





HAZARD RECOGNITION TRAINING



"The first duty of anyone at work is to inspect their workplace and equipment and make it safe."

# No other work is more

important than this.

# DEFINITIONS

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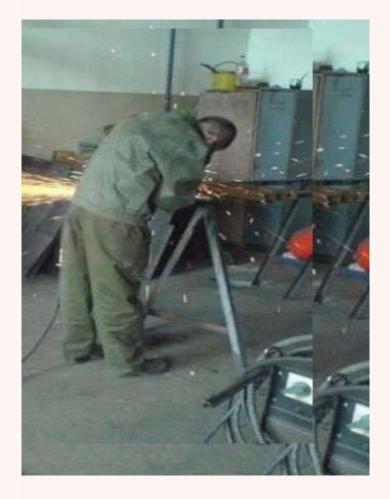
- "Competent person" is defined in CFR 1926.32(f) as one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
- "*Workplace*" is defined by CFR 1910.502(b) as a physical location (e.g., fixed, mobile) where the employer's work or operations are performed.

- How do I perform a workplace exam?
- How long should the exam take?
- What do I look for?
- What should I do when I find something wrong?



• Identify your workplace

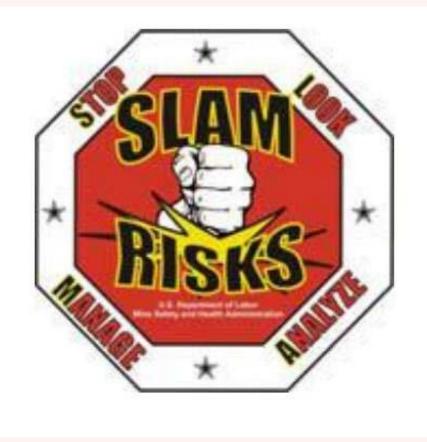






- Take time to acclimate yourself to the area
- Try to see the area as though it's your first time there.
- Use a system to look for hazards
  - Separate the area
  - Separate the hazards





# **S**top

Look

**A**nalyze

Manage

- Think about the task in its entirety
- Can you do it?
- Do you have all the necessary training, knowledge, & skills to do this job safely?
- Will performance of this task affect others?



# LOOK FOR THE EXPOSURE TO HAZARDS

- Look around!
  - Above, below, all around!
- What if something:
  - Falls, slips, breaks, spills, drops, shifts, doesn't fit, jams, etc...
- What if they:
  - Don't understand, let go, make an error, need help, etc...
- What if it is:
  - Too heavy, energized, pressurized, sharp, improperly labeled, etc...
- What if I am:
  - Wrong, confused, not strong enough, in need of assistance, etc...



# ANALYZE THE HAZARDS THAT HAVE BEEN IDENTIFIED

- What could go wrong?
- How can the hazard affect me or others?
  - Shock, pinched, smashed, etc...
- Is everyone around you aware of the work being done?
- What are the procedures to do this job?
- What should be addressed?



- Take the necessary action to see the job is done safely
- Control the hazards by:
  - Following procedures
  - Eliminating or controlling the hazards
  - Using appropriate PPE
  - Keeping guards, covers, handrails, etc. in place
  - Reassessing safety continually
  - Asking for help if you need it.
- If you can't eliminate or mitigate the hazards, talk to your supervisor!



### RESUME

 Once all the hazards have been identified, assessed, and managed you may begin/resume work. Watch for changing conditions and exposures.



### HOW LONG SHOULD I TAKE?

- As long as it takes you to identify the hazards!
  - Usually, a proper hazard risk assessment can be complete in about 5 minutes.
- Never rush through a workplace exam, that is how hazards are missed.



- Recognize the hazard.
- Evaluate the hazard.
- Address the hazard.



- Risk is the potential for a hazard to result in an undesirable event.
- A rattlesnake in your yard is a hazard, a rattlesnake coiled and ready to strike is a risk.





Risk

Hazard

- Chemical
- Physical
- Biological
- Ergonomic



**Biological Hazards** 



**Chemical Hazards** 



**Physical Hazards** 



**Ergonomic Hazards** 

CHEMICAL HAZARDS

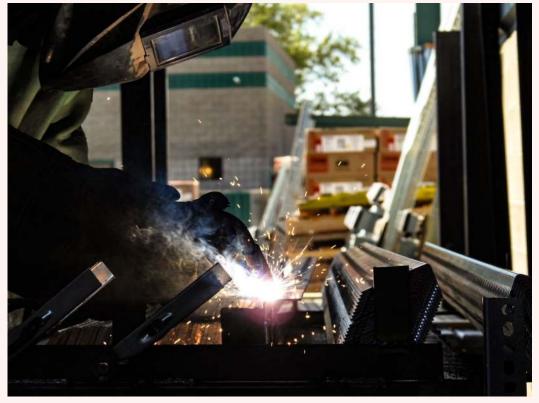
- Chemical hazards include exposure to:
  - Mists
  - Vapors
  - Gases
  - Liquids
  - Solids
  - Dusts
  - Fumes

# Chemical hazards enter the body via:

- Inhalation
- Skin Contact
- Absorption
- Injection
- Ingestion

### **EXAMPLES OF CHEMICAL HAZARDS**

PVC Pipe Primer and Cement





Fumes from Welding Galvanized Steel

# ANY OTHER EXAMPLES?

- Physical hazards transfer energy to the body by means of:
  - Struck by
  - Struck against
  - Fall to same level
  - Fall to lower level
  - Caught in
  - Caught between
  - Caught on
  - Contacted by
  - Contact with
  - Exposure



- Physical hazards include exposure to energy sources:
  - Gravity
  - Mechanical
  - Pneumatic
  - Hydraulic
  - Magnetic
  - Electrical
  - Radiation
  - Thermal
  - Noise
  - Vibration

# **Examples of Physical Hazards**



Slips, Trips, and Falls



Electricity

Exposure to Harmful Substances



**Extreme Temperatures** 

Safety Culture



**Confined Spaces** 



**Toxic Materials** 

## EXAMPLES OF PHYSICAL HAZARDS

# Recognize the hazards:





1. Excavator is in a precarious position. 2. There are items within 2' of excavation 3. Worker under the excavator. 4. Workers in a trench deeper than 5' without protective system. 5. Worker without hard hat 6. No ladder for egress.

# 5) Trench Protection

 No one may enter a trench 5' or greater in depth unless it has been sloped at a ratio of 1.5' – 1' (33.5 degrees) per type C standards (All soil is considered "Type C" at VW Connect), or a trench box or shoring is in place.

# <u>4) Access & Egress</u>

- No one may enter or occupy a trench 4' or greater in depth unless an earthen ramp at the ratio of 1.5' – 1' (33.5 degrees) or ladder is being used. The ladder may not be removed from the trench while workers occupy it, and workers cannot be more than 25' away from the ladder in the trench.
- The "4 to 1" rule applies to extension ladders and must be practiced as well as ensuring any ladder used has been properly inspected and has stable footing.

# VW CONNECT'S TRENCHING STANDARDS

# <u>3) Ladders</u>

- The ladder MUST extend 3' above grade, providing an ease of access and must be secure (not sliding or wobbling).
- 3 points of contact must be utilized while on a ladder.

# VW CONNECT'S TRENCHING STANDARDS

# 2) Spoils, Tools, & Other Materials

 Spoils, tools, equipment, & ALL other materials MUST be AT LEAST 2' away from the edge of the trench. Heavy objects such as spoil piles and equipment cause undue stress on the trench wall which leads to trench collapse. Tools and all other materials can easily fall in to the trench & onto a worker when positioned within 2' of the edge of the trench.

# 1) Competent Person(s)

 One Competent Person MUST be on-site at ALL TIMES while work is being performed. A competent person is anyone that has been through the competent person certification class at VW Connect, or is capable of identifying existing & predictable hazards and has the authorization to take prompt corrective measures to eliminate them.

# **BIOLOGICAL HAZARDS**

- Biological hazards include exposure to agents that cause:
  - Bloodborne Pathogens
  - Infectious disease
  - Animal disease
  - Insect disease
  - Plant & Insect Poison
  - Building- related illness
  - Mold
  - Water and Wastewater



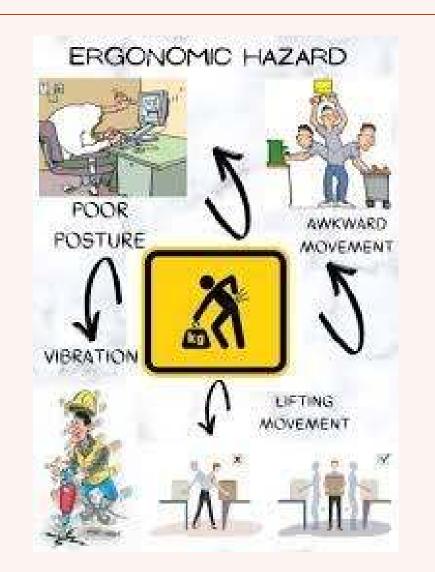
### EXAMPLES OF BIOLOGICAL HAZARDS

- Flu
- Rabies
- HIV

 Think back to when COVID was first going around. Remember the photos? Take a second to laugh about them.



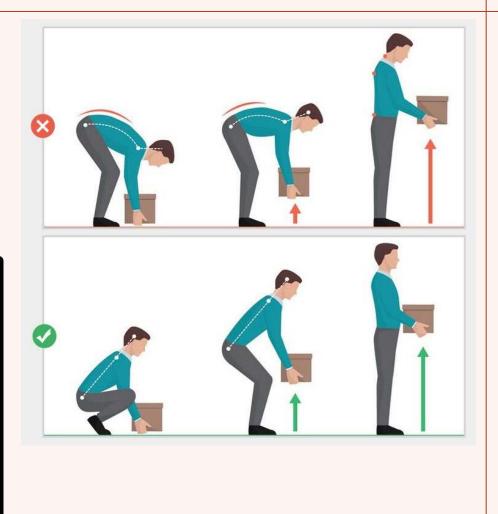
- Ergonomic hazards develop from a mismatch between a worker's physical capacity and design of the job.
  - Repetition
  - Forceful Exertions
  - Awkward Postures
  - Vibration
  - Work Area Design
  - Tool or Equipment Design



## EXAMPLES OF ERGONOMIC HAZARDS

- Twisting
- Improper Lifting techniques
- Repetitive motions such as hammering, shoveling, jackhammering, etc.





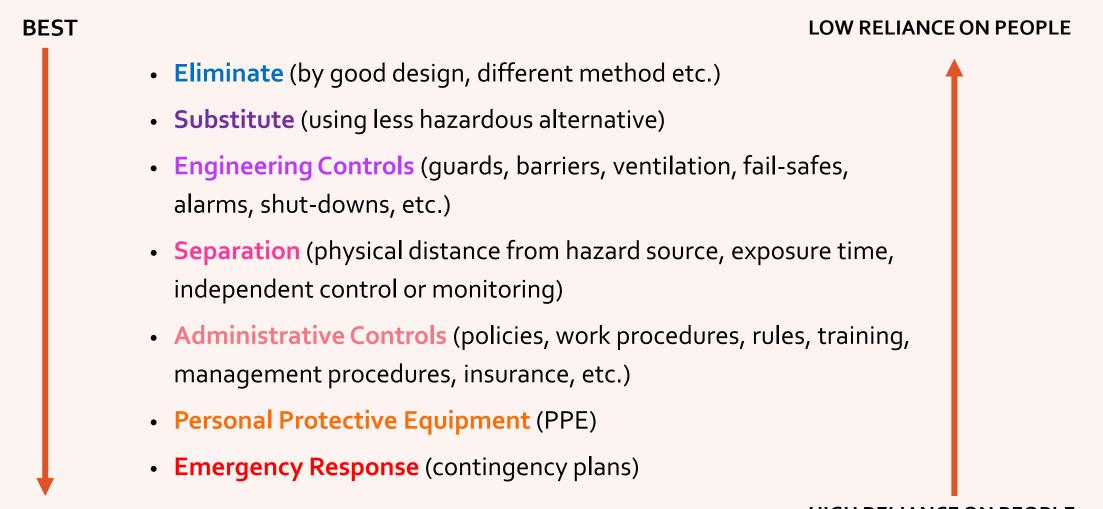
# WHATcould go wrong?HOWcould it affect me or others?HOWlikely is it to happen?

- Consequences
  - Insignificant ----- Catastrophic
- Likelihood

  - Probability: Difficult to Imagine ←→ Expected



## HIERARCHY OF CONTROLS



LEAST EFFECTIVE

### **HIGH RELIANCE ON PEOPLE**

PLACEMENT OF CONTROLS

# At the Source: <u>BEST</u> Along the Path: <u>BETTER</u> At the Worker: GOOD

# THANK YOU

You can make the difference in your workplace!



For additional questions, please feel free to contact

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