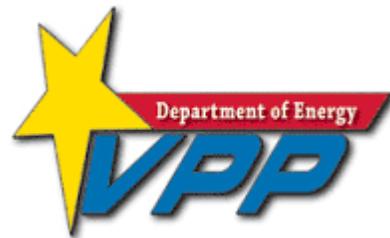


Innovative Technologies and Instructional Strategies to Enhance Training

HANFORD SITE LOTO



Hanford Site Lockout/Tagout Program

What is LOTO?

- Protect personnel/equipment
- Authorized workers
- Annually trained

OSHA 1910.147

- Hanford Site versus OSHA
- Multiple layers of safety and checks and balances



Hanford Site Lockout/Tagout Program

Site-Wide LOTO

- All major contractors use the same program
- All workers take the same training
- Workers moving from facility to facility know what to expect
- Saves on training costs



Site-Wide LOTO Committee

- Encourages consistency in application
- Resource for problem solving and worker safety
- Workers and management working together

Potential Hazards



Potential Hazards

Electrical

Mechanical

Pressure

Hydraulic

Chemical

Pneumatic

Thermal

Potential/Stored

Radiological

Qwizdom



Used in **refresher** training:

- Easy-to-use student response system
- Gives instructors real-time assessment data to monitor and adjust instruction
- Gives immediate feedback to the student
- Allows all types of learners an opportunity to check for understanding discretely
- Testing

Qwizdom – Question #1

What allows plant leaves to have their green color through photosynthesis?

- A. Mitochondria
- B. Deoxyribose
- C. Chlorophyll
- D. Carbon Dioxide



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Qwizdom – Question #2

Which one of these is NOT a muscle?

- A. Sartorius
- B. Trapezius
- C. Humerus
- D. Teres Major



Qwizdom – Question #2

Which one of these is NOT a muscle?

- A. Sartorius
- B. Trapezius
- C. **Humerus**
- D. Teres Major



Qwizdom – Question #3

Which European country does this flag belong to?

- A. Andora
- B. Poland
- C. Portugal
- D. Romania



Qwizdom – Question #3

Which European country does this flag belong to?

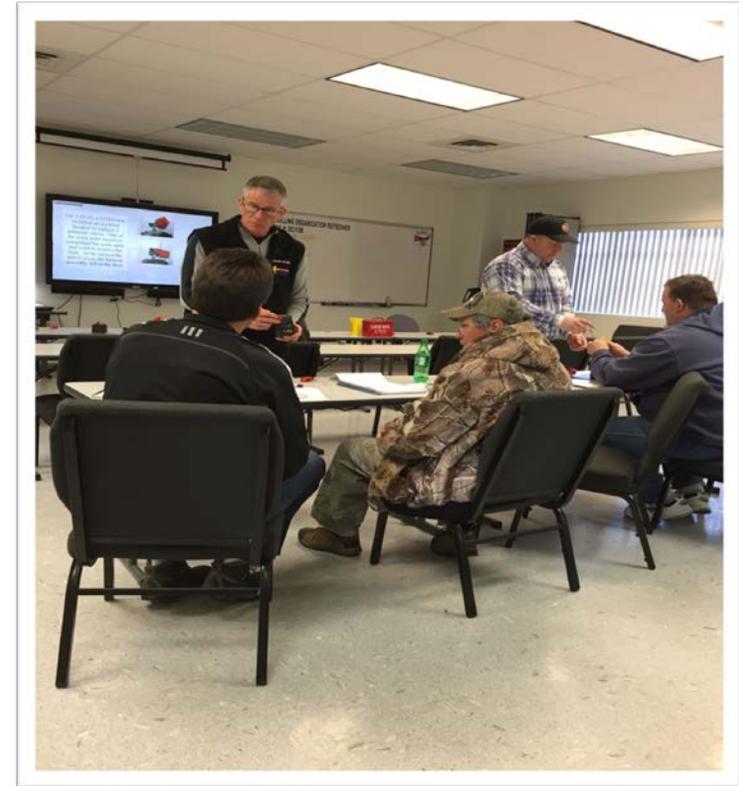
- A. **Andora**
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Worker Trainer Program

What are the benefits of workers training other workers?

- Credibility
- Subject Matter Experts
- Real life experiences
- Liaison to the field



Lessons Learned

HAMMER uses Lessons Learned in training.

Why are Lessons Learned important?

- We learn from experience
- Mistakes are going to happen – it's human nature
- Lessons learned promotes continuous improvement

Lessons Learned

- Provide and use a LOTO device that is substantial enough to **prevent inadvertent or accidental removal** and that will **prevent energizing of equipment**.



On 1/23/13, a LOTO was installed on a circuit breaker to replace 3 solenoid valves. One of the work team members completed his work early and went to remove his lock. As he opened the panel cover, the lockout assembly fell to the floor.



Enhancing Training

Hands on training _____.

1. Stimulates tactile (kinesthetic) learners
2. Learn through experiencing/doing
3. Keeps students engaged



Hands-on Training and Evaluation

During AW Evaluations

1. Each student conducts their tasks using the procedure applies his or her own lock and tag
2. Evaluations are in teams of 1 to 3 people

During Administrator Evaluations

1. Use of the Amazing Race challenge cards
2. Keeps the whole class moving at their own speed

Questions

