

Job Safety Analysis, JSA Aid

| Hazard              | Hazard Types   | Personal  | Tools & Equipment  | Workstation   | Environment  |
|---------------------|--|---|--|---|--|
| Energy Sources      | Can the employee come into contact with any energy source?   | <ul style="list-style-type: none"> <li>Is employee's clothing free of oil and grease?</li> <li>Is jewelry absent?</li> <li>Is employee knowledgeable about the energies around him/her?</li> <li>Is a respirator required?</li> <li>Are earplugs required?</li> <li>Is any other PPE required?</li> </ul>   | <ul style="list-style-type: none"> <li>Are portable electric tools properly grounded or double insulated?</li> <li>Are electrical cords in good condition?</li> <li>Are air hoses in good condition?</li> <li>Are tool handles insulated?</li> </ul> | <ul style="list-style-type: none"> <li>Are tools stored correctly?</li> <li>Are all machine guards in place?</li> <li>Are all safety devices functional?</li> <li>Are lockout instructions posted?</li> <li>Are compressed gas cylinders correctly stored?</li> </ul>   | <ul style="list-style-type: none"> <li>Is lighting adequate?</li> <li>Are emergency stop buttons clearly labeled?</li> <li>Is heat stress a hazard? If so, is water provided?</li> <li>When was the noise level last tested?</li> <li>Are noise levels within acceptable limits?</li> </ul>    |
|                     | <ul style="list-style-type: none"> <li>Electricity</li> <li>Noise</li> <li>Hydraulics</li> <li>Chemicals</li> <li>Compressed Air</li> <li>Gravity</li> <li>Heat/Cold</li> <li>Gases/Radiation/Steam</li> </ul> |   |  |   |  |
| Hazardous Materials | Can the employee come into contact with any hazardous materials?   | <ul style="list-style-type: none"> <li>Has employee received HAZCOM training?</li> <li>Does employee know where MSDS are?</li> <li>Is a respirator required?</li> <li>Is the respirator the correct type?</li> <li>Does the respirator fit correctly?</li> <li>Has the employee been trained in respirator use?</li> <li>Is the respirator always cleaned after use?</li> </ul> | <ul style="list-style-type: none"> <li>Is it possible to substitute airless spray paint guns for compressed air types?</li> <li>Are screens used to enclose welding jobs?</li> <li>Are tools used for application well maintained?</li> </ul>        | <ul style="list-style-type: none"> <li>Are any required types of special clothing available? Do they fit well?</li> <li>Are materials correctly secured and stored?</li> <li>Are materials correctly labeled?</li> <li>Are separate containers provided for waste disposal?</li> <li>Is waste disposed of correctly?</li> </ul> | <ul style="list-style-type: none"> <li>Is there an effective local exhaust ventilation system?</li> <li>Is there mechanical or general ventilation?</li> <li>When was the air last sampled?</li> <li>Is the air sampled regularly?</li> <li>Is employee aware of reactivity issues?</li> </ul> |
|                     |  |   |  |   |  |
| Struck By           | Can the employee be struck by anything?  | <ul style="list-style-type: none"> <li>Is a hard hat required?</li> <li>Does hard hat fit correctly?</li> <li>Are safety glasses or other protective eyewear required?</li> <li>Is protective eyewear of the correct type?</li> </ul>   | <ul style="list-style-type: none"> <li>Are overhead cranes maintained regularly?</li> <li>Are all chains, hooks, and cables in good repair?</li> </ul>   | <ul style="list-style-type: none"> <li>Is the workstation safe from intrusion by forklifts?</li> <li>Is stock correctly stacked?</li> <li>Are all machine guards in place?</li> <li>Are welding operations correctly guarded?</li> </ul>  | <ul style="list-style-type: none"> <li>Is lighting adequate?</li> <li>Are warning bells or other warning sounds audible to the employee?</li> </ul>  |
|                     | <ul style="list-style-type: none"> <li>Moving or flying objects</li> <li>Falling material</li> </ul>   |   |  |   |  |
| Struck Against      | Can the employee strike against anything?  | <ul style="list-style-type: none"> <li>Are gloves required?</li> <li>Do gloves fit correctly?</li> <li>Are gloves of the correct material?</li> <li>Is any other special clothing required?                             <ul style="list-style-type: none"> <li>Aprons</li> <li>Arm protection</li> <li>Leg protection</li> </ul> </li> </ul>                                    | <ul style="list-style-type: none"> <li>Are tools well maintained and unlikely to break or slip under stress?</li> <li>Are tool handles correctly shaped to prevent mechanical stress?</li> </ul>   | <ul style="list-style-type: none"> <li>Is the workstation safe from intrusion by forklifts?</li> <li>Is stock correctly stacked?</li> <li>Are all machine guards in place?</li> <li>Are welding operations correctly guarded?</li> </ul>  | <ul style="list-style-type: none"> <li>Is lighting adequate?</li> <li>Are warning bells or other warning sounds audible to the employee?</li> </ul>  |
|                     | <ul style="list-style-type: none"> <li>Stationary or moving objects</li> <li>Protruding objects</li> <li>Sharp or jagged edges</li> </ul>  |   |  |   |  |

# Job Safety Analysis, JSA Aid

| Hazard         | Hazard Types   | Personal   | Tools & Equipment   | Workstation  | Environment   |
|----------------|--|--|---|--|---|
| Caught Between | <b>Can the employee be caught in, on or between anything?</b> <ul style="list-style-type: none"> <li>Pinch points</li> <li>Protruding objects</li> <li>Moving and/or stationary objects</li> </ul> | <ul style="list-style-type: none"> <li>Does work clothing fit correctly? <ul style="list-style-type: none"> <li>Sleeves short or buttoned?</li> <li>Pants not too long?</li> </ul> </li> <li>Is jewelry absent? <ul style="list-style-type: none"> <li>Rings</li> <li>Necklaces</li> <li>Bracelets</li> <li>Loose watch</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Are tools well maintained and unlikely to slip under stress?</li> <li>Does the employee know the locations of emergency stop buttons and cords?</li> <li>Are tool handles free of oil or grease?</li> <li>Is work position a potential hazard?</li> </ul>  | <ul style="list-style-type: none"> <li>Are all machine guards in place?</li> <li>Does the employee know correct procedures in the event of a jam?</li> <li>Does the employee have sufficient reach and clearance for the job?</li> <li>Are any points of operation seven feet from the floor and below correctly guarded?</li> </ul>             | <ul style="list-style-type: none"> <li>Is lighting adequate?</li> <li>Are warning bells or other warning sounds audible to the employee?</li> </ul>                                     |
|                | <b>Can the employee slip, trip, or fall?</b> <ul style="list-style-type: none"> <li>On the same level</li> <li>To a lower level</li> </ul>   | <ul style="list-style-type: none"> <li>Are safety belts or harnesses required?</li> <li>Is footwear of the correct type? <ul style="list-style-type: none"> <li>Non-slip soles?</li> </ul> </li> <li>Does employee's clothing fit correctly?</li> </ul>  | <ul style="list-style-type: none"> <li>Are air hoses correctly positioned and away from the floor?</li> <li>Are electrical cords sorted correctly?</li> <li>Are tools stored correctly and away from the floor?</li> <li>Are all ladders of wooden construction?</li> <li>Are correct procedures used with ladders?</li> </ul>                                | <ul style="list-style-type: none"> <li>Is the floor free of debris such as bolts, cardboard, spare parts, etc.?</li> <li>Are platforms clean and well maintained?</li> <li>Is the floor free of water, oil or other containments?</li> <li>Is seating safe?</li> <li>Are any pits or holes correctly guarded?</li> </ul>                         | <ul style="list-style-type: none"> <li>Is lighting adequate for the job?</li> </ul>   |
| Ergonomics     | <b>Can the employee be injured by poor job design hazards?</b> <ul style="list-style-type: none"> <li>Frequency</li> <li>Force</li> <li>Stressful posture</li> </ul>                               | <ul style="list-style-type: none"> <li>Is the employee's physical condition such as to allow him/her to perform the job without the risk of whole-body fatigue?</li> <li>Do required gloves fit correctly?</li> </ul>  | <ul style="list-style-type: none"> <li>Are tools the correct shape for the job?</li> <li>Does the placement of tools make it easy to perform the job?</li> <li>Do tools allow for alternating between hands?</li> <li>Are tools well balanced?</li> <li>Do heavy tools have mechanical support?</li> <li>Do tools allow for neutral wrist posture?</li> </ul> | <ul style="list-style-type: none"> <li>Does the employee have adequate room to work comfortably without being cramped or using awkward postures?</li> <li>Are walking, carrying, and lifting distances within reasonable limits to minimize fatigue and potential stress?</li> <li>Are displays and controls positioned for easy use?</li> </ul> | <ul style="list-style-type: none"> <li>Does the level of lighting allow for the easy reading of displays?</li> <li>Could noise level be a factor in contributing to fatigue?</li> </ul> |