A guide to implementing a **SAFETY CULTURE** in our universities

APLU/AAU Task Force - Lab Safety Task Force
Taylor Eighmy (UT) and Mark McLellan(USU), co-chairs,

Who does safety in our labs & studios?

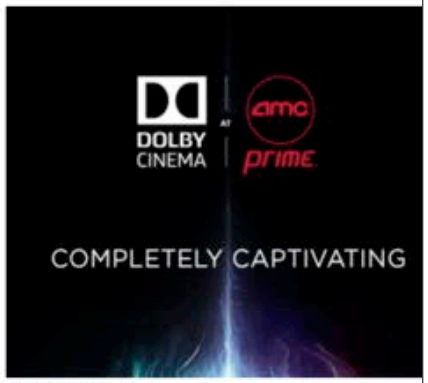
UCLA
2008

Los Angeles Times

LOCAL / L.A. Now

This article is related to: Trials and Arbitration, UCLA

UCLA chemistry professor avoids prison time in fatal lab fire case



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Who does safety in our labs & studios?

Texas Tech 2010

CSB U.S. CHEMICAL SAFETY BOARD

SEARCH

An independent federal agency investigating chemical accidents to protect workers, the public, and the environment.

TEXT SIZE A A

ABOUT THE CSB | INVESTIGATIONS | RECOMMENDATIONS | MEDIA ROOM | VIDEO ROOM

Home ▸ Investigations

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Texas Tech University Chemistry Lab Explosion

FINAL REPORT: Texas Tech University

Location: Lubbock, TX
Accident Occurred On: 01/07/2010
Final Report Released On: 10/19/2011
Accident Type: Reactive Incident
Company Name: Texas Tech University

STATISTICS

Total # of Recommendations	4
Total # of Open Recommendations	1
Total # of Closed Recommendations	3
Total % of Open 25 *vs. Closed* 75	

INVESTIGATION INFORMATION

RELATED VIDEO

RELATED DOCUMENTS

- Case Study
- Webinar Presentation

▸ VIEW ALL DOCUMENTS

Who does safety in our labs & studios?

Yale
2011

SECTIONS HOME SEARCH

The New York Times

New York City Board Votes to Freeze Regulated Rents on One-Year Leases

Chris Christie Enters Presidential Race

Squabbling, Hesitation and Luck Had Roles in Manhunt for New York Prison Escapees

N.Y. / REGION

Yale Student Killed as Hair Gets Caught in Lathe

By LISA W. FODERARO APRIL 13, 2011

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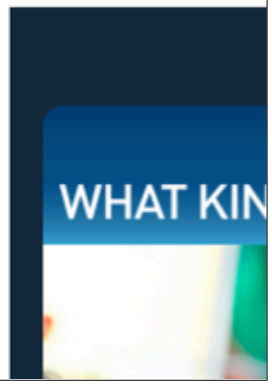
As a Yale undergraduate majoring in astronomy and physics, Michele Dufault was used to extreme physical environments. She worked on underwater robotic vehicles last summer as a fellow at the Woods Hole Oceanographic Institution in Massachusetts. She also traveled to Houston as part of a team of undergraduates chosen by NASA to perform a plasma physics experiment in reduced gravity.

But it was a rudimentary machine — a lathe in a campus



Who does safety in our labs & studios?

USU
2012

Yale student dies in chemistry lab accident

CBS News, Apr 2011

CBS NEWS

A Higher Bar for Pathogens, But Adherence Is an Issue

New York Times, May 2010

The New York Times

A Pfizer Whistle-Blower Is Awarded $1.4 Million

New York Times, Apr 2010

The New York Times

U. of C. researcher dies after exposure to plague bacteria

Chicago Tribune, Sept 2009

Chicago Tribune

Texas A&M to pay $1 million fine to end ban on biodefense research

Dallas Morning Star, Feb 2009

The Dallas Morning News

2008 UCLA Case

- Rewrote university expectations and concerns regarding campus safety
- Personal Accountability – case law
- 4 charges of criminal liability in staff member's death
- Plea Bargain arrived at after 4 years in criminal charges
- ~$5M paid out by university in defense costs
- Now --- civil charges ?

Task Force Members

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Gene Block (Honorary Chair)
UCLA

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University of Arizona

Mridul Gautam
University of Nevada, Reno

Kimberly Jeskie
Oak Ridge National Laboratory

Dawn Mason
Eastman Chemical Company

Jan Novakofski
University of Illinois at Urbana-Champaign

Patty Olinger
Emory University

Joanne Polzien
Michigan Technological University

Lesley Rigg
University of Calgary

Ara Tahmassian
Harvard University

Erik Talley
Cornell University

William Tolman
University of Minnesota Twin Cities

Nancy Wayne
University of California Los Angeles

Alice Young
Texas Tech University

What We Did

Reached out to hear from 20 organizations and 25 institutions.

Synthesized 20 actionable recommendations from Nat'l Academies, ACS, CSB

Developed a national implementation strategy with recommendations and a tool box.

APLU Lab Safety Task Force

2013 → 2015

- Recognize need to address lab accidents
- Need for academic leaders to be proactive
- Concerns about risk manage-ment, federal agency action, faculty burden
- Task force establishe d (APLU, AAU, COGR, ACS)

Call to action

We ask that college and university presidents publicize their commitment and expectations within their institutions.

Implementation Guide

20 recommendations for a safety culture drawn from top resources

Tools and resources for implementation (+ values, roles, responsibilities resources).

http://www.aplu.org/projects-and-initiatives/research-science-and-technology/task-force-laboratory-safety/index.html

or just google: ”APLU” & ”Lab Safety”

Implementation Guide

20 recommendations for a safety culture drawn from top resources

Tools and resources for implementation (+ values, roles, responsibilities resources).

A Tool Box

Cultural adoption in unique to each institution. One size does not fit all.

Tools are expected to evolve.

Focus on cultural change rather than compliance.

Cliff Notes Version:

Recommendation Categories (1-10):

1. President Commits Publicly
2. President designates lead
3. Campus Dialog
4. Safety Policies & Procedures
5. Roles & Responsibilities
6. Safety Communications
7. Safe Culture Development
8. Risk/Hazzard Assessment in University
9. Unified Administrative Reporting
10. Empower Student

Recommendation Categories (11-20):

11. EH&S relationship with Faculty
12. First Responders
13. Routine Hazard Analysis in Graduate Education
14. Near Misses
15. Training
16. Safety in Curricula
17. Self Assessment for progress
18. Continuous Improvement Feedback
19. System of Accountability
20. Partnership with outside organizations

1. The president/chancellor renews commitment to improve the culture of safety for all academic research, scholarship, and teaching.

KEY RESOURCES

Safe Science: Promoting a Culture of Safety in Academic Chemical Research (NRC, 2014):

Recommendation 1. The president and other institutional leaders must actively demonstrate that safety is a core value of the institution and show an ongoing commitment to it.

Creating Safety Cultures in Academic Institutions (ACS, 2012):

Recommendation 2. Encourage every leader to become a proponent of safety and safety education, and to demonstrate this care for safety in their actions with other staff members and students.

Creating a Safety Culture (OSHA, 1989):

Obtain Top Management "Buy-in." This is the very first step that needs to be accomplished. Top managers must be on board. If they are not, safety and health will compete against core business issues such as production and profitability, a battle that will almost always be lost. They need to understand the need for change and be willing to support it. Showing the costs to the organization in terms of dollars (direct

2. The president/chancellor 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 that can provide formative feedback to researchers, educators, and staff.

KEY RESOURCES

Creating Safety Cultures in Academic Institutions (ACS, 2012)

Recommendation 13. Establish a series of safety councils and safety committees from the highest level of management to the departmental level or lower. Each of these committees reports, in turn, to a committee that is higher in the hierarchy of the institution.

Creating a Safety Culture (OSHA, 1989):

Establish a Steering Committee comprised of management, employees, union (if one exists), and safety staff. The purpose of this group is to facilitate, support, and direct the change processes. This will provide overall guidance and direction and avoid duplication of efforts. To be effective, the group must have the authority to get things

Suggested Core Institutional Values

Safety is everyone's responsibility.

Good science is safe science.

Safety training and education is critical to research and education.

Safety culture is necessary to implement true risk reduction.

Diversity and flexibility of approaches and methods.

Utah State University's Approach

UtahState UNIVERSITY

POLICY MANUAL

GENERAL

Number 337
Subject: Safety and Health
Covered Individuals: All University Employees Date of Origin: January 24, 1997

Date of Revision: Month Day, Year

337.1 POLICY

Utah State University is committed to creating a safe environment and a culture of institutional safety, and develops and implements safety and health programs consistent with the best practices for activities and institutions of this type. The University takes safety extremely seriously and will work diligently to provide the necessary safeguards required to ensure the safety and health of employees, students, and the public, as well as facilities, equipment, and other property.

These programs strive to continuously reduce worker risk and improve the prevention of illnesses and injuries in all work environments including but not limited to offices, laboratories, farms and field sites, and driving for work. To accomplish these tasks, all employees (faculty, benefited staff and wage/hourly) are required to fully cooperate with University safety guidelines and to fully follow all procedures relating to safety rules.

Realization of a safe and healthy work environment requires attention and responsibility at every level, including the President, Provost, Chancellor and Vice Chancellors, Deans and Vice Presidents, Department Heads and Directors, lab supervisors, unit supervisors, and all employees. If investigation shows that an employee has failed to follow this policy, appropriate action will be taken (USU policy #311, 407).

It is not the intent of this policy or the University to give employees any rights or protections in addition to those described by the Americans with Disabilities Act as amended.

DRAFT

Utah State University's Approach

New Safety Policy

- New committee structure – reporting from base unit to institution
- New cease and desist authority
- New emphasis on personal accountability
- Faculty-conducted hazrd assessments
- Safety training for students, employees and visitors

Personal Accountability

- President
- Faculty/Principal Investigators
- Provost, VPs, Chancellors
- Lab/Supervisor/Foreman
- Deans, Executive Directors
- Employees/Lab Workers
- Dept. Heads, Directors
- Students

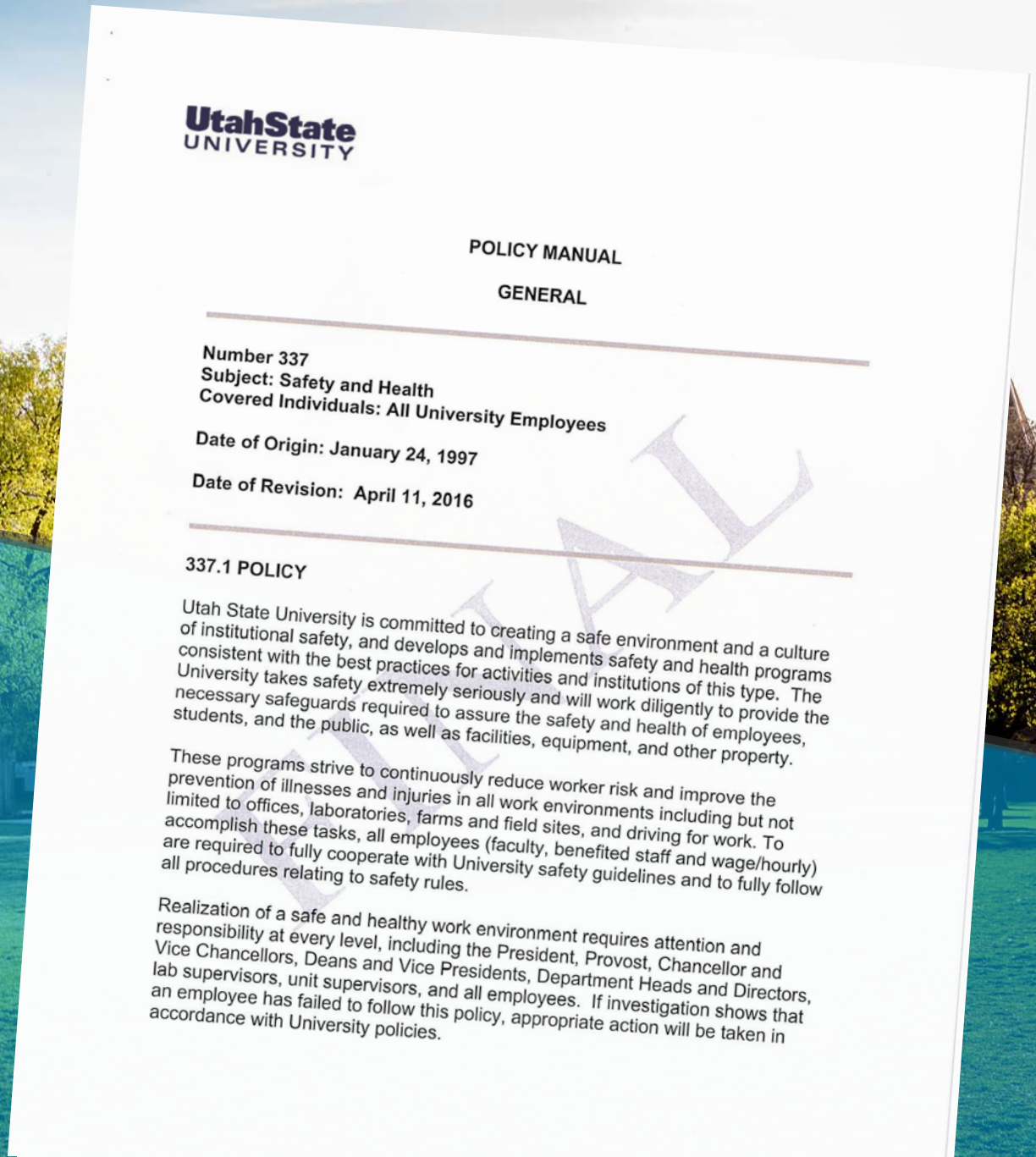
Concerns

Deans/Dept. Heads	Cost and time overhead, field Res
Classified workers	Voice—making a difference
EHS	Manpower
PIs	SOP development/Hazard analysis
VPR	Multi-year effort to move culture

Socializing the Policy

- Many, many meetings and conversations
- College-by-college meetings
- One-on-one meetings with PIs
- Faculty Senate (committee) meetings
- Deans: New committee structures and flexibility

Utah State University's Approach



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Thank you.

Organizations

APLU's Council on Research (CoR); Association of American Universities (AAU); American Chemical Society (ACS); Council On Governmental Relations (COGR); Council of Graduate Schools (CGS); National Academies of Sciences, Engineering, and Medicine (NASEM); U.S. Chemical Safety and Hazard Investigation Board (UCB); Oak Ridge National Lab; Eastman Chemical Co; Centers for Disease Control and Prevention (CDC); American Biological Safety Association (ABSA); Association for the Accreditation of Human Research Protection Programs (AAHRPP); Campus Safety, Health, and Environmental Management Association (CSHEMA); Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC); Federation of American Societies for Experimental Biology (FASEB); Federal Demonstration Partnership (FDP); University Risk Management and Insurance Association (URMIA); National Association of College and University Attorneys (NACUA); National Association of College and University Business Officers (NACUBO); National Postdoctoral Association (NPA); Council on Undergraduate Research (CUR); and Council of Colleges of Arts and Sciences (CCAS).

Institutions

Duke University, University of South Florida (FDP), University of Pittsburgh, University of California, University of Nebraska Lincoln, The University of Utah , The University of Texas Health Science, Auburn University , University of Notre Dame , University of Arizona , Texas A&M University System, University of Maryland , University of Tennessee, Knoxville , Utah State University , University of California Los Angeles, University of Arizona , University of Nevada, Reno, University of Illinois at Urbana-Champaign , Emory University , Michigan Technological University , University of Calgary , Harvard University , Cornell University, University of Minnesota Twin Cities, and Texas Tech University