Job Safety Analysis (Job Hazard Analysis)

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Discussion Topics

- JSA – Definition
- JSA – Cons and Pros
- Where to start? What jobs to select for JSA’s.
- Steps – Conducting the Analysis.
- Hazard Control Method Hierarchy
  - Engineering Controls
  - Administrative Controls
  - Personal Protective Equipment
- JSA Reassessments

JSA - Definition

A method that can be used to identify, analyze and record:

1) The steps involved in performing a specific job,
2) The existing or potential safety and health hazards associated with each step, and
3) The recommended action(s) / procedure(s) that will eliminate or reduce these hazards and the risk of a workplace injury or illness.
JSA – CONS/BARRIERS

- They take time to create.
- No support from management.
- Have to regularly update them.
- Employees won’t use them.
- More important things to work on.

JSA – PROS

- May prevent an occupational injury or illness.
- Helps to obtain employee involvement.
- Increases awareness of workplace hazards.
- Provides opportunity to identify and control workplace hazards before something happens.
- Shows company’s commitment to safety.
- An informational tool for accident analysis.
- Aids in employee training.

Selecting and prioritizing the jobs to analyze...

- Ranked in order of greatest accident potential (tasks with highest risk should be analyzed first).
- Review OSHA 300 Log or other injury tracking system (frequency and severity)...greater the number associated with a task; the greater the priority.
- Close Calls (Near Misses)
- New jobs or jobs that are not done often.
- Routine jobs or jobs with procedure/process changes.
Conducting the Analysis

- Select an experienced employee who is willing to be observed. Involve the employee and his/her supervisor in the process.
- Identify and record each step necessary to accomplish the task. Use an action verb (i.e. pick up, turn on, etc.) to describe each step.
- Common Errors - Don’t be too specific or too general when listing the tasks involved!

TOO SPECIFIC
Changing a Flat Tire
- Pull off road
- Put car in “park”
- Set brake
- Activate emergency flashers
- Open door
- Get out of car
- Walk to trunk
- Put key in lock
- Open trunk
- Remove jack
- Remove Spare tire
- Etc…

TOO GENERAL
Changing a Flat Tire
- Park car
- Take off flat tire
- Put on spare tire
- Drive away
JUST RIGHT
Changing a Flat tire
• Park car, set brake
• Remove jack & tire from trunk
• Loosen lug nuts
• Jack up car
• Remove tire
• Set new tire
• Jack down car

• Tighten lug nuts
• Store tire & jack

Conducting the Analysis (continued)
• Identify all actual or potential safety and health hazards associated with each task. There are eleven basic types of accident classifications.

Accident Classifications

<table>
<thead>
<tr>
<th>Struck By</th>
<th>Struck Against</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contacted By</td>
<td>Contacted With</td>
</tr>
<tr>
<td>Caught In</td>
<td>Caught On</td>
</tr>
<tr>
<td>Caught Between</td>
<td>Fall-Below</td>
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<tr>
<td>Fall-Same Level</td>
<td>Exposure (Chemicals/Temps/Light Radiation/Etc.)</td>
</tr>
<tr>
<td>Overexertion</td>
<td></td>
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</tbody>
</table>
Recognize any Hazard(s)?

YES

Under load. No hard hat. No tag line being used. No fall protection. PPE? Improper ladder used to access this point.

Rigging issues?

Hazards – Changing a Flat Tire

Parking Car
- Struck by Traffic

Removing tire & jack
- Back Strain
- Bang head on trunk

Loosen lug nuts
- Back/arm strain
- Slip & fall

Jacking up/down car
- Car could fall off jack

Removing/setting new tire
- Fingers pinched
- Back strain

Tighten nuts/storing tire and jack
- Back strain
- Slip & fall
Conducting the Analysis (continued)

• Determine and record the recommended action(s) or procedure(s) for performing each step that will eliminate or reduce the hazard.

Job Safety Analysis Flow Chart

- KEY STEP
  - HAZARD
  - PROTECTION
  - HAZARD
  - PROTECTION
  - HAZARD
  - PROTECTION

Hazard Control Method Hierarchy

• Engineering Controls
• Administrative Controls
• Personal Protective Equipment
Engineering Controls

- Machine Guards
- Ventilation
- Shielding (ex. welding curtains)
- Sound Deadening / Dampening / Equipment Isolation

Administrative Controls

- Change Work Practices and Procedures
- Change Hazardous Duties
- Cease Hazardous Duties
- Examples:
  - Working off of Scaffold/Scissors Lift vs. Ladder
  - Implementation/Use of Lock Out / Tag Out
  - Job Rotation (reduce accumulative noise exposure)
  - Use Water Based Paint vs. Oil Based Paint
  - Use Cabinet Sand Blaster vs. Booth Sand Blaster
Personal Protective Equipment

- Equipment worn by an employee that is designed to prevent injury or illness from a specific hazard.
- PPE devices alone should not be relied on to provide protection against hazards, but should be used in conjunction with guards, engineering controls and sound work practices.
- Become familiar with the potential hazards and the type of protective equipment that is available and what it can do (i.e. splash protection, impact protection, etc.).

Personal Protective Equipment

- Select the protective equipment which ensures a level of protection greater than the minimum required to protect employees from the hazards.
- Fit the user with the protective device and give instructions on care, limitations and use of the PPE.

Reassessment...

- The workplace should be periodically reassessed for any changes in conditions, equipment or operating procedures that could affect occupational hazards.
- Should include a review of injury and illness records to spot any trends or areas of concern and then take appropriate action.
- The suitability of existing PPE, including an evaluation of its condition and age, should be included in the assessment.
Questions???