

Job Hazard Analysis for the Water Distribution System

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Outline

- Terms/ Acronyms
- What is a Job Hazard Analysis (JHA)
- Why do I need to do a JHA?
- What steps must I take to perform a JHA?
- An Example of JHA in the Water Distribution System

Terms/Acronyms

- **JHA**: Job Hazard Analysis
- **Hazard**: a potential for harm, associated with a condition or activity that if left uncontrolled, can result in an injury or illness
- **OSHA**: Occupational Safety and Health Administration

Terms/Acronyms

- **IIPP**: Injury Illness and Prevention Plan
- **SOP**: Standard Operating Procedures

What is a Job Hazard Analysis?

- A job hazard analysis (JHA) is a procedure which helps integrate accepted safety and health principles and practices into a particular task or job operation.
- In a JHA, each basic step of the job is to identify potential hazards and to recommend the safest way to do the job.

What is a Job Hazard Analysis?

- The terms "job" and "task" are commonly used interchangeably to mean a specific work assignment, such as "operating a grinder," "using a pressurized water extinguisher," or "changing a flat tire."

3 components of a JHA

- Job Task
- Hazard
- Mitigation/ Control

How to do a JHA

- 1. Involve the employees
- 2. Review your accident history
- 3. Conduct a Preliminary Job review
- 4. List rank and set priorities for hazardous jobs
- 5. outline the steps or tasks of the job
- 6. identify the hazards associated with each step
- 7. control for the identified hazards

Why should you do a JHA (benefits)

- Employee buy in via participation
- Establish a set of written procedures (SOP) and meet IIPP requirements
- Compliance with the General duty clause which requires employers to furnish a place of employment free of recognized hazards that are causing or likely to cause serious harm or death section 5(a)1 Federal Osh Act

Example JHA

- Trenching , Shoring, Excavation

Job (Scope of work): Excavation, Trenching and Pot Holing

Task	Hazard	Control/ Mitigation
Mobilize equipment	<ul style="list-style-type: none">• Surface encumbrances• Struck by• Backed over	<ul style="list-style-type: none">• Surface encumbrances shall be moved or supported• Wear hard hats, high visibility vests• Non-essential personnel outside equipment swing• All equipment must have operational back up alarms

Job (Scope of work): Excavation, Trenching and Pot Holing

Task	Hazard	Control/ Mitigation
Locate Utilities	<ul style="list-style-type: none">• Electrical shock, electrocution (hit electric lines)• Explosion or Fire (hit gas or petroleum line)• Exposure to pathogenic organism (hit sewer line)	<ul style="list-style-type: none">• Call USA 8-1-1• Underground Utilities located and marked prior to breaking ground• Hand prospect when approaching marked utility depth• While excavation is open underground utilities must be protected and supported, or removed as needed to protect employees

Job (Scope of work): Excavation, Trenching and Pot Holing

Task	Hazard	Control/ Mitigation
Excavate or Trench	<ul style="list-style-type: none">• Cave ins• Struck by• Electrocution• Toxic atmospheres	<ul style="list-style-type: none">• Classify the soil type• properly shore excavation• Spoil piles >2 ft. from edge of trench• Ladder required >4ft depth• Ladder extend 3 ft.• Inspect Excavation• No workers underneath loads• hand dig• Test atmosphere

Job (Scope of work): Excavation, Trenching and Pot Holing

Required Training		Required PPE
<ul style="list-style-type: none">• Trench and shore awareness• Trench shore Competent person• Gas detection monitor use training• Hazardous Atmosphere awareness• Working around heavy equipment• USA training		<ul style="list-style-type: none">• Hard hat• High visibility vest• Steel toe work boots

Other Distribution System JHA

- JHA confined space entry into a vault/
service entrance
- JHA setting pipe in trench using heavy
equipment
- JHA hot taps
- JHA Large diameter pipe entry

References

- OSHA publication 3071 Job Hazard Analysis US Dept. of Labor (2002)
- Water Utility Safety and Health: Review of Best Practices(2010) EPA and Water research Foundation
- <http://www.ccohs.ca/oshanswers/hsprograms/job-haz.html>

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