

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.)

The accident appears to have resulted from placing excessive stress on glassware during a capping procedure.

Recommendations/Preventive Measures:

A revised capping protocol has been developed and will be implemented as the routine laboratory procedure.

Corrective Actions Target Date (yyyy/mm/dd):
2015/06/17

Corrective Actions Complete Date (yyyy/mm/dd):
2015/06/17

Other Comments:

EHS Review

Last Name: **CORDTS**

First Name: **STUART**

Phone Number: **+1 206 616-3442**

Email: **scordts@uw.edu**

Occupation/Position:

Department:

Comments: **Duplicate reports 2015-06-061 and 2015-06-071 were copied and attached to this report for record purposes. They were then deleted from OARS. Stuart Cordts, 6/19/2015.**



University of Washington Accident / Incident Report

Report Number: 2015-06-097

Contact EH&S at 206-543-7262

Person Reporting Incident

Last Name: ██████████	First Name: ██████████
Phone: +1 ██████████	Email: ██████████
Occupation/Position: RESEARCH SCIENTIST	Department: AERONAUTICS & ASTRO-
Date Reported(yyyy/mm/dd): 2015/06/29	Time of Reporting: 06:04 PM

Person Involved or Affected

Last Name: ██████████	First Name: ██████████
Phone: +1 ██████████	Email: ██████████
Occupation/Position: RESEARCH SCIENTIST	Department: AERONAUTICS & ASTRO-

Incident Details

Date of Incident(yyyy/mm/dd): 2015/06/25	Time of Incident: 3:30 PM	When Shift Begins: 9:00 AM
Campus: Seattle	Incident Location/Parking Lot: AERO & ENG RESCH	
Room: 036	Other:	

Incident Details:

During the charging process, a loud bang was heard in the lab. Upon inspection of the experiment it was determined that an air arc had occurred between a brass plate and a wire. There was carbon on the high voltage tape. The plate was discolored and the wire was replaced. The discoloration was removed from the plate by light sanding and the tape was replaced. The system was tested and successfully held off the maximum design voltage. In the last 16 years of operation, this failure has never occurred. Additional inspections will prevent this behavior.

Attachment: No

Supervisor

Last Name: SHUMLAK	First Name: URI
Phone: +1 206 616-1986	Email: shumlak@u.washington.edu
Occupation/Position: PROFESSOR	Department: AERONAUTICS & ASTRO-

Classification

Level 1:
Property damage only,

Type of Incident

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

Possible Causes

Equipment: Other,
 Environment: Other,
 Policies / Procedures: Other,
 Human Factors: Other,

Suggested corrective action by the affected party

The corrective action is to inspect this region more thoroughly during the daily inspection of the experiment.

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.)

The wire insulation degraded over time and moved too close to the grounded brass plate.

Recommendations/Preventive Measures:

The wire insulation should be inspected regularly. The wire position should be kept away from the grounded plate.

Corrective Actions Target Date (yyyy/mm/dd):
2015/06/30

Corrective Actions Complete Date (yyyy/mm/dd):
2015/06/30

Other Comments:

EHS Review

Last Name:

First Name:

Phone Number:

Email:

Occupation/Position:


Department:


Comments:

Accident Summary Report

HSC 9

7/1/2015 to 7/31/2015

<i>Case#</i>	<i>Org Name</i>	<i>Job Title</i>	<i>Date Reported</i>	<i>Employee Activity</i>	<i>Supervisor Corrective Action</i>
2015-07-018	MATERIALS SCI & ENGRG	PREDOC RES ASSOC 2	7/7/2015	<p>An undergraduate student volunteer was instructed to prepare a ~25% nitric acid solution for cleaning glassware in the chemical fume hood. She had undergone previous training for this procedure, however this was her first time preparing the solution without supervision. Our lab has a separate SOP for preparing a sodium hydroxide bath in isopropyl alcohol. The student did not read the acid bath SOP immediately prior to preparing the solution and conflated the two SOPs, mixing nitric acid with isopropyl alcohol. The student was wearing appropriate PPE (gloves, goggles and lab coat) while preparing the solution, but had taken off her PPE to exit the lab. At this time a hissing sound was heard emanating from the chemical fume hood, she ran back toward the fume hood, forgetting to grab her PPE and immediately saw that the vented chemical squirt bottle in which the solution was prepared had started venting significantly. She quickly pulled the fume hood sash down prior to failure of the container, but some acid contacted her clothing at midsection and her exposed lower arms/hands. The student removed affected clothing and the overhead safety shower was immediately utilized to rinse thoroughly. UW police and the Seattle Fire department were notified. The student was evaluated and no signs of chemical burn was found. The affected area of the lab was neutralized with sodium bicarbonate and thoroughly cleaned.</p>	<ol style="list-style-type: none">1. Re-enforce reading of SOPs before starting any process in lab with all lab personnel.2. Re-emphasize the importance of appropriate PPE being worn at all times with all personnel.3. Place coat hanger outside lab door to avoid students removing lab coats within the lab space4. Make digital copies of Wiley Guide to Chemical Incompatibility available on all computers in lab along with one hard copy.5. Implement quarterly safety training as a re-fresher for all lab personnel.<ol style="list-style-type: none">a.Cover all safety issues on the Safety Training checklistb.Re-enforce action items 1 and 2.
2015-07-034	BIOENGINEERING		7/14/2015	<p>I was carrying back supplies from our departmental graduation celebration when I slipped on the stairs leading from the second floor to first floor lobby. I twisted my ankle, which later bruised. I reported the fall to my supervisor and left for the night. I went to the doctor on 7/11 after I noticed that the injury wasn't healing quickly and was diagnosed with a sprained ankle (stretched anterior talofibular ligament) and given a brace to wear.</p>	<p>Take steps to reduce the length of employee's shifts when there are special events. Encourage employees to use a cart and the elevator when carrying loads.</p>

<i>Case#</i>	<i>Org Name</i>	<i>Job Title</i>	<i>Date Reported</i>	<i>Employee Activity</i>	<i>Supervisor Corrective Action</i>
2015-07-040	BIOENGINEERING	RESEARCH SCIENTIST	7/15/2015	Installation contractor accidentally spilled 10 ml of 4:1 DMF/Piperidine on floor. Liquid was wiped up with paper towels and placed in fume hood to evaporate. All personnel left the lab because of residual odor. The odor disappeared after 20 min. EH&S Chemical Response was contacted for advice. They recommended the action performed followed by cleaning the area with 1% Liquinox and rinsing then drying. The wax coating on the floor was removed due to the type of chemicals. The paper towels will be thrown in the trash after all solvent has evaporated. The PI was informed after remediation of the spill.	Advise future instrument installation contractors about safety handling chemicals. A general lab safety orientation was performed prior to work being started.
2015-07-056	CIVIL & ENVIR ENGR		7/21/2015	Per a written submittal: "I was rinsing a squeeze bottle with less than 5 ml of methanol in the fume hood, but the squeeze bottle was more sensitive than anticipated compared to DI water, which resulted in a few squirts of methanol contacting skin on my right arm, sliding down into the glove of my right hand." (Original report attached.)	In the future, the student will ensure that lab coat sleeves cover her arms when working in the fume hood. Additionally, the work space will be set up so that the nozzle of squeeze bottles is pointed away from the user when not being used to avoid accidental exposure.
2015-07-076	DEAN ENGINEERING		7/24/2015	We were moving gear on carts between the HUB and McCarty Hall. I was pushing one cart and a colleague of mine was pushing a loaded hand truck and walking behind me. The cart I was pushing came to an abrupt stop when it got hung up on an uneven piece of sidewalk. My colleague was unable to stop his cart in time and accidentally ran his cart over my foot.	In ongoing practices, continue to encourage staff to consider safety of themselves and others in their actions.



University of Washington Accident / Incident Report

Report Number: 2015-07-018

Contact EH&S at 206-543-7262

Person Reporting Incident

Last Name: STEPHEN	First Name: ZACHARY
Phone:	Email: zrs420@u.washington.edu
Occupation/Position: PREDOC RES ASSOC 2	Department: MATERIALS SCI & ENGRG
Date Reported (yyyy/mm/dd): 2015/07/07	Time of Reporting: 10:06 AM

Person Involved or Affected

Last Name: ██████████	First Name: ██████████
Phone:	Email:
Occupation/Position: Undergraduate Student	Department:
Person was in Paid Position: No	

Incident Details

Date of Incident (yyyy/mm/dd): 2015/07/06	Time of Incident: 5:30 PM	When Shift Begins: N/A
Campus: Seattle	Incident Location/Parking Lot: MUELLER HALL	
Room: 187	Other:	

Incident Details:

An undergraduate student volunteer was instructed to prepare a ~25% nitric acid solution for cleaning glassware in the chemical fume hood. She had undergone previous training for this procedure, however this was her first time preparing the solution without supervision. Our lab has a separate SOP for preparing a sodium hydroxide bath in isopropyl alcohol. The student did not read the acid bath SOP immediately prior to preparing the solution and conflated the two SOPs, mixing nitric acid with isopropyl alcohol. The student was wearing appropriate PPE (gloves, goggles and lab coat) while preparing the solution, but had taken off her PPE to exit the lab. At this time a hissing sound was heard emanating from the chemical fume hood, she ran back toward the fume hood, forgetting to grab her PPE and immediately saw that the vented chemical squirt bottle in which the solution was prepared had started venting significantly. She quickly pulled the fume hood sash down prior to failure of the container, but some acid contacted her clothing at midsection and her exposed lower arms/hands. The student removed affected clothing and the overhead safety shower was immediately utilized to rinse thoroughly. UW police and the Seattle Fire department were notified. The student was evaluated and no signs of chemical burn was found. The affected area of the lab was neutralized with sodium bicarbonate and thoroughly cleaned.

Attachment: **Yes**

Supervisor

Last Name: STEPHEN	First Name: ZACHARY
Phone:	Email: zrs420@u.washington.edu
Occupation/Position: PREDOC RES ASSOC 2	Department: MATERIALS SCI & ENGRG

Classification

Level 1:
Injury requiring first aid,

Type of Incident

Injury Description: **None,**

Body Parts Affected: **None,**

Cause of Injury or Damage: **Chemicals, None,**

Possible Causes			
Equipment:			
Environment:			
Policies / Procedures: Failure to Follow Procedures,			
Human Factors: PPE Not Used, Failure to Follow Established Protocol/Procedures,			
Suggested corrective action by the affected party			
Supervisor's Comments			
<p>Root Causes:</p> <p>(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>-Lab personnel did not read the appropriate SOP immediately before starting the procedure.</p> <p>-Lab personnel removed PPE and re-entered workspace with out PPE.</p> <p>-Additional training and re-enforcement of lab safety procedures may have helped prevent the incident.</p>			
<p>Recommendations/Preventive Measures:</p> <ol style="list-style-type: none"> 1. Re-enforce reading of SOPs before starting any process in lab with all lab personnel. 2. Re-emphasize the importance of appropriate PPE being worn at all times with all personnel. 3. Place coat hanger outside lab door to avoid students removing lab coats within the lab space 4. Make digital copies of Wiley Guide to Chemical Incompatibility available on all computers in lab along with one hard copy. 5. Implement quarterly safety training as a re-fresher for all lab personnel. <ol style="list-style-type: none"> a. Cover all safety issues on the Safety Training checklist b. Re-enforce action items 1 and 2. 			
Corrective Actions Target Date (yyyy/mm/dd): 2015/07/15		Corrective Actions Complete Date (yyyy/mm/dd): 2015/07/15	
Other Comments:			
EHS Review			
Last Name: ALDER	First Name: EMMA K	Phone Number: +1 206 221-2852	Email: ealder@uw.edu
Occupation/Position:		Department:	
Comments:			

Interdepartmental Correspondence

DATE: July 20, 2015

TO: Miqin Zhang, Principal Investigator, Department of Materials Science and Engineering, Box 352120

FROM: Phil Numoto, CIH; Occupational Safety and Health Specialist, Box 357165

SUBJECT: Review of the Clean Up Procedure For a Nitric Acid Spill
Location: Mueller Hall, Room 187
Evaluation Date: July 8, 2015

PURPOSE

On July 6, 2015 the Department of Materials Science and Engineering (MS&E) contacted Environmental Health and Safety (EH&S) to report a nitric acid spill and submitted Incident Report 2015-07-018 on the Online Accident Reporting System (OARS). In response EH&S met with MS&E to identify any changes that could be made to further reduce the risk of chemical exposure during a future spill.

BACKGROUND INFORMATION

EH&S met with Zachary Stephen, the PreDoc Research Associate who supervised students in the Materials Science and Engineering, Room 187 Lab. EH&S also interviewed the undergraduate student who was involved in the nitric acid spill.

The student had prepared an acid bath to clean glassware and unintentionally confused a procedure to prepare a caustic bath for cleaning glassware with the procedure. Nitric acid was mixed with isopropyl alcohol which caused a chemical reaction and the spill. It should be noted that nitric acid can be deliberately mixed with alcohol, usually ethanol, to create a reactive solution that is used to etch metal.

This report identifies safety practices for managing the use of chemicals to protect staff and the findings of the review of the Department's program to address the safety practices.

FINDINGS OF THE REVIEW OF THE CHEMICAL SPILL CLEANUP PROCEDURE

The findings of the incident review are listed below.

1. Standard Operating Procedures (SOPs) had been developed and were available that described the procedures for mixing the acid bath solution (nitric acid to water) and the caustic bath solution (sodium hydroxide to isopropyl alcohol) to clean glassware. Unfortunately, the Student unintentionally confused the two procedures and mixed nitric acid with isopropyl alcohol which resulted in a heat-generating reaction that caused the plastic mixing container to burst.

- The Student did not review the SOPs immediately before performing the task. This was identified as a corrective action in the OARS report submitted by MS&E.
2. The Student prepared the chemical cleaning bath in a chemical fume hood.
 3. During the interviews by EH&S, all lab workers were observed wearing personal protective equipment (PPE) including a lab coat, nitrile exam gloves, and eye protection while working in the lab.
 4. Upon finishing the chemical mixing, the Student walked away from fume hood to leave the room and removed the lab coat. The Student then heard a hissing sound, returned to the lab hood, observed a bulging plastic container with acid, started to close sash to fume hood, and the container with acid burst.
 - The Student was sprayed at the waist to chest with acid since the lab coat was not worn when the source of the unusual hissing was investigated.

Comment: The Student was able to partially close the fume hood sash which limited the extent to which the acid sprayed. This prevented the acid from splattering co-workers who worked at benchtops near the fume hood. If the Student had taken the extra 5 to 10 seconds to put on a lab coat before closing the sash to the hood, others could have been splattered with acid.

Comment: The laboratory is located in Mueller Hall which was built in 1989. In this building, it is not standard practice to close the sash to a chemical fume hood when it is not in use since the hood provides exhaust air flow to maintain the lab under negative air pressure relative to the hallway.

5. The Student called for help and ran for the emergency shower. Three co-workers assisted the Student remove clothes and wash down the body with water. The Student reported having no visual evidence of chemical skin burns after the splatter.

Comment: Co-workers were available to assist the Student. The Student was not working alone at 4:30 pm when the spill occurred.
6. A Department staff member called 9-1-1. The Seattle Fire Department arrived, examined the Student, and determined that no further first aid treatment or emergency treatment was needed.
7. The staff members spread sodium bicarbonate powder on surfaces that had been splattered with nitric acid which included the inside walls and floor of the chemical fume hood and the floor of the lab below and near the front of the hood. The powder was allowed to stand to neutralize the acid, and then cleaned up. Liquid neutralizing solution was prepared and used to further wipe down surfaces to neutralize any residual acid.
8. The Lab had a standard acid spill kit in a tub for use. The Student had ordered additional sodium bicarbonate during the previous week since the supply of acid neutralizer was low.

9. MS&E submitted an initial OARS incident report to EH&S within one day of the incident. The supervisor investigated the incident and then updated the report by adding the root causes and recommended actions for prevention.
10. Staff had completed Department specific safety training classes and EH&S online training classes. The EH&S classes that had been completed are listed below:
 - Undergraduate Student: Compressed Gas Safety – Online, Fire Extinguisher Training-Online, Fume Hood Training-Online, and GHS-Globally Harmonized System – Online.
 - Zachary Stephen: Bloodborne Pathogens for Researchers-Initial, Fume Hood Training-Online, GHS-Globally Harmonized System – Online, Laboratory Safety Practices (Seminar), Radiation Safety Training, and Shipping Regulated Medical Waste via Contracted Carrier.

Recommendation: Refer to the updated laboratory training matrix posted on the EH&S web site to identify other classes of interest to support safety in your laboratory:
<http://www.ehs.washington.edu/forms/ps0/ehslabsafetytrainmatrix.pdf>

CONCLUSION

The Department of Materials Science and Engineering took steps to prevent the spill and when the spill occurred, procedures were available that minimized the effects of the exposures on the Student and other laboratory staff members. The chemical handling safety procedures included:

- Standard operating procedures for tasks that required the chemical handling were developed and available for review by lab workers.
- Lab workers completed laboratory training classes and Department specific training.
- Lab workers consistently wore personal protective equipment (eye protection, lab coat, and gloves) while working in the lab.
- The chemical fume hood was used when large volumes of chemicals were mixed and handled.
- A chemical spill kit was available and staff members had been trained to use it to clean up the nitric acid spill.
- Emergency procedures were implemented to wash the affected person with water to remove the chemical. A Department staff member called for outside emergency assistance by calling 9-1-1.
- The staff members worked in a team; they did not work alone.
- An OARS incident report was submitted to EH&S when the incident occurred, an incident investigation was conducted, and root causes and corrective actions were identified to improve the safety program and prevent future incidents.

If you have questions, please contact me by phone at 616-6212 or email at pnumoto@uw.edu.

Attachment: OARS Report 2015-07-018

Cc: Department of Materials Science and Engineering, Box 352120

- Tuesday Kuykendall, Lab Manager,
- Zachary Stephen, PreDoc Research Associate

Katia Harb, EH&S Assistant Director of Research and Occupational Safety, Box 357165





University of Washington Accident / Incident Report

Report Number: 2015-07-034

Contact EH&S at 206-543-7262

Person Reporting Incident

Last Name: [REDACTED]	First Name: [REDACTED]
Phone: +1 [REDACTED]	Email: [REDACTED]
Occupation/Position: [REDACTED]	Department: BIOENGINEERING
Date Reported (yyyy/mm/dd): 2015/07/14	Time of Reporting: 08:45 AM

Person Involved or Affected

Last Name: [REDACTED]	First Name: [REDACTED]
Phone: +1 [REDACTED]	Email: [REDACTED]
Occupation/Position: [REDACTED]	Department: BIOENGINEERING

Incident Details

Date of Incident (yyyy/mm/dd): 2015/06/12	Time of Incident: 8:00 PM	When Shift Begins: N/A
Campus: Seattle	Incident Location/Parking Lot: W.H. FOEGE BIOENG	
Room:	Other:	

Incident Details:

I was carrying back supplies from our departmental graduation celebration when I slipped on the stairs leading from the second floor to first floor lobby. I twisted my ankle, which later bruised. I reported the fall to my supervisor and left for the night. I went to the doctor on 7/11 after I noticed that the injury wasn't healing quickly and was diagnosed with a sprained ankle (stretched anterior talofibular ligament) and given a brace to wear.

Attachment: No

Supervisor

Last Name: WOODS	First Name: RUTH
Phone: +1 206 685-2004	Email: rwoods@u.washington.edu
Occupation/Position: ADMINISTRATOR	Department: BIOENGINEERING

Classification

Level 1:
Injury requiring medical treatment (go to level 3 if in-patient hospitalization or amputation occurred),

Type of Incident

Injury Description: Sprain, Strain, Twist,
Body Parts Affected: Feet, Ankles, Toes,
Cause of Injury or Damage: Fall of Less than 6', or on Stairs,

Possible Causes

Equipment:
Environment:
Policies / Procedures:
Human Factors: Loss of Balance, Rushing,

Suggested corrective action by the affected party

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.)

██████ had worked a long shift because of the graduation celebration event. She was talking to a student volunteer when she fell. The fatigue of the long day may have increased the risk of falling and the distraction of the student volunteer may have increased the risk.

Recommendations/Preventive Measures:

Take steps to reduce the length of employee's shifts when there are special events. Encourage employees to use a cart and the elevator when carrying loads.

Corrective Actions Target Date (yyyy/mm/dd):
2015/07/16

Corrective Actions Complete Date (yyyy/mm/dd):
2015/07/22

Other Comments:

The incident was reported to ██████'s direct supervisor who did not instruct her to complete an OARS report. ██████ told me about the incident this week after being treated for the sprained ankle. I will remind the direct supervisor of the OARS reporting requirement for accidents and near misses.

EHS Review

Last Name:

First Name:

Phone Number:

Email:

Occupation/Position:

Department:

Comments:



University of Washington Accident / Incident Report

Report Number: 2015-07-040

Contact EH&S at 206-543-7262

Person Reporting Incident		
Last Name: EDMARK	First Name: RICHARD	
Phone: +1 206 685-3581	Email: edmarkr@uw.edu	
Occupation/Position: RESEARCH SCIENTIST	Department: BIOENGINEERING	
Date Reported (yyyy/mm/dd): 2015/07/15	Time of Reporting: 02:23 PM	
Person Involved or Affected		
Last Name: [REDACTED]	First Name: [REDACTED]	
Phone:	Email:	
Occupation/Position: Contractor	Department:	
Incident Details		
Date of Incident (yyyy/mm/dd): 2015/07/15	Time of Incident: 10:30 AM	When Shift Begins: N/A
Campus: Seattle	Incident Location/Parking Lot: W.H. FOEGE BIOENG	
Room: N409C	Other:	
Incident Details: Installation contractor accidentally spilled 10 ml of 4:1 DMF/Piperidine on floor. Liquid was wiped up with paper towels and placed in fume hood to evaporate. All personnel left the lab because of residual odor. The odor disappeared after 20 min. EH&S Chemical Response was contacted for advice. They recommended the action performed followed by cleaning the area with 1% Liquinox and rinsing then drying. The wax coating on the floor was removed due to the type of chemicals. The paper towels will be thrown in the trash after all solvent has evaporated. The PI was informed after remediation of the spill.		
Attachment: No		
Supervisor		
Last Name: EDMARK	First Name: RICHARD	
Phone: +1 206 685-3581	Email: edmarkr@uw.edu	
Occupation/Position: RESEARCH SCIENTIST	Department: BIOENGINEERING	
Classification		
Level 1: Property damage only, Injury or Exposure, no first aid required,		
Type of Incident		
Injury Description: None,		
Body Parts Affected: None,		
Cause of Injury or Damage: Chemicals,		
Possible Causes		
Equipment: Other,		
Environment:		
Policies / Procedures:		
Human Factors: Inattention,		

Suggested corrective action by the affected party			
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.) Contractor is an instrument installation expert and not a laboratory chemist who routinely handles chemicals on a daily basis. Space around the newly installed instrument was limited due to all the materials needed for assembling it.</p>			
<p>Recommendations/Preventive Measures: Advise future instrument installation contractors about safety handling chemicals. A general lab safety orientation was performed prior to work being started.</p>			
Corrective Actions Target Date (yyyy/mm/dd): 2015/07/15		Corrective Actions Complete Date (yyyy/mm/dd): 2015/07/16	
Other Comments:			
EHS Review			
Last Name:	First Name:	Phone Number:	Email:
Occupation/Position:		Department:	
Comments:			



University of Washington Accident / Incident Report

Report Number: 2015-07-056

Contact EH&S at 206-543-7262

Person Reporting Incident

Last Name: CORDTS	First Name: STUART
Phone: +1 206 616-3442	Email: scordts@uw.edu
Occupation/Position: PROGRAM OPERATIONS SPECIALIST	Department: ENV HEALTH & SAFETY
Date Reported (yyyy/mm/dd): 2015/07/21	Time of Reporting: 07:47 AM

Person Involved or Affected

Last Name: [REDACTED]	First Name: [REDACTED]
Phone:	Email:
Occupation/Position: Undergraduate Student	Department:
Person was in Paid Position: Unknown	

Incident Details

Date of Incident (yyyy/mm/dd): 2015/07/20	Time of Incident: 11:30 AM	When Shift Begins: N/A
Campus: Seattle	Incident Location/Parking Lot: MORE HALL	
Room: 319	Other:	

Incident Details:

Per a written submittal: "I was rinsing a squeeze bottle with less than 5 ml of methanol in the fume hood, but the squeeze bottle was more sensitive than anticipated compared to DI water, which resulted in a few squirts of methanol contacting skin on my right arm, sliding down into the glove of my right hand." (Original report attached.)

Attachment: **Yes**

Supervisor

Last Name: GOUGH	First Name: HEIDI
Phone: +1 206 221-0791	Email: hgough@u.washington.edu
Occupation/Position: RESEARCH ASSISTANT PROFESSOR	Department: CIVIL & ENVIR ENGR

Classification

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

Type of Incident

Injury Description: **Pain, Irritation, Inflammation, Swelling,**

Body Parts Affected: **Arms, Hands, Wrists,**

Cause of Injury or Damage: **Chemicals, Splash,**

Possible Causes

Equipment: **Using Equipment Improperly,**

Environment: **Chemicals,**

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

Human Factors: **Inadequate, Improper PPE,**

Suggested corrective action by the affected party

Per the original report: "I am now aware that methanol in a squeeze bottle is highly sensitive to touch and will take better care in directing the nozzle, while wearing a lab coat."

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.)

The student was relatively new the lab, and not accustomed to working with solvents in squeeze bottles on warm days.

Recommendations/Preventive Measures:

In the future, the student will ensure that lab coat sleeves cover her arms when working in the fume hood. Additionally, the work space will be set up so that the nozzle of squeeze bottles is pointed away from the user when not being used to avoid accidental exposure.

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

2015/07/27

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

2015/07/27

Other Comments:

The student has confirmed that the modified work area setup is being used.

EHS Review

Last Name:

First Name:

Phone Number:

Email:

Occupation/Position:

Department:

Comments:



University of Washington Accident / Incident Report

Report Number: 2015-07-076

Contact EH&S at 206-543-7262

Person Reporting Incident

Last Name: [REDACTED]	First Name: [REDACTED]
Phone: +1 [REDACTED]	Email: [REDACTED]
Occupation/Position: [REDACTED]	Department: DEAN ENGINEERING
Date Reported (yyyy/mm/dd): 2015/07/24	Time of Reporting: 02:35 PM

Person Involved or Affected

Last Name: [REDACTED]	First Name: [REDACTED]
Phone: +1 [REDACTED]	Email: [REDACTED]
Occupation/Position: [REDACTED]	Department: DEAN ENGINEERING

Incident Details

Date of Incident (yyyy/mm/dd): 2015/07/23	Time of Incident: 6:30 PM	When Shift Begins: N/A
Campus: Seattle	Incident Location/Parking Lot:	
Room:	Other: between McMahon and McCarty Halls	

Incident Details:

We were moving gear on carts between the HUB and McCarty Hall. I was pushing one cart and a colleague of mine was pushing a loaded hand truck and walking behind me. The cart I was pushing came to an abrupt stop when it got hung up on an uneven piece of sidewalk. My colleague was unable to stop his cart in time and accidentally ran his cart over my foot.

Attachment: No

Supervisor

Last Name: BURGSTAHLER	First Name: SHERYL
Phone: +1 206 543-0622	Email: sherylb@uw.edu
Occupation/Position: DIRECTOR	Department: UWIT GOF

Classification

Level 1:
Injury requiring first aid,

Type of Incident

Injury Description: Bruise, Contusion, Cut, Laceration, Puncture, Scratch, Abrasion (Open Wound), Pain, Irritation, Inflammation, Swelling,

Body Parts Affected: Feet, Ankles, Toes,

Cause of Injury or Damage: Struck or Pinched by Moving Object,

Possible Causes

Equipment:

Environment: Slippery, Uneven surface,

Policies / Procedures:

Human Factors:

Suggested corrective action by the affected party

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.)

Rough surface
Personnel error

Recommendations/Preventive Measures:

In ongoing practices, continue to encourage staff to consider safety of themselves and others in their actions.

Corrective Actions Target Date (yyyy/mm/dd):
2015/08/03

Corrective Actions Complete Date (yyyy/mm/dd):
2015/08/03

Other Comments:

Checked with injured party to ensure she was getting desired and satisfactory treatment

EHS Review

Last Name:

First Name:

Phone Number:

Email:

Occupation/Position:

Department:

Comments:

University-Wide Health and Safety Committee Meeting Agenda

August 12, 2015

1:00 – 2:30 PM

Foege N130A

Regular Attendees:

- 2015 University-Wide Health and Safety Committee Members
(<http://www.ehs.washington.edu/ohssafcom/groups.shtm>)
- Jude Van Buren, Katia Harb, Emma Alder, EH&S

Agenda Items	Persons Responsible	Process	Time
Call to Order	Leslie Anderson, Chair		
Introductions	Committee Members Young Kim, EH&S Building and Fire Safety	Discussion	10 min
Approve Meeting Minutes	Leslie Anderson	Robert's Rules of Order	5 min
Evacuation Drill Subcommittee Update	Leslie Anderson	Presentation	10 min
Organizational Group Reports	Committee Members	Discussion	15 min
Union Reports	Union Representatives	Discussion	10 min
Ex-Officio Reports	Ex-Officio Members	Discussion	10 min
Election Update	Emma Alder	Discussion	10 min
EH&S Report	Emma Alder: L&I Update Katia Harb: Staff Updates	Discussion	10 min
Good of the Order	Committee Members	Discussion	10 min
Adjourn	Leslie Anderson		

Next Meeting: 9/9/2015 – **Foege N130A**

University-Wide Health and Safety Committee Meeting Minutes

July 8, 2015 1:00-2:30 pm
UW1-103 – UW Bothell

	Elected Membership		Appointed Membership		Guests
X	Leslie Anderson (1)		Paul Zuchowski (3)	X	Chris Pennington
X	Ryan Hawkinson (1)		Bob Ennes (4)		Eric Stefansson, EH&S
	Paula Lukaszek (2)	X	Nadia Khan (4)		Linda Arnesen, EH&S
	Sterling Luke (2)	X	Nicole Sanderson (7)		Lesley Leggett, EH&S
X	Sara Jones (3)		Michael Glidden (9)		Andrea Badger, EH&S
X	Ron Maxell (6)	X	David Zuckerman (10)		
	Paul Miller (6)		Liz Kindred (5)		
X	Charlotte Rasmussen (7)		Rob Hinton (5)		
	Stephen Rondeau (8)				
X	Sonia Honeydew (9)				
X	Roy Farrow (10)				
	Kathy Newell (10)				
	Rick Gleason (Faculty Senate)				
	Labor Union Representation		Ex Officio Membership		Support
	Jim Bals WFSE Local 1488		Michelle Doiron Attorneys General Office		Jude Van Buren, Director, EH&S
	Joel McCulloch SEIU Local 1199	X	Tracey Mosier Facilities Services	X	Katia Harb, Asst. Director, EH&S
	Laura Harrington SEIU 925		Wendy Winslow-Nason Risk Management		Sherry Baron, EH&S Technical
	Peter Johnston UAW 4121	X	Ron Fouty Capital Projects	X	Emma Alder, EH&S Technical
			Josh Kavanagh, Transportation Services		
*X= Present at meeting					

Agenda

1. Call to Order
 2. Evacuation Drill Subcommittee Update
 3. Group Reports
 4. Union Reports
 5. Ex-Officio Reports
 6. EH&S Reports
 7. Tour of UW Bothell
 8. Adjourn
-

Recorded: by Emma Alder

1. **Call to Order:** Meeting called to order at 1:07 PM by Leslie Anderson.
2. **Introduction:** Introductions were made around the room.
3. **Evacuation Drill Subcommittee Report:** Leslie gave an update on the evacuation drill subcommittee.
4. **Organizational Group Reports:**
 - a. **Group 1:** Ryan Hawkinson reported that Group 1 met and discussed OARS reports, including many slips and falls. They also discussed the U-Wide meeting and selected their election coordinators.
 - b. **Group 2:** No representatives present. Emma Alder reported that Group 2 has been focusing on their election strategy for the upcoming term.
 - c. **Group 3:** Sara Jones reported that Group 3 reviewed their OARS reports and Paul Zuchowski volunteered as the election coordinator.
 - d. **Group 4:** Nadia Khan reported that Group 4 discussed the upcoming election. Scott Preston will present the after action report for the Royal Flush emergency drill at their next meeting. The group then discussed accident reports.
 - e. **Group 5:** No representatives present.
 - f. **Group 6:** Ron Maxell reported that Group 6 met and discussed the need for membership for the upcoming term. One idea was to present this need at an upcoming administrator meeting. The group is still waiting for an election coordinator appointment. At the end of the meeting, Paul Miller took the group on a tour of some of the laboratories in Bagley Hall.

- g. **Group 7:** Nicole Sanderson reported that Group 7 has not met since the last U-Wide meeting.
 - h. **Group 8:** No representatives present.
 - i. **Group 9:** Sonia Honeydew reported that Group 9 hosted Phil Numoto at their most recent meeting. Phil gave a presentation on the different brands and styles of protective eyewear available. Sonia also reported the Group 9 meeting minutes are now on the College of Engineering website.
 - j. **Group 10:** David Zuckerman reported that Group 10 held their most recent meeting in the UW Emergency Operations Center (EOC). They conducted their routine business and selected their election coordinator. UW Emergency Management staff then gave a tour of the facility.
5. **Union Reports:** No representatives present.
6. **Ex-Officio Reports:** No report.
7. **EH&S Reports:**
- a. **Staff Update:** Katia Harb informed the committee that Sherry Baron, EHS Chemical and Occupational Health Manager, will be leaving UW. Sherry was recruited for and accepted a position with King County where she will be working as a safety and claims administrator. Ron Fouty added that Sherry let him know that she will miss working at the UW and with the safety committees. This new position will offer her an opportunity to work more in the field to directly provide safety services.
8. **Tour of UW Bothell:** Charlotte Rasmussen and Nicole Sanderson took the committee on a tour of the new Discovery Hall building and the Sarah Simonds Green Conservatory.
9. **Meeting Adjournment:** The meeting adjourned at 2:30 PM.

Today's Summit Agenda

Welcome and Purpose	Norm Arkans, Associate Vice President & UW Crisis Communications Committee (CCC) Chair
History of Crisis Communications and the UW: Our Plan, Policies and Procedures	Steve Charvat UW Emergency Management (UWEM) Director
UW Alert	Andy Ward Manager, UW-IT and CCC Vice Chair
Emergency Blog, Web Banners and UW Safety Portal	Gina Hills, Director, Web Communications, Marketing & Communications, Advancement
UW Outdoor & Indoor Alert	Clarice Hall Project Manager, UW-IT
American Red Cross <i>Safe and Well</i>	Steve Charvat UWEM
Remarks by U-Wide Health & Safety Committee Chair	Leslie Anderson 2015 U-Wide H&S Chair
<i>Your Role</i> as a Building Coordinator in Crisis Communications / Facilitated Q&A	Building Coordinators & Panel
Post Summit Next Steps & "Homework"	All

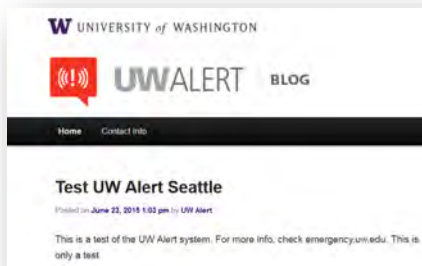
The UW's Toolkit for Crisis & Emergency Communications



The University of Washington is committed to keeping the campus community informed during emergencies and situations that might disrupt normal operations. These are among the ways information may be communicated:



UW ALERT: Immediately upon learning about a potentially serious situation, a crisis communications team convenes on a conference call to assess the nature of the risk and the quality of the available information. The team then decides what, if any, message to send and how to disseminate the information (options include text, email, voice, Web, Twitter, Facebook). UW Alert is an “opt-in” system that requires You to enroll through your mobile phone, land line or email. Only open to UW students, faculty & staff. Interested non-UW parties may receive UW Alerts via a Twitter feed or Facebook “like”.



emergency.uw.edu

EMERGENCY BLOG: UW Alerts and updates are posted on the UW Alert Blog, as well as information about situations on campus that are not serious enough to warrant an alert but might raise some concerns. For example, the Seattle Fire Department routinely sends a large response in potential hazardous materials instances. These situations almost always are determined to be not dangerous. But the blog might be used to let you know that the Fire Department is checking out a hazmat call when it occurs in a heavily trafficked area where a lot of people might be concerned. If the situation does escalate, the UW Alert system may be activated.



For more information on getting the Alert Banner on your webpage visit:

uw.edu/marketing/web-design/uw-alert-banner

WEBSITE BANNER: If the UW Alert system is activated, a banner is posted at the top of the UW home page and dozens of other pages to alert the campus community. A red banner signals the most serious alert. Orange banners mean “pay attention,” there’s a significant event or situation. A silver banner is used to convey information of an FYI nature. If you would like the banner to automatically appear on your website when UW Alert is activated, you can get the code from our Web toolkit.



INDOOR ALERT: Emergency messages can be broadcast to about 95 campus buildings on the Seattle campus. LED “reader boards” also are strategically located in about 45 buildings and garages directing people to the emergency blog.



OUTDOOR ALERT: 26 outdoor emergency towers are located throughout the Seattle campus. They all include emergency phones with direct two-way communication with the UW Police Department. 16 of these also include specially-equipped loud speakers that can broadcast voice messages across the Seattle campus.



American Red Cross

safeandwell.org

AMERICAN RED CROSS SAFE AND WELL: Following a disaster, it is important to let your family and friends know that you are OK. The American Red Cross has established a *Safe and Well* website that the UW intends to use if a significant emergency or disaster impacts our campuses. Family and friends will be directed to the *Safe and Well* website and will be able to search for you based on the information you voluntarily provide.

Important Numbers & Resources

Campus Safety & Emergency Resources

uw.edu/safety

UW Police Department Non-Emergency

206.685.UWPD (8973)

UW Emergency Management (24/7 Duty Officer)

206.765.7192

Environmental Health & Safety (EH&S)

206.543.7262

UW Information Line (current campus conditions)

206.897.4636

Toll free: 1.866.897.4636

Call
9-1-1
for all Life Threatening
Emergencies

