Job Hazard Analysis

1.0 Introduction

1.1 The Job Hazard Analysis (JHA) Program has been developed by Facilities Management to ensure safety hazards encountered in the workplace are properly identified and workers are protected against the hazards. Controlling exposure to occupational hazards is essential for protection of workers. The following hierarchy of controls ensure adequate worker protection from hazards.

1.1.1 Elimination/Substitution of the hazard

1.1.2 Engineering Controls for worker protection

1.1.3 Administrative Controls to minimize hazard exposures

1.1.4 Personal Protective Equipment (PPE) to provide protection to employees when the hazard cannot be removed from the workplace.

1.2 Responsibilities

1.2.1 Facilities Management Safety Officer:

1.2.1.1 Responsible for maintaining the JHA program

1.2.1.2 Perform a Job Hazard Analysis upon request from shops and/or personnel.

1.2.2 Supervisors:

1.2.2.1 Supervisors are responsible for ensuring a completed JHA is on file for tasks in the workplace;

1.2.2.2 Recommended safety precautions are in place;

1.2.2.3 Proper PPE is selected and used; and

1.2.2.4 Required training is completed and documented.

2.0 Procedure

2.1 Facilities Management will utilize JHAs to analyze on-site job hazards.

2.2 Each JHA is documented to provide information including job titles, tasks being performed, hazards associated with the task(s) and appropriate controls and training required to ensure the task is completed safely

2.3 It is recommend all personnel completing JHAs use a similar format. At a minimum, the JHA should be performed as follows.

2.3.1 **Walk-through survey**. The purpose of the walkthrough survey is to identify potential hazard sources to which an employee may be exposed. Basic hazard categories and items to be considered during the walkthrough survey include, but are not limited to the following.

2.3.1.1 Impact and maiming hazards

2.3.1.2 Harmful dusts, mists and particles

2.3.1.3 Confined Spaces (low O2, hazardous atmospheres)

2.3.1.4 Blood borne pathogens

2.3.1.5 General material handling and lifting

2.3.1.6 Chemical exposure (inhalation and contact)

2.3.1.7 Electrically energized equipment

2.3.1.8 Toxic gases

2.3.1.9 Cold/Heat

2.3.1.10 Sharps and sharp objects

2.3.1.11 Machinery

2.3.1.12 Elevated work surfaces requiring fall protection

2.3.1.13 Hot Work

2.3.1.14 Hazardous Noise

2.3.1.15 Within the hazard categories, specific hazard sources should be identified. Typical hazard sources include, but are not limited to the following.

- Motions that may result in the employee hitting, or being hit by an object
- Repetitive motions, which may lead to injury
- Chemical exposures (inhalation, absorption, ingestion)
- Sources of high/low temperatures that could result in burns
- Dust sources
- Sources of light radiation (welding, high power lighting)
- Sharp objects
- Sources of rolling or pinch hazards
- Electrical hazards
- Biological hazards
- Dangerous machinery (power tools, material handling equipment)
- Environmental conditions, which may result in injury
- Elevated work surfaces where fall hazards exist
- Noise sources, which may expose worker to excessive sound levels

2.3.2 **Controlling Hazards**. Once specific hazards are identified for employees, it is the responsibility of the JHA author to evaluate each hazard and determine the appropriate control method. Facilities Management employs the following hierarchy of hazard controls to mitigate workplace hazards.

2.3.2.1 **Elimination/Substitution**: If the hazard can feasibly be removed from the workplace or can be substituted by a less hazardous operation, this is the first option. Elimination of the hazard ensures the

worker will not be exposed and the injury/illness risk is eliminated along with the hazard.

2.3.2.2 **Engineering Controls**: Utilizing design and engineering, the hazard is mitigated and does not present an exposure hazard to the employee. An example of engineering controls is the use of ventilation (fume hood, snorkel vent) to evacuate hazardous fumes, mists, or vapors from the workplace preventing inhalation by employees.

2.3.2.3 **Administrative Controls**: Administrative controls minimize the identified hazard by implementing specific standard operating procedures into the workplace. An example of an administrative control is worker rotation to prevent repetitive motion injuries.

2.3.2.4 **Personal Protective Equipment (PPE)**: The use of PPE is considered a last defense against workplace hazards. However, certain job duties require the use of PPE as the only measure of protection against a hazard. If PPE is the chosen method of protection, it must be selected, provided and utilized as outlined in this program.

2.3.3 **Personal Protective Equipment**. PPE must be selected to ensure an appropriate level of protection is provided to employees to protect them against known hazards in the workplace.

2.3.3.1 To properly select PPE, conduct and document a PPE assessment for each work task or job duty.

2.3.3.2 Select PPE appropriate for the hazard identified. PPE must comply with applicable American National Standards Institute (ANSI) requirements. When selecting PPE for protection against a job hazard, the following should be considered.

- **Eye and Face Protection**: Employees must be provided eye protection when there is a potential for eye/face injury from flying particles, toxic chemicals, thermal or radiation hazards, and lasers. PPE must be adequate to protect the worker from the hazard present and meet the ANSI Z87.1-1989 standard.
- **Hand Protection**: When there is a potential for cuts, lacerations, punctures, chemical/thermal burns, temperature extremes, biological/infectious materials, and absorption through the skin by chemicals, the employee must be provide appropriate hand protection to prevent injury. Hand protection must be selected according to the hazard present and shall afford the appropriate level of protection to the employee.
- **Foot Protection**: Employees working in areas where there is a danger of slipping, objects falling on or compression injuries, piercing the sole and where feet may be exposed to electrical or chemical hazard, the employer must provide foot protection. Foot protection shall provide adequate means of injury prevention from the hazards encountered in the workplace.
- **Body Protection**: Work duties presenting hazards, which may contact the employee's body, should be addressed through appropriate body protection. This may include chemically resistant aprons, disposable suits, lab coats, electrical safety clothing, and cut resistant materials. Protective body equipment must be selected to provide protection against the identified hazard.
- **Hearing Protection**: Workers exposed to excessive noise as part of their job duties may be required to wear hearing protection.
- **Respiratory Protection**: Workers exposed to respiratory/inhalation hazards may be required to wear a respiratory as a means of protection against the hazard. Any employee required to wear a respirator must follow the Facilities Management Respiratory Program.
- **Fall Protection**: Workers exposed to fall hazards shall comply with the Facilities Management Elevated Work and Fall Protection Program. A competent person, assigned under the Fall Protection Program must be involved in decisions related to fall hazards.

2.1.3.2 Once the appropriate PPE is selected, the employer/supervisor/EHS must properly communicate the

selection with the employees, provide the PPE to the employee free of charge, provide and document training, and ensure PPE is properly worn in the workplace.

- Training must be documented and provided to each affected employee to address proper PPE use, care and maintenance of PPE, and limitations of PPE.

2.3.4 **Training**: Once hazards are identified through the walkthrough survey and the hazard is mitigated through elimination, engineering controls, administrative controls, and/or the selection of PPE, all affected employees receive appropriate training relating to the hazards identified. Training can be provided through existing online resources or train-the-trainer for most circumstances.

3.0 Recordkeeping

3.1 Facilities Management Safety Officer retains records of all JHA's completed for identified job tasks by employees. JHA's conducted by supervisors or others in shops should forward to Safety Officer for approval and filing.

3.2 Training records are maintained by Facilities Management Human Resources and each shop for their employees.

3.3 Any new hazards or changes in operations resulting in additional workplace hazards should be documented through a formal JHA and maintained on file with the department and/or EHS