



## HAZARD ASSESSMENT AND CONTROLS

### PURPOSE

To provide a comprehensive breakdown of risks associated with the various job tasks at our workplaces, in order to educate and train our workforce on proper methods of control to eliminate or mitigate these risks.

### SCOPE

Applies to our three main locations which includes office operations, shop operations and field operations. Such assessments will cover our machinery, tools, work site conditions and work operations.

### STANDARDS / PROCEDURES

Job Task Hazard Assessment Forms and JSA (Job Safety Analysis) Forms shall be used to breakdown various job tasks with corresponding assessments on Risk Probability, Risk Severity, Risk Frequency and Risk Significance. Controls to eliminate or mitigate risks are also noted with the dates of training.

#### **Hazard Assessment Forms will be used to identify:**

Physical risks, Chemical risks, Biological risks, Ergonomic, Stress & Physiological, Machinery & Equipment, Energy risks, Material Handling and Jobsite risks.

In addition to general studies on risks, all project managers and crew foremen shall ensure specific JSA (Job Safety Analysis) studies are done for each project, prior to commencement of work. Such JSA studies will require the participation of the crew foreman and all members of the work crew.

### ROLES AND RESPONSIBILITIES

Through safety checklists and Job Safety Analysis studies, we will all take part in recognizing and assessing hazards at our workplaces. As a minimum the following shall occur:

### **Company Health & Safety Manager**

- Shall collect all required JSA assessments conducted for each project, review them, ensure follow up controls are adequate and that these control measures are taking place.

### **The Foreman and Crew Health & Safety Representative**

- The crew foreman and health & safety rep shall collaborate with his or her workers, to conduct a JSA (job safety analysis) study of the scope of work to be done, identify sequential steps, hazards, risk levels and the controls necessary to minimize or eliminate risks. Daily Reviews - The crew foreman and H&S Rep shall review the JSA document each day with the crew so as to determine whether there are any changes to risks based on changes to the work environment.

### **Project Manager**

- The project manager is responsible for ensuring that these JSA studies are being conducted on their projects.
- The project manager shall review the pre-job JSA assessments, in collaboration with the crew foreman to ensure all aspects of our work and project areas are checked for actual and potential risks.
- The project manager is also expected to conduct an LMRA – (Last Minute Risk Assessment), on a worker at least once for every project. The project manager shall assess a pass or fail to the worker during the LMRA assessment and retrain the worker if he or she fails to explain the JSA content sufficiently. Copies of these JSA studies shall be forward to the company health and safety coordinator for review and filing.

### **The Labour Safety Representative**

The labour safety representative is encouraged to conduct a daily walk around of the work area and report to the crew foreman, so any changes of risk can be discussed with the crew and recorded on the JSA document.

### **The Worker**

The worker shall notify his or her crew foreman of any hazards observed or recognized at the workplace, so corrective action can be taken by the foreman. Hazard reporting forms are available for record purposes.

The worker is also required to participate in all JSA studies related to the projects applicable.

### **Sub-Contractor Crew Foreman Job Task Safety Analysis Reviews**

The subcontractor foreman together with the crew workers shall also conduct a JSA (Job Safety Analysis) study of the scope of work to be done, identify hazards, risk levels and the controls necessary to minimize or eliminate risks. The foreman's workers involved in the task must be included in this JSA process so they can contribute their valuable input into the JSA and gain a better understanding of job risks and controls.

Hazards recognition and assessment policies will be communicated through "New Hire" safety program orientation sessions and through "Due Diligence" seminar and related safety courses.

## **TRAINING**

Training for inspection tasks will be provided to employees through safety talks, "Due Diligence" safety seminars and related safety courses offered. Any coaching or formal course event held by Pollard Enterprises Ltd. shall be recorded on an attendance roster and all training records shall be kept on file by the health and safety coordinator.

## **FORMS**

Task Hazard Assessment Forms and Job Safety Analysis Forms shall be used. Sample JSA Forms illustrated on the following pages along with our breakdown of risk classifications and assessments prepared by Pollard Enterprises Ltd. are included in this section.

## **HOW TO DO A HAZARD ASSESSMENT**

1. Select a job, occupation or common hazard. Ideally, you should start with an item that has been identified as a health and safety problem. For instance, jobs where accidents occur frequently or result in serious injuries should be a priority. Jobs in high hazard areas, such as where people work alone, where consequences of an accident are severe resulting in major injury or fatality, jobs where workers have voiced concerns, had work refusals or newly established jobs where there is a lack of experience in these jobs, hazards may not be evident or anticipated.
2. Break each task down into steps. Describe and list each step in sequence.
3. Identify the risk factors that may occur at each step. Beside each task, write down the materials, equipment, processes and environmental factors involved that could cause an accident or health effects. People factors may also be relevant. You also have a separate page on the JSA for listing tool, equipment, P.P.E. (personal protective equipment), required notification to authorities if needed, and disposal requirements.
4. Identify the hazards associated with each task/factor combination. Systematically go through every risk factor for every task, and consider what specific hazards might be involved.
5. Assess the hazard. Evaluate the degree of risk, that is, the extent to which the hazard is likely to cause loss of life, permanent disability or serious injury as well as the probability of occurrence. When considering health hazards, you can consider the number of persons exposed and the duration of exposure. Where there is exposure to hazardous chemical, biological or physical agents, you will need to include workplace and personal exposure monitoring to ensure that exposures do not exceed regulated or recommended limits.
6. Identify controls. Identify procedures or modifications needed to eliminate or control the hazards. This may require changes to people factors, equipment, materials, procedures, tools, systems or processes.
7. Validate the analysis. Implement the needed controls, and then validate the analysis by observing the task in operation. Make sure that new hazards have not been introduced and the risk of harm has been reduced or eliminated. Get feedback from the employees performing the job to see how the hazard controls work.

8. Evaluation. Assess the need to repeat the analysis. The hazard analysis document (JSA) should be reviewed daily by all crew members for any changes to risks. For example collateral work by another crew could pose risks, bad weather, poor surface conditions, etc.

**WHAT DO YOU DO ONCE YOU HAVE COMPLETED YOUR HAZARD ANALYSIS?**

Once you have validated your hazard controls, you need to develop safe work procedures if the degree of risk is considered “A” class. These procedures must be communicated to all employees who are or will be performing the job or task. A general hazard analysis for flat roofing is included in this policy manual.

**QUANTITATIVE RISK ASSESSMENT**

The aim of the risk assessment process is to remove a hazard or reduce the level of its risk by adding precautions or control measures, as necessary. Doing so creates a safer and healthier workplace. Risk analysis can be defined as the process of determining the likelihood of undesired events, harm or loss.

**Probability (likelihood to Occur)**

4	-	Probable (expected to happen at least once a year)
3	-	Occasional (will happen once every 1 to 5 years)
2	-	Remote (not likely to happen, but possible once every 5 to 20 years)
1	-	Improbable (not likely to happen)

**Severity**

4	-	Catastrophic (death, serious injury/illness, permanent disability; extensive property damage)
3	-	Critical (lost time injury/illness, temporary disability; considerable property damage)
2	-	Marginal (medical aid injury, minor illness; minor property damage)
1	-	Negligible (first aid injury; limited property damage)

**Frequency of Exposure (to the hazard)**

4	-	One or more times a day
3	-	At least once a week
2	-	At least once a month
1	-	Less than once a month

The team analyzes each identified hazard using their experience, related data/information, training, knowledge of the work site and existing protective measures to assign a realistic point value for each of the three risk factors.

Next, the degree of risk is determined by multiplying the values of the three factors together as per the formula below: EXAMPLE

Severity	x	Frequency of Exposure	x	Incident Probability	=	Degree of Risk
4	x	3	x	4	=	48

After the risk analysis has been done, hazards are classified as high, medium, or low risk to establish priorities for action.

Degree of Risk

Risk Classification/Action

32 to 64

**High Risk = A** - Take immediate action; eliminate the risk or implement appropriate controls to lower the degree or risk to a level as low as reasonably achievable. Develop Safe Job Procedures.

12 to 27

**Medium Risk = B** - Take timely action; implement appropriate controls to lower or minimize the degree of risk.

1 to 9

**Low Risk = C** - Continued operation is permissible with minimal controls; monitor the hazard and take action if the degree of risk increases.

Risk Threshold:

The risk threshold is “low risk- medium risk”. A “high risk” level EXCEEDS the acceptable risk threshold and **Pollard Enterprises Ltd.** will develop Safe Job Procedures for any Work that EXCEEDS this level.