

Conducting a Hazard Assessment

Hazard Assessments

A hazard assessment is a thorough assessment of the workplace or specific task for the purpose of identifying what actual and potential hazards exist.

The purpose of hazard assessments is to identify actual and potential hazards in the workplace, with the intent, where possible, to first eliminate the hazard or reduce the hazard by using engineering controls, administrative controls, or personal protective equipment. Some hazards can be eliminated, but others must be controlled by use of appropriate procedures or devices.

Each workplace consists of four major components; People, Environment, Materials, and Equipment (PEME). In conducting a hazard assessment, all four components must be examined to identify what risks are present. It is important to recognize that the hazard assessment does not deal strictly with things that are wrong at the present time, rather the assessment must address with what could go wrong—potential hazards.

Hazard Evaluation

Once hazards have been recognized, the potential loss to people, equipment, materials and the environment must be assessed. The main factors to be considered when evaluating potential risk include severity of the risk, probability of the hazard resulting in injury, and the frequency of worker exposure.

The risk ranking will determine the priority for corrective action, and the most effective controls to put in place. Remember – regulatory requirements may dictate priorities.

Hazard Control

The following is a recommended hierarchy of control measures for managing hazards:

1. Engineering controls involve elimination, substitution, ventilation, isolation, workplace redesign, and process control. Whenever possible, hazards identified shall be controlled through elimination of the hazard. Where the hazard cannot be eliminated, the company shall consider alternatives to the substances, processes, machines and equipment currently being used.
2. Where engineering controls do not adequately manage the hazard, the company shall implement administrative controls to lessen the risk. These measures may include changing work procedures, developing and implementing new policies, training and education programs, signage, etc.
3. Where engineering and administrative controls do not completely eliminate the risk of injury to workers, personal protective equipment must be used to control a hazard. This is the last resort as it is simply a barrier between the hazard and the worker.

Severity

- +0 No Injury
- +1 Minor Injury requiring first aid
- +2 Medical treatment with no lost time beyond the day of injury and minor property damage (\$500 or less)
- +3 Lost time injury or significant property damage (greater than \$500 but less than \$5000)
- +4 Permanent disability/fatality(ies) or major property damage (greater than \$5000)

Probability

- +1 Exposure to the uncontrolled hazard is unlikely to occur
- +2 Exposure to the uncontrolled hazard could occur
- +3 Exposure to the uncontrolled hazard will occur

Frequency:

Number of Persons Exposed	Number of times persons may be exposed to or have contact with the hazard		
	Less than daily	Few times a day	Many times a day
Few	+1	+1	+2
Moderate	+1	+2	+3
Many	+2	+2	+3

Risk = Severity + Probability + Frequency

Low Risk 0-2 Medium Risk 3-5 High Risk 6-10

Low (0-2) = Maintain control measures and review if there are any changes

Medium (3-5) = Review control measures and improve where reasonably practicable to do so.

Consider alternative ways of working

High (6-10) = Improve control measures. Consider stopping work. Conducting work at this level of risk is to be reported immediately