



CITY POLICY & PROCEDURE

SECTION: HUMAN RESOURCES

NO: HR – HS - 19

REFERENCE: HEALTH AND SAFETY

Date: Jan 31, 2017
Next Review Date:
January 2019

TITLE: HAZARD RECOGNITION

1.0 POLICY

- 1.1 The City of Dryden strives to maintain a safe environment for its employees. With effective recognition and reporting of hazards we are able to control and eliminate unsafe working situations or conditions.
- 1.2 Hazard recognition is the process of identifying agents or conditions which have the potential to cause harm to worker health and safety. Once identified, the hazards must be assessed and controlled.

2.0 PROCEDURE

2.1 Hazard Assessment:

Assessing health or safety hazards is a means of understanding the effects of the hazard and measuring the actual or potential exposure of workers to the hazard. Controls are put in place to eliminate, prevent, or minimize exposure of the worker to the hazard.

There are two main types of hazards, *health* and *safety*. A *health* hazard is any agent that can cause harm to the body when excessive exposure takes place. These agents include chemical, physical, biological, ergonomic factors and workplace stressors. *Safety* hazards have the potential to cause injury, a substandard act, or condition.

Hazards may be recognized through:

- (a) Workplace inspections – formal and informal;
- (b) Concerns reported by workers, supervisors, and the employer;
- (c) Job hazard analyses; and,
- (d) Studies/statistics – sick leave patterns, frequency/severity rates.

2.2 Health Hazards may be:

Chemical Hazards:

- (a) Can be toxic, corrosive, cancer causing, cause fires and explosions, or cause dangerous reactions;
- (b) Recognized through evaluations of MSDS's, WHMIS labels, Designated Substance Regulations, and Regulation 833 (Control of Exposure to Biological or Chemical Agents).

Physical Hazards:

- (a) Agents that are forms of energy such as noise, vibrations, radiation (Laser beams, UV, x-rays) and temperature.

Biological Agents:

- (a) Living things, or by-products of living things such as bacteria, viruses, fungi, and plants.

Ergonomic Factors:

- (a) May include force, repetition, mechanical stress, inadequate lighting, and poor posture. Issues to be considered include work station and equipment design, and how they interact with the worker.

Workplace Stressors:

- (a) Include everyday stress that could be caused by work overload or underload, loss of control, role uncertainty and conflict, working alone, and workplace violence.

2.3 Safety Hazards may include:

Energy:

- (a) Pneumatic or hydraulic pressure; and,
- (b) Steam

Machines:

- (a) Moving shafts;
- (b) Belts;
- (c) Pulleys; and,
- (d) Blades and saws

Material Handling:

- (a) Lifting;
- (b) Lift trucks; and,
- (c) Conveyors

Work Practices:

- (a) Failure to have or follow policies, procedures, training, and,
- (b) Enforcement of those policies and procedures.

2.4 Hazard Assessment

After one or more hazards have been identified, a document shall be created identifying the main activities for all jobs or occupations. When hazards are identified, the level of risk for each hazard shall be estimated for addressing the hazards (Job Hazard Analysis).

The next step is carefully assessing the potential consequences of an incident caused by the hazard. The level of risk associated with the hazard is estimated by considering a combination of two factors:

- (a) Frequency, or how often the function or activity is done, and
- (b) The severity of the consequences if it did happen relating to workers and/or damage to equipment or property.

$$\text{RISK} = \text{FREQUENCY} \times \text{SEVERITY}$$

Hazard Frequency

Estimating frequency of hazards can be categorized as:

High Frequency – likely to occur when exposed to the hazard (Level 3)

Medium Frequency – possibly to occur at some point (Level 2)

Low Frequency – unlikely to occur (Level 1)

Hazard Severity

Severity estimates provide the potential for damages or harm, and can be categorized as:

High Severity – may cause death or loss of a facility (Level 3)

Medium Severity – may cause injury but is not life threatening (Level 2)

Low Severity – may not affect personal safety or health (Level 1)

Ranking Hazards

Once the hazards have been identified or anticipated, the hazards must be ranked to determine which are the most in need of effort at developing controls, safe work practices, or procedures.

EXAMPLE:

Entering a pumping station and climbing down 15 feet to take readings. It has been determined workers enter the pumping station once per week, and this is a confined space where a worker could be overcome by a toxic gas. In addition, falling hazards and electrical hazards are identified.

It has been determined that this has a medium frequent job function.

Frequency = 2

It has been determined this has high severity consequences.

Severity = 3

Therefore the risk assessment would be:

Frequency (2) X Risk (3) = Risk Assessment (6)

Once all activities have been assessed, the priority is to work on the highest risk numbers first.

2.5 Controls

When determining what controls are going to be put into place, several factors shall be met:

- (a) Adequately control the hazard;
- (b) Do not create any new hazards;
- (c) Do not create any under discomfort or stress; and,
- (d) Do not create environmental hazards outside the workplace.

There are three methods for controlling hazard, at the source, along the path, and at the worker.

- (a) At the source is the ideal control as it eliminates the hazards from the workplace.
- (b) Along the path places controls between the source of the hazard and where the work is being performed.

- (c) At the worker is the least preferred method of control, however there are situation where this is the only possible location for controlling exposure to the hazards. The worker must use personal means to control exposure, such as safety boots, head protection, hearing protection etc.

History			
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