

Job Safety Analysis – JSA Workshop



2015 Indiana Safety and Health Conference and Expo

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Introduction

The ***Job Safety Analysis – JSA*** and ***Risk Assessment Process*** are two – (2) of the most powerful tools in the Safety Professional’s tool box

This JSA Workshop has been designed to provide an overview of the JSA Perspective / Process and the Risk Assessment Process



A Powerful Tool by Any Name

- Job Safety Analysis – JSA
- Job Hazard Assessment – JHA
- Activity Hazard Analysis – AHA
- Pre-Task Hazard Analysis - PTHA
- MSHA – *SLAM* – Stop – Look – Analyze – Manage



Regulations

While the OSHA and MSHA Regulations do not list ***Job Safety Analysis – JSA*** by name...

Each requires that the ***Hazard Identification and Control Process*** be performed, documented, and communicated to all employees in numerous subparts...

Think about what the word ***Permit*** means and the ***Actions*** this word initiates from the regulations...

Definition of JSA

A Job Safety Analysis (JSA) is a method that can be used to identify, analyze, record, and communicate:

- The Steps Required to Complete the Task
- Each Hazard Associated with Each Step in the Task
- Each Hazard Control that will be Implemented while Performing the Task
- How each Hazard and Hazard Control will be Communicated to each Employee Performing the Task

Why JSA is so Powerful...

- JSA allows each of us to identify the steps in the task that we are about to perform prior to performing the task
- We are then able to analyze each potential hazard exposure and control each hazard exposure **BEFORE** an incident or injury occurs



Why JSA is so Powerful...

- A JSA is a technique that focuses on job tasks as a way to identify hazards before they employees are exposed to the hazards and become injuries, incidents, or property damage
- JSA focuses on the relationship between the employee, the task, the tools, the processes, and the work environment



Why JSA is so Powerful...

- Ideally, after you identify uncontrolled hazards, you will take steps to eliminate or reduce them to an acceptable risk level. In other words:

**“Plan Your Work -
Work Your Plan”**

Why is JSA Important?

- Many workers are injured and killed at the workplace every day in the United States - The Majority are **Preventable**
- Safety and Health Management, Engineering, Procedures, and Techniques can add value to your business, your organization, your job, and your Quality of Life

Why is JSA Important?

- The **Costs** of Injuries and Incidents come from **Production**
- The **Costs** of **Poor Quality and Re-Work Time and Materials** come from **Production**
- Therefore - You **Can Not Be Productive** without performing tasks in a **Safe and High Quality Manner**
- **JSA is the Road Map to Productivity and Production Success**

Why should I perform JSA?

- **Identify** Existing Hazards and Exposures
- **Identify** Potential Hazards and Exposures
- **Reduce, Eliminate, or Control** Identified Hazards and Exposures
- **Prioritize** Corrective Actions
- **Prevent** Injuries and Incidents
- **Lower** Incident Related Costs and Losses

JSA = A Powerful Tool

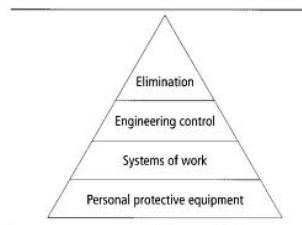
- A JSA is a very powerful tool that can be used by everyone in an organization:
 - Employees
 - Supervisors
 - Managers
 - Contractors
 - Teams
 - **Everyone**



What is a Hazard?

- A **Hazard** is the potential for harm
- In practical terms, a hazard often is associated with a condition or activity that, if left uncontrolled, can result in an injury or illness
- Identifying hazards and eliminating exposure or controlling exposures as early as possible will help prevent injuries and illnesses in the workplace

Hierarchy of Hazard Controls



- The JSA is a Method, a Tool, that helps you to apply the **Hierarchy of Controls** to eliminate exposure to hazards or reduce the exposure to an acceptable level

Hierarchy of Hazard Controls

- **Eliminate Exposure** to the Hazard Completely
- **Engineering Controls** - Environment
- **Administrative Controls** - People - Human Factors
- **Personal Protective Equipment (PPE)** - Last Level of Control – Don't be too quick to throw PPE at an exposure

When to Use the JSA Process

- **BEFORE** an Incident or Injury Occurs
- At the **Start** of New Tasks, Jobs, and Projects
- Continuously as **Tasks** and **Jobs** change
- High-Incident Tasks
- Repetitive Tasks
- Ergonomic Issues
- Chemical Tasks



When to Use the JSA Process

- Machine Tasks
- Maintenance Tasks
- Electrical Tasks
- Confined Space Entry Tasks
- Working at Heights
- Contractor Tasks
- ***All Tasks!!!***



JSA Can be Performed in Many Ways

- By teams of employees working together on the same task
- By **Individual Employees** prior to performing a task
- Formalized
- Informal



JSA Made Simple... Just Do It!!!

Name of Task/Job

Steps in the Task	Hazard Exposures Associated with Each Step	Hazard Controls for Each Identified Hazard
1.	1.	1.
2.	2.	2.
3.	3.	3.
Etc.	Etc.	Etc.

Date/Time Hazards and Hazard Controls Communicated to All Employees Performing the Task

Conducting a JSA

- Select the jobs/tasks with the highest risk and probability for a workplace incident or injury
- Select and **Experienced Employee** who is willing to be observed performing the task
- Involve employees, their Supervisor, and Managers in this process



Conducting a JSA



- Identify and record each step necessary to accomplish the task - Describe each step required
 - **Hint** - Don't be too descriptive and tedious – Keep It Simple for Safety – K-I-S-S
- Identify all Actual or Potential Hazards and Exposures associated with each Step required to Perform the Task

Conducting a JSA



- Determine and record each **Hazard Control** necessary to accomplish the task without Injury (**Hierarchy of Controls**)
- **Describe** each Hazard Control
- **Communicate** each **Hazard Exposure and Hazard Control** to **Everyone Performing the Task Prior to Performing the Task**

Steps in the JSA

- **Break Down** the Steps Required to Perform the Task
- **Identify the Hazards** Associated with Each Step in the Task
- **Evaluate** the Hazards and Hazard Exposures Associated with Each Step
- **Determine each Hazard Control** - Safe Work Procedures
- **Communicate** each Hazard Exposure and Hazard Control to Everyone Performing the Task

Breakdown the Task

- List each step in the task in order of occurrence
- Describe each action
- Think about the safety issues
- Be careful not to be too Descriptive and Tedious -
- **(K-I-S-S Principal - Keep It Simple Safety)**
- Use Words and Terms used by Employees
- Pictures and Diagrams

Identify the Hazard Exposures

- Fall Hazards
- Pinch Points
- Airborne Contaminants
- Repetitive motion
- Electrical
- Environmental
- Ergonomic
- Chemicals
- Mechanical
- Etc.



Develop and Apply Hazard Exposure Controls



- **Eliminate** the Employee Exposure to the Hazard Completely - If Possible
- **Engineering Controls** - Change the Environment where the Task is Performed
- **Administrative Controls** - Change How the Employee Performs the Task to Control the Hazard Exposure
- **PPE** - The Last Level of Control

Communicate

- Communicate all Hazard Exposures
- Communicate all Hazard Controls
- Communicate all Specific Methods
- Communicate to Everyone Performing the Task
- Practice Communication Techniques



Manage the JSA Process

- **Plan - Do - Check - Act**
 - Develop the Initial JSA
 - Implement the JSA
- **Observe the Initial JSA in Use**
- **Evaluate the Effectiveness of the Initial JSA**
- **Revise, Improve, Corrective Actions**
- **Repeat**



JSA's Must Evolve as the Work Evolves

- Don't write a JSA and then store it on a shelf where no one can read it...
- Don't write a JSA and hide it inside a computer where no one can find it...
- That would be a **Secret**, and would be of No Use to Anyone
- Use the JSA Perspective and Process Everyday for All Tasks

Benefits of JSA

- Reduced Incidents and Injuries
- Reduced Employee Turnover/Absenteeism
- Increased Employee Morale
- Increased Employee Communication
- Increased Productivity
- Attracting Higher Quality Employees
- Increased Employee Retention
- Continuous Improvement



Summary

- We will next introduce an additional step to the JSA Process
- Risk Assessment
- The combination of the JSA Process and Perspective and the Risk Assessment Process allows for an even greater control of hazard exposures, prioritizing, and allocation of limited resources in the workplace