




Job Safety Analysis Guide



By the IARW Safety Committee
for the International Association of
Refrigerated Warehouses



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Introduction

Many job related injuries occur because employees are not trained in the proper job procedures. This is true particularly for new employees. One way to prevent these injuries is to conduct a job safety analysis, which has proven to be an effective tool for eliminating or minimizing workplace hazards. The following information describes how to conduct a job safety analysis.

Functions

The job safety analysis has 2 functions. First, it provides written documentation as to the safest manner in which to perform a task or job. Second, the job safety analysis provides a method for training new employees in the hazards of their new jobs and in the procedural and equipment safeguards to be used to avoid the hazards.

Process - Conducting a JSA

The process for conducting a JSA is simple. Before beginning the JSA, one objective is to observe the general work area. Since each job involves a different sequence of activity or task, you should observe how the job is performed. It is important to list each task that is being performed before going any further.

Prioritize the jobs according to the need for a job safety analysis. Assign the highest priority to jobs having the highest rate of accidents and disabling injuries. Dangerous jobs, newly created jobs, and those where significant changes have been made also should receive priority. Eventually, a job safety analysis should be conducted for all jobs in the workplace.

The primary steps in completing a job safety analysis are:

1. Determine the jobs to be analyzed;
2. Break each job down into a sequence of steps;
3. Identify the hazards associated with each step; and
4. Recommend safe work procedures, controls, and safeguards to minimize or eliminate the hazards.

Once a specific job has been selected for analysis, break the job down into basic sequential steps. Determining job sequences is best accomplished by directly observing the job while it is being performed and seeking employee input. When seeking employee input, explain to employees what the job safety analysis is and that the intent is to make the job as safe as possible. Inform employees that the job is being studied, not employee work performance.

Use a job safety analysis worksheet or form to help document your observations and employee comments.

A written procedure that you can use to review job methods and identify hazards that may have been overlooked during initial task design, process changes, and the like.

After listing all job steps, identify the hazards in each step. Identify all actual and potential hazards whether they result from an unsafe act or unsafe condition or both.

The next phase of the job safety analysis is to develop recommended procedures and safeguards.

JOB HAZARD ANALYSIS (JHA)		
Job/Task:	Analysis By:	Date:
Sequence Of Events	Potential Accidents or Hazards	Preventative Control Measures

The average job has 5-8 steps. If more steps are needed to accurately describe the work, consider

After you have generated a list of hazards or potential hazards and have reviewed them with the employee, determine if the employee can perform the job another way to eliminate the hazards, such as combining steps or changing the sequence. Describe the recommended procedure or precaution in terms of acts or behavior, to help the employee who is learning the job. Be specific - merely writing "use caution" or "be careful" is not useful information.

After job safety analyses are completed, review the analyses with employees performing the jobs to ensure each step is included for all hazards identified.

Questions You Might Ask During a JSA


- Are there materials on the floor that could cause tripping hazard?
- Is there adequate lighting?
- Are there any live electrical hazards?
- Are there any chemical, physical, biological, or radiation hazards associated with the job?
- Are any of these hazards likely to develop?
- Are tools- for example, and tools, machines and equipment in need of repair?

- Is there excessive noise that may hinder communication or is likely to cause hearing loss?
- Are job procedures understood and followed and/or modified as applicable?
- Are emergency exits clearly marked?
- Are industrial trucks or motorized vehicles properly equipped with brakes, overhead guards, back up signals, horns, steering gear, seat belts, etc? Are they properly maintained?
- Are all employees who operate vehicles and equipment authorized and properly trained?
- Are employees wearing proper personal protective equipment (PPE)?
- Have any employees complained of headaches, breathing problems, dizziness, or strong odors?
- Have tests been made for oxygen deficiency, toxic vapors, or flammable materials in confined spaces before entry? Is ventilation adequate, especially in confined or enclosed spaces?
- Are workstations and tools designed to prevent twisting motions?
- Are employees trained in the event of a fire, explosion, or toxic gas release?

This list is not complete each workplace may have different conditions that would require additional questions.

Checklist for Evaluating Each Job Step

- Is the employee wearing PPE
- Are work positions, machinery, pits or holes, and/or hazardous operations adequately guarded?
- Are lock out procedures used for machinery deactivation during maintenance?
- Are there fixed objects that may cause injury, such as sharp edges on equipment?
- Is the flow of the work properly organized, for example, is the employee required to make movements that are rapid?
- Can reaching over moving machinery parts or materials injure the employee?
- Is the employee at any time in the off-balance position?
- Is the employee positioned at the machine in a way that is potentially dangerous?
- Is the employee required to make movements that could lead to or cause hand or foot injuries, or strain from lifting, the hazards of repetitive motions?
- Do environmental hazards such as; dust, chemicals, radiation, welding rays, heat, or excessive noise result from the performance of the job?
- Is there a danger of striking against, being struck by, or contacting a harmful object?
- Can employees be injured if they are forcefully struck by an object or contact a harmful material?
- Can employees be caught in, on, by, or between objects? Can employees be injured if the body or part of the clothing or equipment is caught on an object that is either stationary or moving? Can they be pinched, crushed, or caught between either a moving object and a stationary object, or two moving objects?

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- Is there a potential for a slip, trip, or fall? Can employees fall from the same level or a different level?
 - Can employees strain themselves by pushing, pulling, lifting, bending, or twisting?
 - Can employees overextend or strain themselves while doing a task? Can they strain their back by twisting and bending?

Conclusion

The completed job safety analysis is an excellent tool for training new employees in safe work procedures for a particular job. A job safety analysis also can be useful in an accident investigation. By referring to the completed job safety analysis, a supervisor often can determine whether a worker failed to follow a recommended procedure or whether the analysis overlooked a hazard. In the latter case, the job safety analysis must be updated to make it more comprehensive. It is important that management understand that they need to look at the overall objective of the JSA and develop a strategy to integrate these JSAs into their process.

Template

The template on the following pages can be used to conduct your own Job Safety Analysis. As with any template, please be sure to review carefully and adapt to fit your own company's needs before use.

Add Your Logo
Here

JOB SAFETY ANALYSIS (JSA)

Company Name: _____ Location: _____

Job/Task:		Analysis Leader:		Date:	
Version:		Team Members:			

Note: Initial JSA is version 1.0

Sequence Of Events	Potential Accidents or Hazards	Preventative Control Measures

Add Your Logo
Here

PPE HAZARD ASSESSMENT

OPERATIONS <i>Circle all that apply</i>	BASIC HAZARD <i>Circle all that apply</i>	ASSESSMENT OF HAZARD <i>Circle all that apply</i>	BODY PART AFFECTED <i>Circle all that apply</i>	PROTECTION REQUIRED		ADDT'L COMMENTS <i>List type of PPE required (i.e., Hard Hat, Safety Glasses, Safety Shoes, Gloves, Face Shield, Freezer Gear, etc.)</i>
Freezer Entry	Hypothermia		Entire Body	Yes__	No__	
Powered Industrial Truck - Picking	Impact	Struck by Product	Foot	Yes__	No__	
Powered Industrial Truck - Staging	Impact	Struck by Product	Foot	Yes__	No__	
Material Handling	Compression	Caught Between	Eyes	Yes__	No__	
Acids	Chemicals	Splash	Eyes	Yes__	No__	
Corrosives		Mists	Face	Yes__	No__	
Caustics		Splash	Hands	Yes__	No__	
Solvents		Splash	Head	Yes__	No__	
Ammonia		Mist	Airway/Skin/ Eye	Yes__	No__	
Compressed Air		Dirt	Hands	Yes__	No__	
Grinding	Impact	Flying Fragments	Eyes	Yes__	No__	

Add Your Logo Here

OPERATIONS <i>Circle all that apply</i>	BASIC HAZARD <i>Circle all that apply</i>	ASSESSMENT OF HAZARD <i>Circle all that apply</i>	BODY PART AFFECTED <i>Circle all that apply</i>	PROTECTION REQUIRED		ADDT'L COMMENTS <i>List type of PPE required (i.e., Hard Hat, Safety Glasses, Safety Shoes, Gloves, Face Shield, Freezer Gear, etc.)</i>
				Yes__	No__	
Machining		Large Chips	Face	Yes__	No__	
Sanding		Sand Dirt	Head	Yes__	No__	
Welding Electric arc	Optic Radiation	Heat	Eyes	Yes__	No__	
Welding Gas		Sparks	Face	Yes__	No__	
Cutting			Hands	Yes__	No__	
Torch Brazing			Head	Yes__	No__	
Torch Soldering			Feet	Yes__	No__	
Hoisting	Impact	Hit By	Face	Yes__	No__	
Other:				Yes__	No__	
Other:				Yes__	No__	

Reviewed by:		Signature:		Date:	
Approved by:		Signature:		Date:	