Workplace Safety Task Force Members

- Paul Odenthal (Chair), senior associate vice president for administration
- David Bohnert, director of the Eastern Oregon Agricultural Research Center, College of Agricultural Sciences
- Michael Burand, senior instructor and general chemistry laboratory coordinator, College of Science
- Tom Doyle, director of Environmental Health and Safety
- Susan Freccia, director of compliance, Office of Audit, Risk and Compliance
- Brady Gibbons, professor and associate dean of research, College of Engineering
- Dan Kermoyan, assistant director, Environmental Health and Safety
- Laurel Kincl, associate professor and associate dean for academic and faculty affairs, College of Public Health and Human Sciences
- Christopher Viggiani, associate vice president for research integrity
- Adrienne Wonhof, director of administration and operations, College of Forestry

Also speaking today: Wade Marcum, professor and senior associate dean, College of Engineering
Background

- UCLA – 2009 (t-butyl lithium)
- Texas Tech – 2010 (nickel hydrazine perchlorate)
- Yale – 2011 (machining lathe)
- U.S. Chemical Safety Board “Experimenting with Danger”
“Burt Hall fire causes lasting damage, sets back research efforts”

“OSU employee hurt in Wave Lab”

“OSU fined by EPA”
Workplace Safety Culture Task Force

Goal: strengthen workplace safety university-wide

National Research Council
A strong culture arises because of a **constant commitment to safety** throughout the organization, not because of a set of rules....

- supports free exchange of safety information.
- emphasizes learning and improvement.
- assigns greater importance to solving problems than to placing blame.


OREGON STATE UNIVERSITY
Recommendations

• Safety culture survey

• Restructure University Health & Safety Committee and establish College Safety Advisory Committees

• Targeted safety messaging

• Dean’s Safety Reports

• Safety in course curriculum
  • Adopt risk assessment process

• Safety responsibilities in PD’s and include in performance evaluations
Background of Safety Climate/Culture

Recognition that something fundamental to organizations, not just technical or human failures, leads to catastrophic incidents…

Tenerife

Chernobyl
Safety Culture as part of Organizational Culture

**Organizational Culture**
Underlying shared values & beliefs that characterize an organization

**Organizational Climate**
Shared perceptions of company policies, procedures and practices.
Growth of Safety Culture Research

Safety culture/climate is a search for leading indicators that can help predict and prevent incidents from happening in the first place.

Nunen, et. al *Safety Science* 2018
CoE’s Approach to Developing a Culture of Safety

• Initial efforts

• Timeline
  • August 2020 – Dean Ashford establishes the ad-hoc committee.
  • There were several notable safety incidents leading to this.
  • During Fall and Winter terms the committee toured facilities, interviewed stakeholders, and prepared a report to share.
Membership

- Brady Gibbons, associate dean for research (Chair)
- Tarrigon Van Denburg, COE facilities operations and safety manager
- John Gambatese, professor, School of Civil and Construction Engineering
- Tom Doyle, OSU director of environmental health & safety
- Dennis Barlow, director of safety services, Associated General Contractors of Oregon
- Chris Myers, worldwide safety lead for 3D Printing, Hewlett-Packard Corporation
General Findings

• Challenges include:
  • Turnover in the lab
  • Aging infrastructure
  • Assessment tools
  • Consistency across the college
  • Compliance vs. culture

• We are NOT alone...
Recommended Actions

• CoE should implement a college-wide survey to assess and evaluate the general safety culture within the college.

  • Provide a stronger charge to the college Safety Advisory Committee.

  • Ensure all schools have an active and engaged Safety Advisory Committee.

• Formally implement EH&S in graduate and undergraduate curricula.
Recommended Actions

• Ensure administrative and engineering controls are more consistently implemented throughout the college.

• It’s important to provide resources when feasible.

• Develop a “proposal process” for laboratory safety upgrades similar to the RERF approach.

• Include efforts to promote a strong safety culture in faculty, staff (where appropriate), and graduate student annual performance evaluations.
In General...

• Promoting a culture of safety should be both a top-down and bottom-up effort.
  o University of Michigan Research Smart Initiative (based on guidance from AAPLGU, ACS and NRC)
    ▪ [https://research.umich.edu/research-smart/research-smart-about-us](https://research.umich.edu/research-smart/research-smart-about-us)
  o Research Smart Safety Committees
    ▪ [https://research.umich.edu/research-smart/research-smart-safety-committees](https://research.umich.edu/research-smart/research-smart-safety-committees)
  o Colorado State Research Safety Culture
    ▪ [https://www.research.colostate.edu/research-safety-culture/](https://www.research.colostate.edu/research-safety-culture/)
  o University of Utah Lab Safety Culture Task Force
  o UC Center for Laboratory Safety
    ▪ [https://cls.ucla.edu/](https://cls.ucla.edu/)
  o Stanford – Advancing the Culture of Safety
    ▪ [https://web.stanford.edu/dept/EH&S/cgi-bin/lsctf/](https://web.stanford.edu/dept/EH&S/cgi-bin/lsctf/)
Moving Forward

• Collaborate
  • Establish Unit Safety Committees.
  • Support development and guidance of SOPs.

• Invest
  • Hire dedicated safety culture personnel.

• Partner
  • External expert review and guidance (CoE & EH&S).
  • Develop value-adding opportunities within units for faculty and staff to engage through best safety practices.
EOARC Workplace Safety

Union Station, Hall Ranch, & Starkey Experimental Forest

Burns Station & Northern Great Basin Experimental Range
EOARC Workplace Safety: CAS and EH&S

• College of Agricultural Sciences Oversight & Commitment
  1) CAS Safety & Compliance Contacts
     • Jack Breen (COO)
     • Carrie Burkholder (Regulatory & Safety Compliance Officer)
  2) Safety Advisory Council
     • Ensures that various safety facets are addressed, training is completed and documented, and current information is disseminated to all units in the College of Agricultural Sciences and Oregon Agricultural Experiment Stations
     • CAS Safety Contact List Serve
  3) CAS Safety & Compliance Programs & Resources Website
     • https://agsci.oregonstate.edu/mycas/safety-and-compliance-programs-and-resources
     • Safety Improvement Fund
  4) CAS Emergency Operation Plan

• EH&S Hazardous Waste Program
  1) Remove waste, provide containers and materials to labs for waste storage, and offer technical expertise to labs and entities in need of assistance (Pete Schoonover and crew are awesome!)
EOARC Workplace Safety

EOARC Safety Commitment

1) Administration dedicated to promoting a Safety Culture; examples include
   • Encouraging injury reporting
   • Addressing safety concerns when issues are noted
   • Vehicle safety - annual inspections
   • AEDs purchased

2) Dedicated EOARC Safety Contact

3) Active Unit Safety Committees; EOARC Burns alongside TNC & the USDA-ARS Safety, Health, & Environmental Management Committee (SHEM)
   • Unit leaders are members and participate
EOARC Workplace Safety, cont.

4) Emergency/Disaster Plans (Animal and Facilities) with annual training; Evacuation & Workplace Violence training/plan.

5) Training opportunities/expectations.
   • On-Boarding/New Hire Orientation
   • EH&S Training Resources (SciShield)
   • Unit provided trainings; examples include:
     • Wilderness First Aid
     • ATV
     • CPR
     • Wildland Fire Safety Training
     • Highway/vehicle safety

6) Safety Exit interviews at end of employment.
EOARC Workplace Safety

Lessons Learned

1) Unit workplace safety programs and policies require college and university support and commitment.
   • Resources and personnel
   • Compliance takes time and effort – where does that time come from? Considerations for supervisors and unit leaders.

2) EOARC Safety Program is more efficient and functional as a single program rather than separate programs.
   • SciShield allows for better record keeping; appreciate flexibility provided for non-OSU employees.
   • Safety Contact not a unit leader.

3) Safety concerns & commitments are never “done”.
Types of Safety Cultures

Questions?

Please submit your questions for the panelists in the Q&A feature at the bottom of your screen.