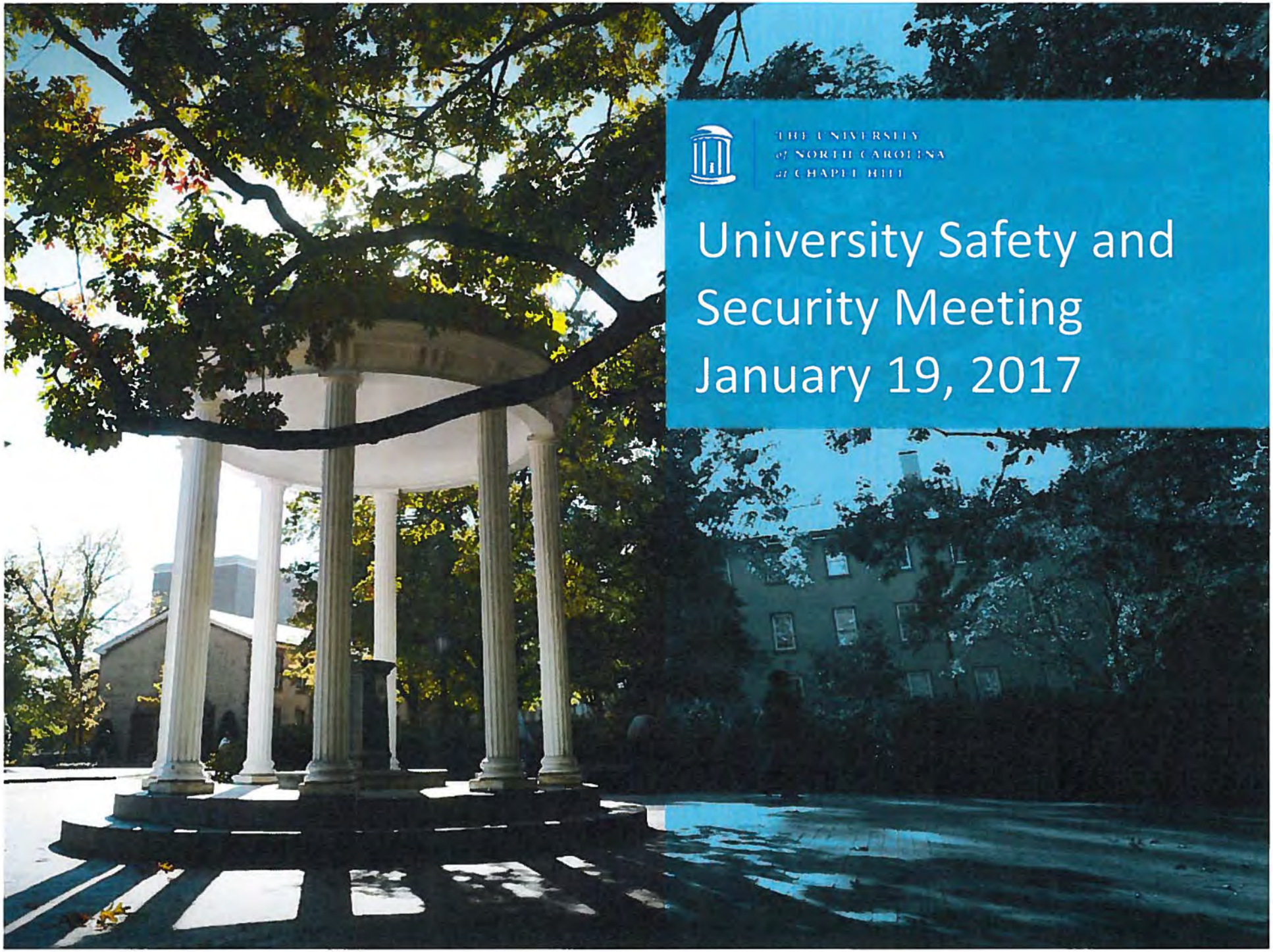

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL
University Safety and
Security Meeting
January 19, 2017

Agenda

• Introductions	All
• New OSHA Standards	Janet Phillips
• Safety Culture – AAPU Report	Cathy Brennan
• Campus safety/security initiatives	Derek Kemp & Jeff McCracken

New OSHA Standards

Janet Phillips jkphillips@ehs.unc.edu
University of North Carolina at Chapel Hill
Phone: (919) 962-5720

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

Crystalline Silica

OSHA 29 CFR 1926.1153 and 1910.1053

Effective Date June 23, 2016

- Naturally occurring mineral
- Found in products such as sand, concrete, mortar, bricks and stone
- Inhalation hazard
- New Rule: Lower PEL
- Compliance Dates:
  Construction-June23, 2017
  General Industry-June 23, 2018

Who is at Risk at UNC?

- Construction and maintenance employees
  - Sawing brick or concrete
  - Sanding or drilling into concrete walls
  - Grinding mortar
  - Cutting or crushing stone
  - Demolition of drywall, concrete, plaster or CMU
- Dental Technicians-dental molds, crowns, bridges, dental prostheses

Compliance Program

- Training
- Establish levels of exposure
- Implement Engineering Controls
- PPE/ Respiratory Protection/Medical Surveillance

Grinding using a vacuum dust collector

Beryllium

OSHA 29 CFR 1910.1024 and 1926.1124

Effective Date March 10, 2017

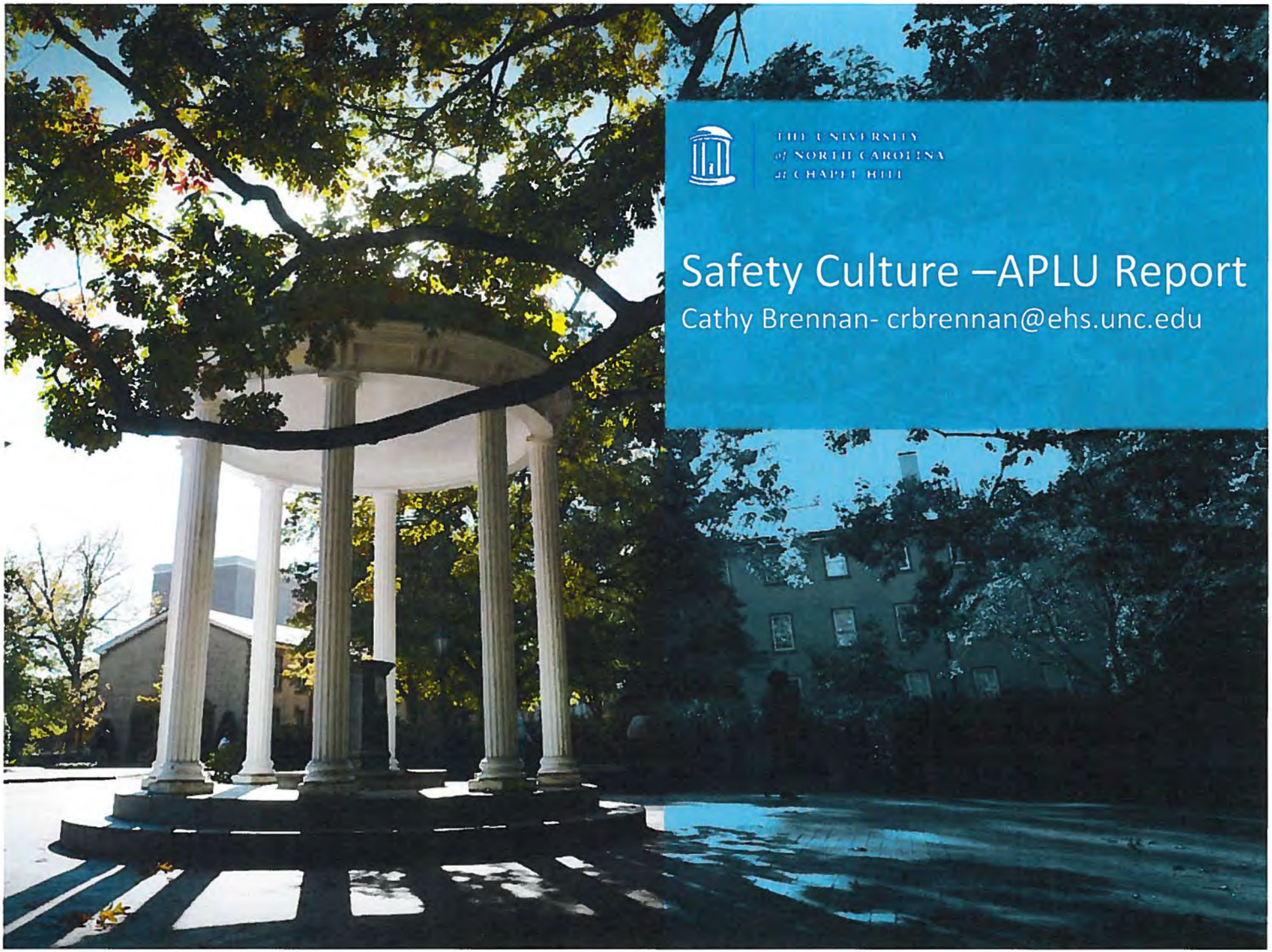
- Grey metal that is stronger than steel and lighter than aluminum, high melting point, good electrical and heat conductivity.
- Used as a pure metal, beryllium oxide, or an alloy with copper, aluminum, magnesium or nickel
- Inhalation hazard-CBD
- New Rule: Lower PEL and establishes a new STEL
- Compliance Date: March 12, 2018

Who is at Risk at UNC?

- Metal Fabricators
- Welders- Beryllium containing base or filler metals
- Dental Technicians in Laboratories – alloys in dental molds, crowns, bridges, dental prostheses

Compliance Program

- Training
- Establish levels of exposure
- Implement engineering and work practice controls
- PPE/Respiratory Protection/Medical Surveillance
- Written Exposure Plan



Safety Culture –APLU Report

Cathy Brennan- crbrennan@ehs.unc.edu

Call to action on Lab Safety Culture

- December 29, 2008 – UCLA Research Assistant – sustained burns on 40% of body – died 1-16-2009
- September 18, 2009 – University of Chicago researcher working with an attenuated BSL2 strain of Yersinia pestis died
- January 2010 – Texas Tech graduate student – lost 3 fingers, burned hands and face, and severely injured one eye
- 2011 – Yale Undergraduate Chemistry Major working with a lathe after hours and alone died.
- April 2012 San Francisco Veterans Affairs Medical Center Researcher contracted meningitis died 17 hours later.
- June 2014 - University of MN graduate student was synthesizing trimethylsilyl azide when it exploded in fume hood; suffered cuts and lacerations and injured ear drum
- March 16, 2016 – University of Hawaii Postdoctoral research lost her arm, sustained burns and temporary lost hearing.

APLU Lab Safety Task Force

- Association of Public and Land Grant Universities Council on Research
- Established in 2015
- Report synthesized recommendations from the National Academies, American Chemical Society, and the U.S. Chemical Safety and Hazard Investigation Board (CSB)
- Result was **20 actionable recommendations**.

Recommendations

APLU	UNC-CH
1. The **President/Chancellor** renews commitment to improve the safety culture for all academic research, scholarship, and teaching.	In progress
2. The **President/Chancellor** designates a campus-lead and leadership team to begin the process. Consider appropriate committees to help implement a culture of safety, including a safety committee of faculty, Environmental Health and Safety (EH&S) officers, and other representatives that can provide formative feedback to researchers, educators, and staff.	Safety committee structure already present which report to overall USSC.
3. The **campus-lead and leadership team** conduct campus dialogues with stakeholders to develop a shared vision of safety that aligns with the institutional mission and to develop an action plan.	MBK has met with AVC Campus Safety & RM, VC Research and Office of Chancellor.
7. The **institution** establishes a unified administrative reporting model that connects responsibility for developing and implementing academic safety policies under one administrative pillar in the institution, and that includes faculty, EH&S officers, and administrative leaders.	Safety committee structure develop policies which then go to USSC for final approval. Under review with Policy Group.
10. The **institution** empowers undergraduate students, graduate students, post docs, and staff to voice safety questions and concerns to their faculty supervisors, offices of EH&S, and/or safety committee.	EHS trains incoming TAs, grad students and encourages open dialogue.
12. The **institution** works to enhance effective working relationships with first responders.	EHS has a close relationship with CHFD.
14. The **institution** implements a process to report incidents and near misses so that the campus community can learn from these incidents.	Hazard Hero for near miss reporting. LCSC reviews accidents and publishes minutes.

Call to action

- December 29, 2008 – UCLA Research Assistant – sustained burns on 40% of body – died 1-16-2009
- September 18, 2009 – University of Chicago researcher working with an attenuated BSL2 strain of Yersinia pestis died
- January 2010 – Texas Tech graduate student – lost 3 fingers, burned hands and face, and severely injured one eye
- April 2012 San Francisco Veterans Affairs Medical Center Researcher contracted meningitis died 17 hours later.
- June 2014 - University of MN graduate student was synthesizing trimethylsilyl azide when it exploded in fume hood; suffered cuts and lacerations and injured ear drum
- March 16, 2016 – University of Hawaii Postdoctoral research lost her arm, sustained burns and temporary lost hearing.

APLU Lab Safety Report – Recommendations

Institution-wide dynamics and resources:

President/Chancellor

1. Renews commitment to improve the culture of safety for all academic research, scholarship, and teaching.

2. Designates a campus lead and leadership team to begin the process. The president/chancellor considers appropriate committees to help implement a culture of safety, including a safety committee of faculty, Environmental Health and Safety (EH&S) officers, and other representatives who can provide formative feedback to researchers, educators, and staff.

Campus lead and leadership team

3. Conduct campus dialogues with stakeholders to develop a shared vision of safety that aligns with the institutional mission and to develop an action plan.

4. Develop effective safety policies, procedures, and management systems, and identify the resources necessary for implementation. They establish recognition and reward systems and integrate these into tenure and promotion, hiring, and annual performance reviews.

5. Clearly articulate the roles and responsibilities of all stakeholders.

6. With the faculty, embed safety communication in laboratories, classes, departments and throughout the wider campus.

7. With the faculty, work to create a trusting and safe culture. They encourage the development of a generative cultures based on open dialogue, reporting, and learning from near misses, as described by the National Academy of Sciences.

Institution

8. Develops a risk assessment process for laboratory safety that is integral to all activities conducted in the laboratory or the field.

9. Establishes a unified administrative reporting model that connects responsibility for development and implementation of academic safety policies. The model should fall under one administrative pillar in the institution and should include faculty, EH&S officers, and administrative leaders.

10. Empowers undergraduate students, graduate students, postdoctoral fellows, and staff to voice safety questions and concerns to their faculty supervisors, EH&S offices, and/or safety committee.

11. Works to strengthen collegial and collaborative relationships between faculty and EH&S staff.

12. Works to enhance effective working relationships with first responders.

APLU Lab Safety Report – Recommendations

Data, hazard identification, and analysis

Institution

13. Implements routine hazard analyses and includes them as integral components of undergraduate and graduate education; thesis, dissertation, and funding proposals; and experimental design for all experiments.

14. Implements a process to report incidents and near misses so that the campus community can learn from these incidents.

Training and learning

Institution

15. Provides laboratory safety education and training for students, faculty, EH&S staff, and department heads.

16. Ensures undergraduate and graduate science and engineering curricula include an emphasis on safe practices.

Continuous improvement

Institution

17. Conducts self-assessment and bench-marking using measures that can provide feedback on whether it is moving to a safer culture.

18. Develops a continuous improvement system that provides feedback, reassessment, and on-going training and learning opportunities.

19. Develops a system of accountability, including peer-to-peer accountability.

20. Promotes academic and industrial/government partnerships that allow academic researchers to learn from strong and well-developed safety cultures in industrial and government laboratories.

USSC Meeting

January 19, 2017

Attendees:

Derek Kemp, Mary Beth Koza, Jeff McCracken, Matt Hawkins, Mike Rolleri, , Beverly Errede, Paul Pogge, David Kauffman, Lorraine Alexander, Doug Cyr, Linc Butler, Chris Payne, Cathy Brennan, Judy Culhane Faubert, Janet Phillips, Cindy Taylor, Anna Wu

Notes:

New OSHA Standards - Janet Phillips presented on the two new OSHA standards pertaining to Crystalline Silica OSHA 29 CFR 1926.1153 and 1910.1053 and Beryllium OSHA 29 CFR 1910.1024 and 1926.1124. See attached slides.

Safety Culture – AAPU Report - Cathy Brennan presented on the Association of Public and Land Grant Universities Lab Safety Task Force report and recommendations. She covered the progress UNC-CH has in the implementations of the recommendations. See attachment.

Campus Safety & Security – Derek Kemp presented on the campus wide camera project, bollard project, locks on class room doors project and the Siren Test of 2-1-2017. He spoke of the partnering of UNC-PD with the Personnel Safety Committee and the Police Advisory Committee. Public Safety policies which have been approved are the Drone Safety and Sit In guidance.