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# Job Hazard Analysis (JHA)



# Agenda

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- Steps to creating a Job Hazard Analysis (JHA)
- Basic Elements of OSHA Pamphlet 3071
- Differences between JHA, Operational Risk Management (ORM) and Deliberate Risk Assessment Worksheet (DRAW).
- Group Exercise





# What is a hazard to OSHA?

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- 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 or controlling them as early as possible will help prevent injuries and illnesses.



# What is a Job Hazard Analysis?

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- A job hazard analysis is a technique that focuses on job tasks as a way to identify hazards before they occur.
- It focuses on the relationship between the worker, the task, the tools, and the work environment.



# Why is a JHA important?

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- It can help prevent workplace injuries and illnesses by looking at your workplace operations, establishing proper job procedures, and ensuring that all employees are trained properly.



# Background 1

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- Involve your employees.
- Employees have a unique understanding of the job, and this knowledge is invaluable for finding hazards.
- Involving employees will help minimize oversights, ensure a quality analysis, and get workers to “buy in” to the solutions because they will share ownership in their safety and health program



# Background 2

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- Review with your employees:
  - worksite's recordable accidents and illnesses.
  - any “near misses” or events in which an accident or loss did not occur, but could have.





# Background 3

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- Discuss with your employees the hazards they know exist in their current work and surroundings.
- Brainstorm with them for ideas to eliminate or control those hazards.
- If any hazards exist that pose an immediate danger to an employee's life or health, take immediate action to protect the worker.



# How To Manage Large Projects

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- List jobs with hazards that present unacceptable risks, based on those most likely to occur and with the most severe consequences. These jobs should be your first priority for analysis.



# The Basics

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1. Identify the job task or steps.
2. Identify the hazards.
3. Evaluate controls to mitigate the hazards.
4. Document safe work procedures and protective measures used to mitigation controls.
5. Train employees on the new work process.
6. Supervise.



# Step 1

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- Break the job into job tasks or steps.
- Or watch the employee perform the job and list each step as the worker takes it.
- Be sure to record enough information to describe each job but avoid making the breakdown of steps so detailed that it becomes unnecessarily long. (include the basic steps).



# Changing a Light Bulb

Too Much Detail	Too Little Detail	Right Amount
Get ladder from storage.	Get ladder and new light bulb.	Get ladder and new light bulb.
Get light bulb from storage.	Change the bulb.	Turn the light switch off
Carry ladder to light fixture.	Put the ladder away and throw out the old light bulb.	Place ladder under the light to be worked
Place ladder under the light.		Using the ladder, change bulb.
Turn the light switch off.		Put ladder back in storage.
Remove light cover.		Properly dispose of bulb.
Unscrew the bulb.		
Remove the bulb.		
Insert the new bulb.		
Screw the new bulb into place.		
Replace the light cover..... etc		



# Step 2-4

- Identify the hazards for each step.
- Evaluate controls to mitigate the hazards.

Lifting boxes and material	Hazard	Mitigation
Oversized or heavy object	Back injury	2 person lift
	Muscle Strain	Proper lifting techniques (bend knees, use legs not back, no twisting)
	Slip/Trip/Fall	Use mechanical device
	Hand Injuries	Clear path of travel
		Wear gloves (working with wood or steel objects)



# Step 5-6

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- Train Employees.
- Supervise.







# Look at what OSHA says.



## Grinding Iron Castings: Job Steps

- Step 1.** Reach into metal box to right of machine, grasp casting, and carry to wheel.
- Step 2.** Push casting against wheel to grind off burr.
- Step 3.** Place finished casting in box to left of machine.



# Look at what OSHA says.

## Example Job Hazard Analysis Form

<b><i>Job Location:</i></b> Metal Shop	<b><i>Analyst:</i></b> Joe Safety	<b><i>Date:</i></b>
<b><i>Task Description:</i></b> Worker reaches into metal box to the right of the machine, grasps a 15-pound casting and carries it to grinding wheel. Worker grinds 20 to 30 castings per hour.		
<b><i>Hazard Description:</i></b> Picking up a casting, the employee could drop it onto his foot. The casting's weight and height could seriously injure the worker's foot or toes.		
<b><i>Hazard Controls:</i></b> <ol style="list-style-type: none"><li>1. Remove castings from the box and place them on a table next to the grinder.</li><li>2. Wear steel-toe shoes with arch protection.</li><li>3. Change protective gloves that allow a better grip.</li><li>4. Use a device to pick up castings.</li></ol>		



# Look at what OSHA says.

<b><i>Job Location:</i></b> Metal Shop	<b><i>Analyst:</i></b> Joe Safety	<b><i>Date:</i></b>
<b><i>Task Description:</i></b> Worker reaches into metal box to the right of the machine, grasps a 15-pound casting and carries it to grinding wheel. Worker grinds 20 to 30 castings per hour.		
<b><i>Hazard Description:</i></b> Castings have sharp burrs and edges that can cause severe lacerations.		
<b><i>Hazard Controls:</i></b> <ol style="list-style-type: none"><li>1. Use a device such as a clamp to pick up castings.</li><li>2. Wear cut-resistant gloves that allow a good grip and fit tightly to minimize the chance that they will get caught in grinding wheel.</li></ol>		



# Look at what OSHA says.

<b><i>Job Location:</i></b> Metal Shop	<b><i>Analyst:</i></b> Joe Safety	<b><i>Date:</i></b>
<b><i>Task Description:</i></b> Worker reaches into metal box to the right of the machine, grasps a 15-pound casting and carries it to grinding wheel. Worker grinds 20 to 30 castings per hour.		
<b><i>Hazard Description:</i></b> Reaching, twisting, and lifting 15-pound castings from the floor could result in a muscle strain to the lower back.		
<b><i>Hazard Controls:</i></b> <ol style="list-style-type: none"><li>1. Move castings from the ground and place them closer to the work zone to minimize lifting. Ideally, place them at waist height or on an adjustable platform or pallet.</li><li>2. Train workers not to twist while lifting and reconfigure work stations to minimize twisting during lifts.</li></ol>		



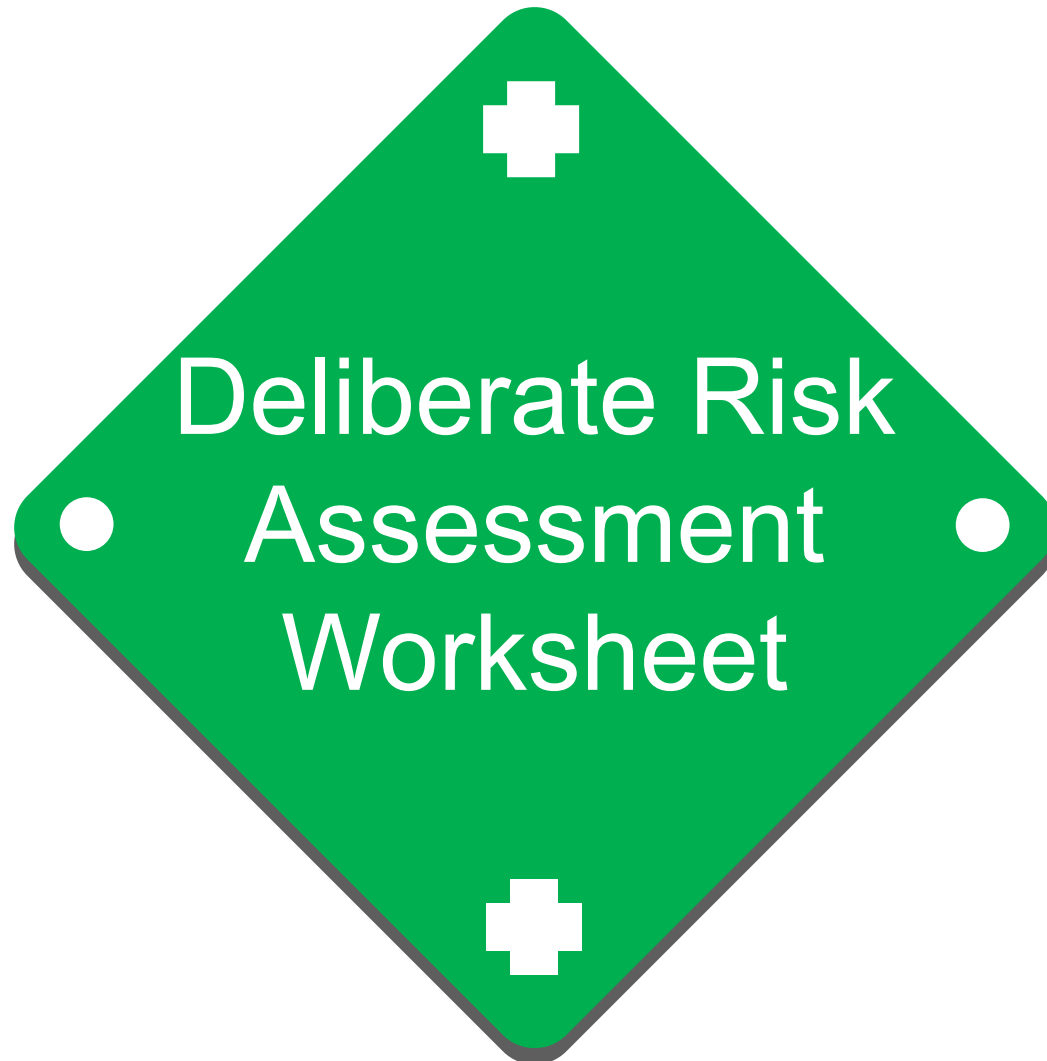


# The Basics

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The Department of the Navy adopted the five-step process (figure 1-2) for its systematic, continuous, and repeatable qualities. The process comprises of:

- (1) identify the hazards;
- (2) assess the hazards;
- (3) make risk decisions;
- (4) implement controls; and
- (5) supervise.

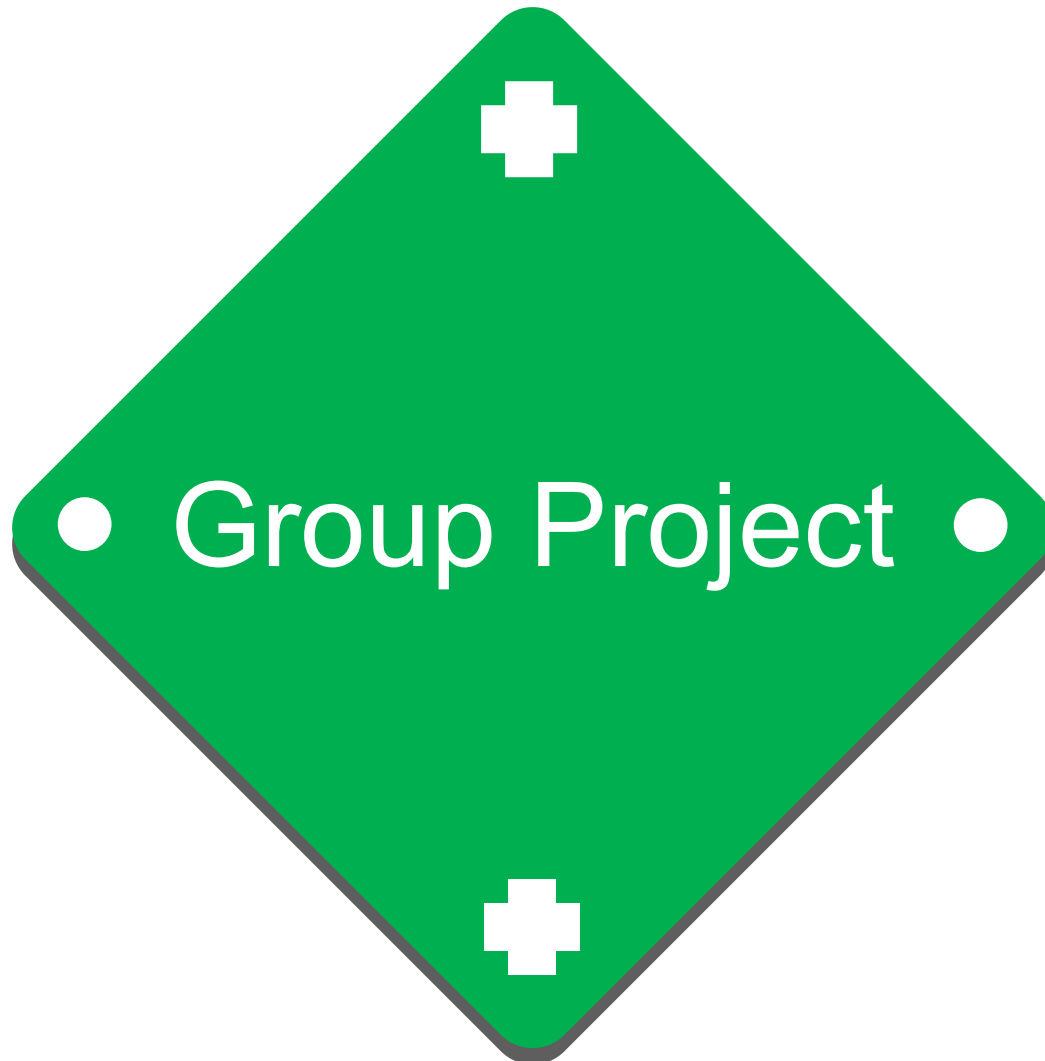




# The Basics

<b>DELIBERATE RISK ASSESSMENT WORKSHEET</b>					
1. MISSION/TASK DESCRIPTION			2. DATE (DD/MM/YYYY)		
3. PREPARED BY					
a. Name (Last, First, Middle Initial)		b. Rank/Grade		c. Duty Title/Position	
d. Unit		e. Work Email		f. Telephone (DSN/Commercial (Include Area Code))	
g. UIC/CIN (as required)		h. Training Support/Lesson Plan or OPORD (as required)		i. Signature of Preparer	
Five steps of Risk Management: (1) Identify the hazards    (2) Assess the hazards    (3) Develop controls & make decisions (4) Implement controls    (5) Supervise and evaluate <i>(Step numbers not equal to numbered items on form)</i>					
4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
		<input type="text"/>		How: _____ Who: _____	<input type="text"/>
		<input type="text"/>		How: _____ Who: _____	<input type="text"/>
		<input type="text"/>		How: _____ Who: _____	<input type="text"/>
		<input type="text"/>		How: _____ Who: _____	<input type="text"/>
		<input type="text"/>		How: _____ Who: _____	<input type="text"/>
<b>Additional entries for items 5 through 9 are provided on page 2.</b>					
10. OVERALL RESIDUAL RISK LEVEL (All controls implemented):					
<input type="checkbox"/> EXTREMELY HIGH		<input type="checkbox"/> HIGH		<input type="checkbox"/> MEDIUM	
<input checked="" type="checkbox"/> LOW					







# Group Project

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Create a Job Hazard Analysis for changing a flat tire on your car.

Things to consider:

- Parking lot **or** on the side of the road?
  - Would the same JHA work for each?
- Front, rear, or all wheel drive car?
  - Would the same JHA work for each?
- Day time or night time?