## Job Safety Analysis (JSA)

1. **Purpose**

The purpose of this procedure is to establish guidelines for personnel to conduct and document Job Safety Analysis (JSAs) and to correct unsafe acts or conditions.

1. **Responsibility**

The Safety Director Shall:

* Ensure that this procedure is followed and enforced by Supervisors.
* Ensure that employees and/or contractors are trained in the hazard identification process including the use and care of proper PPE.

The Supervisor Shall:

* Ensure that JSA’s are developed and updated for all critical jobs according to the conditions.
* Ensure that JSA’s are being properly performed for every job.
* Review JSA’s with job personnel to ensure that hazards are identified and that adequate precautions are taken to safeguard against the identified hazards.

Employees Shall:

* Perform thorough JSA’s, identifying the hazards and mitigating Medium or High risk situations. Work should not be performed if the hazards cannot be mitigated. In these cases contact the supervisor in charge to mitigate hazards.
* JSAs are to be conducted prior to every critical job even if a prior JSA for that job was conducted, although past JSAs can be used for reference purposes.

1. **Employee Participation**

Employee participation is an integral part of the JSA process. Every worker and/or subcontractor must be prepared to actively participate in the recognition, evaluation and control of hazards. Workers must be involved in all phases of the analysis by:

* Reviewing potential hazards involved in the job.
* Discussing the potential hazards that may exist.
* Recommending controls.

1. **Procedure**

The hazard identification process should be used for routine and non-routine activities as well as new processes, changes in operation, products or services as applicable. The JSA involves five basic steps; job selection, separating the job into basic steps, identifying and classifying the hazards, identifying the process to control each hazard, and continuous improvement.

* Job Selection -Guidelines for selecting the job and the order in which jobs are analyzed could be determined by reviewing past injury reports and near miss incidents, determining the high risk categories based on hazards and past injury or potential injury occurrence, and then determining JSA priority based on these assessments. The jobs can be grouped into the following categories.
* High Risk, to include jobs with high Incident Frequency and/or high Incident Severity.
* Non-routine work - these jobs may not be done frequently, the tasks are unfamiliar, or the hazard(s) are overlooked. This also includes new jobs.
  + Routine jobs with inherent hazards - Routine jobs with inherent hazards repeatedly expose the worker to these risks.
* Separating the job into basic tasks.
  + Each step or activity should briefly describe the task to be accomplished in the order that it occurs.
  + Avoid the common pitfall of making it so general that the basic tasks are omitted. If a large number of steps result from the analysis, consider breaking the job into more than one JSA.
* Identify and classify hazards.
* Consider all reasonable possibilities, as some hazards are more likely to occur than others are, and some are more likely to result in serious injuries than others are.
* Use the following descriptors to classify the twelve basic categories of hazards.
  + Struck Against – Can the worker strike against anything while performing the step of the job?
  + Struck By – Can the worker be struck forcibly by anything while doing the job?
  + Contact With – In this situation, the worker could be injured by non-forceful contact from any substance or item such as chemicals, vapors, fumes, or hot liquids.
  + Contacted By – This is a more forceful contact. Contact by electrically energized circuits, flash fire, electrical arc blast, steam, and contact by chemical agents.
  + Caught In – Can the worker or any part of the body be caught in an enclosure or trapped in a confined space?
  + Caught On – This is usually associated with incidents where a worker’s clothing is caught on some projection or moving object. The moving object could pull the worker into the object and result in a contact injury.
  + Caught Between - These types of incidents usually involve a part of the body caught between two moving objects, or something stationary causing pinch points.
  + Fall - Same Level – Can the worker fall while performing the job task? They include slip, trip, and fall hazards. These are the most frequently occurring injuries and additional attention is required.
  + Fall - Below– This can occur when working above ground level or above floor level. Overexertion – The worker could be injured by lifting, pulling, or pushing. This also includes sprain, strain, or repetitive job injuries.

Exposure– This includes conditions such as exposure to toxic gas or chemicals, extreme temperatures, high noise areas, or harmful fumes or mist.

Other– Hazards related to simultaneous operations should be identified, and risks to short service employees (<6 months on job) or inexperienced personnel should be evaluated and appropriate controls established such as identification process and mentoring program.

* Identify the process to control each hazard. Assess the classified hazards and apply precautions at each applicable basic job task that would reduce or eliminate the risk factor for the hazard. Determine the method to control the hazard, in order of preference, through engineering solutions, administrative controls, and personal protective equipment, or a combination of the three controls.
* Engineering Solutions, e.g.
  + Can an engineering solution create a safer work environment?
  + Are there work-saving tools or equipment available that can make the task safer?
  + Is the tool correct for the job?
  + Can the physical condition that created the hazard be changed, modified, or eliminated?
  + Are interlocks used?
  + Are proper guards installed?
  + Is equipment properly grounded?
* Administrative Controls, e.g.
  + Can the job procedure be changed or the frequency of performing the job be reduced?
  + Can the schedule be changed or work hours shifted?
  + Are the necessary barriers, warning signs, or alarms installed and used?
  + Has Lockout/Tagout been implemented?
* Personal Protective Equipment. This control should always be considered last, although always necessary in the work environment. If used correctly it can prevent an injury, e.g.
  + Are personal gas monitors used properly?
  + Are all workers wearing proper clothing?
  + Is fall protection required?
  + Do the workers need a face shield, chemical resistant gloves, and/or apron?
* Continuous Improvement -During and after the task, JSAs should be reviewed and updated as part of the continuous improvement process.
* JSA reviews should be conducted by a team.
* The team should include field supervisors, company personnel, contractors, or others with skills and experience relevant to the job.
* During reviews of JSAs, the team should consider changes in work conditions since the last review since this may help further reduce future risks.
* Any person (Company, contractor, or customer) can request that a JSA be performed or reviewed prior to initiation of a job. When a JSA is reviewed, the person who requested the JSA should participate in the review.
* Reviews could result in updating or changing of the JSA for that task.

1. **Training**

Employees and contractors involved in developing, using, or reviewing JSA’s shall be trained initially and as needed to ensure competency. Training topics include:

* JSA Procedure
* Use of all forms and checklists
* Use and care of proper PPE

1. **Documentation**

A copy of JSAs will be given to the EH&S department for review and retention. Copies can be electronic, or photo copies of the original.

Training documentation will be retained by the EH&S Department.

**Link to** [**JobSafetyAnalysis**](#JobSafetyAnalysis) **Appendix E**