



Collaborative Bachelor's Degree Program of Fire Protection and Safety
Engineering Technology between Southwest Jiaotong University and
Oklahoma State University, U.S.A.



FPST 3013 Safety Management

Safety and Health Management – Part 1

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**WHAT IS YOUR #1 CONCERN IN
THE FOLLOWING PICTURE**

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Safety



- What is it?
 - the condition of being safe from undergoing or causing hurt, injury, or loss
- What is Safe?
 - secure from threat of danger, harm, or loss
- How do you know when you are "safe"?
 - A feeling
- Safety is the feeling of being free from the risk of harm

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WHAT IS A SAFETY CULTURE?

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Culture



- Definition of culture
 - Shared values, beliefs, behaviors of a group of people
- Definition of safety culture
 - Shared values, beliefs, behaviors of people in the workplace related to safety

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Safety Culture



- "Those aspects of the organizational culture which will impact on attitudes and behavior related to increasing or decreasing risk".
 - Frank Guldenmund
 - International Council on Working Safety 2006
- "A safety culture reflects the shared commitment of management and employees toward ensuring the safety of the work environment".
 - NIOSH

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Climate



- Climate
 - Underlying assumptions, values, norms and expectations of an organization
- An active safety culture
 - Believe in safety for themselves and others
 - Act as if safety matters
 - Feel part of something bigger
- Maybe better termed as a "Culture of Safety"

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Participants in creating a safety culture



- Chief Executive Officer
- Plant Management Team
- Front-line Supervisors
- Workers
- Union
- Purchasing
- Safety Professional
- Barriers to a positive safety culture
 - "Us" vs. "them"
 - Not just in a union environment
 - Workers' negative perceptions of Management
 - Management's negative perceptions of Workers
 - Never-ending struggle

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Priority vs. Value



- **PRIORITY**
 - A precedence established by order of importance or urgency.
- **VALUE**
 - A principle, standard, or belief, considered worthwhile or desirable.

Source: American Heritage Dictionary

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WHY DO SAFETY CULTURES FAIL?

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Columbia Space Shuttle Disaster 2003



- "Cultural traits and organizational practices detrimental to safety were allowed to develop"
- "a reliance on past success as a substitute for sound engineering practices"
- "organizational barriers that prevented effective communication of critical safety information"

CAIB report

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Fukushima Nuclear Disaster, 2011

Japanese Cultural Traits

"Its fundamental causes are to be found in the ingrained conventions of Japanese culture: our reflexive obedience; our reluctance to question authority; our devotion to 'sticking with the program'; our groupism; and our insularity."

Fukushima nuclear accident
independent investigation
commission.



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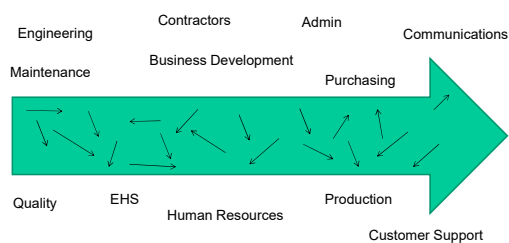
Safety Culture Failure

- Lack of Management Commitment
- Lack of Employee Involvement
- Atmosphere of Distrust/Fear
- Lack of Money
- Lack of Time
- Lack of Leadership

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Poor Leadership model



- Uncontrolled
- Lack of Leadership
- Lack of Management support and Commitment


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Better Leadership model


- Organization
 - Production
 - Business Development
 - Customer Relations
 - Engineering
 - Purchasing
 - Quality
 - EHS
 - Human Resources
 - Communications
 - Admin
 - Contractors



Mission







Safety isn't "Safety" anymore, its organizational effectiveness

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Safety and Health Management Systems

Workplace Safety

 What my mom thinks I do	 What my friends think I do	 What my spouse thinks I do
 What society thinks I do	 What I secretly think I do	 What I actually do

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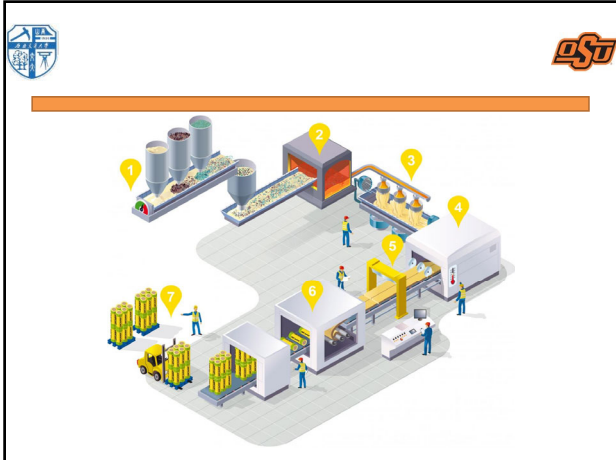


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What is a System?

A system is a grouping of **interrelated** and often **interdependent** components brought together in nature or in the manufactured world to **achieve a common objective** or perform a common function.

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What is a Management System?



- A management system may be described as a structure and set of processes, procedures, policies and/or actions that an organization implements to achieve a defined objective or perform a common function in an efficient, structured way.

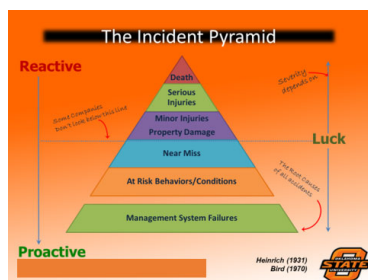
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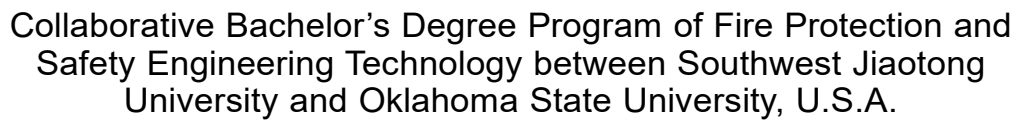
What is a Safety Management System?

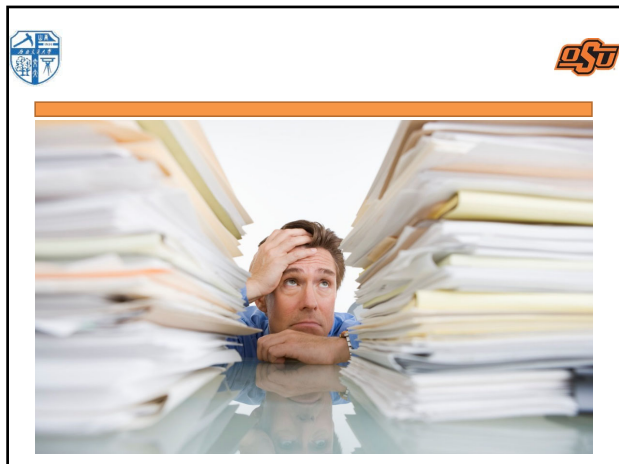


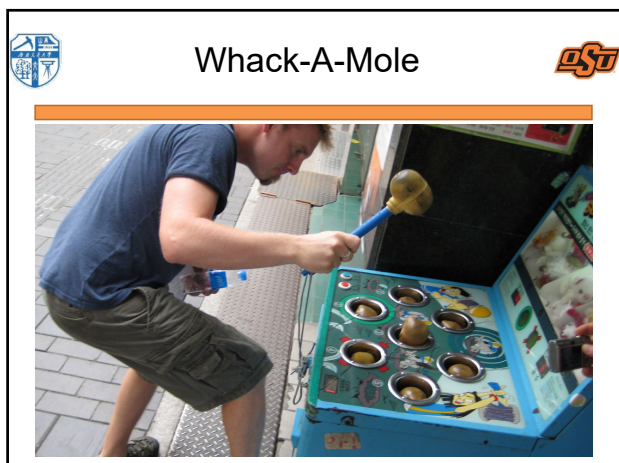
- Systematic process
- Continuous improvement
- Integrated into business processes
- Organized and structured
- Reactive?
- Proactive?
- Both?
- To what end?



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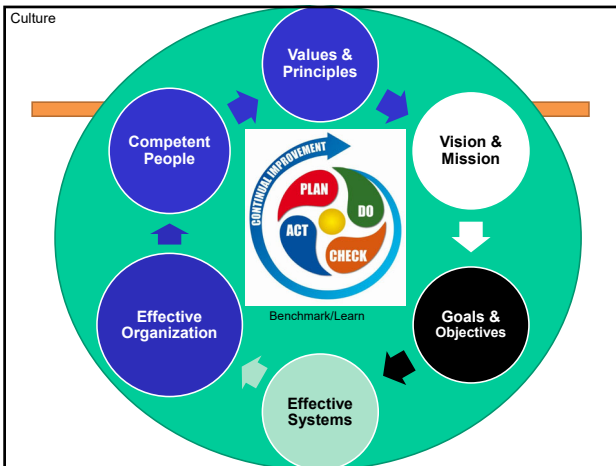


How do we apply this concept to safety management?

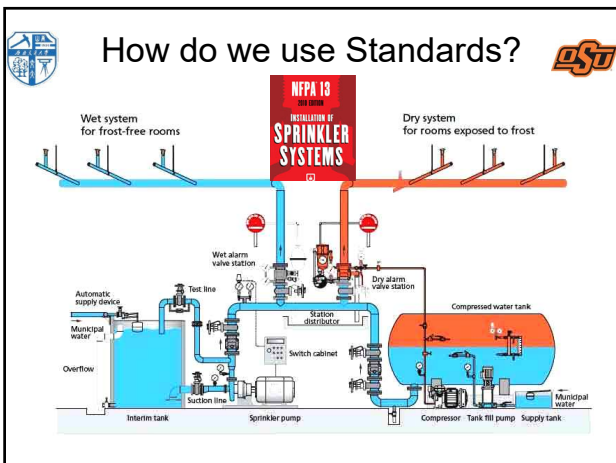




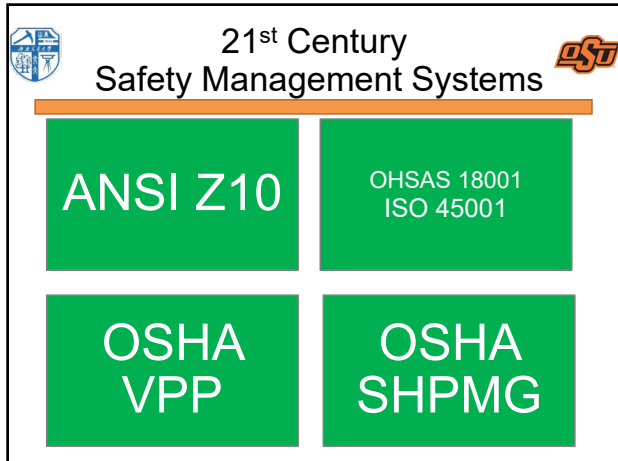
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ANSI Z10

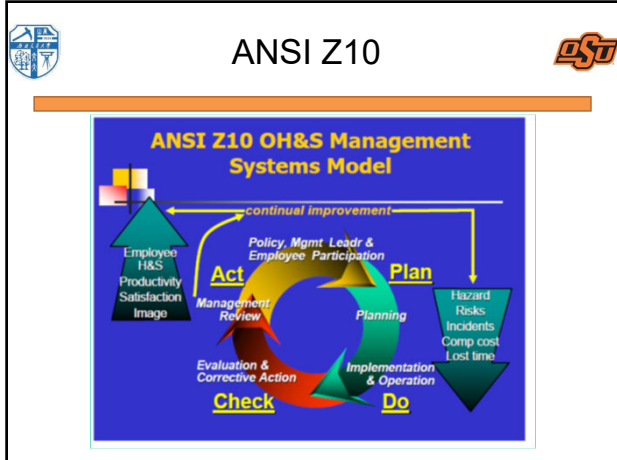
- Emphasizes continuous improvement
- Systematic elimination of underlying or root causes of deficiencies
- Adapts principles from the most relevant approaches into a standard compatible with principal national & international standards
 - e.g., ISO & OSHA VPP
 - ASSP article

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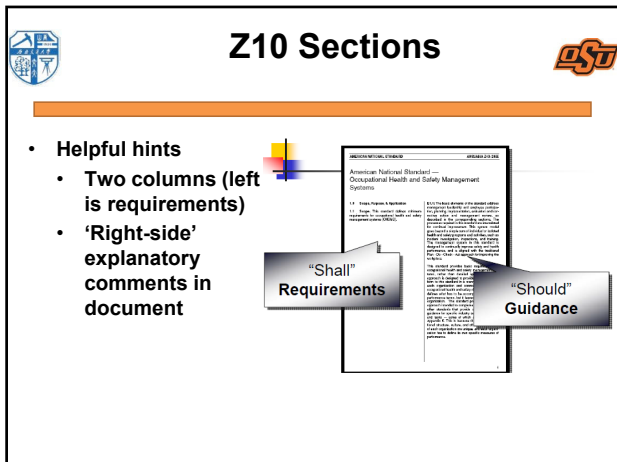
ANSI Z-10 Occupational Health and Safety Management Systems

- Management Leadership
- Employee Involvement
- Planning Assessment Process
- Establish Objectives and Action Plans
- Implement Processes
- Monitoring and Measurement
- Management Review

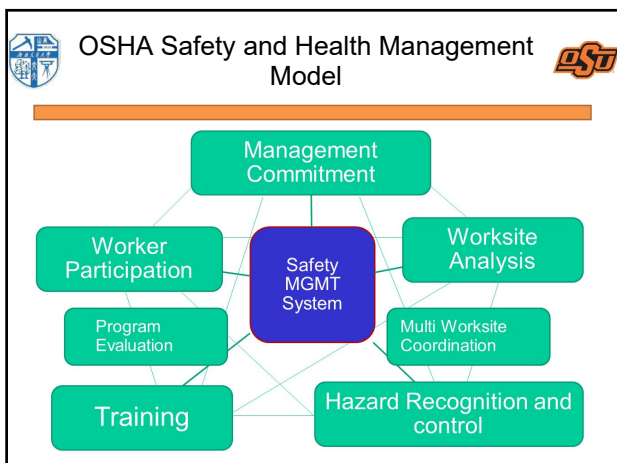
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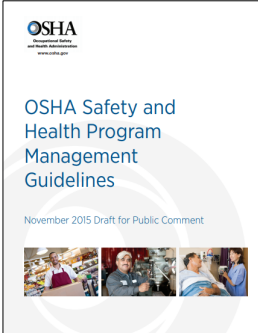





OSHA S&H Program Management Guidelines




- Seven core elements:
 - Management leadership
 - Worker Participation
 - Hazard identification and assessment
 - Hazard prevention and control
 - Education and training
 - Program evaluation and improvement
 - Coordination and Communication on Multi-Employer Worksites




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OSHA S&H Program Management Guidelines




- OSHA Programs that follow same format
 - VPP
 - Voluntary Protection Program
 - OSHA Challenge
 - SHARP
 - I2P2



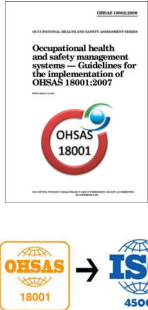
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ISO 45001




- Replaced OHSAS 18001 in 2018
- OHSAS
 - Thirteen co-operating organizations from around the world assisted in its development
 - Spain, Malaysia, United Kingdom and several other European standards organizations
 - Published in April 1999 by British Standards Institution
 - It was not a formal standard, nor was it an official International Standard
- Not mandatory - voluntary basis





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ISO ELEMENTS

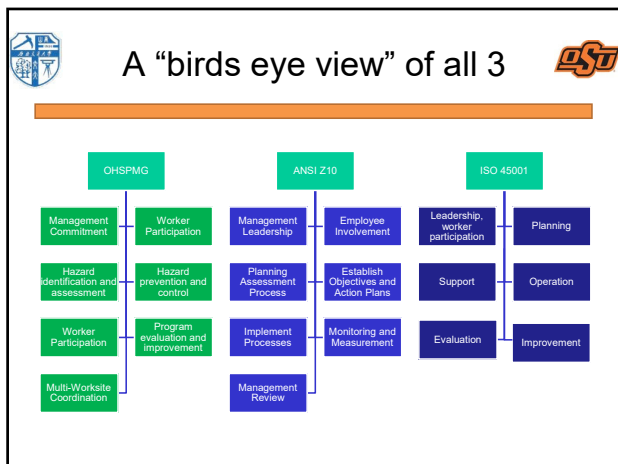




OH&S management system elements:

- Leadership, worker participation and consultation
- Planning
- Support
- Operation
- Performance evaluation
- Improvement

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**THE SAFETY PROFESSIONAL'S
ROLE IN CULTURAL DEVELOPMENT**
