

Job Safety Analysis

Before the projects starts, make sure that your company's health and safety policy and program includes job safety analyses that reflect the jobs your workers will do.

A job safety analysis (JSA), also called a job hazard analysis or job task analysis, is a systematic analysis of work steps in a specific location that identifies the hazards and determines the controls for each hazard.

By completing a JSA, you ensure that you have planned the work properly and that workers can do it safely. As a written document, it can serve as evidence of due diligence.

To be effective, the JSA must cover all aspects of a specific task. Most projects require several JSAs, and that isn't surprising when you consider the number of different tasks being done at the same time.

JSAs not only help prevent workers from getting injured, but they also help prevent damage to equipment and the environment. By doing this, JSAs help keep work on schedule.

Creating a JSA

The JSA should be prepared in writing by a competent person because such a person, as defined by the Occupational Health and Safety Act, knows what the hazards are on the jobsite. Usually that person is the foreperson or supervisor.

If you are creating a JSA, this is the procedure to follow.

1. Write down the job steps

The first step is to identify the task, usually a situation that is repeated on many jobsites. For example, accessing a roof top or working near the roof edge.

Once you have a clear understanding of what the work involves, break it down into manageable steps. These steps are not only specific to the job, but also specific to the work area. If the work area changes, the steps may need to change as well.

If the steps are too detailed, the JSA will be burdensome and difficult to follow. If they are not detailed enough, you may miss some hazards.

See sample JSA on page A-2.

2. Identify the hazards associated with each step

This is the most challenging part of the JSA. Take each step and list the hazards associated with it. Think about what could go wrong from a health and safety point of view. Think about how people, equipment, materials, and the surrounding environment contribute to a hazard.

To help identify potential hazards, consider

- Causes of past injuries
- Other work going on near the work area
- Legislation or regulatory requirements
- Manufacturer's instructions for equipment.

3. Determine controls for each hazard

Each hazard you identified in the previous step needs a control. The control explains how you will eliminate the hazard or significantly reduce the risk of injury.

Use a chart like in the JSA form provided on page A-3 to show the job steps, hazards, and controls. As reference, refer to page A-2 for a sample JSA on setting up an extension ladder.

4. Discuss the JSA with your workers

Once you have completed the first three steps, you should have a well-developed JSA. Now, it's time to share it with your workers. The JSA won't be effective if workers don't know about it and understand it. The information on a JSA should be communicated to workers in a language they understand.

Before starting work, review the relevant JSA with your crew and make sure everyone knows how they are supposed to do the job safely. If you're dealing with a task that will last more than one day, it's a good idea to review the JSA each morning before work starts.

Changes To Work Conditions

We know how often work plans change. When things change, the supervisor or foreperson must update the JSA to include any new hazards, and then review the JSA again with all workers.

Keep in mind that if your workers do the same job in two different locations, you probably need two JSAs because the surrounding hazards may be different.

Sample Job Safety Analysis

The following is a sample JSA for setting up an extension ladder.

Job Steps	Hazards	Barriers or Controls
Lift ladder off truck from braces.	Strain and sprain	Use mechanical leverage to raise ladder from truck bracket, or mount in an easily accessible location.
		Lift one end at a time.
		Get assistance from another worker.
		Carry ladder with feet toward the front so it's ready to set up.
Carry and set up ladder.	Strain and sprain	Lift ladder onto shoulder directly from truck bracket.
		Ensure good grip before walking.
		Get assistance from second worker for large ladders.
		Bend knees if setting ladder on ground.
		Set ladder feet on ground and walk towards wall raising ladder against wall. Practice this step with small ladders.
	Fall	Adjust ladder footing as required and, where applicable, secure bracing/stabilizers in place
		Ensure ladder is not leaning, and it is on firm footing and secured from movement.
	Slip and trip	Ensure your path of travel is clear before removing ladder from truck bracket.
		Know where obstacles are before travelling with ladder.
		Make sure you have a clear set-down area.
	Electrocution	Check for overhead wires before setting up ladder.
	Next steps... (Climb ladder, etc.)	

Before using the ladder, complete a **Ladder Risk Assessment Checklist** (see page A-4).

JSA No. _____

Job Safety Analysis Form

Company Name _____ Project _____
 Contractor _____ Supervisor in Charge _____
 Work Location _____ Estimated Start Date/Duration _____
 Work Description _____
 Trade Groups (including sub-contractors) _____
 Major Equipment _____
 Reference Material _____

Job Steps	Hazards	Barriers or Controls

Prepared By _____
 Approved By _____ Date Approved _____

- Instructions:
1. To be prepared by the supervisor most directly involved in the work.
 2. Must be approved by preparer's management supervisor.
 3. Must be reviewed by all workers involved in the work.
 4. Emergency plan must be considered.
 5. If the work plan changes and the JSA is amended, changes must be reviewed by all workers involved in the work.

Sample Ladder Risk Assessment Checklist

Company:	Date:
Completed by:	Site:

In all situations, ladder use is subject to the following safe work practices. Ensure that these items have been addressed:

	In Progress	Date Completed
The ladder has been visually inspected.	<input type="checkbox"/>	
The ladder is the appropriate CSA grade for its intended use and the amount of weight it will be required to support.	<input type="checkbox"/>	
Workers have received training on safe ladder use and appropriate fall protection.	<input type="checkbox"/>	
Workers have received instruction on the JSA associated with this checklist.	<input type="checkbox"/>	
Alternatives (to a ladder) have been considered (e.g., fixed-access ladder, PEWP, scaffold, work repositioning, etc.), and a ladder is deemed most suitable for the task.	<input type="checkbox"/>	
The selected ladder type (step, extension, platform, etc.) is suitable for the task.	<input type="checkbox"/>	
The ergonomics of maneuvering the ladder have been assessed and addressed.	<input type="checkbox"/>	
The ladder is secured from movement: <ul style="list-style-type: none"> • It has a firm level base that is secured where possible. • It is tied at the top to an available structure. 	<input type="checkbox"/>	
Material and/or tools can be raised or lowered by using a tool belt or rope in order to keep hands free.	<input type="checkbox"/>	
Three-point contact can be maintained while climbing.	<input type="checkbox"/>	
Ice and snow at the base and top is clear or will not affect the ladder stability or the worker's footing.	<input type="checkbox"/>	
Traffic in the area of the base and top is controlled.	<input type="checkbox"/>	
Enough space is left at the base for proper ladder angle.	<input type="checkbox"/>	