Approved: March 17, 2016

700.2.1 Workplace Health and Safety: Hazard Assessment

Definitions Associated with Hazard Assessments

Hazard: A practice or condition that may result in injury, illness, property damage, loss of process, or harm to the environment.

Incident: Any unplanned or unwanted event which results in damage or injury, or which could have resulted in damage or injury (e.g., injury, property damage, near misses and loss of process).

Hazard Assessment: Is a thorough examination of an area including the associated equipment, work activities, and general conditions to identify existing and potential hazards. This includes the evaluation of equipment, practices, and events to determine hazards and the potential they have for loss. It will also allow for recommendation of control measures of the identified hazards.

Loss: Avoidable waste of any resource.

Exposure: Potential frequency of an event that may lead to loss.

Likelihood: Probability of loss during each exposure.

Consequence: The magnitude of the loss when it occurs.

Hazard Assessment Procedures

Procedure

1. Before work begins at a work site, Division staff must assess the site and identify existing or potential hazards.
2. A report of the results of a hazard assessment and the methods used to control or eliminate the hazards identified must be completed using the Division approved hazard assessment form.
3. Division staff must ensure that the date on which the hazard assessment is prepared or revised is recorded on the form.

4. The hazard assessment must be:
   4.1. reviewed on a regular basis;
   4.2. completed when a new work process or worksite is introduced; or
   4.3. completed when a work process or worksite changes.

5. The initial hazard assessment process should include:
   5.1. the supervisor;
   5.2. a Workplace Health and Safety Committee member;
   5.3. the employee(s) most familiar with how the job is done and its related hazards; and
   5.4. where appropriate, experts or specialists such as maintenance personnel, occupational hygienists, ergonomists, or design engineers.

6. Basic steps in performing a hazard assessment and developing safe work processes are:
   6.1. identifying/selecting the job to be analysed;
   6.2. breaking the job down into a sequence of basic steps;
   6.3. identifying potential hazards in each step;
   6.4. assigning a risk ranking based on likelihood, exposure and consequence indicators (see section 3 below);
   6.5. prioritizing each hazard according to its risk rating; and
   6.6. determining appropriate hazard control measures.

7. In assigning a priority to the assessment of hazards the following should be considered:
   7.1. jobs with a high frequency of accidents or near misses which pose a significant threat to health and safety;
   7.2. jobs that have already produced fatalities, disabling injuries, illnesses or environmental harm;
   7.3. jobs that have the potential to cause serious injury, harm, or damage, even if they have never produced an injury or illness;
   7.4. jobs involving two or more employees who should perform specific tasks simultaneously;
   7.5. newly established jobs whose hazards may not be evident because of the lack of experience;
   7.6. jobs that have undergone a change in procedure, equipment or materials;
   7.7. jobs whose operation may have been affected by new regulations or standards; and
   7.8. infrequently performed jobs where employees may be at greater risk when undertaking non-routine tasks.

8. It is recognized that some documented hazard controls are required by law. They are commonly referred to as Codes of Practice under the Occupational Health and

Safety legislation. Codes of Practice are developed to ensure that a particular detailed work process is performed by competent employees in compliance with all appropriate and applicable legislation regulations, such as confined space entry work, and machinery lock-out/tag-out procedures.

Conducting a Work Site Hazard Assessment

Hazard assessments are always conducted as a team effort. By involving others in the process, the Division aims to reduce the possibility of overlooking an individual job step or a potential hazard. Through this process, we also increase the likelihood of identifying the most appropriate measures for eliminating or controlling hazards.

The Work Site Hazard Assessment Form should include input from the work site supervisors and employees. The assessment consists of three parameters: Frequency of Exposure, Hazard Probability, and Potential Consequence.

The process is:

1. Assemble the people that will be involved.
2. Discuss the possible hazards with the employees.
3. Tour the entire work site.
4. Look for possible hazards originating from environment, material, equipment, and people.
5. Keep asking the question, “What if?”
6. Indicate on the assessment form, all the items that need attention.
7. Solicit the input for control measures from the work site supervisors and employees.
8. Rank the items and establish a hazard priority using the hazard ranking system.
9. Develop and implement controls for all hazards with a ranking of 4 (high), if they do not already exist. For hazards with a ranking of 2 and 3 (moderate), they will require the eventual implementation of controls using a schedule for completion determined by the Health and Safety Committee.
10. Take corrective action.
11. Monitor and follow up to ensure corrective action is taken.

Procedure

Risk Rating Process

Assessing the risk associated with each task provides a qualitative evaluation that allows the assessors to determine on what tasks you must focus for hazard controls. Three parameters are evaluated to give a risk rating: Frequency of Exposure, Hazard Probability, and Potential Consequence.

Frequency of Exposure (FE): how often workers could be exposed to the hazard

1 = less than once per month

2 = at least once per month

3 = at least once per week

4 = one or more times daily

Hazard Probability (HP): the likelihood that the hazard will result in an accident causing worker harm

1 = not likely

2 = remote chance – not likely but possible every 5 – 20 years

3 = occasional – likely to happen once every 1-5 years

4 = probably – expected to happen once a year or more

Potential Consequence (PC): the severity of loss if a hazardous event occurs

1 = negligible (results in: no injury, first aid, limited property damage)

2 = marginal (results in: medical aid, minor injury/illness, no lost time)

3 = critical (results in lost time injury, temporary disability)

4 = catastrophic (results in: serious injury/illness, permanent disability, death, extensive property damage)

Risk Ranking: The risk ranking is composed of the product of the ratings for Frequency of Exposure, Hazard Probability, and Potential Consequence for each task (FE x HP x PC). It serves to highlight which tasks should be focused on for hazard control.

Low = 1 - 11	Minimal controls - review task on an annual basis
Medium = 12 - 27	Take scheduled action to minimize the risk
High = 28 – 64	Take immediate action to eliminate the hazard or reduce the degree of risk.

An activity or task that has a hazard rating of 28 or more (high) should have administrative controls developed as soon as possible that can assist with managing the health and safety of employees. Some examples of administrative controls include safe work practices and procedures, policies, codes of practice, and directives.

Procedure