How to Complete a Job Hazard Analysis

A Job Hazard Analysis (JHA), also called a job safety analysis (JSA) is a technique which helps integrate accepted safety and health principles and practices into a particular task or job operation to reduce the hazards and risk of injury to workers. In a JHA, each step of the job is evaluated to identify potential hazards and the controls necessary to mitigate those hazards. The terms "job" and "task" are commonly used interchangeably to mean a specific work assignment, such as "operating a hand truck" or "applying pesticides".

A supervisor and/or staff who actually perform a particular task should develop the JHA. Supervisors or their designee should review and maintain the JHA.

Instructions for Conducting a Job Hazard Analysis

1. **Involve personnel involved in performing the activity or experimentation.**
    - Discuss what you are going to do and why
    - Explain that you are studying the task, not employee performance
    - Involve the employees in the entire process

2. **Identify university and regulatory requirements that apply to your tasks. Incorporate those requirements into your JHA. This may include PPE, engineering controls, administrative controls, etc.**

3. **Set priorities.**
    - Tasks using high hazard chemicals, biologicals, radioactive materials or high hazard equipment.
    - Tasks where there have been "close calls" - where an incident occurred but no one got hurt;
    - Tasks with the potential to cause serious injuries or illness, even if there is no history of such problems;
    - Tasks in which one simple human mistake could lead to severe injury;
    - Tasks that are new to your experimentation or have been changed; and
    - Tasks complex enough to require written instructions.

4. **Identify workplace hazards.**
    - A job hazard analysis includes identifying the hazards:
        - What hazardous materials are you working with (chemical, biological, radioactive)?
        - What physical hazards are you working with (electrical, thermal, height, etc.)?
        - What can go wrong?
        - What are the consequences?
        - How could it arise?
        - What are other contributing factors?
        - How likely is it that the hazard will occur?

5. **Identify hazard control measures.**

- Hazard control measures recommended in the analysis must be incorporated into the tasks. Not all hazard controls are equal. Some are more effective than others at reducing the risk.

- Engineering controls

    - Elimination/minimization of the hazard
    - Substituting processes, equipment, materials
    - Enclosure of the hazard using enclosed cabs, enclosures for noisy equipment, or other means
    - Isolation of the hazard with interlocks, machine guards, blast shields, welding curtains, or other means
    - Removal or redirection of the hazard such as with local and exhaust ventilation.

- Administrative controls

    - Written operating procedures, work permits, and safe work practices
    - Exposure time limitations (used most commonly to control temperature extremes and ergonomic hazards)
    - Monitoring the use of highly hazardous materials
    - Alarms, signs, and warnings
    - Buddy system
    - Training

- Personal protective equipment

    - Safety Glasses
    - Hearing Protection
    - FR Lab Coats
    - Face Shields

6. Training

- Ensure that affected personnel have reviewed the JHA and understand the hazards and the controls that are required.
- Train all new personnel on the JHA

7. Review and Record Retention

- Review JHA periodically to ensure accuracy.
    - If updates made, ensure all affected personnel are informed.
- Training records and JHAs shall be maintained per the University Record Management and Archive Policy.
    - These records may be retained electronically or in hard copy format.

See Figure 1 for an example of a completed JHA

①In the Task column, identify each step (or task) required to complete the job. Consider preparation and clean-up, and be as thorough as possible. Number the steps sequentially.

②In the Hazard column, write down the hazards associated with the specific step.

③In the Controls column, write down all safe practices and controls to mitigate the hazards.

JOB/TASK/EXPERIMENTAL PROCEDURE SAFETY AND HEALTH ANALYSIS		
DEPARTMENT: **PI/SUPERVISOR:** Mr. Supervisor	**TASK/EXPERIMENTAL PROCEDURE: Using a Hand truck**	
PREPARED BY: Ms. Driver		
REVIEWED BY:	**DATE APPROVED:**	**REVIEW/REVISION DATE:**
PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS (PPE). If appropriate attach PPE Assessment: Gloves if necessary		
TRAINING/COMPETENCY REQUIRED: Operation of a Hand Truck PPE		

Step #	TASK ①	POTENTIAL SAFETY AND HEALTH HAZARDS ②	CONTROLS ③
1	Pre-operation Safety Check	• Untrained operator	• Training on hand truck design, controls and instrumentation. • Training on the hand truck stability and the proper way to transport, load, and stack on the hand truck.
2	Assembling a load	• Rolling the wheels off the edge of ramps and loading docks.	• Stay well back from the edge. • Never turn around on the slope. • When going down a ramp, keep the truck ahead of you. When going up, pull the truck behind you. • Make sure the chisel of the truck is all the way under the load.
3	Operating the Two-wheel Hand truck	• Slip/trip/fall	• Slow down for turns. • Make sure that you have enough overhead clearance.
4	Transporting the load	• Pinching hands between the truck and other objects.	• Be Alert • Wear gloves to protect your hands. • Strap bulky or dangerous cargo to the truck's frame. • When moving a stack of objects, put the heavier ones on the bottom.
5	Storing the hand truck	• Trip hazard	• Store in a safe out of the way area.

Figure 1. Example - Completed JHA for Operation of a Hand Truck.

JHA Template

JOB/TASK/EXPERIMENTAL PROCEDURE SAFETY AND HEALTH ANALYSIS		
DEPARTMENT: **PI/SUPERVISOR:**	**TASK/EXPERIMENTAL PROCEDURE:**	
PREPARED BY:		
REVIEWED BY:	**DATE APPROVED:**	**REVIEW/REVISION DATE:**
PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS (PPE). If appropriate attach PPE Assessment:		
TRAINING/COMPETENCY REQUIRED:		

Step #	TASK	POTENTIAL SAFETY AND HEALTH HAZARDS	CONTROLS
1		•	•
2		•	•
3		•	•
4		•	•
5		•	•

You may insert rows below as necessary.