



Job Hazard Analysis Program

1. Purpose

- 1.1. The job hazard analysis (JHA) program ensures occupational hazards are identified and controls are established to protect workers for routine operations and activities.

2.0 Scope

- 2.1 This program applies to all University personnel. Supervisors shall use the **Job Hazard Analysis Form**, Appendix A, for routine tasks that have the potential to cause injuries/illness. It does not pertain to work conducted by laboratory/research personnel for the purpose of research or teaching.
- 2.2 Potential tasks that may benefit by conducting a JHA can be determined via several methods; i.e., tasks with high injury/illness rates, tasks selected by safety committees, and interviews with employees conducting tasks.

3.0 Definitions

- 3.1 **Controls** – Methods implemented to eliminate or reduce occupational hazards (in order of effectiveness/preference).
 - 3.1.1 **Elimination/substitution** – Physically remove or replace the hazard.
 - 3.1.2 **Engineering** – Isolate the workers from the hazard by enclosures, exhaust ventilation systems, and machine interlocks.
 - 3.1.3 **Administrative** – Change how work is performed using procedures, work permits, alarms, signs, warnings, job rotation and training.
 - 3.1.4 **Personal Protective Equipment (PPE)** – Equipment worn by the workers to minimize exposure to hazards, such as, hearing protection, safety glasses, hard hats and protective clothing.
- 3.2 **Ergonomic Job Assessment** – Technique to identify ergonomic risks such as repetitive tasks that can cause strains or improper work area setup/use of tools, which can result in the development of work-related musculoskeletal disorders (MSDs).
- 3.3 **Exposure** – State of being exposed by virtue of a worker's proximity to the hazard.

3.4 Hazard – Potential for harm. A hazard is often associated with a condition or activity, that if left uncontrolled, can result in an injury or illness.

3.5 Job Hazard Analysis – Technique that focuses on job tasks as a way to identify hazards before they occur. It focuses on the relationship between worker, task, tools and work environment. After identification of uncontrolled hazards, steps are taken to eliminate or reduce them to an acceptable risk level.

3.6 Step – The smallest identifiable portion of a task that advances the work (e.g. checking the oil level).

3.7 Task – A specific segment of work, a specific work assignment, or a set of actions required in order to achieve a specific work objective (e.g., inspect lift truck, transfer product to warehouse, etc.)

4.0 Responsibilities

4.1 Managers/Supervisors shall:

- 4.1.1 Develop JHAs within their work areas.
- 4.1.2 Implement controls to eliminate or minimize hazards in their workplace.
- 4.1.3 Periodically review JHAs to ensure they remain current.
- 4.1.4 Ensure employees have been trained on any applicable JHA's pertinent to the specific job to which they have been assigned.
- 4.1.5 Ensure JHAs are reviewed with new hires.
- 4.1.6 Train all employees affected by changes in new job methods developed by JHAs.

4.2 Risk Management and Safety shall:

- 4.2.1 Maintain the written JHA program.
- 4.2.2 Support departments by providing training and guidance in developing or reviewing JHAs.

4.3 Employees

- 4.3.1 Participate in development of JHAs, when needed.
- 4.3.2 Follow guidelines established by the JHA for specific job tasks.
- 4.3.3 Notify manager/supervisor if there are job task changes or discrepancies in a JHA.

5.0 Procedure

5.1 Using a blank JHA form (Appendix A), complete the following steps:

- 5.1.1 Document the requested information pertaining to the job at the top of the form.
- 5.1.2 SEQUENCE OF JOB STEPS column - document each step (or task) required to complete the job. Watch the employee perform the job and list each step as the worker performs it.
 - 5.1.2.1 It may be helpful to photograph or record the worker performing the job. Visual records can be handy references when conducting a more detailed analysis of the work.
 - 5.1.2.2 Get input from other workers who have performed the same job, if possible.
 - 5.1.2.3 Review the job steps with the employee(s) to ensure all the steps are captured.
- 5.1.3 POTENTIAL HAZARD(S) column – identify and document the potential hazards associated with each task. (See Appendix B for common hazards and descriptions.) The goal is to discover the following:
 - What could go wrong?
 - What are the consequences?
 - How could a hazard arise?
 - What are the contributing factors?
 - How likely is it that the hazard could occur?
- 5.1.4 CONTROLS column – After reviewing the list of hazards with the employee, consider what control methods will eliminate or reduce them. Document all the possible controls for each of the hazards identified in each of the steps.
 - 5.1.4.1 Not all hazard controls are equal. Some are more effective than others at reducing risk.
 - 5.1.4.2 The order of effectiveness of hazard control is the following:
 - 5.1.4.2.1 Elimination/Substitution
 - 5.1.4.2.2 Engineering
 - 5.1.4.2.3 Administrative
 - 5.1.4.2.4 PPE
 - 5.1.4.3 Use of one hazard control method over another higher in control effectiveness may be



appropriate for providing interim protection until the hazard is abated permanently.

6.0 Ergonomic Job Assessment

- 6.1 If a potential ergonomic hazard is identified during the job hazard analysis, an ergonomic job assessment shall be requested. Contact the Wellness Center to schedule.
- 6.2 Neutral body posture is the desired state for each task. The following are examples of neutral body postures:
 - 6.2.1 Head held up, looking forward
 - 6.2.2 Elbows remain close to the body
 - 6.2.3 Arms and hands at their respective sides
 - 6.2.4 Wrists held straight
 - 6.2.5 No forceful grasps with hands or pinching of fingers
 - 6.2.6 Feet maintained at hip width
 - 6.2.7 Back held straight
 - 6.2.8 No twisting of torso
- 6.3 Some tasks may require non-neutral body postures at times, but they shall not be for extended durations.

7.0 Training

- 7.1 Before completing a JHA, managers/supervisors shall complete the ComplyND Hazard Recognition course and JHA training course.

8.0 Record Retention

- 8.1 Training records and JHAs shall be maintained per the [University Record Management and Archive Policy](#).
- 8.2 JHA records may be retained electronically or in hard copy format.

Procedure Revision Table	
Revision Description	Date Revision Made
Job Hazard Assessment Program Developed	September 2020



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**Appendix A
Job Hazard Analysis Form**

JOB TITLE:			DATE:	NEW <input type="checkbox"/>
				REVISED <input type="checkbox"/>
TITLE OF PERSON PERFORMING THE JOB:		SUPERVISOR:	ANALYSIS PERFORMED BY:	
ORGANIZATION:	LOCATION:	DEPARTMENT:	REVIEWED BY:	
REQUIRED PPE:		REQUIRED TRAINING:		
STEP	SEQUENCE OF JOB STEPS	POTENTIAL HAZARD(S)	CONTROLS	

Approval Date: September 2020
Review Date:



STEP	SEQUENCE OF JOB STEPS	POTENTIAL HAZARD(S)	CONTROLS

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**Appendix B
Common Hazards and Descriptions**

Item	Hazard	Hazard Description
1	Chemical (Toxic)	A chemical that exposes a person by absorption through the skin, inhalation, or through the blood stream that causes illness, disease, or death. The amount of chemical exposure is critical in determining hazardous effects. Check Safety Data Sheets (SDS) and OSHA 1910.1000 for chemical hazard information.
2	Chemical (Flammable)	A chemical that, when exposed to a heat ignition source, results in combustion. Typically, the lower the chemical's flash point and boiling point, the more flammable the chemical is. Check SDS for flammability information.
3	Chemical (Corrosive)	A chemical that, when it comes into contact with the skin, metal or other materials, damages the materials. Acids and bases are examples of corrosives.
4	Explosion (Chemical Reaction)	A compound or mixture which, upon the application of heat or shock, decomposes or rearranges with extreme rapidity, yielding much gas and heat.
5	Explosion (Over Pressurization)	Sudden and violent release of a large amount of (Over gas/energy due to a significant pressure difference pressurization) such as rupture in a boiler or compressed gas cylinder.
6	Electrical (Shock/Short Circuit)	Contact with exposed conductors or a device that is incorrectly or inadvertently grounded, such as a short circuit, when a metal ladder comes into contact with power lines. 60 Hz alternating current (common house current) is very dangerous because it can stop the heart.
7	Electrical (Fire)	Use of electrical power that results in electrical overheating or arcing to the point of combustion or ignition of flammables or electrical component damage.
8	Electrical Static Discharge (ESD)	The moving or rubbing of wool, nylon, other (static/ESD) synthetic fibers, and even flowing liquids can generate static electricity. This creates an excess or deficiency of electrons on the surface of material that discharges (spark) to the ground resulting in the ignition of flammables or damage to electronics or the body's nervous system.
9	Electrical (Loss of Power)	Safety critical equipment failure as a result of loss of power.
10	Ergonomics (Strain)	Damage of tissue due to overexertion (sprains and strains) or repetitive motion.
11	Excavation (Collapse)	Soil collapse in a trench or excavation as a result of improper or inadequate shoring. Soil type is critical determining the hazard likelihood.



12	Fall (Slip, Trip)	Conditions that result in falls (impacts) from height or traditional walking surfaces (such as slippery floors, poor housekeeping, uneven walking surfaces, exposed ledges, etc.).
13	Fire/Heat	Temperatures that can cause burns to the skin or damage to other organs. Fire requires a heat source, fuel and oxygen.
14	Mechanical/Vibration (Chaffing/Fatigue)	Vibration that can cause damage to nerve endings, or material fatigue that results in a safety-critical failure (Examples are abraded slings and ropes, fatigue weakened hoses and belts).
15	Mechanical Failure	Typically occurs when devices exceed designed capacity or are inadequately maintained.
16	Noise	Noise levels (> 85 dBa) that result in hearing damage or inability to communicate safety-critical information.
17	Radiation (Ionizing)	Alpha, beta, gamma, neutral particles and X-rays that cause injury to tissue by ionization of cellular components.
18	Radiation (Non-ionizing)	Ultraviolet, visible light, infrared, and microwaves that cause injury to tissue by thermal or photochemical means.
19	Struck Against	Injury to a body part as a result of coming into contact of a surface in which action was initiated by the person. (An example is when a screwdriver slips.)
20	Struck By (Mass Acceleration)	Accelerated mass that strikes the body causing injury or death. (Examples are falling objects and projectiles).
21	Temperature Extreme (Heat/Cold)	Temperatures that result in heat stress, exhaustion, or metabolic slow down such as hypothermia.
22	Visibility	Lack of lighting or obstructed vision that results in an error or other hazard.
23	Weather	Snow, rain, wind, ice, heat.