

STUDENT MANUAL

Version 1, January 2019





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THE CENTER FOR CONSTRUCTION **RESEARCH AND TRAINING**

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Safety Orientation for DOE Construction Workers

Safety Orientation for DOE Workers

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Safety Orientation for DOE Workers

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Safety Orientation for DOE Workers

Course Overview

Mission and Purpose

The U.S. Department of Energy (DOE) expects federal and contractor senior leaders, front line leaders and workers to support a strong Safety Culture where "safe performance of work and involvement of workers in all aspects of work performance are core values." The purpose of this course is to train the construction work force on how DOE and contractors are working to establish and maintain a trusting and collaborative Safety Culture where all employees feel free to raise concerns.

Length of Course

The course material is designed to be completed in 8 hours.

Method of Assessment and Evaluation Strategy

No formal examination is administered. Participant evaluation is based on class participation. Instructors must check for understanding (questioning) and observe for comprehension.

Prerequisite

No prerequisites are identified for this course. 10-hour OSHA Construction course is strongly advised.

Personal Protective Equipment and Hazard Controls Required

Appropriate attire and footwear is expected.

References

10 CFR 851. Worker Safety and Health Program.

Covey, Stephen M. R. The Speed of Trust. New York: Free Press. 2006.

- CPWR The Center for Construction Research and Training, Leeds School of Business, and Center for Health, Work & Environment. *Foundations for Safety Leadership*. Silver Spring, MD: CPWR – The Center for Construction Research and Training. 2015. Accessed May 17, 2017. http://www.cpwr.com/sites/default/files/research/FSL_Instructor_Guide_FINAL_508comp_FINAL_sw.pdf.
- DOE G 450.4-1C. Integrated Safety Management System Guide, Attachment 3, ISM Overview. Washington, DC: Office of Health, Safety and Security. 2011.
- DOE G 450.4-1C. Integrated Safety Management System Guide, Attachment 10, Safety Culture Focus Areas and Associated Attributes. Washington, DC: Office of Health, Safety and Security. 2011.
- DOE-HDBK-1028-2009. *Human Performance Improvement Handbook*. Washington, DC: Office of Health, Safety and Security. 2009.
- DOE O 450.2. Integrated Safety Management. Washington, DC: Office of Health, Safety and Security. 2017.
- DOE P 450.4A. Integrated Safety Management Policy. Washington, DC: Office of Health, Safety and Security. 2011.

Safety Orientation for DOE Workers

Course Objectives

Terminal Objective

Upon completion of this Safety Orientation Training, participants will be familiar with the terms, tools, and concepts that are used on Department of Energy Sites to ensure worker and workplace safety.

Enabling Objectives

Upon completion of *Safety Orientation for DOE Workers*, and informed by the presentation material, the participant will:

- 1. Discuss the key concepts of a health and safety program
- 2. Define the terms and important aspects of: organizational culture, safety culture, safety conscious work environment (SCWE), and safety climate
- 3. Identify key concepts of OSHA protections, ISMS, 10 CFR 851, and VPP as they relate to worker rights and responsibilities
- 4. Understand the importance of worker involvement in all aspects of the H&S program and its evaluation
- 5. Identify the expectations given to senior management and frontline supervisors
- 6. Identify those traits and actions that foster trust, a questioning attitude and a willingness to raise issues
- 7. Recognize the importance of identifying hazards and related controls to maintain a safe worksite
- 8. State the process workers can follow to raise concerns
- 9. Recognize the personal and institutional barriers to a positive safety culture and how to overcome them
- 10. Recognize the importance of maintaining safety awareness, recognizing changing conditions, and taking appropriate action

Safety Orientation for DOE Workers

Guidelines for Classroom Behavior

Students are expected to behave conscientiously and professionally, in and out of the classroom. CPWR has a zero-tolerance policy for behavior that can be construed as sexual harassment or creation of a hostile work environment. If you witness inappropriate behavior or receive a report of inappropriate behavior from a student, instructor, or staff member during the conduct of a course, whether that behavior takes place in or out of the classroom, you are expected to take action appropriate to the situation.

Course Agenda

Lesson
Course Introduction and Paperwork
Lesson 1: What's in it for me?
Break
Lesson 2: Worker Protection Programs
Break
Lesson 3: Chilling Effect
Lesson 4: Trust & Communication
Lunch
Lesson 5: Tools for Individual & Team Success
Break
Lesson 6: Foundations for Safety Leadership
Break
Lesson 6: Foundations for Safety Leadership
Break
Lesson 7: Course Takeaways and Expectations

Safety Orientation for DOE Workers

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Safety Orientation for DOE Workers

Course Introduction

Introduction

Safety Orientation for DOE Workers

Introduction

Safety Orientation for DOE Workers

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Welcome to our class.

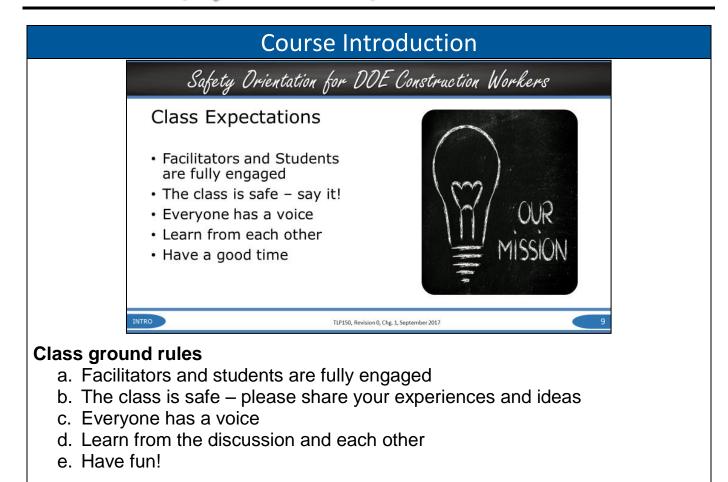
Terminal Objective.

Upon completion of this Safety Orientation Training, participants will be familiar with the terms, tools, and concepts that are used on Department of Energy Sites to ensure worker and workplace safety.

Enabling Objectives.

- 1) Discuss the key concepts of a health and safety program
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- 3) Identify key concepts of OSHA protections, ISMS, 10 CFR 851, and VPP as they relate to worker rights and responsibilities
- 4) Understand the importance of worker involvement in all aspects of the H&S program and its evaluation
- 5) Identify the expectations given to senior management and frontline supervisors
- 6) Identify those traits and actions that foster trust, a questioning attitude and a willingness to raise issues
- 7) Recognize the importance of identifying hazards and related controls to maintain a safe worksite
- 8) State the process workers can follow to raise concerns
- 9) Recognize the personal and institutional barriers to a positive safety culture and how to overcome them
- 10) Recognize the importance of maintaining safety awareness, recognizing changing conditions, and taking appropriate action

Safety Orientation for DOE Workers



Safety Orientation for DOE Workers

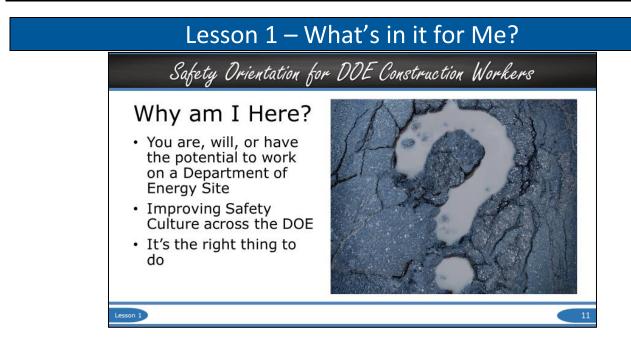
Lesson 1 – What's in it for me?

What's in it for me?

Lesson 1

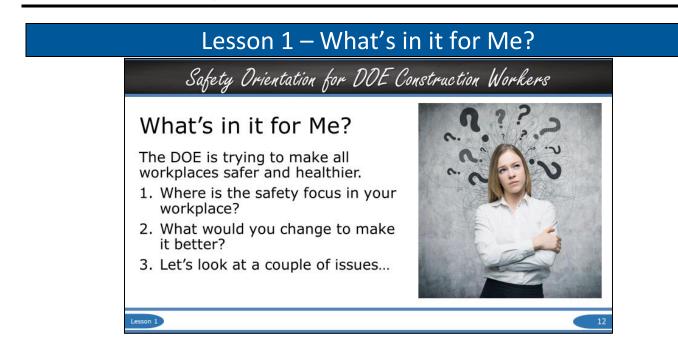
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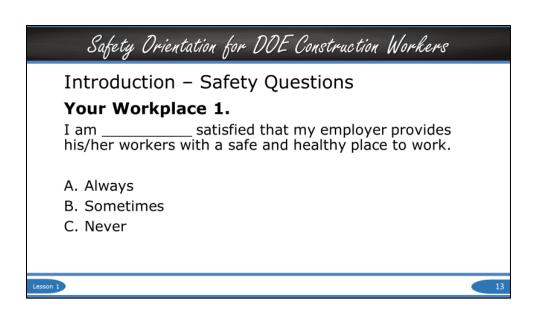


We are going to improve the Safety Culture because:

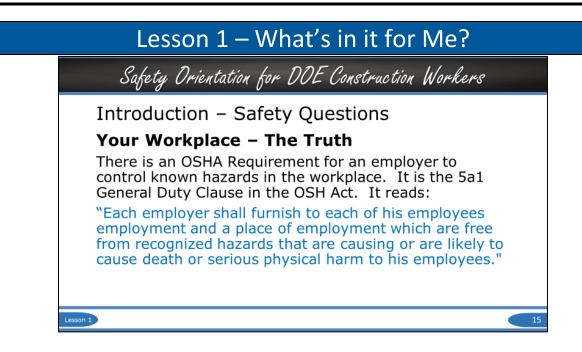
- 1. You are, will, or have the potential to work on a Department of Energy Site.
- 2. DOE-wide approach to improving Safety Culture
- 3. DOE responded by developing a comprehensive Implementation Plan that identified a DOE wide approach to improve and sustain a Safety Culture.
- 4. What is most important is that each site/organization focus on continuous improvement.
- 5. It's the right thing to do.



Notes:



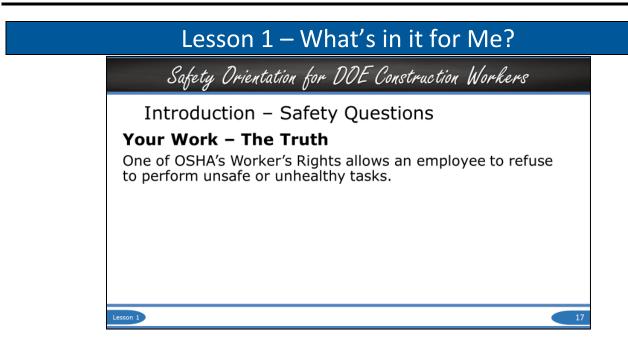
Safety Orientation for DOE Workers



The OSH Act from which this comes was signed by President Richard Nixon on December 29, 1970.

Safety Orientation for DOE Construction Workers	
Introduction – Safety Questions	
Your Work 1.	
I have the right to refuse to perform work that is unsafe or unhealthy.	
A. Always	
B. Sometimes	
C. Never	
Lesson 1	16

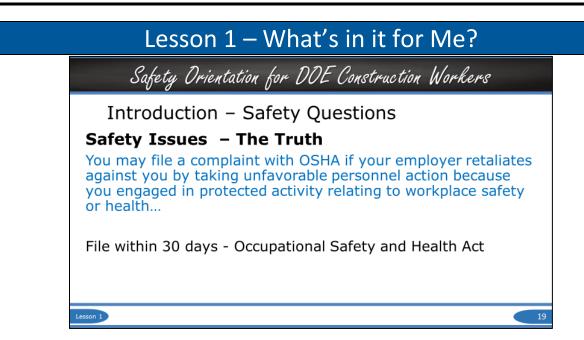
Safety Orientation for DOE Workers



This is already part of the OSHA Worker's Rights.

Safety Orientation for DOE Construction Workers
Introduction – Safety Questions Safety Issues 1.
I have the right to bring up safety concerns to my supervisor/manager without fear of reprisal.
A. Always B. Sometimes C. Never
C. Never
Lesson i 18

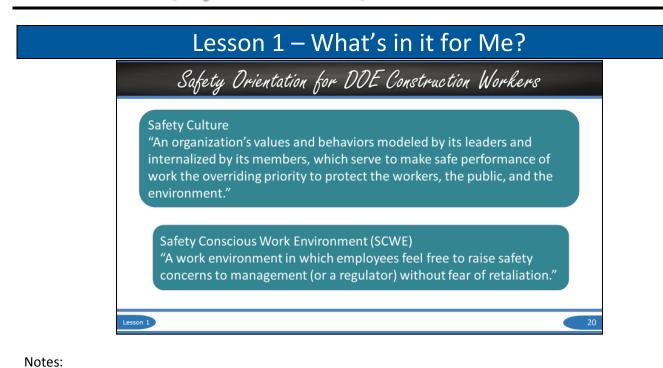
Safety Orientation for DOE Workers



If you are discriminated against, here is what OSHA says:

- No person shall discharge or in any manner discriminate against any employee because such employee has filed any complaint or instituted or caused to be instituted any proceeding under or related to this Act or has testified or is about to testify in any such proceeding or because of the exercise by such employee on behalf of himself or others of any right afforded by this Act.
- 2) Any employee who believes that he has been discharged or otherwise discriminated against by any person in violation of this subsection may, within thirty days after such violation occurs, file a complaint with the Secretary alleging such discrimination. Upon receipt of such complaint, the Secretary shall cause such investigation to be made as he deems appropriate. If upon such investigation, the Secretary determines that the provisions of this subsection have been violated, he shall bring an action in any appropriate United States district court against such person. In any such action the United States district courts shall have jurisdiction, for cause shown to restrain violations of paragraph (1) of this subsection and order all appropriate relief including rehiring or reinstatement of the employee to his former position with back pay.
- 3) Within 90 days of the receipt of a complaint filed under this subsection the Secretary shall notify the complainant of his determination under paragraph 2 of this subsection.

Safety Orientation for DOE Workers



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"We each bear a responsibility to promote a Safety Culture that encourages constant vigilance and a questioning attitude."

Safety Orientation for DOE Workers

Lesson 2 – Worker Protection Programs

Worker Protection Programs

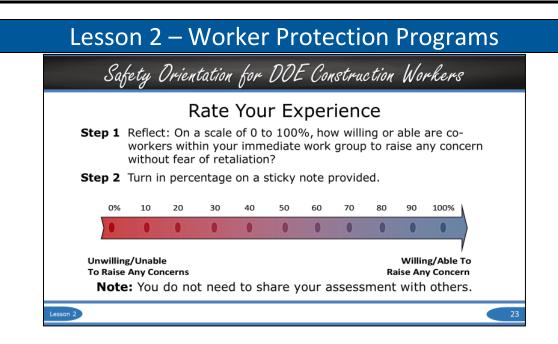
Lesson 2

Safety Orientation for DOE Workers, Version 1 January 2019

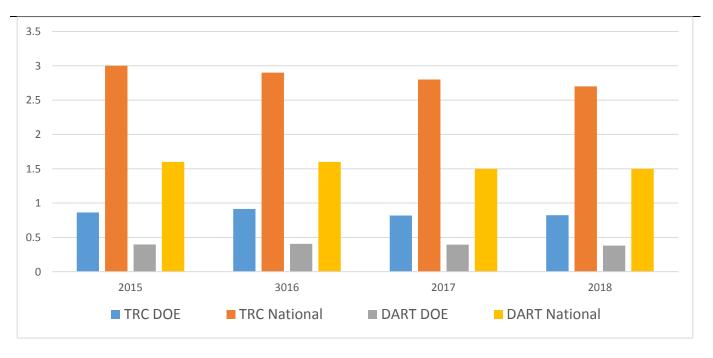
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Safety Orientation for DOE Workers



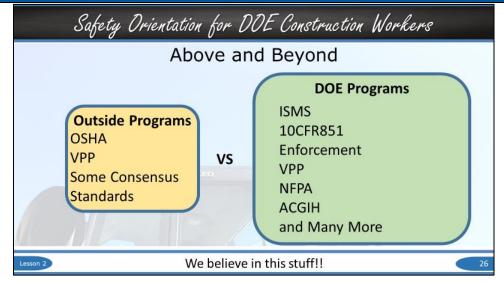
Are you or your fellow workers willing and able to raise concerns without fear of retaliation?



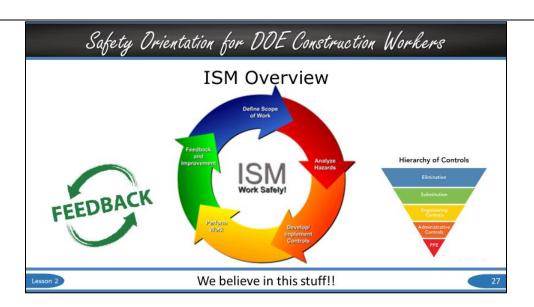
The Department of Energy is one of the safest places you can work.

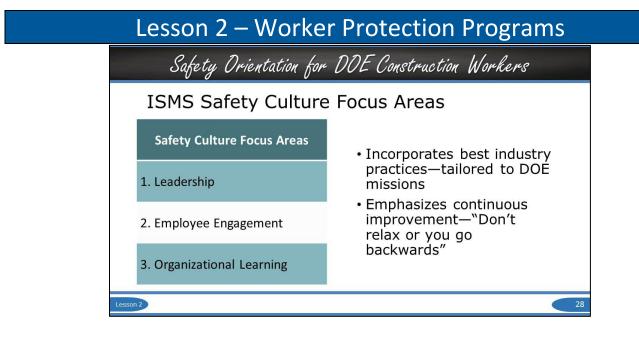
As you can see by the graph, the Total Recordable Case (TRC) and Days Away Recordable or Transferred (DART) rates show about 4 times decrease for the DOE. This is a credit to the concentration on the safety and health of the workforce.

Lesson 2 – Worker Protection Programs

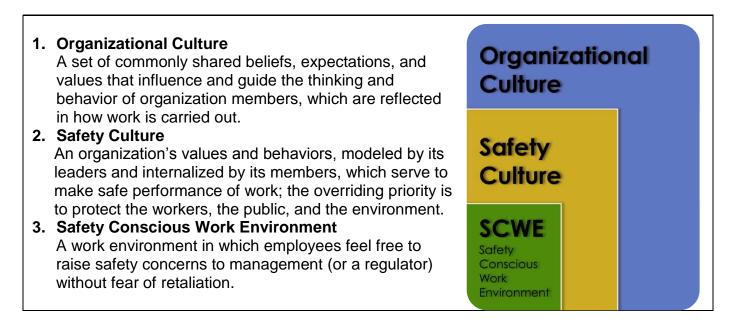


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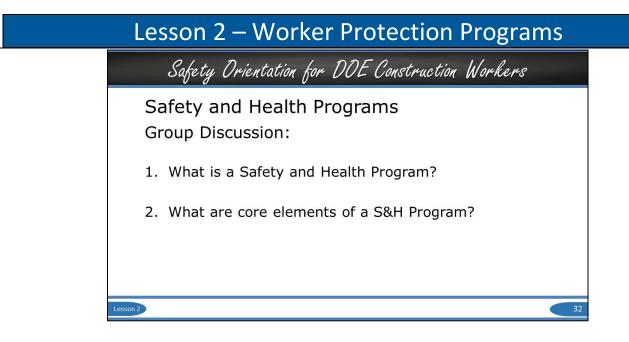


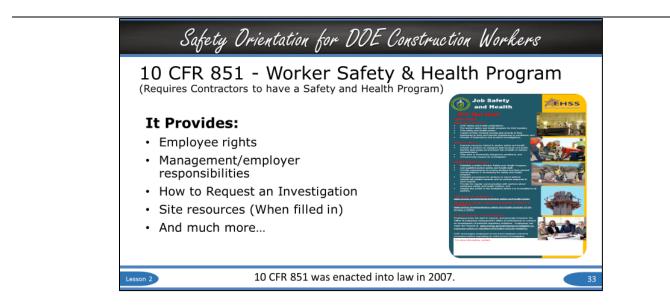


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Safety Orientation for DOE Workers





- Regulation 10 CFR 851, Worker Safety and Health Program, regulation identifies the requirements their workers to operate a safe workplace.
 a. Provides an overview of employee rights.
 - b. 10 CFR 851 applies to contractors only. DOE Employees should be aware of the provisions of the law when dealing with contractors.
 - c. Requires contractors to develop a worker safety and health program,

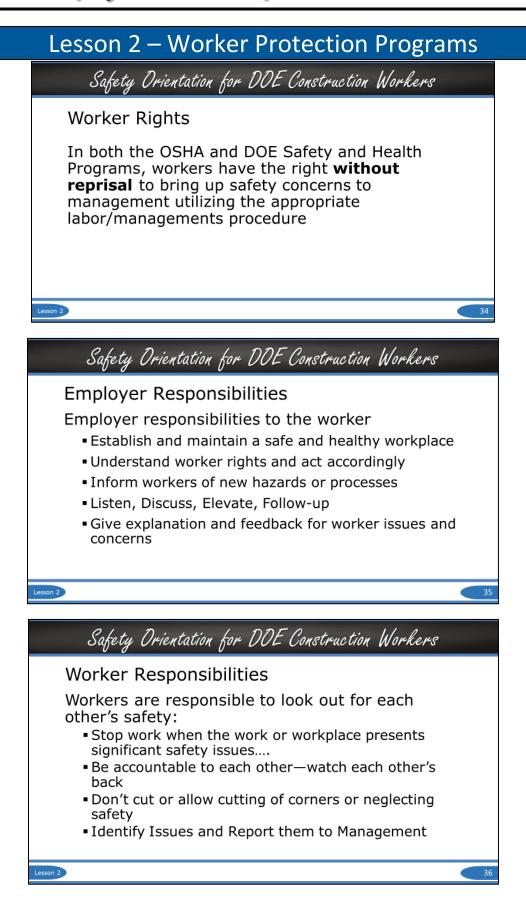
Safety Orientation for DOE Workers

Lesson 2 – Worker Protection Programs

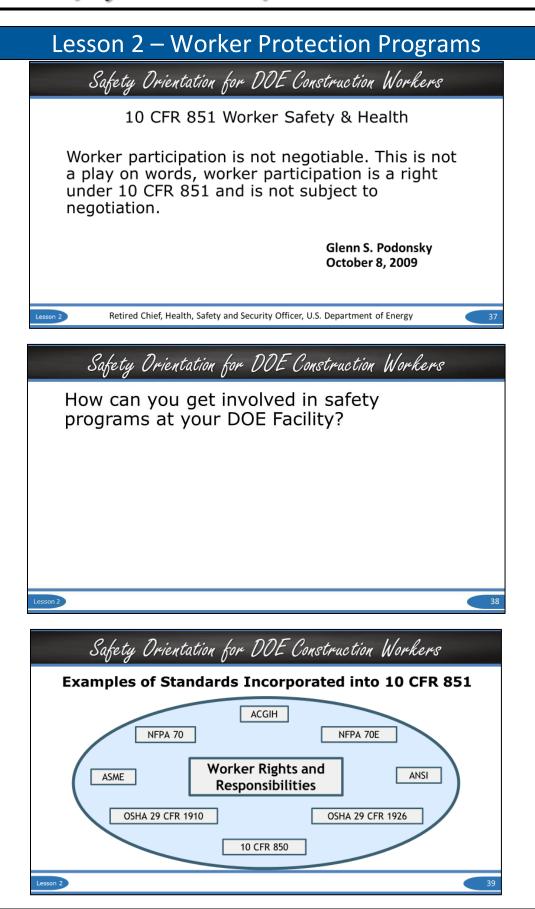
submit it to the DOE, and have it approved before work can begin.

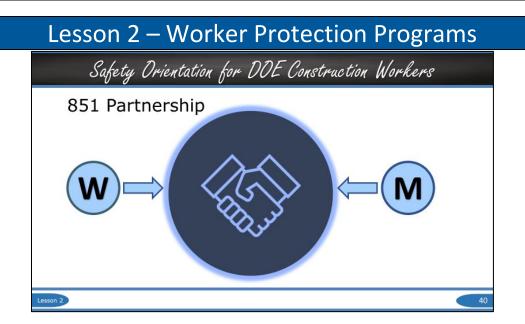
- 2. 10 CFR 851 requirements identify that employees must have access to the following:
 - a. DOE safety and health publications
 - b. The worker safety and health program for their location
 - c. The safety and health poster
 - d. Copies of their medical records and records of their exposures to toxic and harmful substances or conditions
 - e. Results of inspections and accident investigations
- 3. 10 CFR 851 requirements identify that employees must be free to act in the following ways:
 - a. Express concerns related to worker safety and health.
 - b. Decline to perform an assigned task when believing that the task poses an imminent risk of death or serious physical harm.
 - c. Stop work in imminently dangerous conditions.
 - d. Anonymously request an investigation.
- 4. 10 CFR 851 requirements identify that employers must:
 - a. Establish procedures for workers to report job-related hazards without reprisal and provide prompt response to such reports.
 - b. Provide for regular communication with workers about workplace safety and health matters.
 - c. Display the 10 CFR 851 poster in the workplace where it is accessible to all workers.
- 5. The regulation also discusses "how to report concerns/allegations of potential regulatory violations."
 - a. Employees have the right to request, anonymously if desired, the Office of Enterprise Assessment's Office of Enforcement to conduct an investigation of potential regulatory violations. Employees can make the request at www.energy.gov/ea/request-investigation-or-inspection-safety-or-classified-information-security-violations.
 - b. Employees have a right to report and request inspections of unsafe and unhealthy conditions to the appropriate officials.
 - 1) Federal employees to the Occupational Safety and Health Administration
 - 2) Contractor employees to the DOE Office of Enforcement

Safety Orientation for DOE Workers



Safety Orientation for DOE Workers

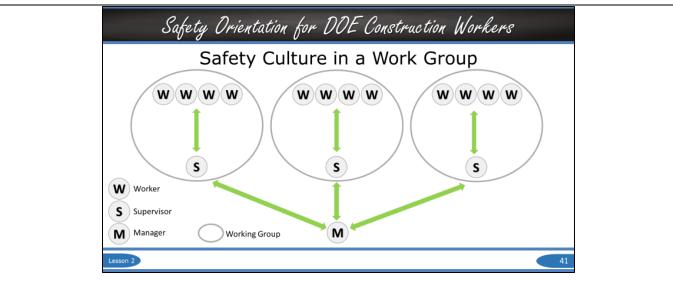




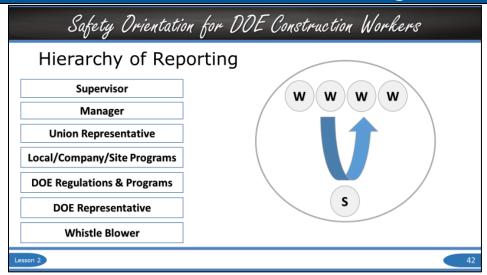
The implementation guide for 10 CFR 851 discusses establishing a partnership between management and the workers with the goal of creating and maintaining a safe and healthy workplace.

Responsibility for management/employee partnership applies to everyone.

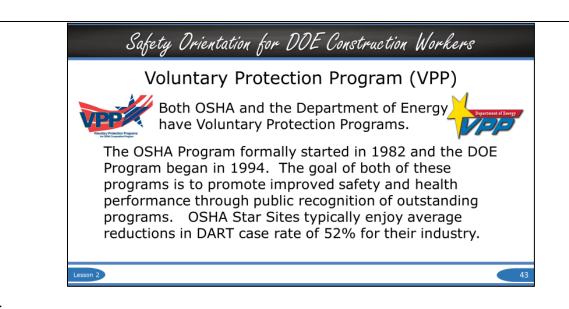
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Lesson 2 – Worker Protection Programs



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Safety Orientation for DOE Workers

Lesson 2 – Worker Protection Programs

Safety Orientation for DOE Workers

Lesson 3 – Chilling Effect

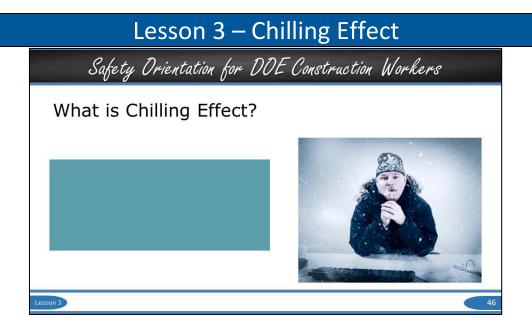


Lesson 3

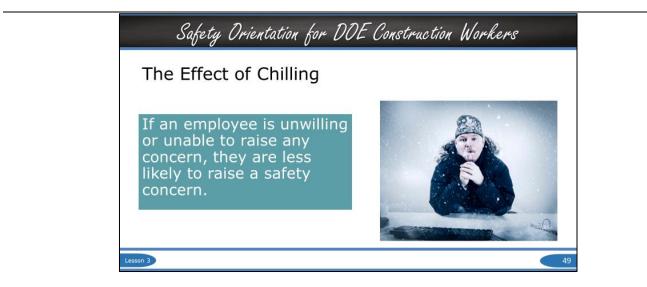
Safety Orientation for DOE Workers, Version 1 January 2019

Safety Orientation for DOE Workers

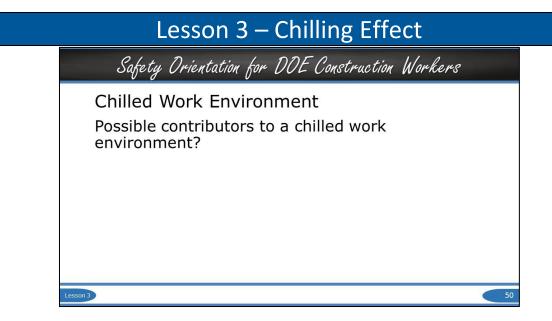
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Safety Orientation for DOE Workers



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Safety Orientation for DOE Workers

Lesson 4 – Trust & Communication

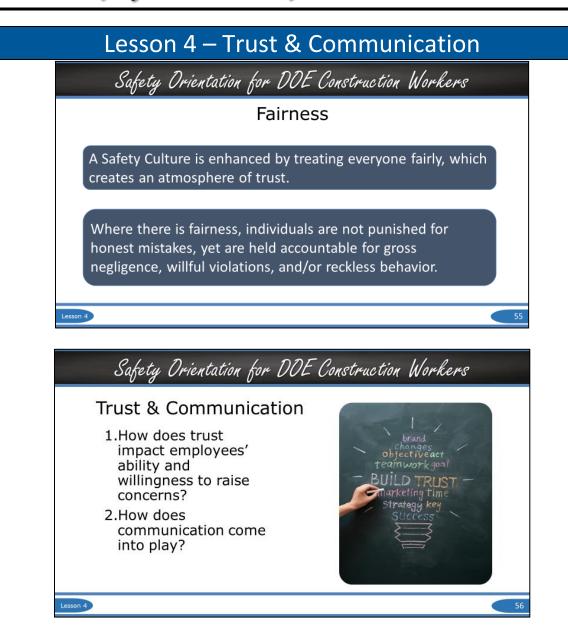
Trust & Communication

Lesson 4

Safety Orientation for DOE Workers

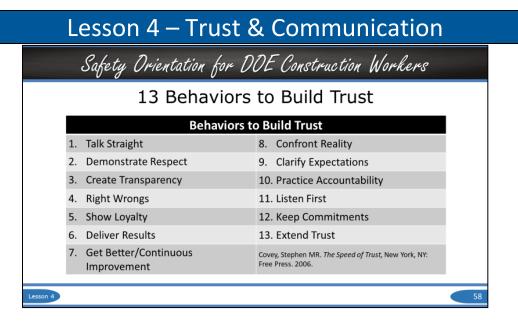
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Safety Orientation for DOE Workers

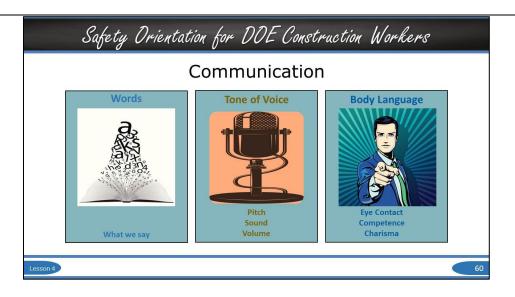


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What does Trust mean to you?



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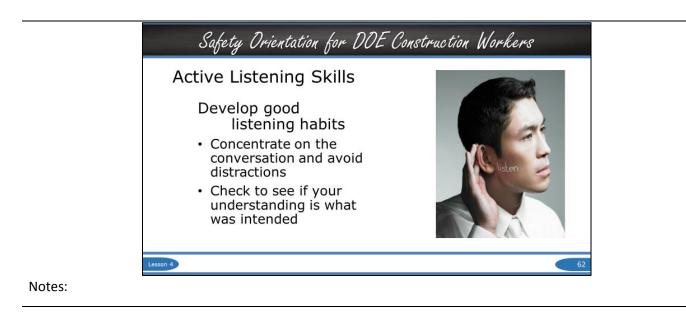


Lesson 4 – Trust & Communication

Safety Orientation for DOE Construction Workers

Factors That Influence Communication

		WHOLE SELF FILTERS	
	Values	Race	Beliefs
	Experiences	Education	Culture
	Family	Ethnicity	Age
	Language	Environment	Physical Stature
	Generation	Social Class	Regional
	Group Affiliations	Sexual Orientation	Gender
	Assumptions	Religion	Hierarchical Position
esson 4			



Safety Orientation for DOE Workers

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Safety Orientation for DOE Workers

Lesson 5 – Tools for Individual & Team Success

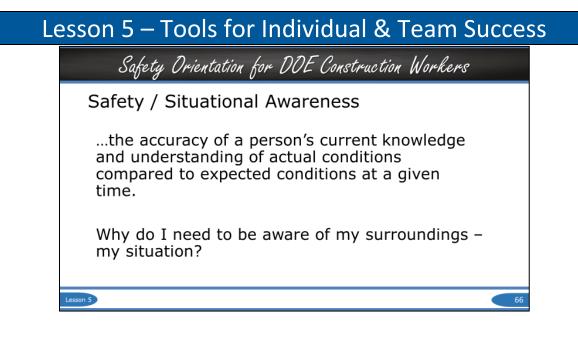
Tools for Individual & Team Success

Lesson 5

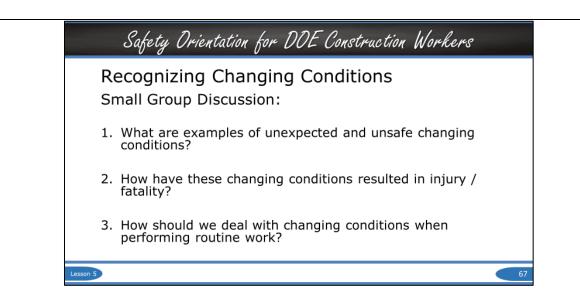
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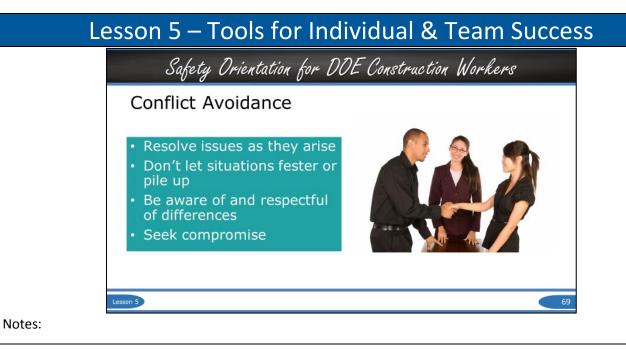
Safety Orientation for DOE Workers

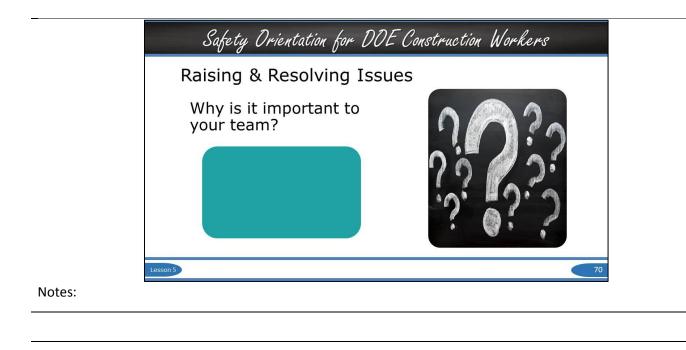


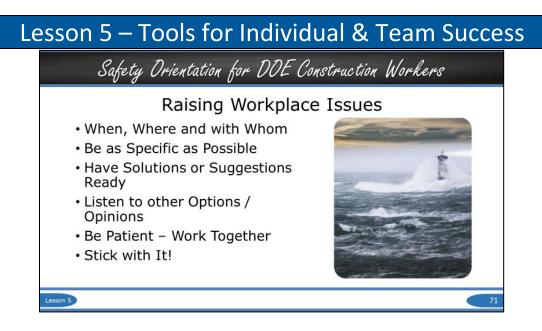
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Safety Orientation for DOE Workers







When, Where and with Whom

At times, a workplace issue needs to be raised immediately to those in attendance. When an issue can be raised and discussed later, choosing a private location with the person or persons who will listen and discuss the issue calmly and rationally is preferred.

Be as Specific as Possible

Frame your issue in facts, timeline, when, who, what, how, and/or why if you know them. The more details you can share, the more chance you will have of getting a reasonable resolution. Approaching an issue from the "You never / always, No one here cares /understands, or Nothing works here" usually destroys the conversation immediately. An emotional argument is also a pretty rocky road...

Have Solutions or Suggestions Ready

If you have suggestions on options or a solution, they are usually well received. Again, emotional or global comments probably won't help.

Listen to other Options / Opinions

When you have made your case, sit back and listen to the response(s). Listen to other points of view – you may be pleasantly surprised! Be open and willing to compromise on the details.

Be Patient – Work Together

Not everything can be resolved on the spot. Your part is to raise the issue and provide your point of view and recommendations. Have patience with those you have brought into the discussion and those who make the decisions. Depending on the issue, the solution can take some time to implement.

Stick with It!

If your issue is not addressed to your satisfaction, raise it again. Issues – especially safety issues – need to be resolved. Don't give up and turn off.

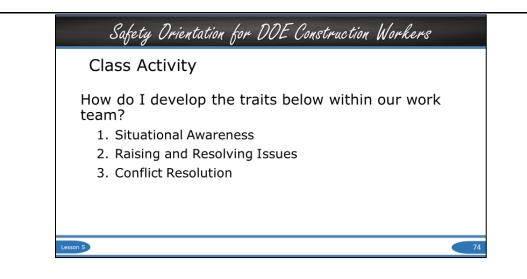
Paraphrased from Andy Vomastek, Dominion Energy

Safety Orientation for DOE Workers

Lesson 5 – Tools for Individual & Team Success



Notes:



Safety Orientation for DOE Workers

Lesson 6 – Foundations for Safety Leadership for DOE

Foundations for Safety Leadership for DDE

Lesson 6

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FOUNDATIONAL MATERIAL

Foundations for Safety Leadership 4 DOE

Goal

Introduce you to 5 critical safety leadership skills you can use to improve safety climate and safety outcomes on the job site.

Foundations for Safety Leadership 4 DOE

Learning Objectives

By the end of this module students will be able to:

- 1. Explain why safety leadership is important
- 2. Describe 5 skills of safety leaders
- 3. Discuss how to apply safety leadership skills on the job site

Safety Orientation for DOE Workers





Foundations for Safety Leadership

Safety Leaders Strengthen Jobsite Safety Climate

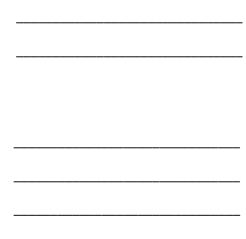
How well a company's policies, procedures, and practices are actually implemented on the job site.

Safety Orientation for DOE Workers

Foundations for Safety Leadership 4 DOE				
Direct Costs				

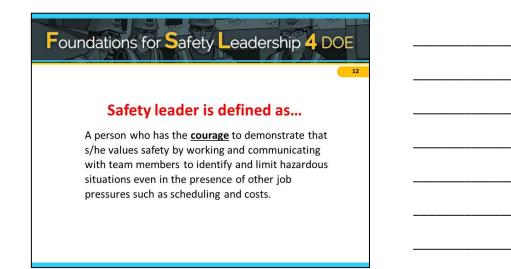






Safety Orientation for DOE Workers

SAFETY LEADERSHIP SKILLS



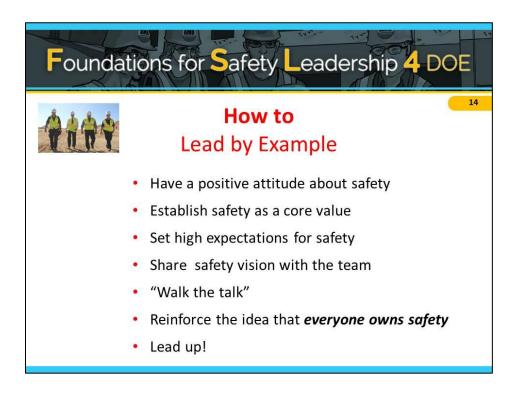
Foundations for Safety Leadership 4 DOE *5 LEADERship Skills* Leads by example Engages and empowers team members Actively listens and practices three-way communication DEvelope team members through teaching area bing 8

DEvelops team members through teaching, coaching, & feedback

Recognizes team members for a job well done

Safety Orientation for DOE Workers

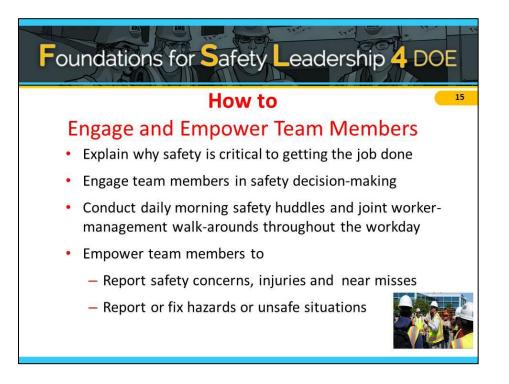
LEADER Leads by Example



Safety Orientation for DOE Workers

LEADER

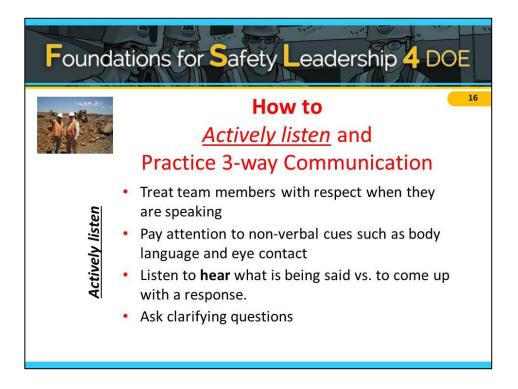
Engages and Empowers Team Members



Safety Orientation for DOE Workers

LEADER

Actively Listens and Practices 3-Way Communication





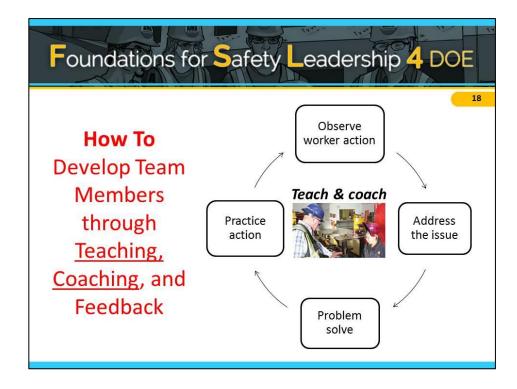




Safety Orientation for DOE Workers

LEADER

DEvelops Team Members through Teaching, Coaching, and Feedback





Safety Orientation for DOE Workers

Foundations for Sa	afety Leade	ership 4 DOE
How To Develop Team Members through Teaching, Coaching, and <u>Feedback</u> (cont'd)	Use the FI Describe the Explain the Provide Be	ST Principle: FACTS IMPACT SUGGESTIONS TIMELY

Safety Orientation for DOE Workers

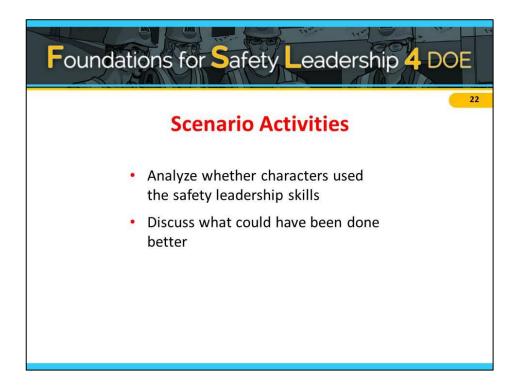
LEADER

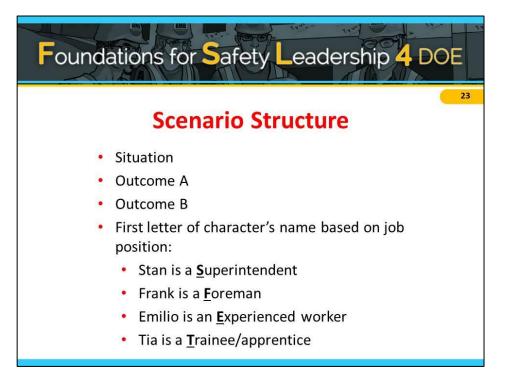
Recognizes Team Members for a Job Well Done

Foundations for Safety Leadership 4 DOE 20 How to **Recognize Team Members** for a Job Well Done Give recognition separately from other types of feedback . Regularly give praise in private Be specific about why you are praising the person • Give praise publically if the person is comfortable with it

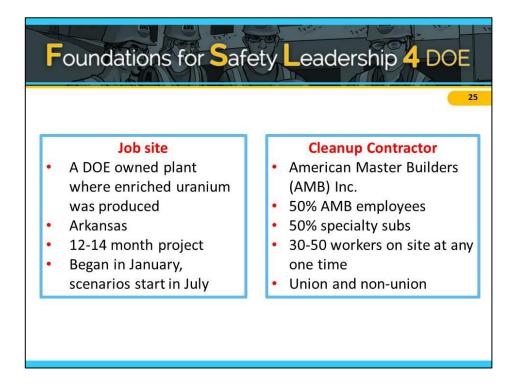
Applying Leadership Skills in Real World Scenarios







Construction site where all the scenarios take place



Safety Orientation for DOE Workers

Leadership Skills and Action Checklist

Skills	Actions
Leads by Example	 Establishes safety expectations as a core value Shares safety vision with team members Demonstrates a positive attitude about safety Walks the Talk Leads up
Engages and Empowers Team Members	 Engages, encourages, and empowers team members to identify and act upon unsafe situations by Reporting hazards and safety concerns Providing solutions Reporting near misses Stopping work if necessary
Actively Listens and Practices 3-way Communication	 Actively listens to hear what team members are saying Practices 3-way communication by having person repeat the message they heard
Develops Team Members Through Teaching, Coaching, and Feedback	 Respectfully teaches and coaches workers Watches the learner fix the hazardous situation or perform the task to make sure it's done correctly Focuses on potential consequences rather than on the team member Uses the FIST principle: Facts, Impact, Suggestions, Timely
Recognizes Team Members for a Job Well Done	 Privately and/or publicly acknowledges team members for going above and beyond when it comes to safety

Safety Orientation for DOE Workers

1. COVER UP!

Stan – *Volt Electric* Superintendent Frank – *Volt Electric* Lead Foreman Tia – *Volt Electric* Trainee/apprentice

Situation

To perform her tasks, Tia, a trainee with Volt Electric, has to walk by a large hole in the floor where some damaged concrete needs to be replaced. Stan, Volt's superintendent, knows it's a serious fall hazard that needs to be addressed immediately. The GC has been slow to respond to safety requests, so he asks his lead foreman, Frank, to take care of it.

Outcome A

Frank tells Tia she needs to cover the hole in the floor. Tia nods and decides she'll take care of it in 15 minutes when she's done securing the electrical wire to the stud. She knows Frank hates it when one person holds up someone else's work.

Meanwhile, two carpenters don't see the hole until the last minute when a nearby worker yells, "Stop!" which gives them just enough time to avoid it.

Frank gets word of this, goes back over to Tia, and yells at her for not covering the hole immediately. He adds that if the worker had stepped into the hole, she would have been seriously injured, or maybe worse, and points out that this isn't the first time she's ignored his instructions. Tia, feeling humiliated, apologizes and explains that she didn't realize he wanted her to drop everything.

Outcome B

Frank tells Tia she needs to cover the hole in the floor immediately because it's a serious fall hazard. He tells her to stop what she's doing, get a piece of plywood, secure it over the hole, and spray paint the word "hole" on it. He reminds her to tie off so she won't become a victim while fixing the problem.

When he's finished, he asks her to repeat his instructions to make sure they're on the same page. Tia repeats Frank's instructions word for word and Frank gives her the thumbs-up.

When she's done covering the hole, Tia thinks how glad she is Frank asked her to confirm what he wanted her to do and by when he wanted it done because there have been times when she hasn't understood exactly what other foremen she's worked with were asking her to do.

A few minutes later, when Frank comes by to thank Tia for removing the fall hazard, two carpenters walk across the piece of plywood she just put down.

Safety Orientation for DOE Workers

2. IT'S TOO HOT, TOO HOT, TOO HOT BABY ...

Franco – *AMB, Inc.* Foreman Emilio – *AMB, Inc.* Experienced worker

Situation

Late one afternoon, Franco, a foreman for AMB, notices Emilio, an experienced carpenter, pouring a jug of water over his head. Franco suspects heat exhaustion.

He shouts to Emilio that he'll be right down to walk him to the trailer where it's cool, so he can rest, get something to eat and drink, and stay inside, out of the sun, until quitting time.

Emilio responds that he's fine, except for a slight head and stomach ache, but agrees to go to the trailer.

Outcome A

After guzzling a sports drink and eating some peanuts, Emilio notices it's 2:00 and thinks if he gets back to work soon, he can finish what he was doing before the day ends. So, he leaves the trailer to go back to work.

The sweltering heat hits him as he leaves and soon he is overcome with nausea. He gets a leg cramp, his knee buckles, and he drops to the ground. Franco sees this and runs over to see if he's ok.

Emilio's wave of nausea subsides and he tells Franco not to worry, it was "just a little cramp." Franco tells Emilio his instructions were very clear to sit out the rest of the day and that he should have listened to him.

Outcome B

Franco asks Emilio to tell him exactly what he's going to do once he gets into the trailer. Emilio repeats Franco's instructions, but leaves out the part about stopping work for the day.

Franco corrects him and emphasizes that he expects him to stay and rest in the trailer until quitting time. Emilio frowns, saying it will only take him a few minutes to finish what he was doing.

Franco tells Emilio that the only job he has left to do today is to get better for tomorrow and that another crew member will be able to finish up for him. Emilio knows that Franco is doing this because he's concerned, so he explains what's left to do, and heads to the trailer.

Safety Orientation for DOE Workers

3. TO CHECK OR NOT TO CHECK...

Finn – AMB Inc. General Foreman Enzo – AMB Inc. Cement Masons Erika – AMB Inc. Cement Masons Scott – TJ's Roofing Site superintendent

Situation

It's 7 a.m. in early August. Five AMB Inc. cement masons and the foreman, Finn, are in their daily safety huddle. Finn goes over the day's tasks of grinding seams and patching "She-Bolt" holes from a suspended scaffold and talks about possible safety issues. When he finishes, he asks if anyone has anything else to discuss before starting work.

The workers look at each other, and Erika speaks up, saying she's concerned about tiebacks for the suspended scaffold. She'd heard TJ's Roofing is undoing them and the lifelines because they think they'll get their work done faster.

Outcome A

Finn thanks Erika for letting him know and says Ok, if there's nothing else, let's get to work. On the job, Erika inspects the suspended scaffold tiebacks and notices that one isn't secure. So she fixes it before starting work.

Outcome B

Finn is surprised and asks if anyone else heard this – or seen it happen. The workers nod and Enzo says yesterday he saw someone on a suspended scaffold that didn't have the tiebacks secured.

Finn gets angry and says to the crew that if the tiebacks aren't attached, and something compromises the scaffold, the rigging devices can move which will put us all out of work while ambulances take care of the mess.

He thanks both Erica and Enzo for paying attention to hazards and for speaking up, and says he's going to talk to the sub's supervisor immediately before any of them go on the site.

Finn, Erika, and Enzo leave and run into Scott, TJ's site supervisor. As Finn tells Scott about his crew's concerns, Scott gets defensive, exclaiming that he and his crew always put safety first! Although he also admits he's getting pressure from the owner because there's another job starting next week.

In a raised voice, Finn says to Scott that he's putting workers' lives at risk, and that he won't stand for it. He tells Scott that until he calls his crew together and tells them directly that they should never disconnect any suspended scaffold tieback or lifeline, he won't allow his workers to go on site which will not only delay TJ's work on this project, but also the one starting next week.

Scott glares at Finn but then gathers his workers and to say tells them never to untie any suspended scaffold tiebacks and or lifelines. He goes on to say that if they find any unsecured connections they must let him know so he can make sure the problem is immediately fixed.

Safety Orientation for DOE Workers

4. GIMME SOME SPACE ...

Simon –*Burnett* Superintendent Freddy – *Burnett Insulation* Foreman Eli – *Burnett Insulation* Experienced worker Ted – *Burnett Insulation* Trainee/apprentice

Situation

Simon, the superintendent for Burnett Insulation, checks on his crew, asks them how it's going and if they need anything to complete their work. No one comments at first, until the trainee/apprentice, Ted, says that everything is fine. Simon notices the other workers aren't looking at him.

Outcome A

Simon disregards the lack of eye contact and turns to leave, saying ok, and asks them to let him know if they need anything.

Outcome B

Rather than taking Ted's word for it, Simon asks the crew to walk him through their plans for the day, including any safety issues that might come up.

Fred, Burnett's foreman, says they're supposed to insulate the copper pipes in the ceiling. But, because the pipes are in a tight space close to electrical wires, they can't set-up their ladder correctly and will have work in awkward positions.

Simon thanks the crew for identifying the problems <u>ahead of time</u>, rather than starting work and getting in a bind. He agrees that the last thing they want do is damage the wiring and delay the project. And he's sure no one wants any more back strains.

Simon's positive response encourages Eli to chime in, saying that they found a few places they could get in opposite the pipes, but they can't figure out how to reach most of the other spots.

Simon asks them to think about other types of equipment that might work better than a ladder. The crew suggests a scissor lift, an articulating boom, or a one-man vertical lift. Simon comments they are all great ideas but the best one is a one-man lift because it will fit the space, they can take all their materials with them and they won't have to bend and twist to get the work done.

He tells them that there's one on the first floor and asks Ted to get it. He then turns to Fred and asks him to write up a short paragraph on their plan and put it in the JHA binder in case they're in the same situation again.

Safety Orientation for DOE Workers

5. THE RIGHT TOOL FOR THE RIGHT JOB

Felicia – AMB Foreman & Co-Owner Eric – AMB Experienced worker Tyler – AMB Trainee/apprentice

Situation

Felicia, foreman and co-owner of *AMB Inc.* sees Eric, an experienced carpenter, using an open-ended wrench to tighten bolts on a ledger board above the delivery door opening where they will install a security monitor. As company owner, she knows she plays a key role in reducing jobsite risks. So, she decides to ask Eric why he's not using a tool that would be less likely to slip, like a ratchet or box wrench.

Eric agrees with Felicia that either one of those tools would be safer, but says the wrench was close by and he just wants to finish up and move on. Felicia raises her voice slightly, saying that at AMB safety is our number one value and that Eric needs to find and use the right tool to finish the job.

Eric goes to the gang box, doesn't see a ratchet or box wrench, and decides to continue using the open-ended wrench.

Outcome A

Tyler, a trainee at AMB, overhears Felicia speaking with Eric and mutters to himself that Eric always talks about working safely, but it looks like he doesn't really mean it.

Outcome B

Tyler sees that Eric is still using the wrench but he isn't comfortable challenging him. He then remembers seeing a ratchet on the ground. So he goes to get it.

He hands the ratchet to Eric and asks if it's what he was looking for. Eric thanks him. Tyler grins, says it was no problem and that he'd hate to see Eric bust up his pretty face with that open-ended wrench. Felicia happens to see their interaction.

Later, Felicia thanks Tyler for his extra effort and asks if it would be ok if she mentions it at the next safety huddle. Tyler says he'd prefer to not be singled out, but is glad to know that she appreciates what he did and thinks Eric does too, although he might not say so!

Felicia agrees she won't mention it, but says that she will speak with Eric and tell him that now on she expects him to take his role as a safety leader seriously which includes leading by example.

Safety Orientation for DOE Workers

6. FRITZ TAKES A SHORTCUT

Fritz – *Mighty Mechanical* Foreman Elliot – *Mighty Mechanical* Experienced worker

Situation

The crane operator gave Fritz, Mighty Mechanical's foreman the wire rope slings and shackles they will need to lift 2 HVAC units to the roof and Fritz gave them to Elliot an experienced worker.

While inspecting the equipment, Elliot notices that one sling is severely kinked and a shackle is damaged. So he tells Fritz they should ask the crane operator for replacements.

Fritz knows that getting replacements would take hours and earlier he caught hell from the GC about the tight timeline. So he tells Elliot to go with what they have.

Elliot tells Fritz that he is not comfortable with the decision to proceed with the current rigging equipment because it will create a really unsafe situation. Fritz reminds him that as his foreman Elliot just needs to do what he says.

As one of the units is lifted, the kinked sling abruptly stretches, one end of the unit drops 6 inches, and the damaged shackle breaks open causing the unit to fall to the ground severely damaging it and nearly crushing a worker.

Outcome A

Later, Fritz tells Elliot not to mention the damaged rigging equipment to anyone. Elliot is angry about Fritz's request, but he wants to keep his job.

Outcome B

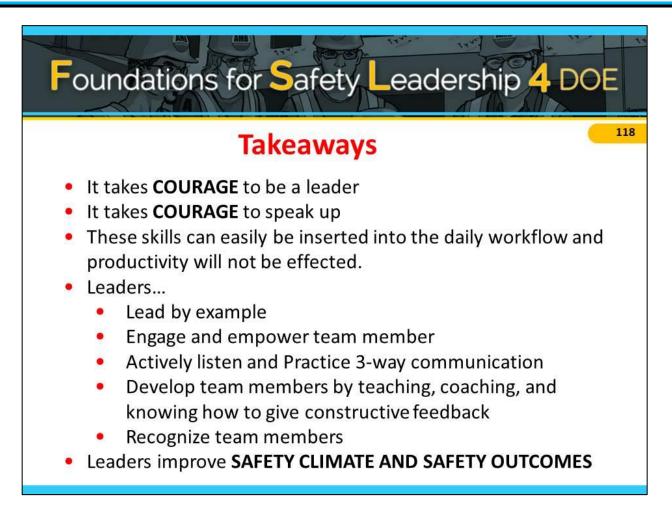
Later, Fritz tells Elliot he was right to question his decision and says he did it because the GC has been pressuring him. But if that worker had been crushed because of his bad decision he couldn't have lived with himself.

Fritz calls for a safety stand-down. He repeats to the crew what he told Elliot adding that from now on he's going to hold a daily safety huddle to discuss the day's tasks and how to eliminate hazards that may come-up.

He says he has learned the hard way to listen to his crew's safety concerns and expects everyone to report unsafe situations. Fritz ends by saying that he doesn't want to lose any of them due to poor decisions, pride or ego ... some of the bad behaviors he displayed today.

Safety Orientation for DOE Workers

TAKEAWAYS

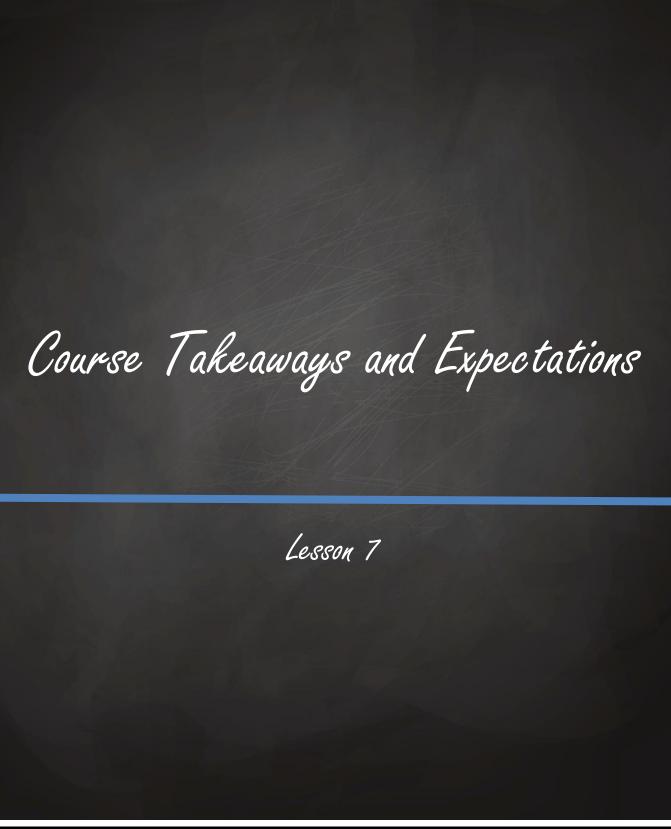


Safety Orientation for DOE Workers

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Safety Orientation for DOE Workers

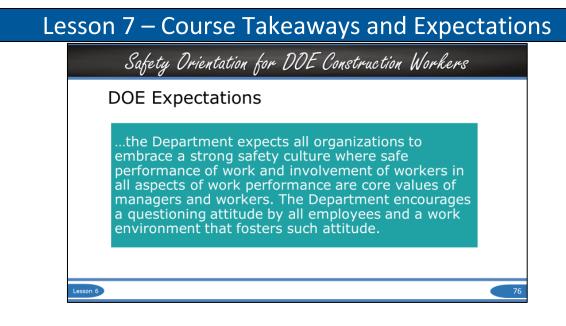
Lesson 7 – Course Takeaways and Expectations



Safety Orientation for DOE Workers, Version 1 January 2019

Lesson 7

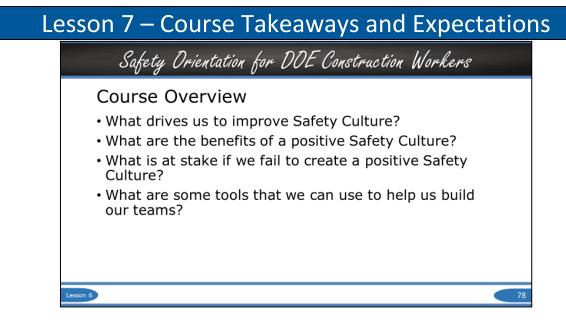
Safety Orientation for DOE Workers



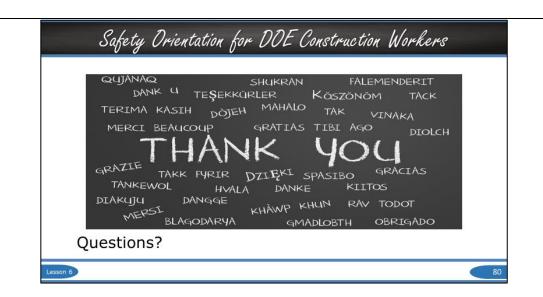
Notes:



Safety Orientation for DOE Workers



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Safety Orientation for DOE Workers

Acronyms - Department of Energy

AB	Authorization Basis
AC	Administrative Controls
ACGIH	American Conference of Governmental Industrial Hygienists
AED	Automated External Defibrillator
ALARA	<u>As Low as Reasonably A</u> chievable
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
AWL	Authorized Worker Lock
BED	Building Emergency Director
CFR	<u>C</u> ode of <u>F</u> ederal <u>R</u> egulations
DART	Days Away Restricted or Transferred
DECON	<u>D</u> econtaminate
DNFSB	<u>D</u> efense <u>N</u> uclear <u>F</u> acilities <u>S</u> afety <u>B</u> oard
DOE	<u>D</u> epartment <u>o</u> f <u>E</u> nergy
DSA	Documented Safety Analysis
ECN	<u>E</u> ngineering <u>C</u> hange <u>N</u> otice
EFCOG	Energy Facility Contractors Group
FWS	<u>F</u> ield <u>W</u> ork <u>S</u> upervisor
GFCI	<u>G</u> round <u>F</u> ault <u>C</u> ircuit <u>Interrupter</u>
GHA	<u>G</u> eneral <u>H</u> azard <u>A</u> nalysis
GHS	<u>G</u> lobal <u>H</u> armonization <u>S</u> ystem
HASP	<u>H</u> ealth <u>a</u> nd <u>S</u> afety <u>P</u> lan
HMI	<u>H</u> uman <u>M</u> achine Interface
HPI	<u>H</u> uman <u>P</u> erformance <u>I</u> mprovement
HVAC	<u>Heating Ventilation and Air Conditioning</u>
ISMS	Integrated Safety Management System
JHA	<u>J</u> ob <u>H</u> azard <u>A</u> nalysis
LCO	Limiting Condition of Operation

Safety Orientation for DOE Workers

LOTO	<u>L</u> ock <u>O</u> ut <u>T</u> ag <u>O</u> ut
M&TE	<u>M</u> easuring <u>and</u> <u>T</u> est <u>E</u> quipment
MCC	Motor Control Center
NA or N/A	<u>N</u> ot <u>A</u> pplicable
NFPA	National Fire Protection Association
OSH	Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
P&ID	Piping and Instrumentation Design/Diagram/Drawing
PLC	Programmable Logic Controller
PM	Preventive Maintenance
PPE	Personal Protective Equipment
QA	<u>Q</u> uality <u>A</u> ssurance
QC	<u>Q</u> uality <u>C</u> ontrol
RADCON	Radiological Control
RCRA	Resource Conservation and Recovery Act
RWP	<u>R</u> adiological <u>W</u> ork <u>P</u> ermit
SCFM	<u>S</u> tandard <u>C</u> ubic <u>F</u> eet per <u>M</u> inute
SCWE	<u>Safety Conscious Work Environment</u>
SDS	<u>S</u> afety <u>D</u> ata <u>S</u> heet
SWIM	Stop Work Warn Isolate area & Minimize exposure
TAF	Tagout Authorization Form
TRC	<u>T</u> otal <u>R</u> ecordable <u>C</u> ases
TSR	<u>T</u> echnical <u>Safety</u> <u>R</u> equirement
UPS	Uninterruptible Power Supply
USQ	Unreviewed Safety Question
VPP	Voluntary Protection Program

Safety Orientation for DOE Workers

The Foundations for Safety Leadership for DOE (FSL4DOE) course was developed collaboratively by





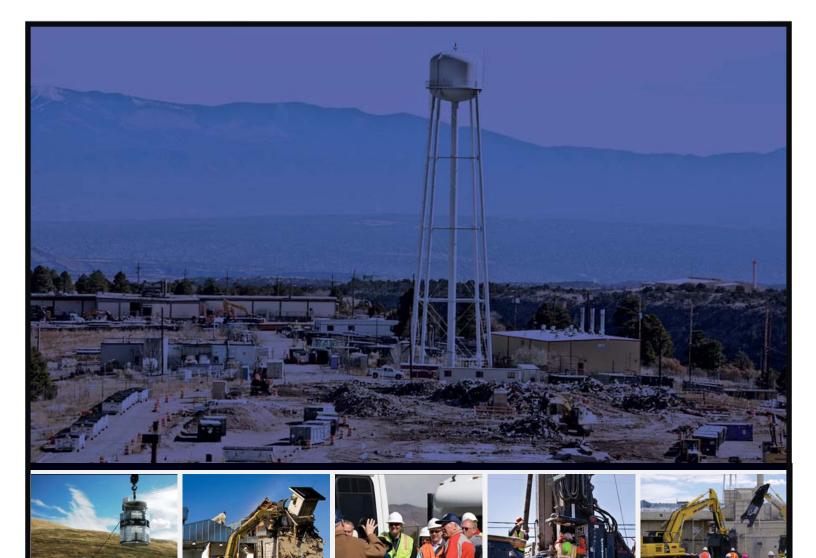
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