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Effective Job Hazard Analysis:

Preventing Workplace Injuries & Illnesses

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New Jersey ASSP Chapter

Meet Today's Presenter

- More than 35 years of experience in General Industry Compliance
- OSHA 10/30 authorized instructor
- Professional member of the NJASSP Chapter - 2019 SPY
- B.S., University of Massachusetts, M.Ed., Boston University
- Retired US Army LTC, Senior Army Aviator & Aviation Safety Officer

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Managing Partner
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Presentation Overview

- Defining Workplace Risk
- Regulatory Requirements
- OSHA Enforcement Criteria
- Steps for conducting a JHA
- Using a Risk Matrix
- OSHA Cooperative Programs
- Q/A

Disclaimer

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Polling Question #1

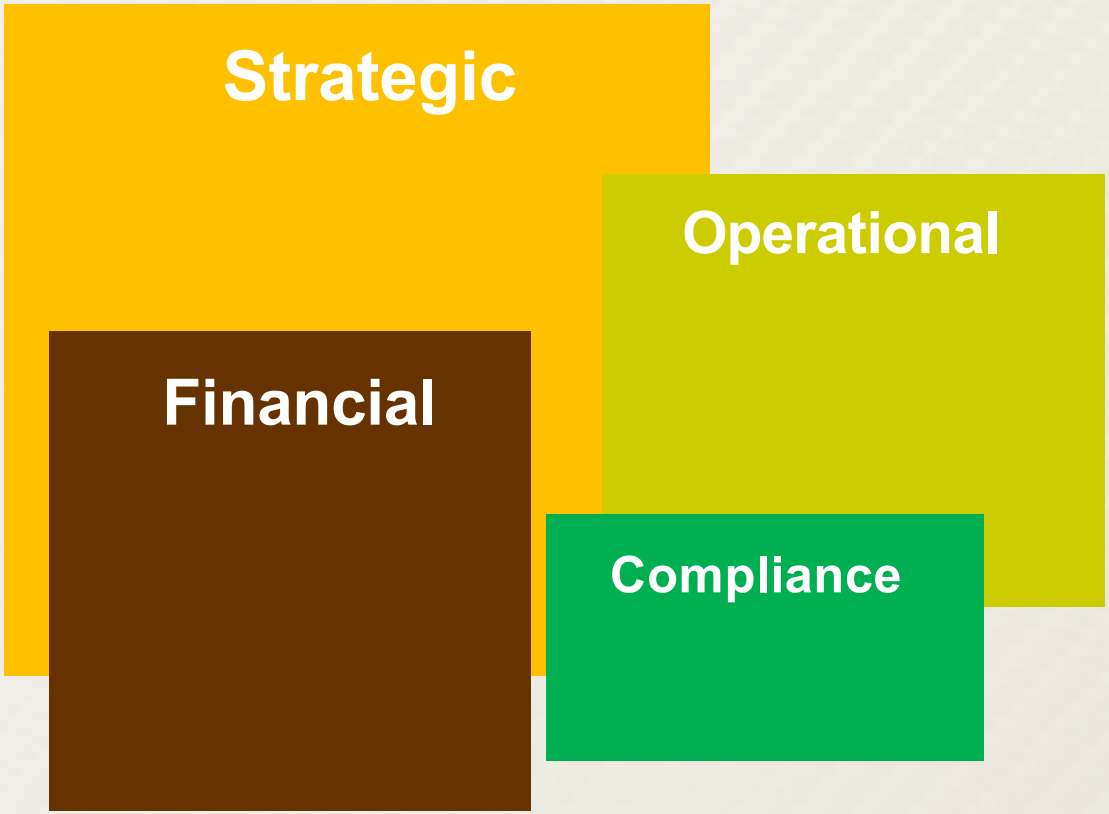
How would you rate your current level of OSHA compliance from the choices below?

A. Just getting started with OSHA
B. Pretty good understanding but have a few questions
C. Expert

A Practical Definition of Risk

"Uncertainty About A Potentially Bad Outcome."

Common Workplace Risks



What is a Job Hazard Analysis?

A **Job Hazard Analysis** (JHA) is a widely used tool to evaluate hazards throughout all industries:

Definition

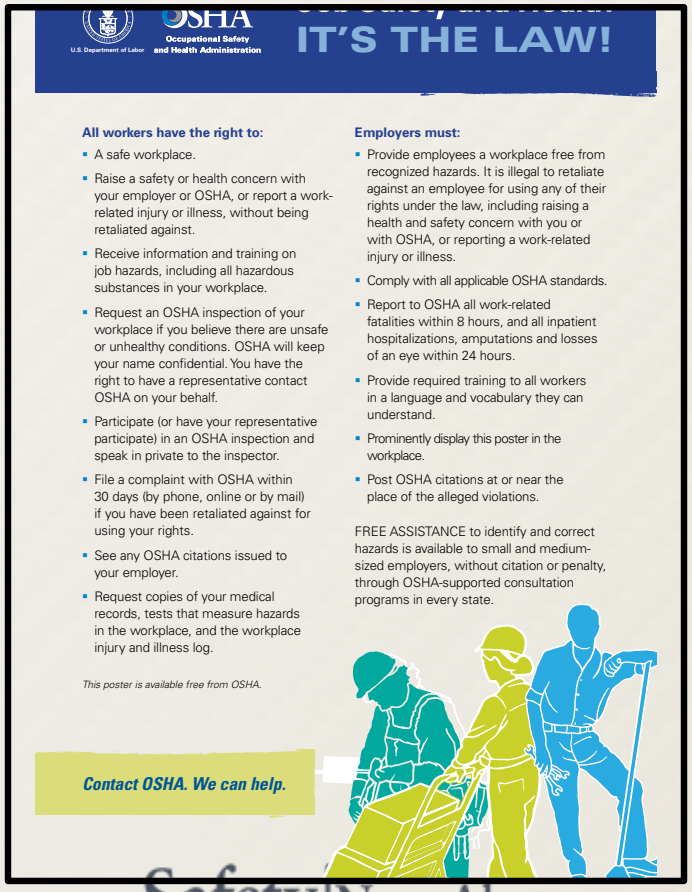
A JHA is a systematic process to identify the hazards associated with a job or task that may not be readily apparent.

Purpose

The intent of a JHA is to make a job safer by identifying potential hazards and effectively eliminating or controlling them.

Regulatory Requirements

- Failure to assess hazards in the workplace can lead to injuries or illness, and costly OSHA citations and penalties (fines) against your company (e.g., 5.a.1.)



U.S. Department of Labor
OSHA
Occupational Safety and Health Administration

IT'S THE LAW!

All workers have the right to:

- A safe workplace.
- Raise a safety or health concern with your employer or OSHA, or report a work-related injury or illness, without being retaliated against.
- Receive information and training on job hazards, including all hazardous substances in your workplace.
- Request an OSHA inspection of your workplace if you believe there are unsafe or unhealthy conditions. OSHA will keep your name confidential. You have the right to have a representative contact OSHA on your behalf.
- Participate (or have your representative participate) in an OSHA inspection and speak in private to the inspector.
- File a complaint with OSHA within 30 days (by phone, online or by mail) if you have been retaliated against for using your rights.
- See any OSHA citations issued to your employer.
- Request copies of your medical records, tests that measure hazards in the workplace, and the workplace injury and illness log.

This poster is available free from OSHA.

Employers must:

- Provide employees a workplace free from recognized hazards. It is illegal to retaliate against an employee for using any of their rights under the law, including raising a health and safety concern with you or with OSHA, or reporting a work-related injury or illness.
- Comply with all applicable OSHA standards.
- Report to OSHA all work-related fatalities within 8 hours, and all inpatient hospitalizations, amputations and losses of an eye within 24 hours.
- Provide required training to all workers in a language and vocabulary they can understand.
- Prominently display this poster in the workplace.
- Post OSHA citations at or near the place of the alleged violations.

FREE ASSISTANCE to identify and correct hazards is available to small and medium-sized employers, without citation or penalty, through OSHA-supported consultation programs in every state.

Contact OSHA. We can help.

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Regulatory Requirements

- OSHA is very likely to review your hazard assessment (JHA) program in the event of an accident/illness on the job, especially if the injury/illness results in a worker serious injury or illness
- There are certain OSHA standards that require the need for specific hazard assessments
- Completing your JHAs helps ensure you have both a safe **and** regulatory compliant workplace

OSHA General Duty Clause

- OSHA requires employers to furnish a place of employment free of recognized hazards that are causing, or likely to cause death or serious physical harm to employees
- Employers must comply with occupational safety and health standards set under the General Duty Clause, section 5.(a)(1) of the Occupational Safety and Health Act of 1970

One of the most common General Duty Clause citations issued by OSHA is failure to comply with the requirements of hazard risk assessments (e.g., JHA)

Polling Question #2

Has your organization developed any written guidance regarding compliance with risk assessment policies & procedures?

A. Yes. Mandatory risk assessments are required for all key operations
B. We have met with our key internal stakeholders and they are currently under development
C. Nothing in writing
D. Not sure

Let's do a "simple" JHA

Step 1 - Job selection

Step 2 – List the steps of the task (limit to 10-12)

Step 3 – List the hazards for each task

Step 4 – List the possible controls for each task and complete the continuation sheet

Task - Grinding Iron Castings

A worker reaches into metal box on the floor to the left of the grinder, grasps a 15-pound casting and carries it to the grinding wheel. Worker grinds the sharp burrs from 20 to 30 castings per hour, placing finished castings in box on the floor to the right.

JHA Form

JOB HAZARD ANALYSIS

DEPARTMENT:

JOB DESCRIPTION:

TASK STEP	HAZARD(S)	CONTROLS
Required Training:	Required Personal Protective Equipment (PPE):	
Other Information:		
Created by: John Q. Public		
Date Created:		
JHA Library Number: 00-00-00		

Step 1 - Job Selection

Considerations:

- Frequency of accidents/injuries and “near misses”
- Rate of disabling injuries & illnesses
- New or modified equipment and/or tasks
- The severity potential of the conse

Remember - Jobs *should not* be selected at random!

Step 2 - Tasks

JOB HAZARD ANALYSIS

DEPARTMENT: MACHINE SHOP

JOB DESCRIPTION: GRINDING METAL CASTINGS

TASK STEP	HAZARD(S)	CONTROLS
1. Reach into metal box to left grinder, grasp casting, and carry to wheel.		
2. Push casting against wheel to grind off burr.		
3. Place finished casting in box to right of machine.		
Required Training:	**Required Personal Protective Equipment (PPE):**	
Other Information:		
Created by: John Q. Public		
Date Created:		
JHA Library Number: 00-00-00		

Step 3 - Hazards

JOB HAZARD ANALYSIS

DEPARTMENT: MACHINE SHOP

JOB DESCRIPTION: GRINDING METAL CASTINGS

TASK STEP	HAZARD(S)	CONTROLS
1. Reach into metal box to left of the grinder, grasp casting, and lift/carry it to wheel.	Picking up a casting, the employee could drop it onto his/her foot. If dropped, the casting's weight could seriously injure the worker's foot or toes.	
2. Push casting against grinder wheel to grind off the burr.	Castings have sharp burrs and edges that can cause severe lacerations. Grinding creates flying debris that can get into the worker's eyes. Improper placement of casting on work rest could result in hand/finger contact with grinding wheel.	
3. Place finished casting in box to right of machine.	Reaching, twisting, and lowering the 15lb castings into the finished box could result in a muscle strain to the lower back and other ergonomic stress	
Required Training:	**Required Personal Protective Equipment (PPE):**	
Other Information:		

Hazard Identification Methods

There are several tools, or methods, that can be used to identify and evaluate hazards in the workplace. These include:

Qualitative	Quantitative

• Walkthroughs
• Reviews of:
  – Accident reports
  – Audit/inspection reports
  – SDS
  – Operational Procedures
• Interviews with employees and supervisors
	• Analysis of accident/ injury statistics and trends:
	  – OSHA forms
	  – Insurance (WC) loss runs
	• Survey measurements
	• Exposure monitoring

OSHA®

Hazard Identification Training Tool

www.osha.gov/hazfinder/

Step 4 - Controls

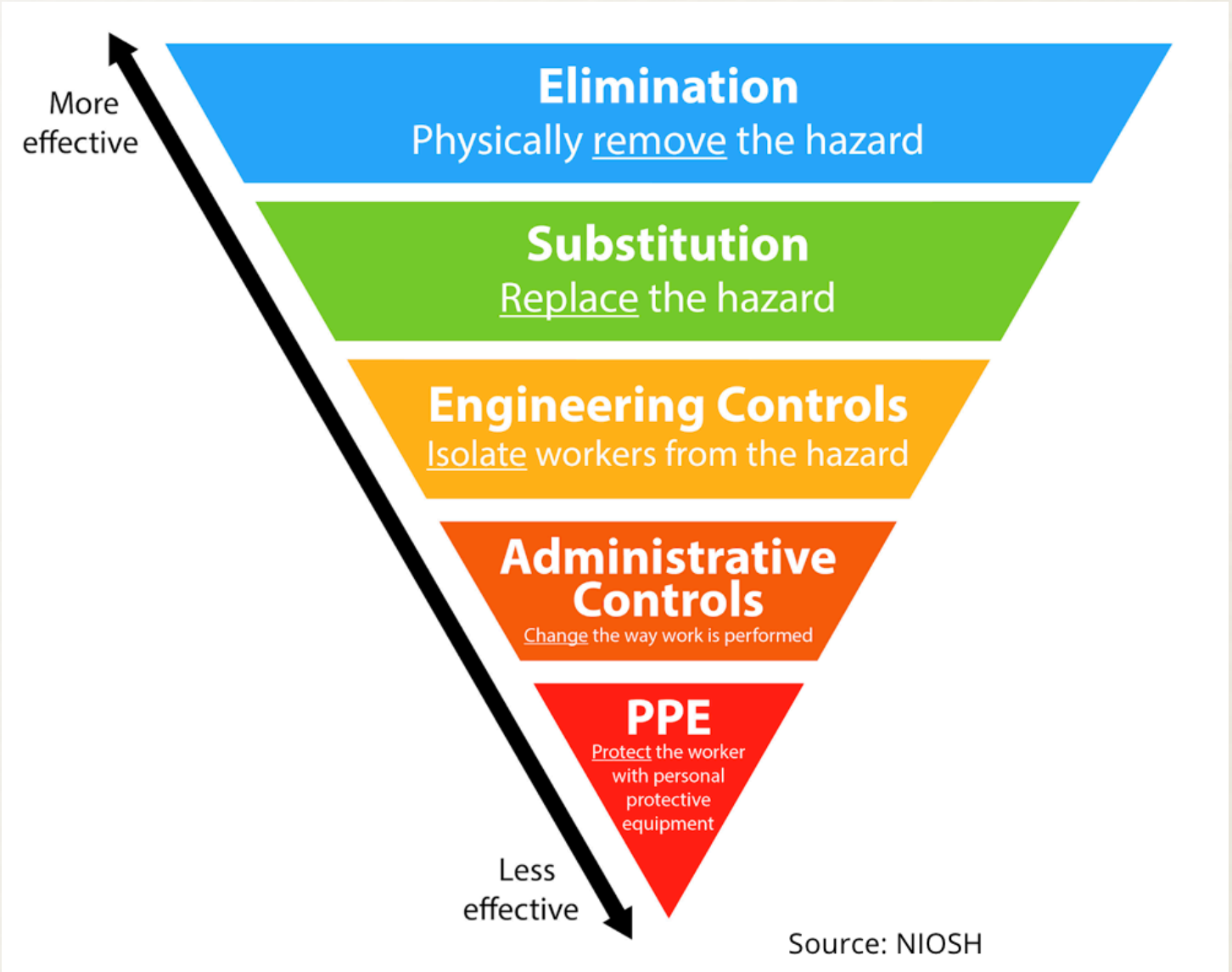
JOB HAZARD ANALYSIS

DEPARTMENT: MACHINE SHOP

JOB DESCRIPTION: GRINDING METAL CASTINGS

TASK STEP	HAZARD(S)	CONTROLS
1. Reach into metal box to left of the grinder, grasp casting, and lift/carry it to wheel.	Picking up a casting, the employee could drop it onto his/her foot. If dropped, the casting's weight could seriously injure the worker's foot or toes.	1. Relocate castings from the box on floor and place them on a table (at same level) next to the grinder; this eliminates the repetitive bending and reaching for the parts. 2. Wear ANSI* safety-toe shoes with arch protection. 3. Use leather protective gloves that allow for a better grip. 4. Consider using a device to pick up castings.
2. Push casting against grinder wheel to grind off the burr.	Castings have sharp burrs and edges that can cause severe lacerations. Grinding creates flying debris that can get into the worker's eyes. Improper placement of casting on work rest could result in hand/finger contact with grinding wheel.	1. Use clamp device to pick up/hold castings, and/or wear cut-resistant leather gloves that allow a good grip and fit tightly to minimize the chance that they will get caught in/on the grinding wheel. 3. Wear ANSI* compliant safety glasses with side shields 4. Ensure machine guarding and work rest is in place
3. Place finished casting in box to right of machine.	Reaching, twisting, and lowering the 15lb castings into the finished box could result in a muscle strain to the lower back and other ergonomic stress	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. 2. Train workers not to twist while lifting and reconfigure work stations to minimize twisting during lifts.
Required Training:	**Required Personal Protective Equipment (PPE):**	

Hierarchy of Controls



Additional Information

JOB HAZARD ANALYSIS

DEPARTMENT: MACHINE SHOP

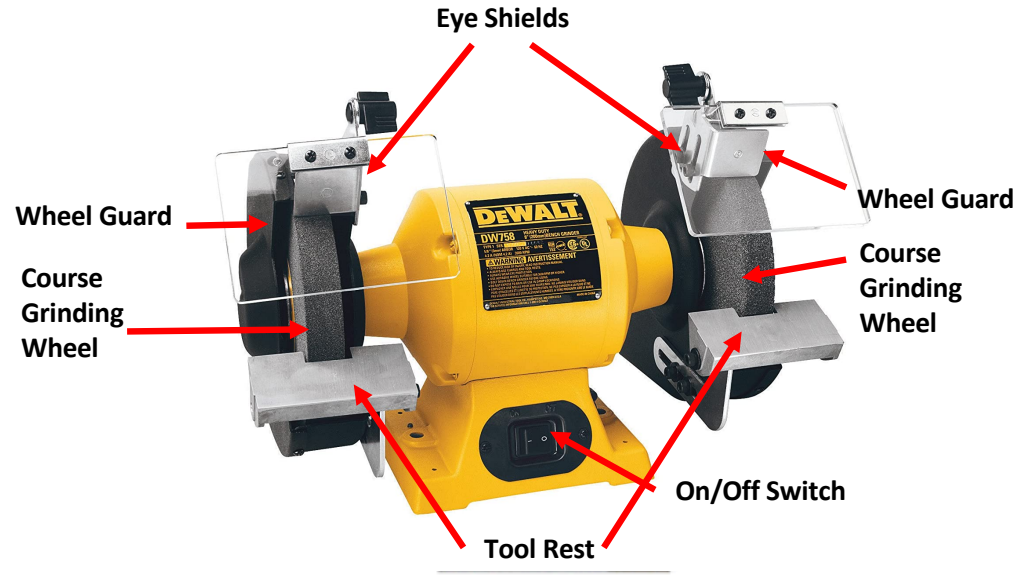
JOB DESCRIPTION: GRINDING METAL CASTINGS

TASK STEP	HAZARD(S)	CONTROLS
1. Reach into metal box to left of the grinder, grasp casting, and lift/carry it to wheel.	Picking up a casting, the employee could drop it onto his/her foot. If dropped, the casting's weight could seriously injure the worker's foot or toes.	1. Relocate castings from the box on floor and place them on a table (at same level) next to the grinder; this eliminates the repetitive bending and reaching for the parts. 2. Wear ANSI* safety-toe shoes with arch protection.
2. Push casting against grinder wheel to grind off the burr.		
3. Place finished casting in box to right of		

Required Training:

Operation of Table Grinder, Lifting and Back Safety Training, PPE training

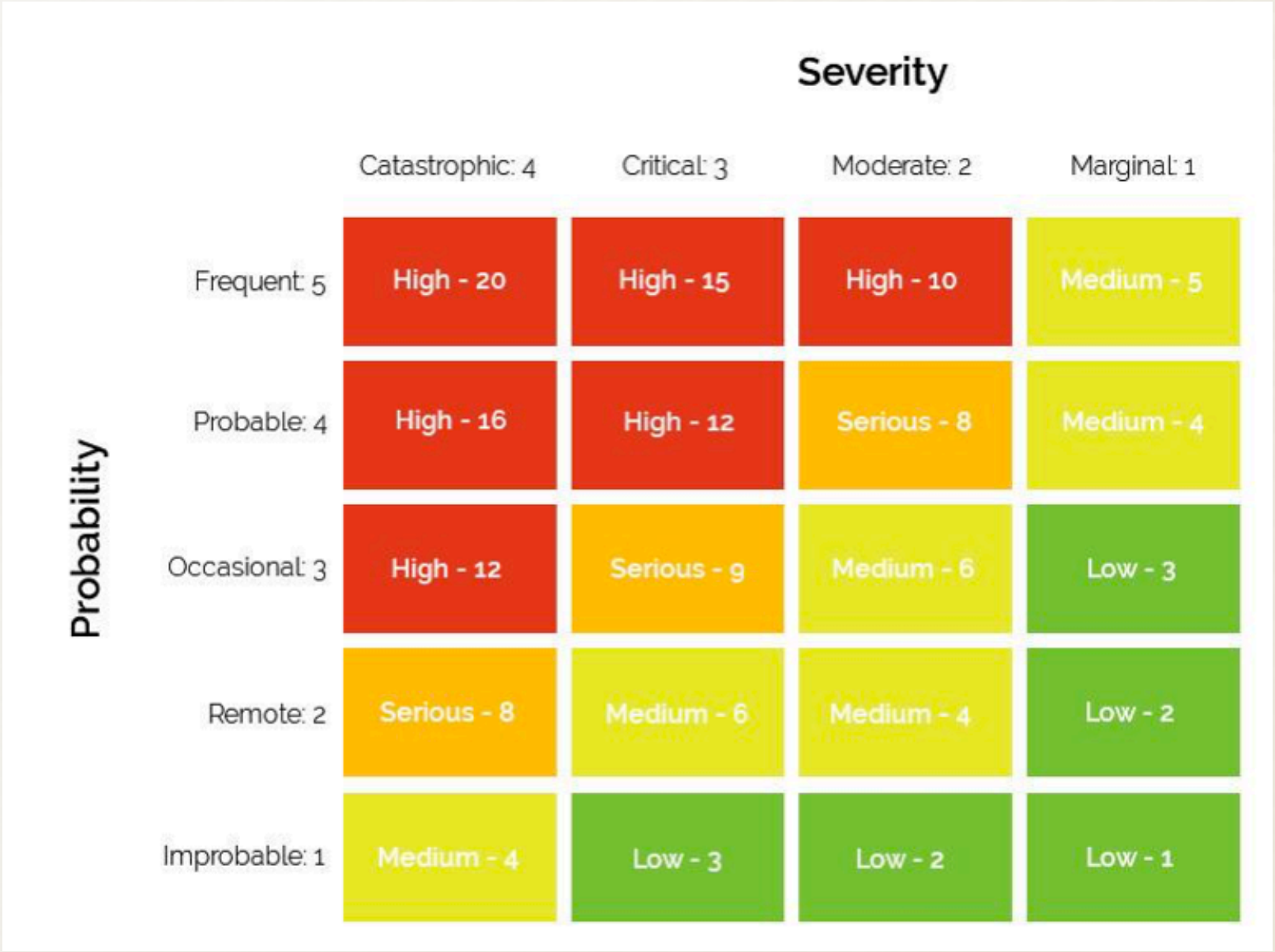
Job Description: Grinding Metal Castings



Other JHA information

Photos	See attached photo of grinder with available safety features
Flow Charts:	
Other:	
Other:	

Risk Matrix


Severity
Catastrophic: 4
Critical: 3
Moderate: 2
Marginal: 1
Probability
Frequent: 5
High - 20
High - 15
High - 10
Medium - 5
Probable: 4
High - 16
High - 12
Serious - 8
Medium - 4
Occasional: 3
High - 12
Serious - 9
Medium - 6
Low - 3
Remote: 2
Serious - 8
Medium - 6
Medium - 4
Low - 2
Improbable: 1
Medium - 4
Low - 3
Low - 2
Low - 1

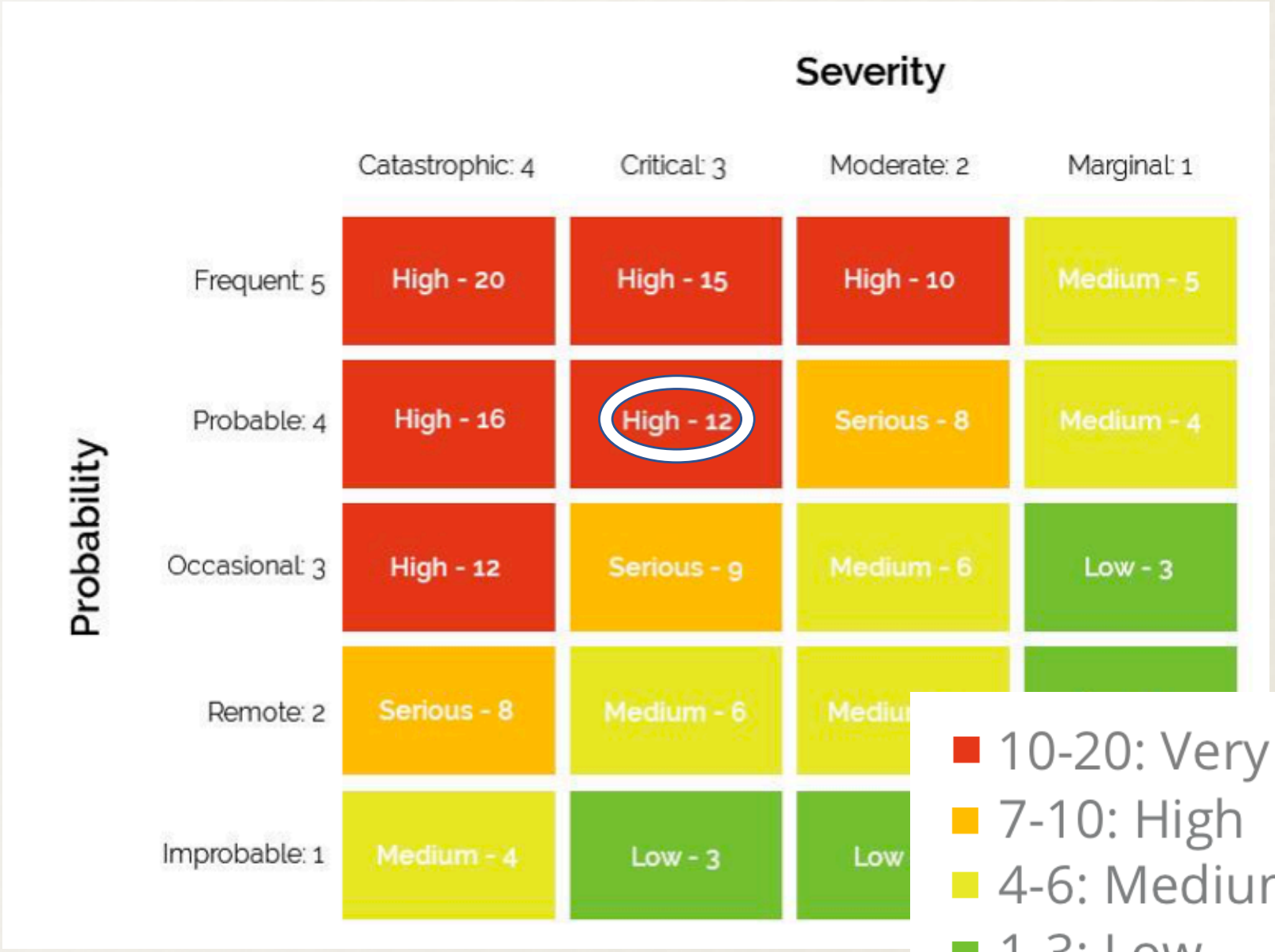
Risk Matrix Terminology

- **Severity (Impact) -** The amount of damage or harm a hazard could create. It is often ranked on a scale of 1 – 4.

- **Probability (Likelihood) –** The likelihood of the hazard occurring. Unlike severity it's commonly ranked on a scale of 1-5.

- **Residual risk** - The risk that remains after efforts to identify and eliminate some or all types of risk have been made. Residual risk is important for several reasons. First to consider is that residual risk is the risk "left over" after security controls and process improvements have been applied.

Risk Assessment



Job Hazard Analysis

JHAs are only effective if they are reviewed and updated periodically:

Polling Question #3

Has your establishment had an OSHA inspection in the past two years resulting in a risk assessment related 5.a.1. citation?

A. No
B. Yes
C. Not Sure

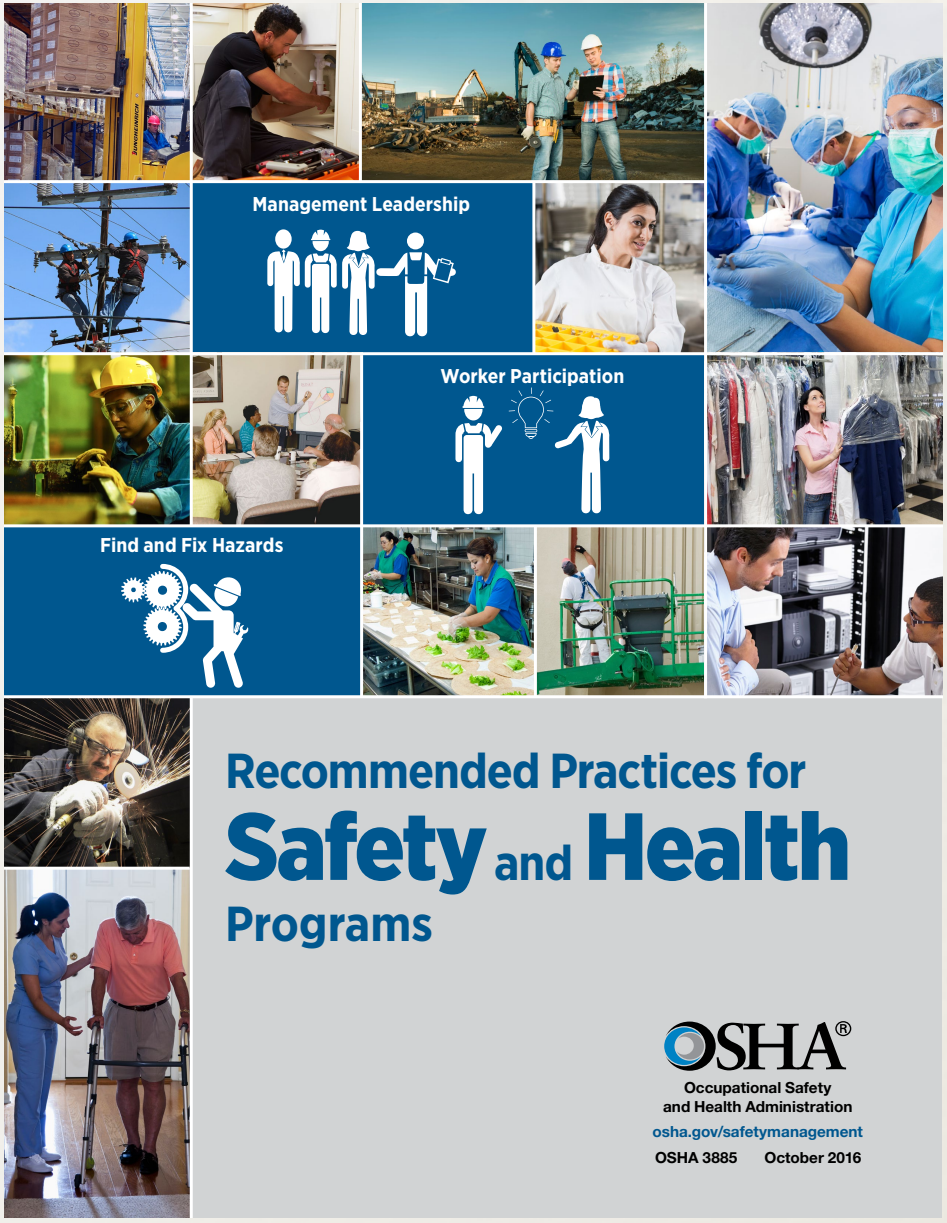
Current OSHA Citations & Penalties

TYPE OF VIOLATION	MINIMUM PENALTY	MAXIMUM PENALTY
OTHER THAN SERIOUS SERIOUS POSTING REQUIREMENTS	OTS - $0. per violation Serious - $946. per violation Posting - $0. per violation	$14,502. max. per violation
WILLFUL & REPEAT	$9,639. per violation	$145,027. max. per violation
FAILURE TO ABATE	N/A	$14,502. per day beyond the abatement date.

Bipartisan Budget Act of 2015 – Aug 2016 (Effective Jan 2022)

Note: State Plan states that operate their own OSHA Plans are required to adopt maximum penalty levels that are at least as much as federal OSHA.

OSHA Recommendations



CORE ELEMENTS OF THE SAFETY AND HEALTH PROGRAM RECOMMENDED PRACTICES

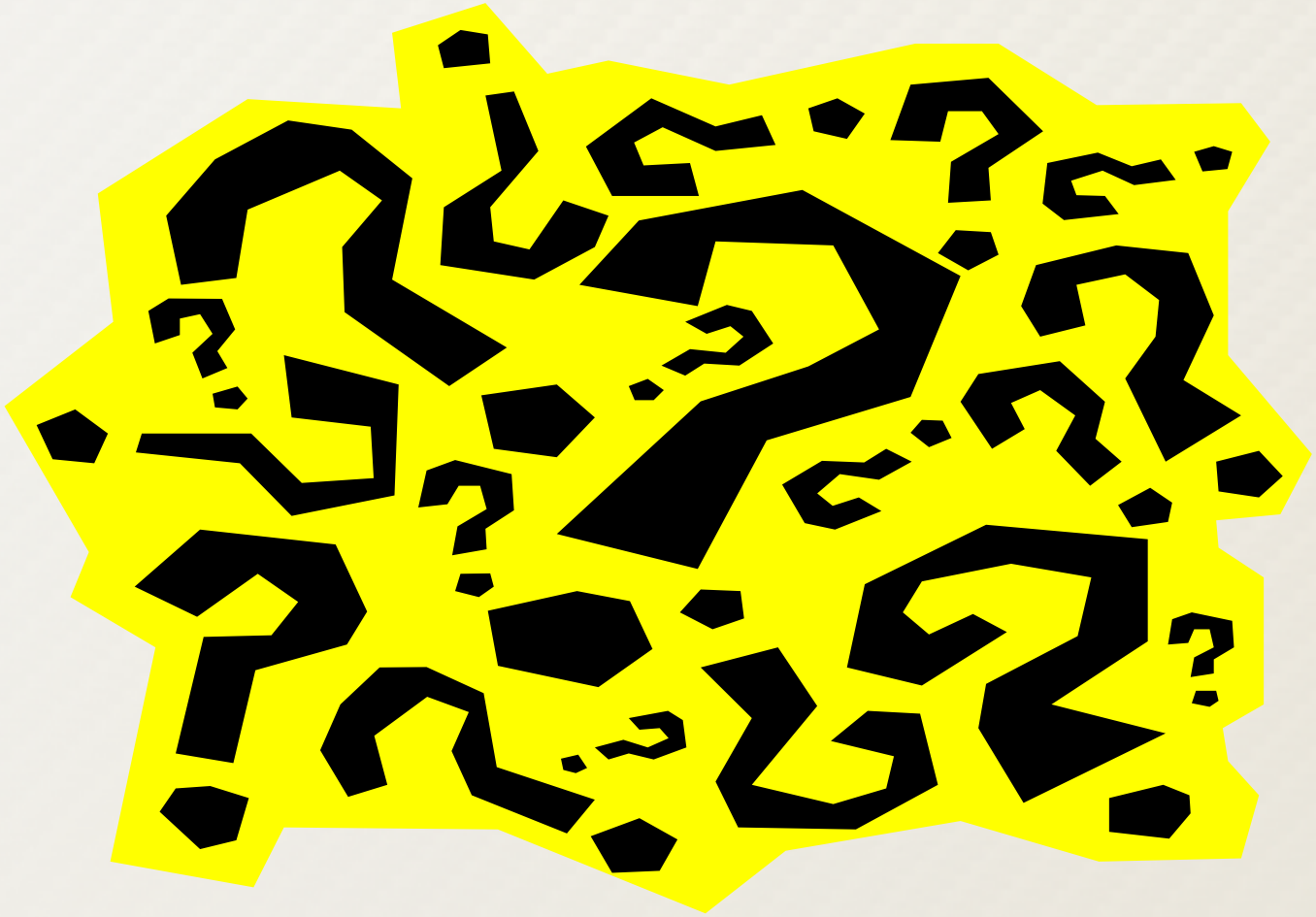
MANAGEMENT LEADERSHIP	• Top management demonstrates its commitment to continuous improvement in safety and health, communicates that commitment to workers, and sets program expectations and responsibilities. • Managers at all levels make safety and health a core organizational value, establish safety and health goals and objectives, provide adequate resources and support for the program, and set a good example.
WORKER PARTICIPATION	• Workers and their representatives are involved in all aspects of the program—including setting goals, identifying and reporting hazards, investigating incidents, and tracking progress. • All workers, including contractors and temporary workers, understand their roles and responsibilities under the program and what they need to do to effectively carry them out. • Workers are encouraged and have means to communicate openly with management and to report safety and health concerns without fear of retaliation. • Any potential barriers or obstacles to worker participation in the program (for example, language, lack of information, or disincentives) are removed or addressed.
HAZARD IDENTIFICATION & ASSESSMENT	• Procedures are put in place to continually identify workplace hazards and evaluate risks. • Safety and health hazards from routine, nonroutine, and emergency situations are identified and assessed. • An initial assessment of existing hazards, exposures, and control measures is followed by periodic inspections and reassessments, to identify new hazards. • Any incidents are investigated with the goal of identifying the root causes. • Identified hazards are prioritized for control.
HAZARD PREVENTION & CONTROL	• Employers and workers cooperate to identify and select methods for eliminating, preventing, or controlling workplace hazards. • Controls are selected according to a hierarchy that uses engineering solutions first, followed by safe work practices, administrative controls, and finally personal protective equipment (PPE). • A plan is developed to ensure that controls are implemented, interim protection is provided, progress is tracked, and the effectiveness of controls is verified.
EDUCATION & TRAINING	• All workers are trained to understand how the program works and how to carry out the responsibilities assigned to them under the program. • Employers, managers, and supervisors receive training on safety concepts and their responsibility for protecting workers' rights and responding to workers' reports and concerns. • All workers are trained to recognize workplace hazards and to understand the control measures that have been implemented.
PROGRAM EVALUATION & IMPROVEMENT	• Control measures are periodically evaluated for effectiveness. • Processes are established to monitor program performance, verify program implementation, and identify program shortcomings and opportunities for improvement. • Necessary actions are taken to improve the program and overall safety and health performance.
COMMUNICATION AND COORDINATION FOR HOST EMPLOYERS, CONTRACTORS, AND STAFFING AGENCIES	• Host employers, contractors, and staffing agencies commit to providing the same level of safety and health protection to all employees. • Host employers, contractors, and staffing agencies communicate the hazards present at the worksite and the hazards that work of contract workers may create on site. • Host employers establish specifications and qualifications for contractors and staffing agencies. • Before beginning work, host employers, contractors, and staffing agencies coordinate on work planning and scheduling to identify and resolve any conflicts that could affect safety or health.

ha.gov/safetymanagement RECOMMENDED PRACTICES FOR SAFETY AND HEALTH PROGRAMS

OSHA's Cooperative Programs

OSHA offers the following cooperative programs under which businesses, labor groups, and other organizations can work cooperatively with the Agency to help prevent fatalities, injuries, and illnesses in the workplace, including heat-related illnesses. If your organization is located in a State with OSHA-approved State Plan, please contact your state agency for information about cooperative programs.

Questions?



Thank You for Your Participation

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For more information or additional questions, please email

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