

Job Hazard Analysis (JHA)

Analyzing health & safety hazards in your workplace

Our presentation will begin soon



Job Hazard Analysis (JHA)

Analyzing health & safety hazards in your workplace

ICW Group Risk Management

Today's presenter

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What is Job Hazard Analysis (JHA)?



A method for systematically identifying and evaluating HAZARDS associated with a Job or Task



Why conduct a job hazard analysis?



Identify hazards to eliminate or control them Develop accident prevention program (IIPP)

Ensure workers have training, equipment and supplies to work safely

Prevent work-related death, injury, illness Use in loss prevention efforts, environment pollution prevention, fire protection

The Job Hazard Analysis Form



- Customizable for your company
- Helps break down each job into steps and analyze specific hazards

Date of Analysis Job Location PPE Required Safety Glasses Gloves Goggles, Faceshield, Welders Mask Protective Apron or Clothing Frequency 1 Very Rarely - Not known to have Slip Resistant Shoes Respirator Safety Toe Shoes Hard Hat or Bump Cap Seventy 1 Minor Curts, Bruises, Bumps and or Comments Comments Hard Hat or Bump Cap Minor Curts, Bruises, Bumps and or Total Risk Score for this Job	occurred, but possible n a million
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steps to help isolate risks List the hazards vortice if a vitro into small	
involve employees and conduct observations What are the actions well the	Completion Date
2	When will these take affect?
3	
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Seven-step Process

- 1. SELECT job to analyze
- 2. DETAIL JOB into key steps
- 3. SPOT RISKS for each step
- 4. CONTROL hazards
- 5. TAKE ACTIONS needed
- 6. DOCUMENT all actions
- 7. REASSESS periodically



7 STEPS To a Successful Job Hazard Analysis

A Job Hazard Analysis (JHA) is a method for systematically identifying and evaluating HAZARDS associated with a particular job or task. Also called a Job Safety Analysis (JSA), it's a critical part of creating and maintaining a safe workplace for your employees.





01 - Select The Job to Analyze

STEPS To a Successful

- Focus on one job at a time
- Take a FRESH look with an open mind
- Avoid "we've always done it this way" mentality
- Even if injury hasn't happened, hazard may still exist

Accepting Risk or Hazard is <u>NOT</u> the same as Eliminating or Controlling it!



Include High Risk Jobs

Any job or task meeting the following condition(s) should have a JHA conducted for it:

STEPS To a Successfu

- History of injuries or near misses.
- Catastrophic potential fire, explosion, large chemical releases, massive equipment failure.
- Simple human error could lead to serious injury



Include High Risk Jobs

Any job or task meeting the following condition(s) should have a JHA conducted for it:

STEPS To a Successfu

- New people doing task,
- Tasks that have changed,
- Rarely performed jobs,
- Any job done under a "Safety Permit"
 - Confined space permit, Hot Work permit, etc.



Check Injury History

Examine jobs where workers have been injured using:

- Your accident or incident reports
- Your Worker Compensation claims
- Industry or trade association data

Conduct preliminary worksite walk-around to observe or identify hazardous jobs or tasks.

STEPS To a Successfu



O2 - Drill Down to the Details

- Detail the job into sub-tasks or steps
- List all hazards associated
- Break into components that make sense
 - Too much detail makes JHA cumbersome
 - Too little detail may omit hazards
- Generally, limit steps to 10 or less

Asking employees for assistance Improves Ownership and Acceptance!



STEPS To a Successf

Example - Changing a Light Bulb

Details that Make Sense

Too Much Detail	Too Little Detail	The Right Amount!
 Get ladder from storage. Get new light bulb from storage. Carry ladder and light bulb to light needing change. Place ladder under light to be changed. Ensure light switch is in the off position. Climb ladder. Remove light cover. Twist bulb counter clock-wise to free from socket. Remove old light bulb. Insert new light bulb into socket. Turn in a clock-wise direction until tightened. Replace light cover. Descend ladder. Carry ladder back to storage. 	 Get a ladder and new light bulb. Change bulb. Put ladder away and throw out old light bulb. 	 Get ladder and new light bulb. Turn light switch off. Place ladder under light to be changed. Using ladder, change bulb. Put ladder back in storage.

STEPS To a Successful Job Hazard Analysis



- List each step
- Remember to keep details at a level that make sense

Step	Job Step Description	Identified Hazards
#	Break down the larger job into small steps to help identify the risks	List the hazards you've identified for Involve employees and conduct obse
1	Get base, cap and arm for welding from parts cart and place onto workstation jig	
2	Check Welder for safe operating condition and turn on welder and local exhaust ventilation	
3	Complete side, top and bottom welds on cap. Completed arm weld to side of base.	
4	Clean weld using magnaflux cleaner while in jig	
5	Polish Part using hand polisher while in jig	
6	Remove finished part from jig and place onto cart for transport	
7		

STEPS To a Successful Job Hazard Analysis



- Watch workers doing jobs, to identify potential hazards that may lead to injuries
- Pay attention to time worker is exposed to hazard

STEPS

- Ask them:
 - What do they feel is the most hazardous part?
 - Are the tasks they are currently doing typical?



7 STEPS To a Successful Job Hazard Analysis

		6 6
How people get hurt	What causes them to get hurt?	
Ladders tipping over	 Ladder not on level surface Ladder on soft ground and leg sunk in Person reached out too far Ladder wasn't high enough to reach safely –person stood up near top Ladder broken or damaged 	
Lifting heavy objects	 Trying to lift too heavy objects Bending over at waist when lifting Turning (twisting) back while lifting 	
Slipping on floor	 Spilled liquids not cleaned up Small objects dropped on floor and left there People wear wrong shoes for conditions 	
Using bench grinder	 Flying particles get in eyes If grinder wheel breaks, chunks fly off at high speed High noise level can injure hearing 	



Add Hazards to JHA Form

Job Step Description	Identified Hazards	
Break down the larger job into small steps to help identify the risks	List the hazards you've identified for this step. Involve employees and conduct observations	
cap and arm for welding from parts cart and place station jig	 Lifting parts can strain back or upper extremity Some parts have sharp edges and can cut hand 	
der for safe operating condition and turn on d local exhaust ventilation		
side, top and bottom welds on cap. Completed to side of base.	 UV and IR Radiation from Welder Potential Hot Slag or contact with hot surface Breathing Welding Fumes Contact with Electrical 	K
t using magnaflux cleaner while in jig	1. Skin irritation from cleaner	
: using hand polisher while in jig	 Noise from Polisher Vibration Struck by or against 	
nished part from jig and place onto cart for	 Lifting parts can strain back or upper extremity Some parts have sharp edges and can cut hand. 	

List the specific hazard for each step

STEPS To a Successful Job Hazard Analysis









What is Acceptable Risk?

LIKELIHOOD

- Organization establishes level of acceptable risk
- Lack of planning causes assumed risk by default
- Frequency of exposure to activities increases organizational risk





- Which one to tackle first?
 - Frequency job task occurs
 - **Probability** of injury each time incident occurs
 - Severity if incident occurs
 - How significant or serious
- An infrequent job having potential for fatality or frequent job causing less severe injuries





n.

Use number drop-down

- Tasks performed more often
- More likely to cause injuries
- Fatal or serious injury potential

Risk Score populates

KS			06 DOCUMENT all H4 actions and here mender up to date 05 DT To Successful Job Hazard Analysis		
			TAKE ACTION by installing controls or diministing diministing conserver top		
JO	b Ha	zard Analysis	ICWGROUP Insurance Companies		
Weld Shop					
Rick Finema	n, CSP				
Frequency	6	Continuously (or many times a da	ay)		
Likelihood 3 Would be remotely possible - has been known to occur					
Severity 2 Disabling injuries, damage to \$1000					
Risk Score 50 Total Risk Score for this Job					

WEIGROUP 04 – Controlling Hazards

JOB STEPS Identify activities driving exposure (quantify Frequency)

HAZARDS & CONTROLS

Evaluate controls, compliance to best practice (quantify Likelihood)

FREQUENCY NUMBER OF TIMES EXPOSED TO HAZARD



LIKELIHOOD CHANCE SEVERITY WILL OCCUR

SEVERITY CONSEQUENCES OF OCCURRENCE

STEPS To a Successful Job Hazard

> hazards by ninimizing o ninating ris



CONSEQUENCES

Calculate severity worse-case and expected (quantify Likelihood)



What Type of Control?

- Start at top and work down
- Elimination & substitution are strongest controls
- Isolation and Engineering controls preferred over Administrative and/or PPE
- PPE and Train Last option

Control	Examples
Elimination	Redesign job to remove hazardous activity
Substitution	Substituting chemical with lower hazard
Isolation	Card key access to restricted area
Engineering Control	Point of operation guard on punch press
Administrative Control	Providing training on equipment and processes
Personal Protective Equipment	Providing gloves, mask and glasses to prevent exposure to blood and OPIM

STEPS

A combination of controls may be necessary to fully protect workers!



- Administrative controls act on worker, not hazard
 - Hazard still exists
 - Worker avoids the hazard when doing job
- Limiting time worker is exposed to hazard
- Limiting number of workers exposed
- Limiting exposure through specific practices
- Often combined with engineering controls



STEPS

Personal Protection Equipment

- PPE is last resort for controls
- Employees must understand nature of hazard and PPE limitations
- Requires constant management to ensure:
 - PPE appropriate for hazard
 - Properly trained employees
 - Readily available replacements



STEPS







STEPS To a Successfu Job Hazard



Add Controls to Form

1	
STEPS	
Job Hazard	//
Analysis	

Identified Hazards	Proposed Controls
List the hazards you've identified for this step. Involve employees and conduct observations	What are the actions you'll take to improve the safety for this risk?
 Lifting parts can strain back or upper extremity Some parts have sharp edges and can cut hand 	 Keep heavier parts at waist level on carts - waist level to waist level lifts Carts positioned far to reduce twisting Gloves to avoid hand injuries
1. UV and IR Radiation from Welder	1. Welding bood with tinted lense - Flash
2. Potential Hot Slag or contact with hot surface	guard barriers between stations
3. Breathing Welding Fumes	2. Gloves & welding leathers for hot surface
4. Contact with Electrical	and slag
	3. Steel Toe boots for dropped items
	4. Local Exhaust Ventilation for fumes
	5. Inspect welder and grounding for electrical
1. Skin irritation from cleaner	1. Use tool for application and cleaning
	2. Wash hands if contact with cleaner
1. Noise from Polisher	1. Keep part in jig while polishing
2. Vibration	2. Hearing protection optional
3. Struck by or against	3. Vibration Damping Gloves available upon
A 1959	

List the specific controls you need to take for each hazard



- Complete all control changes
- Train all employees affected by changes in job methods, procedures, or protective measures adopted

STEPS

Add signage and reminders

Take Action to Implement Controls

Needs List:

- Purchase leather work gloves
- Proper tint on welding hoods
- Safety shoe reimbursement program
- Noise monitoring
- Possible audiometric testing

Add dates for your records-

Proposed Controls	Completion Date
What are the actions you'll take to improve the safety for this risk?	When will these take affect?
 Keep heavier parts at waist level on carts - waist level to waist level lifts Carts positioned far to reduce twisting Gloves to avoid hand injuries 	8/15/2019
 Welding hood with tinted lense - Flash guard barriers between stations Gloves & welding leathers for hot surface and slag Steel Toe boots for dropped items Local Exhaust Ventilation for fumes Inspect welder and grounding for electrical 	8/1/2019
 Use tool for application and cleaning Wash hands if contact with cleaner 	7/24/2019
 Keep part in jig while polishing Hearing protection optional Vibration Damping Gloves available upon 	7/24/2019
 Keep heavier parts at waist level on carts - waist level to waist level lifts Carts positioned far to reduce twisting 	8/1/2019

STEPS



Be sure to document in writing (use form):

- Workplace and job evaluated
- Date of hazard assessment
- Person certifying assessment has been pre- informed

STEPS

Hazards found and controls enacted



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AB	BC W	/ELDING COMPANY			Job	На	zard Analysis	WGROUF rance Companie
J	ob Title	Welder - Base		Job Location	Weld Shop			
Date of Analysis 7/22/2019		Analyst(s)	Rick Fineman	CSP				
PPE Re	equired	Safety Glasses Goggles, Faceshield, Welders Mask Slip Resistant Shoes Safety Toe Shoes	 ✓ Glo ✓ Pro ✓ Res → Har 	ves tective Apron or Clothing ;pirator d Hat or Bump Cap	Frequency Likelihood Severity Risk Score	6 3 2 50	Continuously (or many times a day) Would be remotely possible - has been k Disabiling injuries, damage to \$1000 Total Risk Score for this Job	nown to occu
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Step		Job Step Description Break down the larger job into small		List the hazards you've io	Hazards dentified for this	step -	What are the actions you'll take to	Completion When will t
1	Get base, cap and arm for welding from parts cart and place onto workstation jig		involve employees and conduct observations 1. Lifting parts can strain back or upper extremity 2. Some parts have sharp edges and can cut hand		improve the safety for this risk? 1. Keep heavier parts at waist level on carts - waist level to waist level lifts 2. Carts positioned far to reduce twisting 3. Gloves to avoid hand injuries	take affec 8/15/201		
2	Check V welder	Nelder for safe operating condition and turn and local exhaust ventilation	on					
3	Comple arm we	rte side, top and bottom welds on cap. Comp eld to side of base.	leted	UV and IR Radiation from Potential Hot Slag or con Breathing Welding Fume Contact with Electrical	n Welder tact with hot sur s	face	Welding hood with tinted lense - Flash guard barriers between stations Gloves & welding leathers for hot surface and slag Steel Toe boots for dropped items Local Exhaust Ventilation for fumes S. Inspect welder and grounding for electrical	8/1/201
4	Clean weld using magnaflux cleaner while in jig		1. Skin irritation from cleaner		1. Use tool for application and cleaning 2. Wash hands if contact with cleaner	7/24/201		
5	Polish Part using hand polisher while in jig		1. Noise from Polisher 2. Vibration 3. Struck by or against			 Keep part in jig while polishing Hearing protection optional Vibration Damping Gloves available upon 	7/24/20:	
6	Remove finished part from jig and place onto cart for transport		 Lifting parts can strain ba Some parts have sharp ec 	ck or upper extr Iges and can cut	emity hand.	 Keep heavier parts at waist level on carts - waist level to waist level lifts Carts positioned far to reduce twisting Gloves to avoid hand injuries 	8/1/201	
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07 - Reassess Regularly

- Review job hazard analysis:
 - Periodically, even if job hasn't changed
 - If illness or injury occurs
 - Report of near misses, close calls, situations where injury barely avoided

STEPS

- Based on feedback from workers
- Make sure to stay on target!



9

Update Form as Needed

ABC WELDING COMPANY Job Hazard Analysis Job Title Welder - Base Date of Analysis 7/22/2019 Job Location Weld Shop PPE Required 📋 Safety Glasses Analyst(s) Rick Fineman, CSP Goggles, Faceshield, Welders Mask Gloves Protective Apron or Clothing Slip Resistant Shoes Continuously (or many times a day) Respirator Safety Toe Shoes Would be remotely possible - has been known to occur Hard Hat or Bump Cap Disabling injuries, damage to \$1000 Comments Total Risk Score for this Job Job Step Description Break down the larger job into small # Identified Hazards steps to help isolate risks Get base, cap and arm for welding from parts cart and place 1. Lifting parts can strain back or upper extremity List the hazards you've identified for this step -Proposed Controls What are the actions you'll take to **Completion Date** improve the safety for this risk? 2. Some parts have sharp edges and can cut hand When will these 1. Keep heavier parts at waist level on carts take affect? Check Welder for safe operating condition and turn on waist level to waist level lifts 8/15/2019 welder and local exhaust ventilation 2. Carts positioned far to reduce twisting 3. Gloves to avoid hand injuries Complete side, top and bottom welds on cap. Completed 1. UV and IR Radiation from Welder 2. Potential Hot Slag or contact with hot surface 3 1. Welding hood with tinted lense - Flash guard 3. Breathing Welding Fumes barriers between stations 4. Contact with Electrical 8/1/2019 2. Gloves & welding leathers for hot surface 3. Steel Toe boots for dropped items Clean weld using magnaflux cleaner while in jig 4. Local Exhaust Ventilation for fumes 1. Skin irritation from cleaner 5. Inspect welder and grounding for electrical Polish Part using hand polisher while in lig 1. Use tool for application and cleaning 5 2. Wash hands if contact with cleaner 1. Noise from Polisher 7/24/2019 2. Vibration Remove finished part from jig and place onto cart for 1. Keep part in jig while polishing 3. Struck by or against 2. Hearing protection optional 6 1. Lifting parts can strain back or upper extremity 7/24/2019 3. Vibration Damping Gloves available upon 2. Some parts have sharp edges and can cut hand. 1. Keep heavier parts at waist level on carts waist level to waist level lifts 7 8/1/2019 2. Carts positioned far to reduce twisting 3. Gloves to avoid hand injuries 8

Analysis Constant of the start of analysis Constant of the start of analysis Constant of the start of the

DOCUMENT all JHA actions

TAKE ACTION

Seven-step Process

- 1. SELECT job to analyze
- 2. DETAIL JOB into key steps
- 3. SPOT RISKS for each step
- 4. CONTROL hazards
- 5. TAKE ACTIONS needed
- 6. DOCUMENT all actions
- 7. REASSESS periodically



7 STEPS To a Successful Job Hazard Analysis

A Job Hazard Analysis (JHA) is a method for systematically identifying and evaluating HAZARDS associated with a particular job or task. Also called a Job Safety Analysis (JSA), it's a critical part of creating and maintaining a safe workplace for your employees.



ICW Group Policyholder Website!



icwgroup.com/safety

- Safety and Risk Management area!
- **Safety Webinars**

Job Hazard Analysis



· How Return to Work programs help your business

successful Return to Work program.

disability? Learn how you can create a favorable impact by building a



ICW Group Policyholder Website!



icwgroup.com/safety

- JHA Form
- 7 Steps to JHA
- Root Cause Investigations
- Tips for Safety Observations

				_/ \$IEP	S To a Su	Iccessful	
	SEER WO	DRKPLACE	n you'll observe, ental or deliberate), at you'll look for.	A Job Hazard Analysis associated with a model	(JHA) is a second	azard Analysis	
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QUESTIONS?

CONTACT US:

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Thank you!

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