

# Overview for Completing a Job Hazard Analysis

A Job Hazard Analysis (JHA), sometimes referred to as a Job Safety Analysis (JSA), is a risk assessment tool used to identify and control workplace hazards. A JHA breaks a job into distinct steps for analysis. You identify hazards within each step and determine appropriate controls to combat each hazard.

## Follow these steps to develop a JHA:

- **Select a job**
- **Break the job into a sequence of steps**
- **Identify potential hazards for each job step**
- **List the preventive measures or hazard controls addressing each hazard**

The term “job,” in the context of a JHA program, represents a specific work assignment; it does not refer to the occupation of the employee(s) at the worksite. For example, conduct a JHA on the bench grinding operation, not the entire machine operator profession.

There are many benefits to developing JHAs at your worksite. It raises overall employee hazard recognition and awareness, can identify previously undetected hazards, and standardizes operations based on acceptable safe practices. JHAs can serve as a valuable tool for training new employees to perform a job safely and promotes employee acceptance of safe work procedures.

## SELECT A JOB FOR JHA

Make a list of hazardous jobs at your organization. Prioritize the jobs for assessment. Consider these factors when prioritizing which jobs to conduct a JHA on first:

- Accident frequency and severity
- Potential for severe injury or illness
- New or modified jobs introducing new hazards, or where hazards are unknown
- Infrequent jobs where hazards are seldom encountered or unlikely to be identified

## IDENTIFY THE JOB STEPS

After you select a job, break it down into steps. This part of the analysis is usually prepared by watching the worker perform the job. The observers may include the immediate supervisor, another worker, a safety committee member, or technical experts (e.g., engineers). You are less likely to miss a key step in a job this way. You can also use technical guidance or site-specific procedures to assist in identifying job steps.

The worker you observe should be experienced and familiar with all parts of the job. To strengthen full cooperation and participation, clearly explain the reason for the observation. Let the worker know you are studying the job (not the individual) to make it safer through hazard identification and process modification – the JHA is not an attempt to uncover individual unsafe acts! Their experience can be important in making improvements. In addition, have the worker you observe review the steps you identify. This ensures the worker’s understanding of the job and its steps aligns with your observations.



Do not make the steps too general when you document them, thereby missing specific steps and their associated hazards. On the other hand, if too detailed, you will have too many steps, becoming cumbersome to employees. A good practice is to describe most jobs in less than ten steps. If more steps are required, consider dividing the job into two segments, each with a separate JHA, or combine some steps, where appropriate. Place the steps in the correct order, or sequence of work.

## IDENTIFY POTENTIAL HAZARDS

Next, identify the potential hazards of each step. Based on job observations, knowledge of previous accidents, injury or illness history, and personal experience, list the hazards that employees may be exposed to at each step. Consider observing the job multiple times to assist in identifying hazards. Be sure to include industrial hygienists or the latest industrial hygiene survey information in JHAs to capture any known health hazards and controls.

Examples of potential hazards may include:

- Struck by or against
- Caught on, in, or between
- Slips, trips, or falls
- Sharp objects
- Confined spaces
- Electrocutation
- Exposure to chemicals
- Excessive noise

## LIST PREVENTATIVE MEASURES AND HAZARD CONTROLS

After identifying hazards, list each control used to prevent employee exposure to each hazard. Be specific in listing the controls. For example, describe the specific type of personal protective equipment (e.g., nitrile or butyl gloves, or safety glasses versus goggles). Also, list whether controls are required or recommended, if necessary.

If you identify a hazard that does not have a preventive measure or control currently in place, follow your hazard reporting procedures to notify the appropriate personnel of the uncontrolled hazard. Be sure to revise the JHA with any new controls you implement.

## COMPLETION OF A DRAFT JHA

Once a JHA draft is complete, have it reviewed and approved by a member of the safety office prior to workforce distribution. The safety office contains subject matter experts in hazard identification and control. Most safety staff is familiar with JHAs or JSAs.

After approval, supervisors must communicate the results of JHAs to all employees who are, or will be, performing the job. Use JHAs as a training tool, training current and new employees on safely performing assigned jobs. Although not required, it is good practice to have all employees sign each JHA to verify it was read and understood. If any employees participated in the development of a JHA, include their name as a preparer or developer in the appropriate box, documenting employee involvement.



The top image shows a nitrile rubber glove, while the bottom image shows butyl rubber gloves. These gloves have different properties for chemical resistance, so it is important to specify the exact type of control, rather than simply list "gloves," for example. Images retrieved from Bing Images.

## ANNUAL JHA REVIEW

Finally, review each JHA annually. Many times, organizations redesign jobs and add or remove job steps (and therefore, hazards). Typically, supervisors perform this review and seek safety office re-approval when changes occur. As a best practice, hold an annual JHA review session. Involve as many employees as possible in the review to increase employee involvement and provide refresher training. Document the completion of these reviews, and update the date on the JHA to reflect the review, regardless of any changes.

The following image is an example of a JHA for office activities:

| Job Safety Analysis Worksheet      |   |  |
|------------------------------------|---|--|
| <b>JSA #</b>                       | ADMIN0552   | <b>Effective Date:</b> 02/16/2017  |
| <b>Company Name:</b>               | Feel Good Electric, Inc.  | <b>Revision #</b> 1  |
| <b>Job/Activity Name:</b>          | Personal Computer Usage   | <b>JSA Developer(s):</b> Steve Macaroni, Supervisor<br>Brandon Young, Safety Committee<br>Sharon Collie, Computer User |
| <b>Department/Group Name:</b>      | Software  | <b>Supervisor Approval:</b> Steve Macaroni, 02/13/2017   |
| <b>Location:</b>                   | Administrative Areas  | <b>Safety Staff Approval:</b> Lucinda Anderson, 02/14/2017   |
| <b>Permit to work requirement:</b> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <b>Next Review Date:</b> 02/15/2018  |

  

| JOB STEPS                               | POTENTIAL HAZARDS   | CONTROL MEASURES   |
|---|---|--|
| Sitting down in workstation chair       | <ul style="list-style-type: none"> <li>Lack of leg circulation if feet dangle from chair</li> <li>Arm strain if chair or keyboard are too high or low</li> <li>Wrist pressure, potentially causing carpal tunnel, on edge of keyboard or work desk</li> <li>Back strain if chair does not support lower back</li> <li>Static posture causing muscle fatigue</li> </ul>  | <ul style="list-style-type: none"> <li>Use a footrest to ensure feet do not dangle</li> <li>Adjust chair height to allow arms to be parallel to work desk/keyboard while typing</li> <li>Lumbar support installed on chairs</li> <li>Keyboard pads installed for wrist support</li> <li>Take 10 minute breaks every two hours</li> <li>See SOP 123, Computer Workstation Use and Setup</li> <li>See ergonomic training – signs of injury and illness</li> </ul>  |
| Using the personal computer workstation | <ul style="list-style-type: none"> <li>Neck strain if computer monitor is too high or low</li> <li>Eye strain if computer monitor is too near or far to/from face</li> <li>Eye strain or awkward posture (neck) from light glares on computer monitor</li> <li>Muscle strain due to over-reaching for objects</li> <li>Repetitive motions causing muscle strain (reaching, mouse movement, typing)</li> </ul> | <ul style="list-style-type: none"> <li>Position monitor (using 2 employees) so top of display is at or below eye level</li> <li>Place monitor a minimum of 18" away from eyes</li> <li>Tilt or reposition monitor and adjust contrast controls to reduce glare, or request anti-glare screen</li> <li>Store frequently used items within reach zone</li> <li>Take 10 minute breaks every two hours</li> <li>See SOP 123, Computer Workstation Use and Setup</li> <li>See ergonomic training – signs of injury and illness</li> </ul> |

Image courtesy of the DoD SMCX

For additional information on the SMCX's services, please visit the SMCX-hosted website at: <https://www.smcx.org/>.