# Job Hazard Analysis Plan

# Tips and Considerations

**Applicability.** Any project or activity, including travel, with potential for employees to be exposed to hazardous conditions or procedures should be reviewed through a Job Hazard Analysis (JHA).

In its standard for personal protective equipment (PPE) at 29 CFR 1910.132(d), OSHA requires all employers to assess the workplace to determine whether the hazards their employees face necessitate the use of PPE. This practice, known as a PPE hazard assessment, is very similar to a JHA and may be accomplished through the same process. PPE hazard assessments must be certified in writing. The regulation states that the employer “shall verify that the required workplace hazard assessment has been performed through a written certification that identifies the workplace evaluated; the person certifying that the evaluation has been performed; the date(s) of the hazard assessment; and, which identifies the document as a certification of hazard assessment.”

The following is a nonexhaustive list of some common categories of hazards that employees may be exposed to on the job:

* **Bloodborne pathogens.** Employees who may come into contact with blood or other potentially infectious material on the job must be protected from exposure to bloodborne pathogens such as hepatitis B and human immunodeficiency virus (HIV). Bloodborne pathogens are obviously an occupational hazard in healthcare facilities, but workplaces with employees trained to provide first aid in case of a medical emergency must also take steps to protect these employees from bloodborne pathogen exposure.
* **Chemical hazards.** These can be health-related, as in the case of a chemical that causes illness to exposed employees, or physical, as in the case of a flammable, explosive, or corrosive chemical. Check the label and SDS for information about the hazards of the specific substances in your workplace, and refer to 29 CFR 1910 Subpart Z, Toxic and Hazardous Substances, for information about regulatory requirements pertaining to specific chemicals.
* **Explosion hazards.** Explosions can result from a chemical reaction or from the sudden release of a large amount of gas or energy due to a significant pressure difference (such as a rupture in a boiler or compressed gas cylinder). Combustible dust can also cause explosions under certain conditions.
* **Electrical hazards.** Contact with electrical current can cause shock and electrocution. Look for exposed wires or other electrical parts, ungrounded or improperly grounded equipment and devices, and electrical equipment in poor condition. Other electrical hazards include static, arc flash, and fire. Also, consider the hazards posed by a sudden loss of power, either to a piece of machinery or equipment or to an entire facility.
* **Ergonomic hazards.** Ergonomics is the science of fitting jobs to people. Ergonomic injuries typically result from overexertion, lifting, repetitive motion, or awkward postures and include back injuries, strains, strains, carpal tunnel syndrome, and many other conditions.
* **Fall hazards.** Consider falls from heights as well as same-level slips, trips, and falls. Look for conditions including slippery floors, cluttered walkways, uneven walking surfaces, leading edges, use of ladders, and any other potential slip, trip, or fall hazard.
* **Fire hazards.** Fire requires heat (or an ignition source), fuel, and oxygen. Look for accumulated flammable materials, such as wood, paper, and other debris, as well as flammable liquids, in proximity to ignition sources (heat, sparks, flames, etc.).
* **Hand and portable power tools.** Make sure tools are in good condition, properly guarded if applicable, and inspected regularly. Employees must know how to safely use, store, and maintain tools properly and follow all manufacturer instructions.
* **Heat and cold.** Look for temperatures and weather or job conditions that could cause heat stress, frostbite, or hypothermia.
* **Machinery and equipment hazards.** Look for unguarded nip points, point-of-operation hazards, struck-by/crush hazards, exposed sharp parts, and other hazards that could result in lacerations, amputations, and other injuries to machine operators and others in the vicinity. For machinery hazards, it is important to look at start-up, shutdown, maintenance, and repair, as well as normal operations. Use all machinery in equipment in accordance with manufacturer instructions.
* **Noise.** High noise levels can damage hearing as well as create other hazards if employees cannot communicate or hear important safety information in a noisy work environment. OSHA requires employers to implement protective measures when noise exposures equal or exceed an 8-hour time-weighted average of 85 decibels (dB).
* **Outdoor work.** In addition to hot or cold conditions and inclement weather, outdoor work may expose employees to poisonous plants, dangerous or venomous animals, and insect bites and stings. If employees work on or near a body of water, also consider drowning hazards. Outdoor workers may also use portable power tools and motorized equipment (chain saws, lawn mowers, etc.).
* **Radiation (ionizing or nonionizing).** Ionizing radiation includes alpha, beta, gamma, neutral particles, and X-rays that cause tissue damage by ionization of cellular components. Nonionizing radiation includes ultraviolet, visible light, infrared, and microwaves, which can cause injury by thermal or photochemical means.
* **Stress and fatigue.** Night shift workers and workers who frequently change shifts may be at increased risk of fatigue. Consider the hazards of fatigue in safety-sensitive positions (operating machinery, driving, etc.) as well as the health effects of sleep deprivation and stress.
* **Struck-by/Struck against.** Look for falling objects, projectiles, machinery or equipment (such as a forklift) that could collide with an employee and areas where employees are likely to collide with a fixed object or structure (door frame, etc.), whether due to poor lighting, limited mobility, or another reason.
* **Weather.** Particularly for outdoor work, consider the hazards of performing a particular job or task during inclement weather conditions, such as rain, snow, wind, or ice.
* **Workplace violence.** Workplace violence includes not only active shooter events but also threats, assaults, bullying, and harassment. Risk factors for workplace violence include exchanging money, working late at night, working alone or in remote areas, working with unstable or volatile individuals, providing services and care, working in areas with high crime rates, and working where alcohol is served. Consider physical facility security as well as workplace cultural issues, policies, and procedures for preventing and responding to violent incidents.

**Prioritize projects or activities.** The first step to implementing a JHA program is to select the jobs, tasks, or processes that will be analyzed. First, conduct an initial review to determine where hazards exist. Review accident history and other records such as inspection data, training records, near-miss reports, and OSHA 300 logs to determine where hazards exist in your facility. Employees can also be asked which jobs, tasks, and work areas are most hazardous.

Prioritize conducting a JHA for any job or task in which one or more of the following apply:

* Jobs with a history of causing injury or illness
* Jobs or tasks that have had many near misses
* Jobs with the potential to cause catastrophe (e.g., fire, explosion, large chemical release, massive equipment failure) if something goes wrong
* Jobs in which one simple human error could lead to a severe accident or injury
* Jobs or tasks that have undergone personnel changes or changes in process and/or procedures
* Jobs that are new to your operation
* Jobs or tasks that are rarely performed
* Jobs complex enough to require written instructions
* Jobs that are done under a safety permit, such as a confined space entry permit or a hot work permit

**Ensure the JHA meets federal or state standards.** When conducting your JHA, be sure to consult the OSHA or corresponding state standards that apply to your workplace and operations. Compliance with these standards is mandatory, and by incorporating their requirements in your JHA, you can be sure that your health and safety program meets federal standards.

**JHA assistance.** If your employees are involved in many different or complex processes, you may need professional help conducting your JHAs. Sources of free help include your workers’ compensation insurance company and the local fire department. OSHA and corresponding state agencies offer free assistance through their regional and area offices and consultation services; these government services are available to small employers (with fewer than 250 employees at a fixed site and no more than 500 corporatewide). You can also hire private safety and health consultants to conduct JHAs for you.

**Hazard control measures.** Information obtained from a JHA is useless unless hazard control measures recommended in the analysis are incorporated into the tasks. Managers should recognize that not all hazard controls are equal. Some are more effective than others at reducing the risk.

The order of precedence and effectiveness of hazard control is as follows:

* **Elimination.** If you can, get rid of the hazard entirely by making a change to your facility or processes.
* **Substitution.** If the hazard cannot be eliminated, sometimes a less hazardous process or substance can be substituted. For example, consider a less toxic alternative to a chemical you currently use. Make sure the substitution does not introduce new hazards of its own.
* **Engineering controls.** If a hazard cannot be eliminated or substituted, try to redesign the task or alter the work environment so that employees’ exposure to the hazard is reduced. Examples include enclosing a hazardous process or guarding hazardous machinery.
* **Administrative controls.** If engineering controls are not feasible or do not sufficiently reduce the hazard, try to reduce employee exposure by requiring safe work practices, arranging schedules so that employees’ time exposed to a hazard is limited, reducing the number of employees exposed to a hazard, or other administrative means.
* **PPE.** When the above controls are not feasible or do not sufficiently reduce a hazard, PPE is the last line of defense. Provide any necessary PPE, such as gloves, respirators, hard hats, or fall protection. If you will be using PPE to control a hazard, make sure to complete a written PPE hazard assessment.

Use of one hazard control method (such as PPE) over another higher in the control precedence (such as engineering controls) may be appropriate for providing interim protection until the hazard is abated permanently. If the hazard cannot be eliminated entirely, control measures will likely combine two or more methods.

**Review and incorporate state regulatory requirements.** This plan is based on federal requirements and/or best practices. Some states have laws and regulations that are stricter than federal requirements and may impact how you customize this plan. Review the laws and regulations that apply in your state and adjust the plan accordingly.

# [Company name]

# Job Hazard Analysis Plan

Plan last updated: **[date]**

# Authority and Scope

Authority: This Job Hazard Analysis (JHA) Plan is authorized by **[name]**.

**[If JHA is focused on personal protective equipment:]**

Regulation: 29 CFR 1910.132(d) **[replace with the state regulation if applicable]** requires that **[name]** assess the workplace to determine if the hazards that require the use of personal protective equipment (PPE), such as head, eye, face, hand, or foot protection, are present or are likely to be present. If hazards or the likelihood of hazards are found, **[name]** will select appropriate PPE and require that affected employees use properly fitted PPE suitable for protection from these hazards. In addition, **[name]** will certify, in writing, that a workplace hazard assessment for PPE has been performed that identifies the workplace evaluated, the person certifying the evaluation, and the dates of the evaluation.

Scope: This JHA applies to all **[company name]** personnel who may encounter health and safety hazards while performing their assigned work duties.

# Policy Statement

**[Name]** is committed to providing for the occupational safety and health of personnel, preventing accidental loss of material resources (e.g., property damage), and avoiding interruptions to essential services resulting from accident and other incidents. An effective occupational safety and health program must include procedures to evaluate job hazards and to eliminate or control the related risks to employees or property. Although identification of possible property damage losses is important, the primary objective of a JHA is to identify the risks of injury and/or illness associated with systems or equipment, a task or series of tasks, and to recommend solutions to reduce the risk to a standard or acceptable level.

A JHA facilitates the discovery and evaluation of hazards that exist in the workplace and the selection of control measures to reduce or eliminate the hazard. Once the hazards have been identified, an evaluation by technically qualified safety personnel will determine the priority for the establishment of appropriate control measures. Based on the potential severity and risk of injury or property damage, hazards will be promptly eliminated or controlled.

# Plan Administration

|  |  |  |
| --- | --- | --- |
| **Function** | **Name/Department** | **Contact Information** |
| Plan Administrator | **[name]** | Work phone:  Cell phone: |
| Job Hazard Analyst |  | Work phone:  Cell phone: |
| Supervisor |  | Work phone:  Cell phone: |

**Plan Administrator.** The plan administrator will ensure that JHAs are conducted for all workplace activities, tasks, and projects in a timely manner, and will be responsible for maintaining certifications and other documentation related to JHAs.

**Job Hazard Analyst.** The responsibility for conducting JHAs rests with technically qualified safety personnel. Such personnel may be managers, supervisors, or consultants/contractors.

**Supervisor.** Supervisors and other applicable personnel will participate in JHAs.

Completed JHAs will be reviewed by **[name(s) and/or job title(s)]**.

## Plan Review and Update

JHAs will be reviewed **[frequency]** and updated as needed to reflect changes in the work and/or worksite conditions, and when injury or illness incidents warrant a review. All employees affected by any changes in engineering controls or work procedures after a JHA review will be trained in the new job methods, procedures, or protective measures adopted.

# Definitions

*Activity*—a named process, procedure, function, or task, or grouping of tasks, that occur(s) over time and has recognizable results.

*Hazard*—potential for harm to people or property.

*Job hazard analysis (JHA)*—a method of systematically analyzing job tasks for hazards by focusing on the relationship between the worker, the worker’s activities or job task(s), the tools, and the work environment to prevent accidents, injuries, and illnesses.

# JHA Plan Overview

## Activities Subject to JHA

A JHA will be conducted for each work project and activity, with priority given to jobs and tasks according to their potential to cause injury and/or illness. Part of the purpose of the JHA process is to determine whether hazards exist, through careful and regular examination of the location(s) and procedures involved in the project. If there is a project or activity that truly has no potential for employees to be exposed to hazards, the JHA would demonstrate that.

## Activity Selection

Personnel authorized by **[name]** to perform JHAs (i.e., JHA Analysts) will select the job(s), tasks, operations, or processes to be analyzed by reviewing:

* Injury and illness data
* Near-miss reports
* New or modified work tasks, activities, or projects
* Employee safety comments, surveys, and reports
* Inspection data
* Training records
* Regulatory requirements

Initial JHAs will be scheduled by priority starting with those that have the highest injury and illness rates as recorded in OSHA Form 300, Injury and Illness Log. Where accident or near-miss data are lacking, a review of the nature of the job and the equipment and/or materials being used will be conducted to help determine which jobs will receive a JHA. Employee participation in the JHA selection and implementation process will be encouraged and solicited. The analysis of methods to control hazards will incorporate regulatory requirements for each type of activity.

Employees’ input in the JHA process will be collected and reviewed. See Attachment **[number]**, *Hazard Assessment Process—Employee Survey*.

All job hazard analysts will consider the potential for all types of hazards and the likelihood of accidents in their operations when determining the priorities.

## JHA Uses

The primary use of a JHA is to identify and resolve safety issues before beginning a work activity or project. JHAs will also support other functions related to workplace safety and health, including:

* Cost projections
* Employee orientation
* Training needs determination
* Performance evaluation
* Accident investigation

## JHA Process

A JHA consists of the following basic parts:

1. Observe the job or task and break it down into basic steps.
2. Identify potential hazards associated with each step that might exist because of the characteristics of the worksite, the procedures, the equipment, materials, and/or tasks that are involved in that project.
3. Determine what action(s) must be taken to control each hazard.

During each of these steps, the person(s) conducting the analysis will gather information from such resources as:

* Personal experience
* Jobsite observations
* Input from employees who will be working in the area or on the project affected by the JHA
* People who have done similar work on other projects
* Occupational safety and health specialists
* Safety data sheets (SDSs)
* Equipment manuals
* Equipment manufacturers’ technical representatives
* Health and safety handbooks
* Existing health and safety plans and handbooks
* Applicable industry consensus standards
* OSHA and/or state safety and health regulations

# JHA Procedures

Following are the specific JHA procedures, listed in the order that they will be performed. See Attachment **[number]**, *Example Job Hazard Analysis Form*, for guidance in conducting a simple JHA.

1. **List specific activities.** Make a list of specific activities that will be performed by employees at a particular location (work area or jobsite), for the use of machines and equipment, or for a specific process or project.
   1. When a project or activity involves the same tasks and the same conditions over a wide range of work areas, a single job hazard analysis will suffice. For a simple activity, use Attachment **[number]**, *Job Hazard Analysis Worksheet (simple)*.
   2. For an activity with complicated tasks that require multiple steps, use Attachment **[number]**, *Job Hazard Analysis Worksheet (detailed)*.
   3. For activities that involve specific chemicals, use Attachment **[number]**, *Chemical Job Hazard Analysis Worksheet.*
   4. For activities that involve respirators, use Attachment **[number]**, *Respiratory Hazard Assessment Certificate*.
   5. For activities that may require other PPE, use Attachment **[number]**, *Personal Protective Equipment Hazard Assessment Certificate.*

**NOTE:** The worksheets or certificates may be modified to the needs of the organization, provided the minimum information shown on the form is retained. Review the worksheet or certificate to ensure it is thorough, accurate, and that the task or activity is broken down into a sufficient number of steps.

1. **List each potential hazard.** Examine the hazards or potential hazards associated with each task or activity. Continue to use the worksheet or certificate used to list the specific tasks.
   1. Examine the location where the activities are or will be performed to determine if there are any apparent hazards, such as poor lighting, live electrical contacts, improperly stored materials or waste, adjacent operations that may affect the safe operation of the job under review, etc.
   2. Interview appropriate personnel who are familiar with the job and/or equipment. The intent of the interviews is to determine the orderly sequence of job tasks and any perceived hazards.
   3. Observe, where possible, employees performing the actual job tasks. Thoroughly document the findings on the JHA worksheet. Photographs and/or video recordings of employees performing job tasks may be helpful.
   4. Review available literature associated with the particular activity for additional hazards, including SDSs, equipment manuals, safety checklists, and existing health and safety plans and manuals.
2. **List corrective controls.** Once the hazards are identified, select the corrective controls that will be implemented to ensure employee safety and health, and list them on the appropriate worksheet or certificate. Corrective controls will be considered in the following order of precedence:
   1. **Elimination.** If you can, get rid of the hazard entirely by making a change to your facility or processes.
   2. **Substitution.** If the hazard cannot be eliminated, sometimes a less hazardous process or substance can be substituted. For example, consider a less toxic alternative to a chemical you currently use. Make sure the substitution does not introduce new hazards of its own.
   3. **Engineering controls.** If a hazard cannot be eliminated or substituted, try to redesign the task or alter the work environment so that employees’ exposure to the hazard is reduced. Examples include enclosing a hazardous process or guarding hazardous machinery.
   4. **Administrative controls.** If engineering controls are not feasible or do not sufficiently reduce the hazard, try to reduce employee exposure by requiring safe work practices, arranging schedules so that employees’ time exposed to a hazard is limited, reducing the number of employees exposed to a hazard, or other administrative means.
   5. **PPE.** When the above controls are not feasible or do not sufficiently reduce a hazard, PPE is the last line of defense. Provide any necessary PPE, such as gloves, respirators, hard hats, or fall protection. If you will be using PPE to control a hazard, make sure to complete a written PPE hazard assessment.
3. **Develop safe job procedures.** Write a procedure for safely performing a job in a step-by-step format. Use clear, simple language. Make sure to specify safe work practices and any required PPE in your written procedures. Review the completed safe job procedures with workers who perform the task and keep a written copy of the safe job procedures in a location that is easily accessible to workers. Document safe job procedures using Attachment **[number]**, *Safe Job Procedure Template*.
4. **Certify the JHA.** Ensure that the JHA is reviewed and signed by an authorized job hazard analyst and shared with and signed by all of the employees who will be doing the work.
5. **Review and modify JHA as necessary.** Repeat the JHA process, as necessary, by evaluating new equipment or work processes, reviewing accident records, and periodically reevaluating the suitability of previously selected PPE and/or engineering controls.

# Implementation of Corrective Actions

Once the JHA has been conducted for each project or activity, corrective actions recommended in the JHA that are approved by management will be implemented. Supervisors will inform employees of the hazards and corrective actions, and conduct employee training before the commencement of related tasks.

# JHA Training

Before any designated job hazard analyst, manager, supervisor, or other employee conducts or participates in a JHA, he or she will receive training in the JHA process. JHAs will be conducted by technically qualified safety personnel who have the experience and training to identify hazards in the workplace.

# Documentation and Recordkeeping

A list of all tasks and jobs for which JHA has been performed will be maintained on Attachment **[number]**, *Job Hazard Analysis Master List*.

Each JHAs will be documented on the *Job Hazard Analysis Worksheet* (simple or detailed) or related assessment forms. See Attachment **[number]** for a copy of the worksheet.

All JHAs that assess chemical hazards will be documented on Attachment **[number]**, *Chemical Job Hazard Analysis Worksheet.*

For all identified hazards that require the use of PPE, Attachment **[number]**, *Personal Protective Equipment Hazard Assessment Certificate* will be completed. Respiratory protection will be documented on Attachment **[number]**, *Respiratory Hazard Assessment Certificate*.

All safe job procedures will be documented on Attachment **[number]**, *Safe Job Procedure Template.*

JHA worksheets and certificates will be maintained by **[name]** at **[location]** for **[duration]**.

# Contractors

A JHA conducted for **[company name]** employees does not necessarily address the work of a contractor or the contractor’s employees; however, the JHA for a project or activity that involves **[company name]** employees working in an area affected by contract activities will address any hazards that such activities present for the **[company name]** employees.

# Supporting Materials

**The following supporting materials can be used to supplement this plan:**

Attachment **[number]**—Job Hazard Analysis Master List

Attachment **[number]**—Job Hazard Analysis Worksheet (simple)

Attachment **[number]**—Job Hazard Analysis Worksheet (detailed)

Attachment **[number]**—Chemical Job Hazard Analysis Worksheet

Attachment **[number]**—Respiratory Hazard Assessment Certificate

Attachment **[number]**—Personal Protective Equipment Hazard Assessment Certificate

Attachment **[number]**—Safe Job Procedure Template

Attachment **[number]**—Hazard Assessment Process—Employee Survey