

# IMPERIUM

Imperium Contracting & Project Management

## Construction Health & Safety Manual

2019

# Preface

Imperium Contracting & Project Management Inc. Health and Safety Manual documents the company's safety policies and practices. Employees must familiarize themselves, not only with the contents of this manual, but also with all of the rules and regulations of the Province as this manual does not cover every Provincial, Federal, Municipal or Owner regulation, act or rule. Where the Act, Regulation or Rule is more stringent than that provided in this manual, you must operate under the most stringent guideline.

Working safely must be everyone's primary objective and responsibility as production and safety are equal partners.

Imperium Contracting & Project Management Inc. promotes safety by encouraging safe personal habits and practises, by promoting safety awareness and by constant supervision of the work site. By including safety consideration in their planning, management maximizes their employee's personal safety, minimizes property damage and avoids loss of production.

Safety performance improves by instructing personnel in all aspect of safe work practice, by ensuring adequate maintenance of tools and equipment, by eliminating unsafe conditions and by actively enforcing compliance with company policy and procedures.

Thorough and timely training ensures knowledgeable workers are on the job site and area aware of the possible hazards. In addition, training ensures employees work with safety in mind and respond correctly during emergencies.

Remember, Government Regulations are Law. Imperium Contracting & Project Management Inc. safety policies, procedures and practises meet or exceed current Federal and Provincial Occupational Health and Safety requirements. Should the company or its employees fail to comply with the regulation, the officers of the company, supervisors and/or workers may be held accountable and ultimately prosecuted.

Note: wherever the term "he" is used in this document, interpret as "he/she"

# **Table of Contents**

## **0.0 Policy – Program**

### **0.1 Policy Statement**

### **0.2 Introduction**

### **0.3 Assignment of Responsibility**

0.3.1 Executive Management

0.3.2 Supervisor

0.3.3 Employees

0.3.4 Subcontractor

0.3.5 Safety Consultant

0.3.6 First Aid Personnel

0.3.7 Visitors

### **0.4 Violence in the Workplace**

0.4.1 Policy

0.4.2 Purpose

0.4.3 Scope

0.4.4 Responsibility

0.4.4.1 Employees

0.4.4.2 Supervisors

0.4.5 Definitions

0.4.6 Procedure

### **0.5 Harassment**

0.5.1 Policy

0.5.2 Purpose

0.5.3 Scope

0.5.4 Responsibility

0.5.5 Definition

0.5.6 Investigation

0.5.7 Discipline

**0.6 Workplace Hazardous Information System (WHMIS)**

0.6.1 Policy

0.6.2 Training

0.6.3 Safe Handling

0.6.4 Route of Entry

0.6.5 Effects of Exposure

0.6.6 Exposure Limits

0.6.7 WHMIS Classification Symbols

0.6.8 Labels

0.6.8.1 Supplier labels

0.6.8.2 Workplace Labels

0.6.9 Material Safety Data Sheets

0.6.9.1 Employer Responsibility

0.6.9.2 Required Information on MSDS

0.6.9.3 Chemical Inventories

**0.7 Right to Refuse Unsafe Work**

0.7.1 Refusal to Work

0.7.2 Refusal Procedure

0.7.3 Refusal to Work following Original Investigation

**0.8 Employer No Reprisal**

**0.9 Personal Conduct**

0.9.1 Alcohol

0.9.2 Drugs

0.9.3 Prescription Drugs

0.9.4 Weapons

**0.10 Joint Health and Safety Committee**

0.10.1 Policy

0.10.2 Function

**0.11 Discipline**

0.11.1 Policy

0.11.2 Minor Offence

0.11.3 Major Offence

**0.12 Job Hazard Analysis**

0.12.1 Methods- Hazard Assessment

0.12.2 Daily Tailgate

**0.13 Early and Safe Return to Work**

0.13.1 Policy

0.13.2 Definition

0.13.3 Employer Will

0.13.4 Worker Will

0.13.5 Goal

0.13.6 Accommodation

**0.14 Definition of Terms**

**1.0 Meetings**

**1.1 Safety Meetings**

## **2.0 Personal Protective Equipment (PPE)**

### **2.1 Policy**

### **2.2 Practice**

#### 2.2.1 Eye Protection

##### 2.2.1.1 Table Eye Protection Standards

#### 2.2.2 Hearing Protection

#### 2.2.3 Head Protection

#### 2.2.4 Foot Wear

#### 2.2.5 Respiratory Protection

#### 2.2.6 Work Wear

#### 2.2.7 Safety Visibility Vests

### **2.3 General Information**

#### 2.3.1 Footwear

#### 2.3.2 Safety Belts, Lanyards and Lifeline

#### 2.3.3 Limb and Body Protection

#### 2.3.4 Hand PPE

#### 2.3.5 Respiratory Protective Equipment

#### 2.3.6 Eye and Face Protection

#### 2.3.7 Hearing Protection

#### 2.3.8 Head Protection

## **3.0 Safe Work Practices**

### **3.1 Hygiene Facilities**

#### 3.1.1 Drinking Water

#### 3.1.2 Toilet Facilities

#### 3.1.3 Clean-up Facilities

## **3.2 Housekeeping**

3.2.1 Storage

3.2.2 Flammable Materials

3.2.3 Hazardous Chemicals

3.2.4 Bags and Sacks

3.2.5 Compressed Gas Cylinders

3.2.6 Lumber

## **3.3 Fire Safety**

3.3.1 Types of Fire

## **3.4 Access and Egress**

## **3.5 Use of Portable Ladders**

## **3.6 Use of Stepladders**

## **3.7 Use of Explosive/Powder Actuated Fastening Tools**

## **3.8 Use of Propane**

## **3.9 Use of Tiger Torches**

## **3.10 Welding, Cutting and Burning**

## **3.11 Use of Portable Arc Welders**

## **3.12 Grinding**

## **3.13 Use of Portable Grinders**

## **3.14 Use of Chainsaws**

## **3.15 Use of Compressed Air**

## **3.16 Defective Tools**

## **3.17 Welding Fumes**

## **3.18 Gas Cylinders**

## **3.19 Use of Work Scaffold**

## **3.20 Use of Metal Scaffolds**

## **3.21 Elevated Work Platforms**

### **3.22 Proper Lifting Practices- Hoisting**

3.22.1 Elevating the Load

3.22.2 Balance the Load

3.22.3 Landing the Load

### **3.23 Rigging**

### **3.24 Attaching Cable Clips and Clamping Wire Rope**

### **3.25 Electrical Hazards**

### **3.26 Demolition**

### **3.27 Use of Hand-Held Power Circular Saws**

### **3.28 Excavating and Trenching**

3.28.1 Utilities

3.28.2 Cave-ins

3.28.3 Sloping Requirements

3.28.4 Falling Objects

### **3.29 Fall Protection**

3.29.1 Working from Scaffolds

3.29.2 Working from Ladders

3.29.3 Working from Swing Stages

3.29.4 Working beside Unprotected Openings and Edges

3.29.5 Full Body Harness, Lanyards, Shock Absorbers

3.29.6 Lifelines

3.29.7 Rope grabbing Devices

### **3.30 Forklifts**

### **3.31 Guardrail**

### **3.32 Material Handling and Storage**

3.32.1 Storage Areas

3.32.2 Storage of Flammable Materials

3.32.3 Storage of Hazardous Chemicals

3.32.4 Back Care

### **3.33 Working Alone**

### **3.34 Working with Cement**

3.34.1 Dry Cement

3.34.2 Wet Cement

3.34.3 Silica

3.34.4 Personal Protective Equipment

3.34.5 Proper Practices

### **3.35 Heat and Cold Stress**

3.35.1 Heat Stress

3.35.2 Heat Stress Symptoms

3.35.3 Cold Stress

## **4.0 Safe Work Procedures**

### **4.1 Hiring Procedure**

### **4.2 Safety Checklist – Yard Set Up**

4.2.1 Fuel Storage

4.2.2 Bottle Storage

4.2.3 Traffic Control

4.2.4 Hazard Warning

### **4.3 Hand Location of Foreign Utilities**

### **4.4 Safe Lock Out Procedure**

4.4.1 Introduction

4.4.2 Objectives

4.4.3 Procedure to Interrupt and Lock Out Energy

4.4.4 Special Precautions

4.4.5 Removing Safety Locks

4.4.6 Training and Review

4.4.7 Equivalency

4.4.8 Safe Lockout Procedure

4.4.9 Definitions

**4.5 Procedure for Rescue of a Worker Suspended in a Safety Harness**

4.5.1 General Rescue Procedures

**4.6 Proper Lifting Procedures – Manual Lifting**

**4.7 Procedures When Working in Hot Humid Conditions**

**5.0 Safety Rules**

**5.1 Equipment Operation and Maintenance**

**5.2 Excavation**

**5.3 Power Lines**

**5.4 Compressed Air**

**5.5 Gas Powered Equipment**

**5.6 Backfilling**

**6.0 Maintenance Program**

**6.1 Policy**

**6.2 Program**

6.2.1 Manufactures Specification

6.2.2 Regulations

6.2.3 Standards

6.2.4 Equipment Inventories

6.2.5 Scheduling

6.2.6 Qualifications

6.2.7 Documentation

6.2.8 Monitoring

- 7.0 Training**
  - 7.1 Policy**
  - 7.2 Employee Orientation**
  - 7.3 Project Safety Orientation Outline (Employee)**
    - 7.3.1 Objectives
    - 7.3.2 Practices
  - 7.4 Project Safety Seminar Outline (Supervisor)**
    - 7.4.1 Objectives
    - 7.4.2 Practice
  
- 8.0 Accident/ Incident Reporting and Investigation**
  - 8.1 Policy**
  
- 9.0 Inspections**
  - 9.1 Policy**
  
- 10.0 Crisis Communication/Emergency Response**
  - 10.1 Overview**
    - 10.1.1 Objective
    - 10.1.2 Crisis Communication Protocol
    - 10.1.3 Dealing with Media
  - 10.2 Industrial Accident**
    - 10.2.1 Action
    - 10.2.2 Reporting
  - 10.3 Gas Emergency**
    - 10.3.1 Action
    - 10.3.2 Reporting
  - 10.4 Emergency Response Plan**

**10.5 First Aid**

10.5.1 Bleeding

10.5.2 Electrical Shock

10.5.3 Emergency Breathing

**10.6 Medical Emergency**

**10.7 Project Emergency Response Plan**

10.7.1 Gather Information

10.7.2 Notify Appropriate Emergency Services

10.7.3 Report

## **Appendix**

- Appendix 1 – Weekly Inspection
- Appendix 2 – First aid Log Sheet
- Appendix 3 – First Aid Kit Inspection
- Appendix 4 – Sign in Sheet
- Appendix 5 – Violence Incident Form
- Appendix 6 – Violence in the Workplace Job Hazard Analysis
- Appendix 7 – Violence in the workplace Investigation Checklist
- Appendix 8 – Violence in the Workplace Assessment
- Appendix 9 – Employee Assessment
- Appendix 10 – Supplier Label
- Appendix 11 – Workplace Label
- Appendix 12 – Right to Refuse Chart
- Appendix 13 – JHSC Meeting Minuets
- Appendix 14 – Recommendations to the Employer
- Appendix 15– Corrective Action Form
- Appendix 16 – Sample Job Hazard Analysis
- Appendix 17 – Daily Tailgate
- Appendix 18- Accident/Incident Investigation Form
- Appendix 19 – Fall Arrest Checklist
- Appendix 20 – Monthly Fire Inspection
- Appendix 21 – Pre-Start Checklist
- Appendix 22 – Elevated Work Platform Checklist
- Appendix 23 - Lockout Test
- Appendix 24 – Training Sheet
- Appendix 25 – Emergency Contact Form

# Policy - Program

## 1.1 Policy Statement

Imperium Contracting & Project Management Inc. is committed to providing a safe work environment for its employees and the public by setting up and maintaining a Health and Safety Program. It is Company policy to support, maintain and integrate this program with operational activities in order to achieve organizational excellence. To succeed, all levels of the organization must cooperate.

The Company insists on giving the highest priority to safety, as a safe workplace is essential to the attainment of operational objectives, good employee and government relations. To this end, it is the policy of Imperium Contracting & Project Management Inc. to meet or exceed the requirements imposed by all levels of government regulation, act or rule. However, the challenge is to create a team of safety-minded individuals.

Management must not only promote and demonstrate sound safety practices and procedures but also must ensure employees understand their responsibility to work safely. In addition, we must provide education, training and corrective action necessary to ensure employees perform their tasks safely. Both managers and employees are accountable for their decisions, actions and results. Imperium Contracting & Project Management Inc. is a strong advocate of the Internal Responsibility System (IRS). Participation of both workers and management with equal powers to act on health and safety matters is crucial. Together we must strive to ensure the activities of Imperium Contracting & Project Management Inc. are in compliance with Federal, Provincial and local Safety Regulations.

All employees, subcontractors and visitors on the work site must follow all safety rules and regulations. Workers are to do their tasks in a way that does not endanger the health, safety or property of themselves or others. The effective execution of our Health and Safety Program will not only make our company a desirable one to work for but also a competitive one within our industry.

Remember: No job should be considered so urgent that time and care cannot be taken to do the work safely.

Finally, although this manual documents Company Health and Safety policies, practices and procedures, it does not take precedence over Occupational Health and Safety Regulations nor any other government regulation, act or rule.

---

Owner/ President

---

Date

## 1.2 **Introduction**

### **ACCIDENT PREVENTION PROGRAM**

The success of the Accident Prevention Program depends on the sincere, constant and cooperative efforts of all employees. Your active participation and support is required.

We expect that all employees will maintain and impart a safety conscious attitude for all aspects of our operations. To assist employees with these duties, we have prepared a manual, which addresses many situations. It should be noted however, that Federal and Provincial Regulations shall be met as a minimum requirement. It must be emphasized that such a manual cannot possibly cover every situation at each work site. Contact management or safety personnel for additional information if required.

Day to day monitoring of the companies Safety Policy and Safety Program will be the responsibility of the Supervisor who will report directly to senior management.

A Health and Safety Review will be done annually. This will provide an indication how Imperium's H & S compares to similar contractors, as well as, a year-over-year internal comparison.

All Supervisors are to be tracked and graded on their safety performance.

Subcontractors shall adhere to Company Safety Program, Rules, and Regulations and shall be assessed for rehire based on performance and compliance.

## **1.3 Assignment of Responsibility for Safety**

### **1.3.1 *Executive Management***

- Provide a Policy Statement relating to the safety program. The statement provides a philosophy and commitment that set levels of expectations for safety performance.
- Maintain overall control for safety and Loss Prevention Program.
- Ensure established safety policies are administered and enforced.
- Ensure that field operations personnel are aware of and practice policies and procedures set out in the Safety Program.

### **1.3.2 *Supervisors/Foreman/Project Managers/Superintendents***

- To know and apply Imperium Contracting & Project Management Inc.'s Safety Policy and relevant Occupational Health and Safety legislation and ensure rules and practices are in compliance.
- To ensure that all employees work in a safe manner and use all protective devices and procedures required by Imperium Contracting & Project Management Inc. in accordance with legislation, to protect their health and safety.
- To advise all employees of any potential or actual dangers and how to isolate, prevent, or remove them.
- To arrange for medical treatment as required, in the case of injury or illness including transportation to a doctor or hospital as necessary.
- To report all accidents immediately, to investigate all accidents fully, and to advise management on how to prevent similar accidents in the future.
- To carry out regular inspections of the work place to ensure a safe and healthy environment. **Appendix 1** "Weekly Inspection Form"
- To take every reasonable precaution to protect the safety of other workers and himself/herself.

### **1.3.3 *Employees***

- To read, understand, and comply with Imperium Contracting & Project Management Inc.'s Safety Policy, Safe Work Practices, Procedures, and Rules.
- To wear all personal protective equipment (PPE) as required by Federal and Provincial regulation and his/her employer.
- To notify his/her Supervisor of any unsafe conditions or acts that may

- be of danger to other workers or himself/herself.
- To report all accidents and injuries to his/her supervisor as soon as possible.
  - To take every reasonable precaution to protect the safety of other workers and himself/herself.

#### **1.3.4 Subcontractors**

Subcontractors are required to actively participate in the site safety program and adhere to all rules and regulations that govern the workplace which include Imperium Contracting & Project Management Inc.'s Safety Manual and all the requirements contained in the Client's Principle Contract.

Subcontractors are selected with regard to their safety performance as demonstrated by past history and current level of safety.

#### **1.3.5 Safety Personnel**

- a) Responsible for administration of Safety Program on site.
- b) Post all Safety bulletins, Safety posters and Safety rules and regulations.
- c) Assist project Supervisors/Superintendent(s) in accident investigations, analysis and preparation of accident reports and summaries.
- d) Ensure pertinent safety reports are submitted as required.
- e) Maintain WSIB files
- f) Assist with Safety seminars or training.
- g) Maintain current knowledge of Safety literature, regulations and codes or practice
- h) Establish schedules of inspection.
- i) Review the accident reports to keep informed about the project and company safety procedures.

#### **1.3.6 First Aid Personnel**

For all jobs, the Supervisor/Superintendent will appoint adequate person(s) to provide such first aid services as may be required given the nature of the job-site and government regulations. The person(s) appointed to this position shall possess an appropriate Certificate in First Aid in accordance with the relevant Occupational Health and Safety Regulations and must be available at all times to administer first aid.

- a) Administer first aid as required.
- b) Maintain a first aid log.  
**Appendix 2** "First Aid Log"  
**Appendix 3** "First Aid Kit Inspection"
- c) Requisition all first aid supplies and equipment.
- d) Maintain relations with physicians, ambulance services and hospitals.
- e) Coordinate the transportation of injured employees to a physician's office or hospital.
- f) Assist Safety Personnel when necessary.

### **1.3.7 Visitors**

- a) All visitors must sign in with the office (trailer) at the time they arrive and sign out when they leave. **Appendix 4** "Sign in Sheet"
- b) Visitors must read and abide by Imperium Contracting & Project Management Inc. Health and Safety policy and procedures.
- c) Appropriate Personal Protective Equipment must be worn while on site.
- d) Visitors must be under direct supervision of a Imperium Contracting & Project Management Inc. employee (preferably a supervisor) at all times while on premise.
- e) Employees off duty are considered visitors and must sign in.
- f) The general public is not permitted on site at any time and must be escorted of the premises immediately.
- g) Visitors include delivery personnel, Subcontractor, Suppliers etc...

## 1.4 Workplace Violence

### 1.41 **Policy**

Imperium Contracting & Project Management Inc. does not tolerate violence or unacceptable behaviour in the workplace perpetrated by or against employees, customers, clients, or third parties. In the event of a violent incident or unacceptable behaviour perpetrated by an employee, Imperium Contracting & Project Management Inc. will act to severely discipline the employee, up to and including discharge for cause.

Imperium Contracting & Project Management Inc. shall establish programs and procedures to assess and reduce the risk of violence and unacceptable behavior in the workplace. All employees are expected to be aware of and participate in such program, as required.

A copy of this policy shall be provided to each new employee as part of the employee's hiring documentation. Additionally, this policy shall be posted and remain posted on all workplace bulletin boards.

This policy shall be reviewed after any serious incident or at minimum annually, whichever is earlier.

---

Owner/ President

---

Date

### 1.4.2 **Purpose**

The purpose of this policy is to establish procedures to minimize and/or prevent violence and unacceptable behaviour in the workplace and to foster the safety and security of Imperium Contracting & Project Management Inc. employees, customers, and visitors to our worksites.

### 1.4.3 **Scope**

This policy applies to all employees and visitors to Imperium Contracting & Project Management Inc.

#### **1.4.4 Responsibilities**

##### **1.4.4.1 Employees**

Employees are responsible for informing their supervisors of any violence, potential risk of violence, or unacceptable behaviour they may experience or witness. This includes issues in the employee's non-work life that may impact on the employee's or his or her co-worker's safety.

Employees are responsible for reporting to their supervisors any incidents of violence or close calls, according to the procedures set out in this policy.

Employees are responsible for attending any training or information sessions provided by the employer to reduce violence or risk of violence.

Employees are expected to co-operate with the police, company investigators or other authorities as required during any investigation related to workplace violence.

##### **1.4.4.2 Supervisors**

Supervisors are responsible for assessing the risk of violence to the employees in their jurisdiction, minimizing those risks where necessary or reasonably possible, and informing any affected employee of such risk. **Appendix 9**

Supervisors are responsible for ensuring employees are trained to:

1. Recognize the potential for violence;
2. Follow the procedures and policies developed to minimize risk;
3. Respond to incidents appropriately; and
4. Report and document such incidents.

Supervisors are responsible for tracking and reporting risks of violence, incidence of violence, and close calls to management and the Joint Health and Safety Committee, according to the time lines set out in the procedures. The Violent Incident Report Form shown in **Appendix 5** to this policy is used for this purpose.

Supervisors are responsible for ensuring proper medical care is provided for anyone involved in an incident and for securing the safety of employees, before investigating the incident or taking reports.

Supervisors are responsible for co-operating with the police, company investigators or other authorities, as required during any investigation related to workplace violence.

#### 1.4.5 Definitions

**“Violence”** means unacceptable behaviour as defined in its definition below and includes any incident in which there is:

The exercise of physical force by a person against an employee, in the workplace, that causes or could cause physical injury to the employee,

An attempt to exercise physical force against an employee, in a workplace, that could cause physical injury to the employee,

A statement of behaviour that it is reasonable for an employee to interpret as a threat to exercise physical force against the employee, in a workplace, that could cause physical injury to the employee.

An attempt to threaten or assault a client or visitor to the workplace while on company premises; or

An attempt by an employee to threaten or assault a client, co-worker or other individual in circumstances relating to the employee's execution of his or her duties, whether on or off company premises.

**“Workplace”** means in or on the property of Imperium Contracting & Project Management Inc., or away from Imperium Contracting & Project Management Inc. property if the employee is engaged in work-related activities.

**“Unacceptable behaviour”** means physically or psychologically aggressive behaviours including but not limited to:

- Hitting, kicking, punching, shoving, slapping, pinching, grabbing, biting
- Carrying or brandishing weapons of any sort
- Throwing objects at an individual with a view to cause physical injury or fear
- Destruction of workplace or co-workers property
- Intimidating behaviour that causes the recipient to have a fear of physical violence
- Obscene or harassing telephone calls.

**“Close Calls”** means incidents which did not result in actual physical harm but, except for circumstances, had the potential to result in physical harm.

**“Minor Incident”** means an incident in which no one is physically harmed in any way and which was resolved through employee or Supervisor mediation.

**“Serious Incident”** means an incident in which someone was physically harmed (whether requiring medical attention or not), or which continued or escalated after Supervisory mediation.

#### **1.4.6 Procedure**

The Manager/Owner shall initiate a process to involve Supervisors, employees and the Joint Health and Safety Committee in assessing the risk of violence in the department and work environment on a periodic basis. The process shall include taking action to remove many risks as can be reasonably removed and instructing employees to recognize risk. The assessment shall be reviewed at least annually.

#### **Appendix 6** “Violence in the workplace Job Hazard Analysis”

Each and every incident of violence in the workplace shall be reported immediately to the Supervisor. The Supervisor shall investigate the incident immediately.

The “Violent Incident Investigation Checklist” shown in **Appendix 7** may be used to ensure proper investigation of any reported violent incident.

1. The Supervisor shall immediately make the appropriate inquiries of the victim and/or witnesses to determine if the incident is minor or serious.
2. If the incident is minor:
  - a. The Supervisor will determine if mediation is appropriate and if so, mediate or arrange for mediation of the situation;
  - b. Conduct the appropriate investigation immediately; and
  - c. Within twenty-four (24) hours, write a report outlining the details, facts and witnesses of the incident and submit the report to Senior Management and the Joint Health and Safety Committee
  - d. If the assailant is an employee, the Supervisor shall apply appropriate disciplinary measures based on the fact of the incident and the assailant's employment record.
3. If the incident is serious:
  - a. The Supervisor must first ensure the safety of employees and him/herself;
  - b. Ensure proper medical treatment is provided or sent for;
  - c. Contact the authorities as soon as possible, (Police or Ministry of Labour, where appropriate), to report the incident;
  - d. Contact the Senior Manager and Joint Health and Safety Committee or Health and Safety Representative, as appropriate, as soon as possible, to assess who should be involved in the investigation;

- e. Conduct a thorough investigation, keeping detailed notes of facts, times, witnesses, and witness accounts;
  - f. Within twenty-four (24) hours after the completion of the investigation write and submit a detailed report of the incident to the Joint Health and Safety Committee and the Senior Manager, and any other parties required by law.
  - g. Consult with Senior Management regarding any disciplinary actions to be applied.
4. If the incident involves a fatality or results in an individual being admitted to the hospital for more than two (2) days; or involves an unplanned or uncontrolled explosion, fire or flood that causes a serious injury or that has potential of causing serious injury,
- a. The area where the incident occurred must be sealed and not disturbed except in so far as is necessary to attend to persons injured or killed, or to prevent further injuries;
  - b. The Senior Manager shall immediately notify the Ministry Of Labour Inspector and/or other authorities, as necessary, of the time, place and nature of the incident.
- The sealed area must remain sealed unless otherwise directed by the MOL Inspector, an O.H. & S officer or peace officer.

A Supervisor shall advise an employee to consult a health professional of the employee's choice for treatment or referral if the employee reports injury or adverse symptom resulting from workplace violence or is exposed to workplace violence.

The individual responsible for documenting newly hired employees shall ensure a copy of this policy is provided to and reviewed with each new employee during that employee's documentation process.

**Appendix 8** "Violence in the Workplace Assessment"

**Appendix 9** "Employee Assessment – Violence in the Workplace"

## **1.5 Workplace Harassment**

### **1.5.1 Policy**

Imperium Contracting & Project Management Inc. believes in providing and maintaining a work environment in which all employees are free from workplace harassment, sexual harassment and discrimination. Such actions are not tolerated and where possible, are to be redressed.

Retaliation or reprisals are prohibited against any employee who has complained under this Policy and Procedure, or has provided information regarding a complaint. Any retaliation or reprisals are subject to immediate corrective action, up to and including termination. Alleged retaliation or reprisals are subject to the same complaint procedures and penalties as complaint of discrimination and harassment.

Imperium Contracting & Project Management Inc. recognizes that individuals may find it difficult to come forward with a complaint under this Policy and Procedure because of concerns of confidentiality. Therefore, all complaints concerning workplace or sexual harassment or discrimination, as well as the names of parties involved, shall be treated as confidential. Imperium Contracting & Project Management Inc. obligation to conduct an investigation into the alleged complaint will be maintained on the personal file of the complainant. If there is a finding of improper conduct that results in disciplinary action, it will be reflected only on the file of the person who is engaged in such conduct, in the same way as any other disciplinary action.

### **1.5.2 Purpose**

This Policy and Procedures outlines the procedures to be followed regarding workplace and sexual harassment and discrimination so that employees reporting alleged incidents will know the matter will be treated confidentially and may be reported without fear of retaliation or reprisal.

An employee who becomes aware of situations where discrimination or harassment may be occurring is requested to notify his/ her manager, the Senior Manager or to any persons designated by the company to deal with harassment complaints.

### **1.5.3 Scope**

This Policy and Procedure applies to all employees  
This Policy and Procedure applies not only during working time, but to any activities on or off company premises which could reasonably be associated with the workplace (E.g. social events).

#### **1.5.4 Responsibility**

All employees, and particularly employees in the management or Supervisory positions, are responsible for ensuring discrimination and harassment is not tolerated and, where possible are redressed.

Employees are requested to report promptly when they become aware of, or hear of, alleged actions or complaints of discrimination or harassment.

Managers/Supervisors are responsible for providing a work environment that is free from discrimination and harassment. This responsibility includes actively promoting a positive, harassment-free work environment and intervening when problems occur. Additionally managers/supervisors are responsible for dealing with inappropriate actions of others that come to their attention.

#### **1.5.5 Definitions**

**“Workplace”** means anyplace where business or work related activities are conducted. It includes, but is not limited to, the physical work premises (offices or work sites), work-related social functions (parties, golf games, etc.) or assignments outside Imperium Contracting & Project Management Inc. offices, worksite or plants, work-related travel, work-related conferences or training sessions.

**“Harassment”** means engaging in a course of vexatious comment or conduct against a worker that is known, or ought reasonably to be known, to be unwelcome. It may include unwelcome, unwanted, offensive, or objectionable conduct that may have the effect of creating an intimidating, hostile or offensive work environment; interfering with an individual's work performance; adversely affecting an individual's employment relationship; and/or denying an individual dignity and respect. Harassment may result from one incident or a series of incidents. It may be directed at specific individuals or groups.

#### **1.5.6 Investigation**

Formal complaints shall be investigated. The investigation process shall involve interviews of the complainant, the respondents and any witness named by either party. Within fourteen (14) working days of the incident or notice thereof, management/Supervisor shall investigate the incident and prepare a written report of the investigation findings. The report shall be provided along with recommendations, if any to the Senior Manager for action.

All complaints shall be handled in a confidential manner. Information concerning a complaint, or action taken as a result of the investigation, will not be released to anyone who is not involved with the investigation.

### **1.5.7 Discipline**

Disciplinary action for violations of the Policy and Procedures will take into consideration the nature and impact of the violations, and may include a verbal or written reprimand, suspension (with or without pay) or termination (with or without notice). Similarly, deliberate false accusations are of equally serious nature and will also result in disciplinary action up to and including termination. Note, however, that an unproven allegation does not mean that harassment did not occur or that there was deliberate false allegation. It simply means that there is insufficient evidentiary basis to proceed or that while the complainant may have genuinely had reason to believe that there was harassment, investigation has not borne out the complaint.

## **1.6 Workplace Hazardous Information System (WHIMS)**

### **1.6.1 Policy**

All employees will be WHMIS trained and tested. Training will be provided as new products are introduced, and a general updating on new and old products will be done annually.

### **1.6.2 Training**

Training will include:

- a) Safe handling of workplace chemicals.
- b) WHMIS Hazard Classification Information/Symbols
- c) WHMIS labels and an understanding of how to read them
- d) MSDS (Material Safety Data Sheets)

### **1.6.3 Safe Handling**

#### *General*

Safe handling procedures for hazardous materials differ between all chemicals. The MSDS sheets must be referred to determine proper procedures for each chemical prior to the use of the chemical, or speak directly to the Manager/Supervisor.

While working with chemicals the proper Personal Protective Equipment (PPE) must be worn to reduce the chances of being overexposed to any chemical.

Proper PPE consists of but is not limited to,

- Gloves
- Masks
- Glasses
- Hats
- Fall Protection

#### **1.6.4 Route of Entry**

Chemical can enter the body four ways

- a) **Inhalation:** Chemical can enter the body by breathing in dust particles, fumes, smoke, mist, vapors or gases.
- b) **Absorption:** Chemicals can enter the body through the skin if the skin is exposed to the chemical.
- c) **Injection:** chemicals can enter the body through scrapes or punctures.
- d) **Ingestion:** chemical can enter the body by being swallowed- example: eating without washing hands chemicals can be transferred from your hands to the food being consumed thus swallowing the chemical.

#### **1.6.5 Effects of Exposure**

##### **Two Effects of Exposure**

- a) **Acute Exposure:** describes the health effects experienced immediately or within 24 hours of exposure (acute effects). For example a strong dose of carbon monoxide may cause dizziness, coma or even death.
- b) **Chronic Exposure:** Describes the health effects resulting from repeated low-level exposure to the material over long periods. For example, exposure to low doses of asbestos over many years may eventually cause asbestosis or lung cancer.

#### **1.6.6. Exposure Limits**

The exposure limits that may be given are:

- Time-Weighted Average Exposure Value (TWAEV)
- Short-Term Exposure Values (STEV)
- Ceiling Exposure Value (CEV)

### 1.6.7 WHMIS Hazard Classification Information Symbols



#### **CLASS A: COMPRESSED GAS**

This class includes compressed gases, dissolved gases, and gases liquefied by compression or refrigeration.



#### **CLASS B: FLAMMABLE AND COMBUSTIBLE MATERIAL**

This class includes solids, liquids, and gases capable of catching fire in the presence of a spark or open flame under normal working conditions.



#### **CLASS C: OXIDIZING MATERIAL**

These materials increase the risk of fire if they come in contact with flammable or combustible materials.



#### **CLASS D: POISONOUS AND INFECTIOUS MATERIAL**

##### **Division 1: Materials Causing Immediate and Serious**

**Toxic Effects:** These materials can cause death or immediate injury when a person is exposed to small amounts. Examples: sodium cyanide, hydrogen sulphide



#### **CLASS D: POISONOUS AND INFECTIOUS MATERIAL**

##### **Division 2: Materials Causing Other Toxic EFFECTS**

These materials can cause life-threatening and serious long-term health problems as well as less severe but immediate reactions in a person who is repeatedly exposed to small amounts.



## **CLASS D: POISONOUS AND INFECTIOUS MATERIAL**

### **Division 3: Bio hazardous Infectious MATERIAL**

These materials contain harmful micro-organisms that have been classified into Risk Groups 2, 3, and 4 as determined by the World Health Organization (WHO) or the Medical Research Council of Canada.



## **CLASS E: CORROSIVE MATERIAL**

This class includes caustic and acid materials that can destroy the skin or eat through metals. Examples: sodium hydroxide, hydrochloric acid, nitric acid



## **CLASS F: DANGEROUSLY REACTIVE MATERIAL**

These products may self-react dangerously (for example, they may explode) upon standing or when exposed to physical shock or to increased pressure or temperature, or they emit toxic gases when exposed to water.

### 1.6.8 Labels

#### *General*

WHMIS Labels are the first and most basic form of the information delivery system of WHMIS hazard warning to employees. They are easily recognized, and they appear on the containers of a controlled product to provide basic information about the risks associated with the use of the material inside the container.

Labels also direct the reader of the label to the MSDS (which is the second element in the information delivery system).

#### **WHMIS requires two types of labels**

- Supplier label
- Workplace label

#### 1.6.8.1 Supplier labels

##### *General*

The supplier label is required to be applied to all containers of hazardous materials with a volume of more than 100 milliliters.

Supplier labels are required on all chemicals delivered to the workplace.

Supplier labels are located on each individual chemical bottle

Requirements for Full Supplier Labels are:

- Product Identifier:** name of the product.
- Hazardous Symbol:** one or more of the eight hazard symbols.
- Risk Phrases:** description of the effect which may result from exposure, example dangerous of inhaled.
- Precautionary Measures:** specific information about what precautions to take to avoid risk associated with the product. For example: wear rubber gloves.
- First Aid Measures:** description on how to treat a person who has been overexposed to the product. For example, wash affected area under running water.
- MSDS Statement:** statement that an MSDS is available for the product.

g) **Supplier Identifier:** name and address of the supplier,

h) **Distinctive Hatched Boarder:**

**Appendix 10** "Supplier Label"

### **1.6.8.2 Workplace Labels**

*General*

#### **Conditions under which workplace labels are required**

- a) When a controlled product is produced in the employer's workplace.
- b) When a controlled product is transferred from an original supplier container into a workplace container that will be used by more than one worker or that will be left unattended.
- c) When a supplier label has become illegible or has been removed.
- d) When a controlled product arrives without a supplier label.

#### **Information required for workplace labels:**

- a) **Product Identifier:** the name of the product.
- b) **Safe Handling Instructions:** what to do to avoid risk associated with the product, for example: wear goggles.
- c) **MSDS Statement:** a statement that an MSDS is available for the product.

**Appendix11** "Workplace Label"

### **1.6.9 MSDS- Material Safety Data Sheets**

*General*

The MSDS are the second level of WHMIS information delivery system. MSDS contains additional details important for handling emergencies, handling clean ups or in designing controls for the safe use of hazardous materials

**When MSDS are required;**

- a) Up-to-date MSDS must be available in the workplace for all controlled products used or produced in the workplace.
- b) Federal law requires suppliers of controlled products to provide an MSDS for the product.
- c) Ontario law requires the employer to have MSDS available for every controlled product used in the workplace

**1.6.9.1      *Employer Responsibility in Regards to MSDS's***

- a) Ensure that a current MSDS is obtained on or before the date of the first shipment of every controlled product.
- b) Check the date of the MSDS that it is current and updated at least every three years by the supplier.
- c) The MSDS must be in English and the other main languages of the workplace.
- d) Ensure copies of MSDS's are kept in a conspicuous spot where workers are aware of their location and are able to access them at any time.
- e) Ensure that the workers are instructed in the content required on an MSDS, and the purpose and significance of the information contained on an MSDS.

**1.6.9.2      *Information Required on an MSDS***

- i. **Product Identification and Use:** Identification of the product and description of product use.
- ii. **Hazardous Ingredients:** Names, concentrations and other details of known hazardous ingredients, and of ingredients which the employer or supplier suspects may be hazardous or whose dangers to the body are unknown.
- iii. **Physical Data:** Physical properties of the material, such as physical state (gas, liquid, or solid), odor, and appearance.
- iv. **Fire or Explosive Hazard:** Information such as flashpoint of material, and upper and lower flammable limits.
- v. **Reactivity Data:** Details of stability and reaction to conditions such as light, heat, moisture and vibration.

- vi. **Toxicological Properties:** Adverse health affects from exposure.
- vii. **Preventive Measures:** Instruction for safe use, handling, and storage.
- viii. **First Aid Measures:** Instructions for initial treatment for anyone overexposed to the material.
- ix. **Preparation Information:** Name, address and telephone number of the person, group or department which prepared the MSDS and the date of preparation.

#### **1.6.9.3 Chemical Inventories**

An inventory of all chemical must be performed once a week. The inventory must be documented and filed.

## **1.7 Right to Refuse Unsafe Work**

### *General*

It is the right of all employees to refuse to perform work they believe unsafe. Employees are encouraged to exercise this right if confronted by a situation or directive they believe could result in injury to themselves or fellow workers.

#### **1.7.1 Refusal to Work**

A worker may refuse to work when he/she believes that;

- Any equipment, machine, devise or thing that the worker is to use or operate is likely to endanger him/herself or another worker
- The physical condition of the workplace or part of the workplace he/she works in is likely to endanger him/herself; or
- Any equipment, machine, devise or thing that he/she is to use or operate, or the physical conditions of the workplace is a contravention of the Occupational Health and Safety Act and such contravention is likely to endanger him/herself or another worker.

#### **1.7.2 Refusal Procedure**

Once a worker has refused to work or perform a particular task, the worker

must promptly report the circumstances of the refusal to their immediate Supervisor. The Supervisor must immediately investigate the reported refusal in the presences of the worker, who reported the refusal and one of the following,

- a) A Joint Health and safety Committee member who represents the workers
- b) A health and safety representative; or
- c) A worker who because of knowledge, experience or training is selected by the workers to represent them, who shall be made available and who shall attend without delay.

Until the completion of the investigation the worker shall remain in a safe place near his/her work area.

No alternative worker shall be assigned to the task refused unless that individual has been informed of the other workers refusal to work and the conditions and reasons for the refusal.

### **1.7.3 Refusal to Work Following the Original Investigation**

In the circumstance where an investigation of a refusal to work has been completed or management has taken steps to eliminate the dangerous circumstances and the worker still has reasonable grounds to believe that,

- The equipment, machine, devise or thing that has caused the refusal to work continues to endanger him/herself to another worker.
- The physical conditions of the workplace or part of the workplace continues to be a danger to him/herself, or
- Any equipment, machine, device or thing that he/she is to operate or the physical conditions of the workplace is in contravention of the Occupational Health and Safety Act and such contravention is likely to still endanger him/herself or another worker.

The worker may again refuse to work or perform the particular task and the

employer or worker is then to call an MOL inspector to conduct an investigation. The inspector will give his decision in writing to the employer and worker and his/her decision is final and binding.

## **Appendix 12** "Right to Refuse Unsafe Work Chart"

### **1.8 Employer No Reprisal**

No employer or person acting on behalf of the employer shall

- Dismiss or threaten to dismiss a worker;
- Discipline or suspend or threaten to discipline or suspend a worker;
- Impose any penalty upon a worker; or
- Intimidated or coerce a worker,

Because the worker has acted in compliance with this Act or Regulation or an order made there under, has sought the enforcement of the Act or regulation or has given evidence in a proceeding in respect to the Act.

### **1.9 Personal Conduct**

#### **1.9.1 *Alcohol***

No employee shall be under the influence of or in the possession of alcoholic beverages while on a work site, when operating or as a passenger on any vehicle, or other piece of equipment. Violation will constitute grounds for disciplinary action up to and including immediate dismissal.

#### **1.9.2. *Drugs***

The abuse of non-prescription, prescribed or illegal drugs can be a major factor contributing to a serious accident. The possession of illegal drugs for sale, distribution or use in the workplace or during the operation of equipment is strictly prohibited and is grounds for dismissal.

#### **1.9.3. *Prescription Drugs***

Employees must notify their immediate supervisor of any prescription drugs being used under the direction of a physician. It can then be determined if that employee can drive or carry on work-related duties safely during

such time as he/she is required to take the prescribed medication.

Be sure to inform your Supervisor and First Aid Personnel of any allergies to medication that you may have.

#### **1.9.4. Weapons**

No firearms or any other weapon will be permitted on the project site or right of way.

### **1.10 Joint Health & Safety Committee**

#### **1.10.1 Policy**

Where required by Provincial regulation a Safety Committee shall be formed. The Safety Committee will be a joint committee made up of employees and employer representatives consulting in cooperative spirit to identify and resolve safety and health problems in support of the Safety Program. Meetings shall be held according to provincial requirements.

#### **1.10.2 Function**

- a) Make recommendations for the introduction, implementation and enforcement of safety and health policies and procedures at the work site.
- b) Assist in the identification of occupational safety and health hazards in the workplace and recommend means of controlling these hazards.
- c) Recommend and promote safety and health programs for the education and information of the employees.
- d) Receive, consider and, where necessary, assist with investigating complaints respecting safety and health of any person at the work site and make recommendations jointly with the employer for corrective action.
- e) Where requested to do so, review the information resulting from the monitoring and measuring procedures and, where necessary, make recommendations to the employer.
- e) Participate in planned inspections and accident investigations at the work site, concerning the safety and health of employees.

**Appendix 13 JHSC** "Meeting Minuets "

**Appendix 14** "Recommendations to the Employer"

## 1.11 Discipline

### 1.11.1 **Policy**

Although it is the policy of Imperium Contracting & Project Management Inc. to obtain compliance with safety regulations through education and willing worker participation, there are, however, occasions when noncompliance with safety regulations are the result of wilful misconduct or poor worker attitude. To address the occasions when neither lack of knowledge or insufficient training are not at cause. The following guidelines are to be followed.

### 1.11.2 **Minor Offences**

Example – non usage of personal protective equipment, failure to follow or obey safety regulations.

**First Offence** Oral reprimand by Supervisor, (incident recorded in diary).

**Second Offence** Written reprimand (letter to worker detailing incident, copy to Management/Owner, and copy to employment file).

**Third Offence** \* Suspension without pay or dismissal from Project. (letter detailing incident to worker, Management/Owner and employee file).

**\* Suspension – 1 day**

### 1.11.3 **Major Offences**

Example – Substance offence, event causing injury or property damage due to carelessness or misconduct.

*NOTE – depending upon severity and circumstances, dismissal from Project may be warranted on first offence.*

**First Offence** Reprimand and or \*suspension, (letter detailing incident to worker, copy to Management/owner and employee file).

**Second Offence** Dismissal from Project. Suspension 1 – 3 days without pay or living allowance.

**Appendix 15 "Corrective Action Form"**

## **1.12 Job Hazard Analysis**

Prior to the commencement of work duties, a JSA meeting will be held. The meeting will be documented and the employees will be informed of any areas of concern revealed by the assessment and instructed of any applicable safe work practices.

A JSA is performed to locate, identify and eliminate the risk of accident or injury on the worksite.

### **1.12.1 *Methods - Hazard Assessment:***

- a) Pre-job inspection.
- b) Formal and informal inspection.
- c) Safety audit and record review.
- d) Manufacturer and expert opinion.

**Appendix 16** "Sample Job Hazard Analysis"

### **1.12.2 *Daily Tailgate Meetings***

- a) Discussions on specific worksite hazards
- b) All tailgate meetings will be documented and filed

**Appendix17** "Daily Tailgates"

## **1.13 Early and Safe Return to Work**

### **1.13.1 Policy**

The Management of Imperium Contracting & Project Management Inc. is committed to cooperating with all of their employees who have been injured on the job site and will do everything they can for an early and safe return to work. At Imperium Contracting & Project Management Inc., we will provide a modified work program to any of our injured employees until he/she is able to return to their pre-accident job, wherever possible.

### **1.13.2 Definition**

Return to work is the process or strategy of safely returning employees to the workplace on a timely basis.

### **1.13.3 Employer will:**

Contact injured worker ASAP and stay in regular contact.

Cooperate in providing suitable work.

Give WSIB information as required.

Provide workers with Functional Abilities Form to take to the testing practitioner for completion.

Educate workers about the return to work program.

Set specific time frames for the return to work.

Review worker's progress regularly.

Pay full wages and benefits for the day or shift on which the injury occurred.

Make certain that workers understand their obligations to co-operate.

Set clear procedures to follow in reporting injuries. (Establish an Accident/Injury Reporting Policy.)

**Appendix 18** "Accident /Incident Investigation Form"

### **1.13.4 Worker will:**

Contact supervisor immediately of any injury. If not available, phone office and contact employer.

Stay in regular contact.

Help identify and cooperate in suitable work arrangements.

Give WSIB information as required.

Return to work within 24 hours with the completed form to develop with

the employer an early and safe return to work.

Choose a doctor or qualified practitioner. Note: A change in doctor cannot be made without permission of WSIB.

#### **1.13.5 Goal**

Imperium Contracting & Project Management Inc. will:

Assess each individual's situation according to any practitioner's report and recommendations and will provide some kind of modified work to suit the degree of injury.

Assist in the employee's active recovery and encourage the worker to return to work to their pre-accident job, wherever possible.

Identify jobs that are suitable for accommodating injured workers on a temporary basis in order to facilitate the early and safe return to work program and limit any loss of their earnings.

#### **1.13.6 Accommodation**

A change or modification to the job or workplace so that the work is within the injured or ill person's functional capabilities and the risk of injury is reduced.

### **1.14 Definition of Terms**

The following terms are defined to ensure common understanding among users of these regulations.

**Accident Prevention:** The use of programs designed to reduce accidents or accident potential within a system, organization or activity.

**Competent Person:** Means a person who,

- a) is qualified because of knowledge, training and experience to organize the work and its performance.
- b) is familiar with the Occupational Health and Safety Act and with the provisions of the regulations that apply to the work, and
- c) has knowledge of all potential or actual danger to health or safety in the work.

<b>Confined Space:</b>	Means a fully or partially enclosed space, a) That is not both designed and constructed for continuous human occupancy, and b) In which atmospheric hazards may occur because of its construction, location or contents or because of work being done in it;
<b>Employer:</b>	Means a person who employs one or more workers or contracts for the services of one or more workers and includes a contractor or subcontractor who performs work or supplies services and a contractor or subcontractor who undertakes with an owner, constructor, contractor or subcontractor to perform work or supplies services.
<b>Hot Work:</b>	Use of open flames, other heat sources and/or spark producing devices where there is a potential for explosion or fire.
<b>Incident:</b>	An undesirable event, which has the potential to cause a serious accident.
<b>Label:</b>	Any sticker or tag affixed to a container, which provides information on the contents of the container and the handling precautions.
<b>Loss Prevention:</b>	A before the loss program designed to identify and correct potential causes of accidents before they result in actual injuries or financial loss.
<b>Material Safety Data Sheet:</b>	A summary sheet supplied by the chemical manufacturer that identifies the hazards, proper storage and handling procedures and emergency treatment for a particular chemical.
<b>Regulation:</b>	A rule, ordinance, law, legislation or devise by which conduct or performance is controlled.
<b>Safe Work Permit:</b>	A permit issued as a written record that authorizes a worker and/or work crew to do a specific job at a work site. It identifies the safe work practices required for the type of work to be performed in the specified location during the specified time interval.
<b>Safe Work Practices:</b>	The procedures for performing specific tasks which when followed protect workers and others from illness or injury.
<b>Subcontractor:</b>	Any person, firm or corporation contracting with the

company to perform part of the work and included partners and associates in a joint venture so contracting with the company.

**Supervisor:**

A person who has charge of a workplace or authority over a worker.

**Visitor:**

Any person temporarily on the work site who is not regularly involved in the daily work site activities. This includes but is not limited to delivery personnel, invited guests, the general public, etc.

**Will, Shall or Must:**

To be understood as a mandatory condition.

**Worker:**

A person who performs work or supplies services at the work site.

**Work Site:**

The entire area required for the performance of the work including right of ways and yard facilities.

## 2.0 Meetings

### 2.1 Safety Meetings

*General*

- a) Plan for meetings to be held at the same time each week or monthly (if possible).
- b) Have your topics picked out ahead of time.
- c) Keep your meeting focused on the topic.
- d) Encourage discussion.

## **3.0 Personal Protective Equipment (PPE)**

### **3.1 Policy**

It is the policy of Imperium Contracting & Project Management Inc. that all employees be properly dressed at all times in a manner appropriate for the conditions of the job.

The Superintendent, Foremen/Supervisor and Safety Personnel shall ensure that all employees and Sub-contractors comply at all times with project requirements and government regulations covering the proper use of Personal Protective Equipment (PPE).

All personal protective equipment used by Imperium Contracting & Project Management Inc. shall conform to workplace Health and Safety Regulations.

The employee shall ensure he maintains and uses the equipment/clothing as required. Worn out or defective equipment/clothing shall be replaced as necessary.

### **3.2 Practice**

#### **3.2.1 *Eye Protection***

All Imperium Contracting & Project Management Inc. employees and Sub-contractors when not in a designated lunch break area, washroom, office or vehicle must:

- a) Wear industrial safety eye wear or prescription industrial safety eye wear appropriate for the hazard;
- b) Use safety eyewear that meets CSA Standard Z94.3 for lenses, frames and temples, and fitted with wrap-around or permanently attached side shields;
- c) When the use of the eye wear is creating a hazard (i.e. fogging up in cold weather during heavy exertion), an alternative means of protection will be allowed with approval of the Safety Personnel and Supervisor.

**TABLE 3.2.1.1 - Eye Protection Standards**

<u>Hazardous Activity</u>	<u>Safety Glasses &amp; Side shields</u>	<u>Cover Goggles</u>	<u>Welding Helmet</u>	<u>Face-Shield</u>	<u>Hood</u>
Hand Tools	<b>S</b>	A	*	+R	*
Power tools	<b>S</b>	A	*	+R	*
Gas Cutting/Welding	*	<b>S</b>	*	+R	*
Grinding & Buffing	<b>S</b>	A	*	<b>S</b>	*
Mowing	<b>S</b>	*	*	*	*
Drilling	<b>S</b>	A	*	+R	*
Chipping & Chiselling	<b>S</b>	A	*	+R	*
Painting (Oil Base) & Spraying	*	<b>S</b>	*	+R	A
Painting (Water Base)	<b>S</b>	A	*	+R	*
Handling Fluid/Chemicals	*	<b>S</b>	*	<b>S</b>	A
Chainsaws	S	*	*	S	*

**KEY:** S = Minimum Standard                      +R = Recommended Additional  
 \* = Not Suitable                                      A = Alternate for Standard

**Notes:** 1. Industrial Safety Glasses with filter lenses and side-shields (shade 2.0-2.5) are required to be worn under welding helmets.  
 2. Lenses must be shaded to provide suitable radiation protection.  
 3. A hood may be required where airborne particulate requires respiratory protection.  
 4. Cover goggles shall be an alternate for users if required to fit over prescription glasses.  
 5. All goggles shall have indirect ventilation.

**3.2.2 Hearing Protection**

Personnel who are exposed to noise levels in excess of 85 dBA, and in posted high noise level areas shall wear adequate hearing protection.

**3.2.3 Head Protection**

CSA **Class E or G** or ANSI **Class A or B** hard hats must be worn by all Imperium Contracting & Project Management Inc. personnel at all work site locations except when in vehicles. Welders may wear a welding hood without a hard hat; however a hard hat shall be close at hand and put on when the

welding hood is removed. Side Impact hard hats are required when performing hazardous duties as outlined in the JSA meeting.

#### **3.2.4 Footwear**

Safety footwear meeting CSA Standard Z195, (high cut above ankle) Grade 1 with sole protection, shall be worn by all workers in and around all construction areas. This footwear is easily recognized by the presence of a green, triangular patch on the right boot. Footwear must be properly laced.

#### **3.2.5 Respiratory Protection**

CSA approved respiratory protection appropriate for the job, shall be worn and maintained as required. Foremen and employees shall refer to the product directions for use and/or MSDS sheets for recommended or required forms of respiratory protection.

#### **3.2.6 Work Wear**

Welders, welder's helpers and other workers shall use protective clothing appropriate for the work being performed. Activities designated as "hot-work" require that fire retardant or fire resistant clothing is worn by all personnel engaged in the activity.

NOTE: Welders and helpers are to wear clothing made of leather or cotton - **no synthetics**.

#### **3.2.7 Safety Visibility Vests**

Retro-reflective safety vests shall be worn when any work is conducted within a road right-of-way where workers are exposed to the hazards of traffic movement. Refer to provincial requirements. All vests shall be double tear away at the waist and shoulders.

### 3.3 General Information

#### 3.3.1 **Footwear**

Safety footwear is designed to protect against foot hazards in the workplace.

Safety footwear protects against compression, puncture injuries, and impact.

Safety footwear is divided into three grades which are indicated by colored tags and symbols.

The tag color tells the amount of resistance the toe will supply to different weights dropped from different heights.

The symbol indicates the strength of the sole. For example, a triangle means puncture-resistant sole able to withstand 135kg (300 ft. lbs) of pressure without being punctured by a 5 cm (2 inch) nail. For more information, look at Provincial H. & S. Statute and Regulations or CSA standard.

In construction, it is recommended that only the green triangle grade of footwear, which also gives ankle support, be used.

Your choice of protective footwear should always over protect, not under protect.

#### **DO**

- Choose footwear according to job hazards and CSA Standards.
- Lace up boot and tie laces securely; boots don't protect if they are tripping hazard or fall off.
- Use a protective boot dressing to help the boot last longer and provide greater water resistance (wet boots conduct current).
- Choose a high cut boot to provide ankle support (fewer injuries).

#### **DON'T**

- Wear defective safety footwear (i.e., exposed steel toe caps).
- Under protect your feet or modify safety footwear.

### 3.3.2 Safety Belts, lanyards and Life-Lines

Body belts and harnesses are used in construction to provide workers working at heights above ground level with freedom of movement and protection from falls. These devices will arrest a fall and absorb some of the shock of the fall. The systems are usually worn around the body and attached to a lanyard, fall arresting device or rope grab. Better quality systems usually have some form of shock absorber in the system.

A lifeline should never be used as a service line. The only time a lifeline becomes a load bearing line is in the event of a fall. At all other times it should be just slack enough to permit free movement on the service lines.

Waist safety belts can only be used as travel restraint system.

#### **DO**

- Obtain expert advice before purchasing a fall arresting device.
- Proper training and practice with the system you decide to use.
- Use webbing type harnesses instead of leather harnesses.
- Use only the manufacturer's components for replacement parts.
- Inspect carefully before each use (inspection to be performed by a trained worker). **Appendix 19** "Fall Arrest Equipment Inspection"
- Have the harness fitted snugly to the worker using the system.
- Ensure that the anchor points are secure and able to support the load in the event of a fall.
- follow the manufacturer's instructions on care and use
- ensure all lines used with the systems have thimbles
- Use only the proper safety rated fastenings with the system
- use a full body harness with shock absorber whenever possible

#### **DON'T**

- Modify, change or put additional holes in the harness or hardware.
- Jerry-rig the system.
- Use the system for any other than its intended use.
- Use the lifeline for a service line.

### **3.3.3 Limb and Body Protection**

Due to the nature of the construction workplace and the number of different hazards, it is not possible to cover specialized limb and body protection in detail. These types of hazards are known as "job exposures" (exposure to fire, temperature extremes, body impacts, corrosives, molten metals, cuts from sharp or abrasive materials). PPE in this category would be items as:

- leg, arm, chin and belly guards,
- Specialty hand pads and grips,
- Leather aprons and leggings,
- Full body suits,
- Flame and chemical resistant clothing, and
- Various types of plastic boot covers, and overshoes.

### **3.34 Hand PPE (Gloves and Mitts)**

PPE for the hands include finger guards, thimbles and cots, hand pads, mitts, gloves, and barrier creams. Choose hand PPE that will protect against the job hazard. Gloves should fit well and be comfortable. This type of PPE has to protect against chemicals, scrapes, abrasions, heat and cold, punctures and electrical shocks.

#### *TYPES*

PPE for the hands come in many forms, each designed to protect against certain hazards. Gloves most commonly used in the construction industry are made from leather, cotton, rubber, synthetic rubbers and other man-made materials, or combinations of materials.

Vinyl coated or leather gloves are good for providing protection while handling wood or metal objects. When selecting hand PPE, keep the following in mind:

Look for anything at the job-site that may be a hazard to the hands. If gloves are to be used select the proper type for the job to be done. Inspect and maintain hand PPE regularly. If in doubt about the selection or need for glove or hand PPE, consult your safety supplier, Material Safety Data Sheet (MSDS), or local O.H. & S. office.

#### **DO**

- Inspect hand PPE for defects before use.
- Wash all chemicals and fluids off gloves before removing them.

- Ensure that gloves fit properly.
- Use the proper hand PPE for the job.
- Follow manufacturer's instructions on the care and use of the hand PPE you are using.
- Ensure exposed skin is covered (no gap between the sleeve and the hand PPE).

***DONT***

- Wear gloves when working with moving machinery (gloves can get tangled or caught)
- Wear hand PPE with metal parts near electrical equipment
- Use gloves or hand protection that is worn out or defective.

### 3.3.5 Respiratory Protective and Equipment

Respiratory protection falls into two major categories. The first category is Air Purifying Respirators (APRs) which are particle (dust) chemical cartridges but NO visor plate. The second category is Atmosphere Supply Respirators, including self-contained breathing apparatus (SCBA), air line systems and protective suits that completely enclose the worker and incorporate a life support system.

Only APRs will be dealt with here. The second category of respirators requires much more specific information and training. If you need to use Atmosphere Supplying Respirators, you should get expert advice.

#### a) APRs

There are two basic types of APRs:

- i) Disposable fibre type with or without charcoal or chemical filter "buttons" and,
- ii) The reusable rubber face masks type with disposable or rechargeable cartridges.

The choice depends on your job, labour, cost and your maintenance facility.

It is important to remember that APRs are limited to areas where there is enough oxygen to support life. APRs don't supply or make oxygen.

The service life is affected by the type of APR, the wearer breathing demand, and the concentration of airborne contaminants. When an APR is required, consult the Material Safety Data Sheet (MSDS), O.H. & S. or supplier for the exact specifications for the APR.

Facial hair can prevent a good seal and fit of an APR. One to three days growth is the worst. Follow the manufacturer's instructions to the letter regarding the mask, filters, cartridges and other components. Workers who must use respiratory protection should be clean-shaven. An APR is only as good as its seal and its ability to filter out the contaminants it was designed to filter.

#### c) Combination Respirator

This type of APR combines separate chemical and mechanical filters. This allows for the change of the different filters when one of them becomes plugged or exhausted before the other filter (usually the dust filter plugs up before the chemical filter).

This type of respirator is suitable for most spray painting and welding. For more information, check the:

- Material Safety Data Sheet (MSDS),
- O.H. & S. Regulations,
- The local O.H. & S. office, or;
- The safety equipment supplier.

### **DO**

- Train workers very carefully in the APR's use, care and limitations
- Ensure that respirators are properly cleaned and disinfected after each shift and in accordance with the manufacturer's instructions
- Dispose of exhausted cartridges and masks in sealed bags or containers
- Keep new, unused filters separate from old, used filters
- Monitor APR use; they are useless just hung around the neck
- Replace filters when breathing becomes difficult.

### **DON'T**

- Use for protection against materials which are toxic in small amounts.
- Use with materials that are highly irritating to the eyes.
- Use with gases that can't be detected by odour or throat or nose irritation.
- Use with gases not effectively halted by chemical cartridges regardless of concentration (read the Cartridge label).
- Use respirators or masks if the serviceability is in doubt.
- Use APRs where oxygen content in the air is less than 16% or 18 kilopascals (partial pressure or greater).

### 3.3.6 Eye and Face Protection

This PPE is designed to protect the worker from such hazards as:

- Flying objects and particles,
  - Molten metals,
  - Splashing liquids, and,
  - Ultraviolet, infrared and visible radiation (welding).
- a) This PPE has two types. The first type, "basic eye protection ", includes:
- Eye cup goggles, and
  - Monoframe goggles and spectacles with or without side shields.
- b) The second type, "face protection", includes:
- Metal mesh face shields for radiant heat or hot and humid conditions,
  - Chemical and impact resistant (plastic) face shields,
  - Welders shields or helmets with specified cover, and,
  - Filter plates and lens.

Hardened glass prescription lenses and sport glasses are not an acceptable substitute for proper, required industrial safety eye protection.

Comfort and fit are very important in the selection of safety eyewear. Lens coatings, venting or fittings may be needed to prevent fogging or to fit with regular prescription eyeglasses.

Contact lenses should NOT be worn at the work-site. Contact lens may trap or absorb particles or gases causing eye irritation or blindness. Hard contact lenses may break into the eye when hit.

Basic eye protection should be worn with face shields. Face shields alone often are not enough to fully protect the eyes from work hazards. When eye and face protection are required, advice from the O.H. & S. office, Material Safety Data Sheet (MSDS) or your supplier will help in your selection.

## **DO**

- Ensure your eye protection fits properly (close to face)
- Clean safety glasses daily, more often if needed
- Store safety glasses in a safe, clean, dry place when not in use
- replace pitted, scratched, bent and poorly fitted PPE (damaged face/eye protection interferes with vision and will not provide the protection it was designed to deliver).

## **DON'T**

- Modify eye/face protection
- Use eye/face protection which does not have a CSA certification (CSA stamp for safety glasses is usually on the frame inside the temple near the hinges of the glasses).

### **Eye Protection for Welders**

Welders and welders' helpers should also wear the prescribed equipment. Anyone else working in the area should also wear eye protection where there is a chance they could be exposed to a flash.

### **3.3.7 Hearing Protection**

Hearing protection is designed to reduce the level of sound energy reaching the inner ear.

The "rule of thumbs" for hearing protection is, use hearing protection when you can't carry on a conversation in a normal volume of voice when you are three (3) feet apart.

Remember that this is only a rule of thumb. Any sound over 85dba requires hearing protection. Hearing loss can be very gradual, usually happening over a number of years.

The most common types of hearing protection in the construction industry are earplugs and earmuffs. If you choose to use the other types of hearing protection, ask your safety supplier or O.H. & S. office for further information.

It is important to have different styles of hearing protection available. Different styles allow a better chance of good fit. Each person's head, ear shape and size are different. One style may not fit every person on your crew. If hearing PPE does not fit properly or is painful to use, the person will

likely not use it. If the hearing protection is not properly fitted, it will not supply the level of protection it was designed to deliver.

Most earplugs, if properly fitted, generally reduce noise to the point where it is comfortable (takes the sharp edge off the noise).

If your hearing protection does not take the sharp edge off the noise, or if workers have ringing, pain, headaches or discomfort in the ears, your operation requires the advice of an expert.

Workers should have their hearing tested at least every year, twice a year if they work in a high noise area.

### **3.3.8 Head Protection**

Safety head wear is designed to protect the head from impact from falling objects, bumps, splashes from chemical or harmful substances, and contact with energized objects and equipment.

In consideration, the recommended type of protective head gear is the Class B hard hat which has the required "dielectric strength". There are many designs but they all must meet the CSA requirements for Class B industrial head protection.

Most head protection is made up of two parts:

- The shell (light and rigid to deflect blows)
- The suspension (to absorb and distribute the energy of the blow)

Both parts of the headwear must be compatible and maintained according to manufacturer's instructions. If attachments are used with headwear, they must be designed specifically for use with the specific headwear used. Bump caps are NOT considered a helmet.

#### **a) Inspection and Maintenance**

Proper care is required for headgear to perform efficiently. The service life is affected by many factors including temperature, chemicals, sunlight and ultraviolet radiation (welding). The usual maintenance for headgear is simply washing with a mild detergent and rinsing thoroughly.

#### **DO**

- Replace headgear that is pitted, holed, cracked or brittle.
- Replace headgear that has been subjected to a blow even though damage cannot be seen.

- Remove from service any headgear if its serviceability is in doubt.
- Replace headgear and components according to manufacturer's instructions.
- Consult O.H. & S. or your supplier for information on headgear.

***DON'T***

- Drill, remove peaks, alter the shell or suspension in any way.
- Use solvents or paints on the shells (makes shells break down).
- Put chin straps over the brims of Class B headgear.
- Use any liner that contains metal or conductive material.
- Carrying anything in the hard hat while wearing the hard hat.

## **4.0 Safe Work Practices**

### **4.1 Hygiene Facilities**

#### **4.1.1 *Drinking Water***

A reasonable supply of potable drinking water shall be kept readily accessible at a project for the use of workers.

Drinking water shall be supplied from a piping system or from a clean, covered container with a drain faucet

Workers shall be given a sanitary means of drinking the drinking water, without having to share a drinking cup.

#### **4.1.2 *Toilet Facilities***

Toilet facilities shall be provided in sufficient quantities and in the locations as outlined in regulation 213/91, Regulations for Construction Projects. The facilities shall be in place before the start of the project. The facilities shall be reasonably accessible to all workers on the project.

The facilities shall be serviced, cleaned and sanitized as frequently as necessary to maintain them in a clean and sanitary condition. Records of servicing must be available at the project.

For work of shorter duration, facilities that are not under the constructor's control may be used only if you have received permission from the facilities' owner for workers to use the facilities.

The facility shall be kept in good repair at all times.

Each single-toilet facility shall be provided with its own clean-up facility.

#### **4.1.3 Clean-up Facilities**

If it is not reasonably possible to have a wash basin with running water at a clean-up facility, hand cleanser that can be used without water shall be provided instead.

Workers who handle or use corrosive, poisonous or other substances likely to endanger their health shall be provided with washing facilities with clean water, soap and individual towels.

## **4.2 Housekeeping**

### *General*

Many injuries result from poor housekeeping. Improper storage of materials and cluttered work area are not safe. To maintain a clean, hazard-free workplace, all groups- management, supervision, and workers- most cooperate.

### **Regulations for safe housekeeping require**

- Daily jobsite cleanup program
- Disposal of rubbish
- Individual cleanup duties for all worker
- Materials stored away from overhead power lines
- Work and travel areas kept tidy, well lit, and ventilated
- Signs posted to warn workers of hazardous areas

#### **4.2.1 Storage**

Storage areas should be at least 1.8 meters (6 feet) from roof or floor openings, excavations, or any open edges where materials may fall off.

Near opening, arrange material so that it cannot roll or slide in the direction of the opening.

#### **4.2.2 Flammable Materials**

- Use copper grounding straps to keep static electricity from building up in containers, racks, flooring, and other surfaces.
- Store fuel only in containers approved by Canadian Standards Association (CSA) or Underwriters' Laboratories of Canada (ULC).
- Ensure that electrical fixtures and switches are explosion-proof where flammable materials are stored.

#### **4.2.3 Hazardous Chemicals**

- Refer to MSDS (material safety data sheets) for specific information on each product
- Follow manufacture's recommendation for storage
- Observe heat, moisture, vibration, impact, sparks and safe working distance
- Post warning signs
- Have equipment ready to clean up spills quickly

#### **4.2.4 Bags and Sacks**

- Do not pile bagged materials more than 10 bags high unless the face of the pile is supported by the walls of a storage bin or enclosure
- Do not move piles more than 10 bags high unless fully banded or wrapped
- Cross-pile bags and sacks for added stability.
- Pile only to a safe and convenient height for loading or unloading

#### **4.2.5 Compressed Gas Cylinders**

- Store and move cylinders in the upright position
- Secure cylinders upright with chains and rope
- Wherever possible store cylinders in a secure area outside
- Keep full cylinders away from empty ones
- Store cylinders of different gasses separately
- Keep cylinders away from heat sources

#### 4.2.6 Lumber

- Stack on level sills
- Stack reusable lumber according to size and length
- Remove nails during stacking
- Support lumber a every 1.3 meters (4-foot) span
- Cross-pile or cross-strip when the pile will be more than 1.3 meters (4-foot) high

### 4.3 Fire and Use of Fire Extinguishers

#### *General*

Good Housekeeping is essential in the prevention of fires. Fires can start anywhere and at any time. This is why it is important to know which fire extinguisher to use and how to use it.

Always keep fire extinguishers visible and easy to get at. Fire extinguishers have to be properly maintained to do the job. Where temperature is a factor, ensure that care is taken in selecting the right extinguisher.

#### 4.3.1 TYPES OF FIRES

##### **Class A:**

These fires consist of wood, paper, rags, rubbish and other ordinary combustible materials.

Recommended Extinguishers -

Water from a hose, pump type water can or pressurized extinguisher and soda acid extinguishers.

Fighting the Fire -

Soak the fire completely - even the smoking embers.

##### **Class B:**

Flammable liquids, oil and grease.

Recommended Extinguishers -

ABC units, dry chemical, foam and carbon dioxide extinguishers.

Fighting the Fire -

Start at the base of the fire and use a swinging motion from left to right, always keeping the fire in front of you.

Class C:

Electrical Equipment

Recommended Extinguishers -

Carbon Dioxide and dry chemical (ABC units) extinguishers.

Fighting the Fire -

Use short bursts on the fire. When the electrical current is shut off on a Class C fire, it can become a Class A fire if the materials around the electrical fire are ignited.

#### **Appendix 20** "Monthly Fire Inspection"

#### **4.4** **Access and Egress**

- a) Areas of access and egress must be adequately lit.
- b) If material may fall on a worker, overhead protection shall be provided.
- c) Access to and egress from a work area located above or below ground level shall be by stairs, runway, ramp or ladder.
- d) Areas of access and egress shall be kept clear of obstructions.
- e) Areas of access and egress shall be kept clear of snow, ice, or other slippery material.
- f) Areas of access and egress shall be treated with sand or similar material when necessary to ensure a firm footing.
- g) Every shaft shall have a means of access and egress by stairway, ladder, or ladder way for its full depth during construction and when it is completed.

#### **4.5** **Use of Portable Ladders**

*General*

Ladders can be used safely if they are given the respect they deserve.

Before using any ladder, make sure that it is in good condition and is the right ladder for the job to be done.

- a) When setting up a ladder, secure the base and “walk” the ladder up into place.
- b) The ladder should be set at the proper angle of one (1) horizontal to every four (4) vertical.
- c) Before using a ladder, make sure it is secured against movement.
- d) When in position, the ladder should protrude one (1) meter above the intended landing point.
- e) Workers shall not work from the top two rungs of a ladder.
- f) Don't overreach while on a ladder. It is easier and safer to climb down and move the ladder over a few feet to a new position.
- g) Always face the ladder when using it. Grip it firmly and use the three-point contact method when moving up or down.
- h) The minimum overlap on an extension ladder should be one (1) meter unless the manufacturer specifies the overlap.
- i) Keep both metal and wood ladders away from electrical sources.

#### **4.6 Use of Stepladders**

##### *General*

As with all ladders, make sure the stepladder is in good condition, and is the right ladder for the job to be done.

Stepladders are to be used only on clean and even surfaces.

- a) No work is to be done from the top two steps of a stepladder, counting the top platform as a rung.
- b) When in the open position ready for use, the incline of the front step section shall be one (1) horizontal to six (6) vertical.
- c) The stepladder is only to be used in the fully opened position with the spreader bars locked.
- d) Tops of stepladders are not to be used as a support for scaffolds.
- e) Don't overreach while on the ladder. Climb down and move the ladder over to a new position.
- f) Only CSA Standard ladders will be used.

## 4.7 Use of Explosive/Powder Actuated Fastening Tools

### *General*

There are a number of tools utilizing an explosive charge in use throughout the construction industry to drive fastenings.

The manufacturers of these devices provide detailed instructions regarding their use and maintenance. These instructions, along with the legislation specifically set out for their use, shall be closely adhered to at all times.

The following general recommendations apply to all explosive/powder actuated tools.

- a) Only properly trained and qualified operators are to use this type of tool. The user shall possess proof of this training issued by the manufacturer, authorised dealer/distributor, or other competent source.
- b) The tool must be CSA standard approved for "Explosive Actuated Fastening Tools".
- c) The tool should be loaded just prior to use with the correct load for the job anticipated. Tools should never be loaded and left to sit or be moved to an alternate work site after being loaded.
- d) The tool should never be pointed at anyone, whether loaded or unloaded. Hands should be kept clear of the muzzle end at all times.
- e) Explosive/powder actuated tools should always be stored in their proper lockable boxes.
- f) Explosive/powder actuated tools must never be used in an explosive atmosphere.
- g) When used, the tool must be held firmly and at right angles to the surface being driven into.
- h) Eye protection must be worn by the operator. Where there is a danger of spilling, full face protection must be worn. Hearing protection is also to be worn in confined areas.
- i) To prevent free-flying studs, ensure that the material being driven into will not allow the stud to completely pass through it (i.e. glass block, hollow tile etc.)
- j) Manufacturers' recommendations should be consulted and followed whenever there is a doubt about the material being driven into, maintenance procedures, or load strength to be used.
- k) Always be aware of the other workers. Where a hazard to other workers is created by this operation, signs and barricades identifying the hazard area are mandatory.

## **4.8 Use of Propane**

### *General*

Since propane is heavier than air and invisible, it is a special concern when it is used on the job-site.

All installations and use of this product on the job-site must comply with Government Legislation set out for its safe use.

Suppliers delivering the product or setting up the equipment at the site must be part of the safe work practice.

- a) Nylon slings must be used in a "choker" fashion when loading, off-loading or lifting propane tanks.
- b) "Lifting lugs" provided on tanks are not to be used. Slings are to be wrapped around the shell of the tank.
- c) Tank valves and regulators are to be removed from the tank prior to any movement of the tank.
- d) Crane hooks shall be equipped with a "safety latch".
- e) All trucks, cranes or equipment used to handle propane tanks must be equipped with a fire extinguisher appropriate for the size and type of tank being handled.
- f) Except in an emergency, any movement or repositioning of tanks shall be performed by a competent worker.
- g) Tanks are shall not be heated to increase flow.
- h) When in use, propane bottles are to be securely held in an upright position.
- i) Tanks are not to be hooked up and used without proper regulators.

## **4.9 Use of Tiger Torches**

### *General*

Tiger torches, although valuable to a job-site, are sometimes misused in a manner that can make them dangerous.

Tiger torches are only to be used for preheating of piping etc. prior to welding.

- a) When a torch is used, an adequate fire extinguisher must be present.
- b) Torches are not to be used for heating of work areas or thawing of lines and equipment, etc., when not in use.

- c) Ensure that the propane bottles are properly shut off.
- d) Fuel lines are to have regulators.
- e) Propane bottles shall be secured in an upright position.

#### **4.10 Welding, Cutting and Burning**

##### *General*

Work involving welding, cutting and burning can increase the fire and breathing hazard on any job, and the following should be considered prior to the start of work.

- a) Always ensure that adequate ventilation is supplied since hazardous fumes can be created during welding, cutting or burning.
- b) Where other workers may also be exposed to the hazards created by welding, cutting and burning, they must be alerted to these hazards or protected from them by the use of "screens".
- c) Never start work without proper authorization.
- d) Always have firefighting or prevention equipment on hand before starting welding, cutting or burning.
- e) Check the work area for combustible material and possible flammable vapours before starting work.
- f) A welder should never work alone. A fire or spark watch should be maintained.
- g) Check cables and hoses to protect them from slag or sparks.
- h) Never weld or cut lines, drums, tanks, etc., that have been in service without making sure that all precautions have been carried out and permits obtained.
- i) Never enter, weld or cut in a confined space without proper gas tests and a required safety lookout.
- j) When working overhead, use fire resistant materials (blankets, tarps) to control or contain slag and sparks.
- k) Cutting and welding must not be performed where sparks and cutting slag will fall on cylinders (move all cylinders away to one side).
- l) Open all cylinder valves slowly. The wrench used for opening the cylinder valves should always be kept on the valve spindle when the cylinder is in use.

## 4.11 Use of Portable Arc Welders

### *General*

Portable arc welders are a piece of equipment that has to be treated like a vehicle. Do not operate them indoors.

- a) Be sure the machine is firmly attached to the transporting unit.
- b) Check all fluid levels, water, oil and gas to be sure they are at acceptable levels for operation.
- c) When fuelling, **DO NOT** "top off" the gas tank. Gasoline expands as the outside temperature rises; this may result in seepage and an ensuing fire.
- d) Do not fuel the machine while it is running.
- e) Be sure the radiator and gas caps are in proper working order and securely attached.
- f) Do a "walk around" to check for damage and obvious leaks.
- g) Qualified mechanics or technicians should do any repairs required on the equipment.
- h) Make sure all cables are wound securely when transporting.
- i) Ensure the side covers are kept closed to protect the machine from any damage from external objects and outside weather, as well as to protect the operator and others from the moving parts of the machine.

## 4.12 Grinding

### *General*

Sever injury may occur if proper protective equipment is not used and properly maintained.

- a) Check the tool rest for the correct distance from the abrasive wheel, maximum 1/8" or 3mm.
- b) Replace the grindstone when adjustment of the rest cannot provide 1/8" or 3mm clearance.
- c) If the wheel has been abused and ground to an angle or grooved, reface the wheel with the appropriate surfacing tool.
- d) Protect your eyes with goggles or a face shield at all times when grinding.
- e) Each time a grinding wheel is mounted, the maximum approved speed stamped on the wheel bladder should be checked against the shaft rotation speed of the machine to ensure the safe peripheral speed is not exceeded. A grinding wheel must not be operated at peripheral speed exceeding the manufacturer's recommendation.
- f) The flanges supporting the grinding wheel should be a maximum of 1/3 the diameter of the wheel, and must fit the shaft rotating speed according to the manufacturer's recommendation.
- g) Bench grinders are designed for peripheral grinding. Do not grind on the side of the wheel.
- h) Do not stand directly in front of the grinding wheel when it is first started.

#### **4.13 Use of Portable Grinders**

##### *General*

Abrasive wheels can cause severe injury. Proper storage of new wheels, proper use of wheels and proper maintenance of wheels must be observed.

- a) Familiarise yourself with the grinder operation before commencing work.
- b) Ensure proper guards are in place and that safety glasses, face shields, gloves and safety boots are worn when using portable grinders.
- c) Never exceed the maximum wheel speed (every wheel is marked). Check the speed marked on the wheel and compare it to the speed on the grinder
- d) When mounting the wheels, check them for cracks and defects, ensure that the mounting flanges are clean and the mounting blotters are used. Do not over tighten the mounting nut.
- e) Before grinding, run newly mounted wheels at operating speed to check for vibrations.
- f) Do not use grinders near flammable materials.
- g) Never use the grinder for jobs for which it is not designed, such as cutting.

#### **4.14 Use of Chain Saws**

##### *General*

Chain saws are used for many jobs in construction. Since this tool was primarily meant for use in the logging industry, it can be an unfamiliar tool to some workers.

Workers must be trained in its safe use before using a chain saw.

This training must include a minimum of the following elements:

- a) The proper personal protective equipment to be worn is set out by the manufacturer and Occupational Health & Safety Legislation.
- b) Fuelling of the saw must be done in a well-ventilated area and not while type saw is running or hot.
- c) An approved safety container must be used to contain the fuel used along with a proper spout or funnel for pouring.
- d) The correct methods of starting, holding, carrying, or storage and use of the saw as directed by the manufacturer must be used.
- e) Ensure that the chain brake is functioning properly and adequately stops the chain.
- f) The chain must be sharp, have the correct tension, and be adequately lubricated.

- g) When carrying/transporting a chain saw the bar guard must be in place, the chain bar must be toward the back and the motor must be shut off.
- h) The chain saw must not be used for cutting above shoulder height.

#### **4.15 Use of Compressed Air**

##### *General*

Air powered tools in construction range from stapling guns to jack hammers. If not treated with respect, these tools can become a powerful enemy rather than a servant.

- a) Compressed air must not be used to blow debris or to clear dirt from worker's clothes.
- b) Ensure that the air pressure has been turned off and the line pressure relieved before disconnecting the hose or changing tools.
- c) All hose connectors must be of the quick disconnect pressure release type with a "safety chain/ cable".
- d) Wear personal protective equipment such as eye protection and face shields, and ensure other workers in the area are made aware of or have restricted access to the hazard area.
- e) Hoses must be checked on regular bases for cuts, bulges, or other damage. Ensure that defective hoses are repaired or replaced.
- f) A proper pressure regulator and relief device must be in the system to ensure that correct desired pressures are maintained.
- g) The correct air supply hoses must be used for the tool/equipment being used.
- h) The equipment must be properly maintained according to the manufacturer's requirements.
- i) Follow manufacturer's general instructions and comply with legislated safety requirements.

## 4.16 Defective Tools

### *General*

Defective tools can cause serious and painful injuries. If a tool is defective in some way, **DO NOT USE IT**. Be aware of problems like:

- chisels and wedges with mushroomed heads,
- split or cracked handles,
- chipped or broken drill bits,
- wrenches with worn out jaws,
- tools which are not complete, such as files without handles.

### **To ensure safe use of hand tools, remember:**

- a) never use a defective tool;
- b) double check all tools prior to use; and,
- c) ensure defective tools are repaired.

Air, gasoline or electric power tools, require skill and complete attention on the part of the user even when they are in good condition. Don't use power tools when they are defective in any way.

### **Watch for problems like:**

- broken or inoperative guards,
- insufficient or improper grounding due to damage on double insulated tools,
- no ground wire (on plug) or cords of standard tools,
- the on/off switch not in good working order,
- tool blade is cracked,
- the wrong grinder wheel is being used, or
- the guard has been wedged back on a power saw.

### **Appendix 22 "Prestart Checklist"**

## 4.17 Welding Fumes (Vapours and Gases)

### *General*

The most common hazards are air borne contaminants generated by welding.

### **These include:**

- a) Fumes – Beryllium, Cadmium, Chromium, Lead, Nickel and Zinc
- b) Vapour/Gases – Hydrogen fluoride, Nitrogen oxide, Ozone, Phosgene, Phosphine, and Asphyxiants

### **Fumes:**

- a) Some of the metal melted at high temperatures during welding vaporizes. The metal vapour then oxidizes to form a metal oxide. When this vapour cools, suspended solid particles called fume particles are produced. Welding fumes consist primarily of suspended metal particles invisible to the naked eye.
- b) Fume particles may reach deep into the lungs and cause damage to lung tissue or enter the bloodstream and travel to other parts of the body.

### **Vapour/Gases:**

- a) A gas is a low-density chemical compound that normally fills the space in which it is released. It has no physical shape or form. Vapour is a gas produced by evaporation.
- b) Several hazardous vapours and gases may be produced by welding. Ultraviolet radiation, surface coatings, shielding gases, and rod coatings are primary sources of vapours and gases.
- c) Overexposure may produce one or more of the following respiratory effects:
  - inflammation of the lungs
  - pulmonary edema (fluid accumulation in the lungs)
  - emphysema (loss of elasticity in lung tissue)
  - chronic bronchitis
  - asphyxiation.

#### **4.18 Gas Cylinders**

- a) Gas cylinders, when not in use, must be stored outdoors and in locked designated area(s).
- b) Different gases should be stored separately and isolated from other flammables, such as gasoline, solvents, oil and lumber.
- c) Keep full cylinders separate from empty cylinders.
- d) Gas cylinders are to be stored in an upright position, valve capped and secured in position.
- e) A crane or hoist must not be used to transport gas cylinders.
- f) A gas cylinder must be adequately secured when taken to a work area.
- g) Always use proper fitting wrenches when making connections. Do not use vise grips or pipe wrenches.
- h) Check valves for leaks using a soapy liquid around the valve connection.
- i) No one shall use compressed air or gas to blow dust from their clothes and no one shall blow compressed air or gas at any other worker.

## 4.19 Use of Work Scaffolds

### *General*

The construction of wood scaffold is closely regulated by Legislation. Materials and material dimensions are specified in detail in the O.H. & S. General Safety Regulations.

Because the construction of these scaffolds can vary greatly as to use, shape, location and the type of job to be done, they sometimes are built in a haphazard manner. To avoid this, the following Safe Work Practices are minimum.

- a) Construction, alteration, design and removal of wood scaffolds is to be done by competent workers.
- b) The material used to construct these scaffolds should be sound, close grained and finished on all four sides.
- c) The scaffold must be capable of supporting four (4) times the load that might be imposed on it.
- d) All component parts should be tight together and properly fixed to each other.
- e) Proper perimeter railing must be set in place: top rail - intermediate rail - toe board.
- f) Scaffold work platforms shall be at least 500 mm wide for light duty and 1 m wide for heavy duty scaffolds.
- g) When used as a scaffold work platform, planks shall be secured from movement by cleats or by being wired in place.
- h) Safe access and egress is to be provided to all work platforms by the use of ladders.
- i) Scaffold work platforms shall not span more than 3.1 m on light duty scaffolds or 2.3 m on heavy duty scaffolds.
- j) Worker must be trained in the use of proper fall protection equipment and this equipment must be worn when working at heights greater than 2.4m or may fall onto dangerous objects or into dangerous substances.

## 4.20 Use of Metal Scaffolds

### *General*

There are various types of metal scaffolds and they all have a right and wrong way to be erected.

The misuse of scaffolding is the cause of numerous serious injuries. Every worker who designs or constructs a scaffold should be competent and know what the manufacturer's specifications are for that type of scaffold.

The scaffold type, which will be best suited for the job and capable of withstanding the loads to be imposed on it, must be determined before the job begins.

### **Ensure that:**

- a) The scaffold you intend to use is the correct one for the job;
- b) The location in which the scaffold is to be constructed is level or is capable of presenting secure footing by use of mudsills or some other device;
- c) The scaffold will be erected by a competent worker;
- d) Legislative and manufacturer's requirements have been complied with;
- e) Safe access and egress to both the scaffold and the general work area has been provided;
- f) Levelling adjustment screws have not been over extended;
- g) Tower scaffolds have outriggers or are guyed and have all component parts secured in place (i.e., cross braces, pins, lateral braces);
- h) Scaffold work platforms have perimeter guardrail -
  - Horizontal rail - 0.92 meters to 1.07 meters above platform;
  - Intermediate rail - Horizontal rail midway between scaffold platform and top rail;
  - Toe board - Horizontal member at platform level no less than 140 mm in height above the platform level;
- i) Scaffold planks are of number one grade materials with maximum spans of 3.1 meters on light duty and 2.3 meters on heavy duty

with a maximum projection beyond the ledger of no more than 300mm.

- j) Worker must be trained in the use of proper fall protection equipment and this equipment must be worn when working at heights greater than 2.4m or may fall onto dangerous objects or into dangerous substances.

#### **4.21 Elevated Work Platforms**

- a) In accordance with the current *Regulations for Construction Projects*, a worker who operates an elevating work platform shall, before using it for the first time, be given oral and written instruction on the operation of the elevating device. An elevating work platform shall only be operated by a worker who has been instructed in:
  - Operating the machine;
  - The daily inspections and maintenance required by the manufacturer; **Appendix22** "Elevated Work Platform Checklist"
  - The types of working surface on which the machine is designed to be used;
  - The maximum rated working load;
  - Special conditions or limitations of the machine;
  - The significance of alarms; and
  - The location of emergency controls
- b) An elevating work platform which is not working properly or which has sustained damage to critical components must not be used until repaired by a qualified mechanic.
- c) In the raised position, an elevating work platform shall only be used on surfaces specified by the manufacturer.
- d) An elevating work platform must not be driven in a raised position close to holes, depressions, trenches or similar hazards.
- e) An elevating work platform must not bear more than its rated working load and, where possible, the loads shall be distributed over the platform.
- f) When elevating work platforms are used to lift materials, care must be taken to ensure that the materials are firmly secured to the platform.

- g) Do not place makeshift platforms, such as boxes, or proper access equipment, such as ladders and scaffolds, on an elevating work platform to gain access to areas above.
- h) Overhanging loads must not be lifted on an elevating work platform.

## **4.22 Proper Lifting Practices – Hoisting**

### **4.22.1 *Evaluating the Load***

Determine the weight of the object or load prior to a lift to make sure that the lifting equipment can operate within its capabilities.

### **4.22.2 *Balance Loads***

Estimate the centre of gravity or point of balance. The lifting device should be positioned immediately above the estimated centre of gravity.

### **4.22.3 *Landing the Load***

Prepare a place to land the load, lower the load gently and make sure it is stable before slackening the sling or chain.

- a) Select only alloy chain slings and NEVER exceed the working load limits.
- b) Make sure the hoist or crane is directly over the load.
- c) Use slings of proper reach. Never shorten a line by twisting or knotting.  
With chain slings, never use bolts or nuts.
- d) Never permit anyone to ride the lifting hook or the load.
- e) Make sure all personnel stand clear from the load being lifted.
- f) Never work under a suspended load, unless the load is properly supported.
- g) Never leave a load suspended when the hoist or crane is unattended.
- h) Inspect all slings thoroughly at specified intervals and maintain them in good condition.
- i) Inspect each chain or sling for cuts, nicks, bent links, bent hooks, etc., before each use. If in doubt, don't use it.
- j) Ensure that safety latches on hooks are in good working condition.
- k) Ensure that the signaller is properly identified and understands techniques of proper signalling.
- l) Make sure a tagline is used to control the load.

## 4.23 Rigging

### *General*

Rigging looks like an easy operation that requires no particular skill or experience. But if you have an idea that just anybody can do it, you're on the wrong track. Too many men have lost fingers or hands or have suffered more serious injuries because they thought, "Anybody can do that".

Here are some do's and don'ts to remember.

- a) Name one member of the crew to act as a signalman, and instruct the equipment operator to recognize signals from that person only. The signalman must be careful not to order a move until he has received the "all ready" signal from each member of the crew.
- b) Each rigger must be sure he's in the clear before he gives an "all ready" to the signalman. When you have positioned the sling or choker you're using, release it, if possible, before you give the "all ready" signal.
- c) If you must hold the sling or choker in position, be sure your hand is clear of pinch points. In fact, your hand should be far enough away so there is no possibility of a frayed wire catching your glove and jerking your hand into a pinch point. (Of course, frayed cables should never be used).
- d) Watch out for the follow swing of the load. Since it is almost impossible to position the hook exactly over the load centre, there will almost always be a swing or roll. Anticipate the direction of the swing or roll and work away from it.
- e) Never place yourself between material, equipment or any stationary object and the load swing. Also, stay away from stacked material that may be knocked over by a swinging load.
- f) Never stand under the load, and keep from under the boom as much as possible. Chances are that nothing will break, but something might.
- g) Look over the place where the load is to be set. Remove unnecessary blocks or other objects that might fly up if struck by the load.
- h) When lowering or setting the load, be sure your feet and all other parts of your body are out from under. Set the load down easily and slowly so that if it rolls on the blocking, it will be a slow shift that you can get away from.
- i) Identify the designated signalman by the use of distinctive vests, armllets, etc.
- j) Use tag lines to control the leads.

#### **4.24 Attaching Cable Clips and Clamping Wire Rope**

##### *General*

- a) Wire the thimble to the rope at the desired point, then bend the rope around the thimble and secure temporarily by wiring the rope members together.
- b) First attach the clip farthest from the thimble and tighten (be sure the base of the saddle rests upon the live end of the rope and the "U" bolts on the short end.) All clips must be attached in this manner.
- c) The clip nearest the thimble goes on next. Do not tighten yet. If one or more additional clips are to be attached, place them at an equal distance apart between the clips already attached.
- c) Before tightening, place some stress on the rope to take up the slack and equalize the tension on both sides of the clip. (Do not apply too much stress or the clip attached in Step 1 will not hold). Tighten all clips.

#### **4.25 Electrical Safety**

Accidental contact with electrical components can have deadly consequences. Always refer to the manufacturer's recommended operating practices prior to using new electrical appliances, tools and equipment. Use the following guidelines to reduce the risk of personal injury.

- a) All electrical tools and appliances will be double insulated or have a three prong plug-in.
- b) Only qualified and authorized electricians are allowed to service and repair electrical appliances, tools and equipment.
- c) Prior to operating electrical powered tools and equipment, ensure that you are working on a dry surface.
- d) Tools with damaged cords, grounds and housing units are to be tagged "Out of Service" and sent for repair.
- e) Missing or damaged ground plugs of any appliance, tool or piece of equipment are to be repaired prior to use.
- f) Damaged extension cords shall be tagged "Out of Service", repaired or replaced as warranted.
- g) Always stand to the side of a service box when resetting a breaker.
- h) All electrical tools must be CSA approved.
- i) Disconnect power tools from power source before making adjustments. Defective equipment needs to be tagged "Out of Service" and removed.
- j) Tools with electrical arcing brushes should be removed when you feel any

tingling during use.

#### **4.26 Demolition**

##### *General*

- a) Ensure all gas, electrical and other services that may endanger a person are shut off.
- b) Remove from area all toxic, flammable and explosive substances.
- c) If the structure is damaged and likely to endanger a worker by partial or complete collapse the structure should be shored or braced.
- d) Safe guards shall be installed progressively from a safe work area towards the hazard so that the workers installing the safe guard are not in danger.
- e) Only workers involved in the demolition shall be in or near the structure being taken down.
- f) Basements, cellars or excavations after a building or structure has been demolished shall be.
  - 1. Backfilled to grade level, or;
  - 2. Have fencing along all its open sides

#### **4.27 Use of Hand-Held Power Circular Saws**

##### *General*

This type of power hand tool is one of the most commonly used in construction. Because of this common use there are numerous accidents due to thoughtless acts.

The following are the minimum accepted practices to be used with this saw.

- a) Approved safety equipment such as safety glasses or face shields are to be worn.
- b) Where harmful vapours or dusts are created, approved breathing protection is to be used.
- c) The proper sharp blade designed for the work to be done must be selected and used.
- d) The power supply must be disconnected before making any adjustments to the saw or changing the blade.
- e) Before the saw is set down be sure the retracting guard has fully returned to its down position.
- f) Both hands must be used to hold the saw while ripping.

- g) Maintenance is to be done according to the manufacturer's Specifications.
- h) Ensure all cords are clear of the cutting area before starting to cut.
- i) Before cutting, check the stock for foreign objects or any other obstruction, which could cause the saw to "kick back".
- j) When ripping, make sure the stock is held securely in place. Use a wedge to keep the stock from closing and causing the saw to bind.

## **4.28 Excavating and Trenching**

### *General*

Hazards in trenching or excavating that can cause injuries or fatalities consist of, hitting a utility such as a gas line, cave-ins of the excavation walls or falling objects such as materials or tools into the trench hitting the worker.

#### **4.28.1 Utilities**

Before starting the excavation, ensure all utilities have been located. This can be accomplished by either calling the local utility companies for the details of their utilities in the area you are working, or use the Ontario One Call system – 1-800-400-2255 and they will collect the information for you.

#### **4.28.2 Cave-ins**

To prevent wall cave-ins when excavating or trenching the walls must be sloped or supported when performing work such as:

- a) Installing home services such as storm, sanitary or waterlines
- b) When digging an excavation for the home itself
- c) When digging service trenches for gas, hydro and phone services
- d) If you are proofing or repairing a home after it has been backfilled

### **4.28.3 Sloping Requirements**

<u>Soil Classification</u>	<u>Slop of the Excavation</u>
Type 1 or 2 soil	Wall sloped by 1:1, when digging undisturbed soil more than 1.2 meters up from the bottom
Type 3 soil	previously excavated soil Wall sloped by 1:1 starting from the bottom
Type 4	Poorest soil. Wall sloped 3m back for every 1 meters up from the trench bottom

If sloping isn't practical a support system such as a trench box or shoring must be used to support the walls. Hydraulic shores work well when repairing drainage or the waterproofing system around the house.

Never enter a trench deeper than 1.2 meters (4 feet) unless it is sloped, shored or protected by a trench box.

A ladder, ramp or another safe means of access to the area must be set up for the workers to have a safe means of access and regress to and from the work area.

When working in a trench or excavation ensure there is a minimum of one more worker at the top of the excavation to provide help in case of an emergency.

### **4.28.4 Falling Objects**

To prevent material from falling onto a worker in the trench keep material at least 1 meter away from the trench or excavation.

No worker is to be working in the trench when equipment is working in the trench.

## **4.29 Fall Protection**

### **4.29.1 Working from Scaffolds**

1. Scaffold platforms must be fully planked.
2. Guardrails consisting of a top rail, mid-rail and toe board are required whenever the working platform is 2.4 metres (8 feet) or more above floor level.
3. Wheels and casters must be locked when personnel are working on the scaffold.

4. If the scaffold is more than 2.4 meters (8 feet) high, it must not be moved with personnel on it unless:
  1. they wear full body harness with lanyard and shock absorber tied off to an independent fixed support, and
  2. The floor is firm and level.

#### **4.29.2 Working from Ladders**

1. A worker must wear a full body harness with lanyard and shock absorber tied off to either an independent fixed support or a lifeline whenever the worker is:
  - a. 3 meters (10 feet) or more above the floor, or
  - b. above operating machinery, or
  - c. Above hazardous substances or objects.

#### **4.29.3 Working from Swing Stages**

1. A worker must wear a full body harness with lanyard and shock absorber tied off to:
  - a. an independent lifeline, if the swing stage has only two independent suspension lines, or
  - b. The swing stage, if it has four independent suspension lines (two at each end).

#### **4.29.4 Working beside Unprotected Openings and Edges**

1. A worker must wear a full body harness with lanyard and shock absorber tied off to an independent fixed support whenever the worker is more than 3 meters (10 feet) above the next level or whenever the worker is above operating machinery, hazardous substances or objects regardless of the possible fall height.

#### **4.29.5 Full Body Harnesses, Lanyards, and Shock Absorbers**

1. All full body harnesses, lanyards, and shock absorbers must be CSA-certified. Look for the CSA label.
2. Full body harnesses must be snug-fitting and worn with all hardware and straps intact and properly fastened.
3. Lanyards must be 16 millimeter (5/8") diameter nylon or equivalent.
4. Lanyards must be equipped with a shock absorber.

#### **4.29.6 Lifelines**

1. All lifelines must be:
  - 16 millimeter (5/8") diameter polypropylene or equivalent;
  - used by only one worker at a time;
  - free from any danger of chafing;
  - free of cuts, abrasions and other defects;
  - long enough to reach the ground or knotted at the end to prevent the lanyard from running off the lifeline; and
  - secured to a solid object

#### **4.29.7 Rope Grabbing Devices**

1. To attach the lanyard of a full body harness to a lifeline, use a mechanical rope grab that has been CSA-certified. Look for the CSA label.

### **4.30 Forklifts**

#### *General*

Properly operated forklifts make material handling effortless. However, when the forklift or operator limitations are exceeded they can be very dangerous.

Adhering to the following general operating rules can greatly reduce the risk of personal injury and property damage:

- a) Operate only if you have been trained.
- b) Know the manufacturer's manual. Never exceed manufacturer's load rating.
- c) Inspect all components prior to use.
- d) Keep forks and speed low at all times.
- e) When parked, always place forks flat on the ground.
- f) Drive in reverse when moving bulky items to avoid blind spots.
- g) Ensure forks are fully seated and square when lifting pallets.
- h) Do not move damaged or improperly loaded pallets.
- i) Do not carry passengers.
- j) Never leave a machine unattended with an elevated load.
- k) The use of a seat belt is recommended.

## 4.31 Guardrails

### *General*

Falls from heights are a leading cause of injury and death on construction sites. You don't have to fall far to be injured or killed. If a worker can fall 3 meters or more or where a fall from a lesser height involves an unusual risk of injury, fall protection must be put in place. Guardrails are often the best and most convenient means of fall protection.

- a) Workers installing or removing guardrails above 3 meters will be tied off to prevent falls.
- b) Install guardrails no more than 30 cm from an open edge.
- c) Ensure guardrail material is free of damage and defect.
- d) Support posts should be no more than 2.4 meters (8 ft.) apart and securely anchored.
- e) All guardrails must be complete:
  - top rail 1 meter above platform;
  - mid rail halfway between top rail and toe board; and
  - Toe board 100 mm high and secured to inner side of posts.
- f) Posts and rails must be capable of withstanding a force of at least 900 N (200 lbs.) applied at any point.
- g) No work begins in the area until guardrails have been inspected by crew foreman.

## **4.32 Material Handling and Storage**

### **4.32.1 Storage Areas**

- Storage areas are to be organized and heavy items should be stored close to the ground to prevent them from falling on workers.
- Items stored on upper levels or above fridges must be arranged so that they cannot roll or slide onto workers below.
- Nails and staples need to be removed from boxes, crates or wood.
- Entrances and exits need to have a clear path in-front of them. Storing good, materials or garbage in such a way that it blocks the entrance or exit is not accessible and a new storage location must be found.

### **4.32.2 Storage of Flammable Materials**

- Flammable materials are to be stored away from heat sources and any ignition source.

### **4.32.3 Storage of Hazardous Chemicals**

- Refer to MSDS (material safety data sheets) for specific storage information on each product.
- Follow manufacture's recommendation for storage
- Post warning signs.
- Have equipment ready to clean up spills quickly

### **4.32.4 Back Care**

#### *General*

To prevent back injury, three factors are necessary

1. Proper posture
2. Correct lifting techniques – Lift with your legs not your back
3. Regular exercise

#### **Buddy System**

When attempting to lift heavy items and a mechanical means is not available, the buddy system (have two or more workers lift the item) must be implemented along with proper lifting procedures.

\*\*\*\*Heavy items must be lifted by a minimum of two people

#### **Exercise**

1. A good exercise program should consist of four basis parts:
2. Warm-up
3. Main workout

4. Strength and stretch
5. Cool-down

### **4.33 Working Alone**

All workers working alone must have two-way communication and must verbally report every hour to the health and safety designate.

### **4.34 Working with Cement**

#### *General*

Precautions must be taken to prevent the workers skin from coming in contact with any form of cement. Precautions must also be taken to prevent the worker from breathing in cement dust and particles

#### **4.34.1 Dry Cement**

The dust from dry cement can irritate the skin; dust in the eyes can cause redness, burns or blindness. If the cement dust is inhaled it can irritate the nose and throat and can cause trouble breathing.

If the cement dust mixes with sweat or damp clothing it can cause the dust to react and form a corrosive solution.

#### **4.34.2 Wet Cement**

It is important to get wet cement off the skin immediately, wet cement can cause skin burns and the burn may appear a few hours after skin/cement contact.

If wet cement gets inside boots or gloves or if it soaks through workers clothing and it can cause burns and ulcers to the skin.

#### **4.34.3 Silica**

Silica is an ingredient in cement and concrete, repeated exposure to silica dust can lead to silicosis a disabling and often fatal disease, there may also be a link between silica dust and cancer.

#### **4.34.4 Personal Protective Equipment When Working With Cement**

- a) When pouring cement a P,N, or R-95 mask must be worn.
- b) Wear eye protection for mixing, pouring and other work with dry cement.
- c) Alkali-resistant gloves must be worn when working with cement.

- d) Clothing should include coveralls with long sleeves and full length pants.
  - a. Pull the sleeves of your shirt over your gloves.
  - b. When working with wet cement tuck pants inside boots and duct tape around the top of the boot.
  - c. Wear waterproof boots high enough to keep the concrete from flowing into the top.

#### **4.34.5 Proper Practices**

- a) Whenever possible wet-cut cement blocks, rather than dry-cut to minimize the amount of dust.
- b) Work up wind from cement dust so the dust is not blowing on you.
- c) Remove rings and watches, cement dust can collect underneath and burn the skin.
- d) Remove any clothing that gets contaminated by cement.
- e) Do not wash your hand in the same buckets that the tools are cleaned in, use cold running water whenever possible.
- f) When your skin comes in contact with cement wash under cold running water as soon as possible.
  - a. If your skin feels like it is burning get medical attention immediately.
- g) After working with cement always wash your hands before, eating, smoking or using the toilet.
- h) Read MSDS for procedures to follow after eye or skin contact with cement.
- i) If your eyes are exposed rinse with cold water for at least 15mins, get medical attention if necessary.

## 4.35 Heat and Cold Stress

### 4.35.1 *Heat Stress*

Heat stress takes place when your body's cooling system is overwhelmed. It can happen when heat combines with other factors such as:

- Hard physical work
- Fatigue (not enough sleep)
- Dehydration (loss of fluids)
- Certain medical conditions.

**Heat stress can lead to illness or even death.**

#### **Employers' legal requirements**

Employers have a duty under Section 25 (2) (h) of the *Occupational Health and Safety Act* to take every precaution reasonable in the circumstances to protect the worker. This includes developing policies and procedures for hot environments.

### 4.35.2 *Heat stress symptoms*

**Heat rash:** itchy red skin.

**Heat cramps:** painful muscle cramps.

**Heat exhaustion:** high body temperature; weakness or feeling faint; headache, confusion or irrational behaviour; nausea or vomiting.

**Heat stroke:** no sweating (hot, dry skin), high body temperature, confusion, or convulsions. Get immediate medical help.

### 4.35.3 *Cold Stress*

When you're cold, blood vessels in your skin, arms, and legs constrict, decreasing the blood flow to your extremities. This helps your critical organs stay warm, but your extremities are at risk for frostbite.

**Frostbite** means that your flesh freezes. Blood vessels are damaged and the reduced blood flow can lead to gangrene.

The first sign of frostbite is skin that looks waxy and feels numb. Once tissues become hard, it's a severe medical emergency.

**Wind chill** accelerates heat loss—sometimes to a dramatic extent. For example, when the air temperature is  $-30^{\circ}\text{C}$ ,

- With no wind, there is little danger of skin freezing
- With 16 km/h wind (a flag will be fully extended), your skin can freeze in about a  
minute
- with 32 km/h wind (capable of blowing snow); your skin can freeze in 30 seconds.

When your core temperature drops, you're at risk for hypothermia. Early signs of

hypothermia are shivering, blue lips and fingers, and poor coordination. Soon your

breathing and heart rate slow down, and you become disoriented and confused.

Hypothermia requires medical help.

### **What you can do to prevent cold stress**

- Wear several layers of clothing rather than one thick layer.
- Wear gloves if the temperature is below  $16^{\circ}\text{C}$  for sedentary work, below  $4^{\circ}\text{C}$  for light work, and below  $-7^{\circ}\text{C}$  for moderate work.
- Take warm, high-calorie drinks and food.
- If your clothing gets wet at  $2^{\circ}\text{C}$  or less, change into dry clothes immediately to prevent hypothermia.
- If you feel hot, open your jacket but keep your hat and gloves on.
- Give workers warm-up and rest breaks in a heated shelter. The table below provides guidelines on maximum cold exposure. (Ontario has no legislated exposure limits for work in the cold.)

## 5.0 Safe Work Procedures

### 5.1 Hiring Procedure

#### *Upon Signing Up:*

- a) "ALL" employees must attend safety orientation before commencing employment. There will be no "acceptable excuses" for failure to attend.
- b) All employees must provide copies of all training records/certifications so it can be determined if they are eligible to perform the required tasks.

**NOTE: WORKERS SHALL NOT BE SIGNED UP UNTIL THEY ARE ABLE TO PRODUCE THE REQUIRED DOCUMENTATION.**

## **5.2 Safety Check List - Yard Set Up**

### **5.2.1 Fuel Storage:**

- a) Tanks shall be located the required distance from the office, shop or warehouse. (Check local requirements)
- b) Tanks shall be grounded.
- c) Tanks have to be bermed. (Check local requirements for berm size and if allowable, written permission to be obtained)
- d) Fuel tanks shall be equipped with fire extinguishers. (min 20 lbs.)
- e) Warning signs produce identifiers, and WHMIS labels shall be in place.
- f) Tanks shall be situated in a manner to allow easy access and protection from accident contact.
- g) All nozzles shall be equipped with automatic shut offs.
- h) A ladder or platform shall be in place to allow access for checking levels and filling tanks.

### **5.2.2 Bottle Storage:**

- a) The bottle rack shall be located the required distance from the fuel tanks, office, shop or warehouse. (Check local requirements, inform local fire department).
- b) Warning signs shall be in place.
- c) Signs designating full and empty areas shall be in place. All the bottles shall be in a secure and up-right position.
- d) The location and the type of rack should enable easy access and loading.

### **5.2.3 Traffic Control:**

- a) The employee parking area shall be clearly marked.
- b) The loading areas around the warehouse shall be marked.
- c) The truck turning signs shall be erected on either side of the yard driveway.

#### **5.2.4 Hazard Warning:**

- a) All overhead power and telephone lines in the yard shall be clearly marked.
- b) Installation of overhead lines to be avoided if possible.

### **5.3 Hand Location of Foreign Utilities**

- a) Crossing location and alignment of buried utilities will be established and marked prior to excavation.
- b) Supervisor will inform workers as to the size and nature of utility as well as any special instructions concerning excavation, prior to the work beginning.
- c) Workers shall wear and use all required protective equipment and clothing.
- d) During location operations, only probes with rounded tips, not pointed ones, shall be used.
- e) If any worker has reason to believe the foreign line is leaking, all workers shall evacuate the excavation site, and notify their supervisor or inspector.
- f) Excavations shall be dug in such a manner that the 4" vertical wall rule is observed. Soil conditions shall be taken into consideration and the excavation shall be sloped, benched or shored if necessary. Ladders will be used where necessary.
- g) Once the utility has been located, it shall be exposed in such a manner as to be clearly visible from ground level.
- h) Excavations shall be ribboned off in such a manner to provide protection to the utilities and others at the site.
- i) Product identifiers shall be posted at each location, specifying size, type of utility and contents.

## **5.4 Safe Lock-Out Procedures**

### **5.4.1 *Introduction:***

Experience has shown that accidental exposure to power supply in electrical installations, equipment, power lines, or the accidental exposure to starting machinery/equipment or the accidental exposure to a hazard from materials in pipes or other supply lines, while workers are working on such equipment, is a major cause of death and serious injury. Workers may be separated from or out of communication with those near the control devices.

This emphasizes the need for a uniform policy/procedure on safe lockout protection. There is no justification what so ever for the failure of any worker to properly lockout all applicable control devices on machinery/equipment to prevent accidental exposure to the power supply or movement of machinery/equipment or a hazard from materials in pipes or other supply lines.

This policy/procedure compliments governmental safety legislative requirements. Workers performing work machinery/equipment must strictly adhere to this policy/procedure.

Every worker required to work on such machinery/equipment shall be issued with an individual safety lock(s) where applicable, additional mechanical preventive measures such as safety blocks and chains must be used to prevent injury due to movement or dropping of equipment, parts or materials. Contractors and Service Personnel must have their own locks when required.

Safety locks must be used when locking out any type of machinery/equipment which may endanger the safety of the worker or others, should the machinery/equipment be started.

### **5.4.2 *Objective***

To protect people from injury due to accidental exposure to power supply in electrical installations, equipment or power lines, accidental exposure to the starting or moving of machines/equipment, each worker shall have control of all applicable energy sources, controls or isolating devices.

### **5.4.3 Procedure to Interrupt and Lock Out Energy**

Each worker performing work that requires locking out shall have control of all applicable energy sources. If more than one worker is working on the machine/equipment, each worker shall have control of all applicable energy sources.

The locking out of a machine or piece of equipment means shutting off or disengaging all applicable energy sources, controls or isolating devices and locking them in the off position with an approved safety lock and applying any additional securing devices required, such as blocks, pins, etc.

In the case of stored energy such as hydraulic, pneumatic, steam, etc. The built up pressure must be bled before work is started and valves locked in the off position. Where valves cannot be locked the line shall be blanked or disconnected and capped. Any tension or pressure, such as springs on a mechanism, must be released where possible.

In the case of stored electrical charge, i.e. capacitor, energy shall be discharged before work is started.

Before turning off the power, check to be sure that no one is operating the machinery/equipment. The operator must be informed before power is turned off.

Other energy control practices such as pulled fuses, push buttons, joy plus, selector switches (including the key type), must never be used as a substitute for lock out. Other effective energy control practices may, however, incorporate lockable devices, which may require the application of personal safety locks.

### **5.4.4 Special Precautions:**

Yellow Wire

In all cases, electrical yellow wire interlock circuits must be treated as live conductors whether locally locked out or not. Yellow wire is used to feed electrical information from one machine to another in a multi-station equipment application.

Certified Test Equipment

All test equipment used to verify power supply to electrical installations, equipment and power lines must be suitable for the application. It must be certified by Canadian Standards Association or certified by Provincial Hydro Special Inspection. All test equipment must be maintained in good safe working condition. All test equipment must be tested on known live power source prior to use for lockout purposes.

Use and Control of Safety Locks and Keys

Safety locks are to be issued to the worker with only one key for each lock. The key shall be capable of opening only the lock assigned to that worker. All personal safety lock(s) must be properly identified and personalized with the worker's name and ID number. Under no circumstances will personal safety lock(s) be loaned or borrowed. These locks shall not be used for toolboxes, lockers, drawers, etc.

#### Lockout Between Shifts

When work on machinery/equipment that has been locked out must be continued on a following shift, the machinery/equipment shall remain locked out as required until the following shift applies their locks, according to local procedures.

The reason for lock out must be communicated according to local procedure.

#### **5.4.5 Removing Safety Locks**

The removal of a safety lock by anyone other than the worker to whom it belongs is permitted only if the following procedure is followed. A member of supervision responsible for the worker on the affected machinery/equipment may cut off a safety lock if the following steps are taken:

1. Establish the owner of the lock
2. Attempt to contact the owner and document the attempt.  
Regardless of contact with the owner, involve one (1) other member of supervision.
3. Inspect the machinery/equipment thoroughly to ensure it can be operated safely. If so, remove the lock and take due care.
4. A lock removal document must be completed and a copy given to the owner of the lock prior to commencement of their next shift.  
Copies shall be forwarded to the Joint Health and Safety Committee.

#### **5.4.6 Training and Review**

Every worker shall be made aware of the Safe Lockout and Test Policy/Procedure.

Workers who are required to lockout a piece of machinery/equipment shall be trained on the Safe Lockout and Test Policy/Procedure. They shall receive a review at least once a year. This training will include a physical demonstration of the procedure. **Appendix 23** "Safe Lock Out Test Review Sheet"

Supervisors and engineer who may be involved in lockout or in specifying equipment requiring lockout devices shall be trained in the Safe Lockout

and Test Policy/Procedure. They shall receive a review of this procedure at least once a year. This training will include a physical demonstration.

The training and review the procedure will be documented on the Safe Lockout and Test Review Sheet. This form must be signed and dated by both the trainer/supervisor and the worker. This form is to be completed and retained in the worker's personal record.

#### **5.4.7 Equivalency**

The Safety Committee must approve any deviation, which modifies the intent of this policy/procedure.

Audits

The following audits will be performed:

1. The Health & Safety Committee will conduct and document an annual audit.

#### **5.4.8 Safe Lockout Procedure**

1. Know the details of the policy
2. Use only approved safety lock(s)
3. Your name and ID number must be on the lock(s)
4. Protect yourself from automatic accidental start up. Always lock-out when placing yourself in a dangerous position. Never rely on another person's lock
5. To properly lock out:
  - a. Locate all power sources for the machine(s) and shut them down
  - b. Apply your safety lock(s) to each source of power
  - c. Bleed the build-up pressure
  - d. Lock-out interconnecting equipment that could injure you
  - e. Test it make sure all power sources are "DEAD"
  - f. Use mechanical safety devices
  - g. Where necessary (safety blocks, chains, pins, etc.)
6. Your lock list must be removed at the end of your shift
7. When removing your lock list, before the job is finished-
  - a. Explain on the danger tag why the machine is shut down
  - b. Sign your name, ID number, shifts and date the tag
  - c. Remove your lock(s)
  - d. Attach tag to switch or valve

**IF IN DOUBT- CONSULT YOUR SUPERVISOR**

#### **5.4.9 Definitions:**

Blanked  
Controlled

Insertion of physical barrier to prevent flow.  
Lockout measures taken have effectively removed/interrupted sources of energy.

Worker	Any personnel working on site, including outside contractors and service people
Energy Sources	includes but is not limited to: water, steam, gas, electrical, hydraulic, air gravity, tension and pneumatic. There are two type of energy; Kinetic- force caused by motion, Potential force stored in an object.
Lockout	the isolation of energy sources to ensure no start-up or movement of machinery/equipment or exposure to a hazard from pipe, supply line or electricity
Multiple lock out	a device which facilitates the application of more than one safety lock.
Devices or CLASP Personal safety lock	safety lock(s) assigned to employees for their use only.
Qualified	an individual because of his/her knowledge, training and experience s competent to perform particular tasks
Stored energy	a general term for any energy remaining in the system or machinery/equipment after primary energy sources have been shut off and locked out.

## **5.5 Procedures for Rescue of a Worker Suspended in a Safety Harness**

### *General*

The rescue of a worker who has fallen and is being suspended in his/her safety harness needs to be undertaken as quickly as possible for several reasons:

1. The worker may have suffered injuries during the fall and may need medical attention.
2. Workers suspended in their safety harness for long periods may suffer from blood pooling in the lower body and this can result in “**suspension trauma.**” (See attached information on treating suspension trauma – have this available on site to provide to First Aid team and to external emergency crews.)
3. The suspended worker may panic if they are not rescued quickly.
4. The event that led to the fall may create additional risks that need to be addressed.

### **5.5.1 General Rescue Procedures:**

#### **A. If Elevating Work Platform is available on site:**

- I. Bring it to the site and use it to reach the suspended worker.
- II. Ensure that rescue workers are protected against falling.
- III. Ensure that the EWP has the load capacity for both the rescuer(s) and the victim.
- IV. If the victim is not conscious, 2 rescuers will be probably be needed to safely handle the weight of the victim.
- V. Position the EWP platform below the worker and disconnect his lanyard when it is safe to do so.
- VI. Treat the victim for Suspension Trauma and any other injuries.
- VII. Arrange for transport to nearest hospital.

**B. If no Elevating Work Platform is available:**

- I. Where possible, use ladder(s) to reach the victim.
- II. Rig separate lifelines for rescuers to use while carrying out the rescue from the ladder(s).
- III. If worker is not conscious or cannot reliably help with his/her own rescue, at least 2 rescuers may be needed.
- IV. If worker is suspended from a lifeline, where possible, move the suspended victim to an area that can be safely reached by the ladder(s).
- V. If victim is suspended directly from his/her lanyard or from a lifeline, securely attach a separate lowering line to the victim's harness.
- VI. Other rescuers should lower the victim while he/she is being guided by the rescuer on the ladder.
- VII. Once the victim has been brought to a safe location, administer First Aid and treat the person for Suspension Trauma and any other injuries.
- VIII. Arrange for transport to nearest hospital.

**C. If the injured person is suspended near the work area and can be safely reached from the floor below or the area they fell from:**

- I. Ensure that rescuers are protected against falling.

- II. If possible, securely attach a second line to the workers' harnesses to assist in pulling them to a safe area. (Note: at least 2 strong workers will be needed to pull someone up.)
- III. Ensure that any slack in the retrieving lines is taken up to avoid slippage.
- IV. Once the victim has been brought to a safe location, administer First Aid and treat the person for Suspension Trauma and any other injuries and arrange for transport to the nearest hospital.

**D. *If a person has fallen and is suspended in an inaccessible area (e.g. a tower, against a building or structure that has no openings):***

- I. Specialized rescue techniques are needed for this type of situation. It may involve a rescuer rappelling or being lowered down to the victim, it may involve using the lifeline to retrieve the fallen worker, or the use of high-reach emergency equipment.
- II. Due to the inherent risk to the rescuers and/or the victim, this type of rescue should not be undertaken by people without specialized training and experience.

## **5.6 Proper Lifting Procedures- Manual Lifting**

1. Plan Your Move
  - a. Size up the load and make sure pathway is clear
  - b. Get help if needed
  - c. Use a dolly or other device if necessary
2. Use a wide balanced stance with one foot slightly ahead of the other.
3. Get as close to the load as possible.
4. Tighten your stomach muscles as the lift begins.
5. When lifting, keep your lower back in its normal arched position and use your legs to lift.
6. Pick up your feet and pivot to turn – do not twist your back.
7. Lower the load slowly, maintaining the curve in your lower back.
  - Avoid lifting above shoulder height- this causes the back to arch, placing heavy stress on the same joints of the spine.
  - Do not catch falling objects.
  - Push rather than pull. Pushing allows you to maintain.

## 5.7 Procedures When Working in Hot, Humid Conditions

- 1) Increase the frequency and length of rest breaks.
- 2) Provide **cool drinking water** near workers and remind them to drink a cup every 1/2 hour.
- 3) Caution workers about working in direct sunlight.
- 4) Train workers to recognize the signs and symptoms of heat stress. Start a "buddy system" because it's unlikely people will notice their own symptoms.
- 5) Tell workers to wear light summer clothing to allow air to move freely and sweat to evaporate. They should always wear shirts to protect themselves from direct sunlight.

## 6.0 Safety Rules

### 6.1 Equipment Operation and Maintenance

- a) Only employees who have demonstrated competency in knowledge and operating capability should be allowed to operate machinery and equipment.
- b) Do not operate equipment which is in an unsafe condition. All operators must make a careful inspection of their equipment at the start of each shift. Equipment deficiencies are to be reported to your supervisor immediately.
- c) Log Books, where required, shall be located on the equipment and the operator shall ensure they are kept up to date.
- d) In provincial jurisdictions where special licenses are required for select equipment, (i.e.: Hoist Tickets) the operator shall supply the employer with a copy of such licensing.
- e) Seat belts shall be maintained and worn at all times.

- alarm.
- f) All heavy equipment shall be equipped with an operational back up alarm.
  - g) Operators shall keep swampers and oilers within sight at all times.
  - h) Oilers and swampers are required to wear fluorescent vests (fluorescent blaze or international orange) while performing duties.
  - i) The operator of any crane, backhoe, or any other lifting device is prohibited from bringing the boom or any part of the machine or load within the arc zone of high voltage lines. Check provincial and local hydro regulations for safe working distances.
  - j) No worker other than the operator shall ride on a machine unless a seat is provided.
  - k) All equipment outfitted with a winch shall ensure the operator is protected from the danger of flying cables by the means of a substantial cable guard.
  - l) When stopped for any reason and the operator dismounts or another worker mounts the equipment, the operator shall ensure the safety Lockout is engaged or the machine is turned off.
  - m) Where an unattended unit is parked on sloping ground or adjacent to an excavation, the operator shall ensure the brakes are applied or the machine is blocked to prevent movement.
  - n) Wiping, oiling, adjusting or repairing shall not be undertaken while the machine is in motion. Oiling and greasing may be carried out by an oiler or serviceman with only the power unit left running and done under the direction of the operator.
  - o) When significant adjustments or repairs are necessary, all power units shall be shut down before adjustments or repairs are commenced. Lockout procedures are recommended.
  - p) No machine shall be operated unless manufacturer guards are installed and properly maintained.
  - q) No one shall climb on any equipment while it is in motion.
  - r) No other person other than the operator or other authorized person is permitted in the cab while equipment is in operation.
  - s) Suspended machines or heavy parts, beneath which workers must work, shall be blocked.
  - t) Engines shall not be turned over by means of fan belts or other belts.
  - u) Decks, platforms, steps, etc. shall be kept free from oil, grease and loose tools.

## 6.2 Excavations

- a) Excavations must be carried out in accordance with Provincial Health & Safety Regulations. A Professional Engineers report addressing support structures or sloping requirements including written instructions, may be required on certain types of excavations.
- b) Prior to the start of excavation, utility services in the area, such as electrical, gas, water and sewer must be located. The facilities of first call should be utilized. All hazards that could result in worker injuries be removed or controlled.
- c) Trees, utility poles, rocks or similar objects near the area to be excavated must be removed or secured to ensure worker safety.
- d) Pointed tools must not be used to locate gas or electric facilities.
- e) Excavation slopes or shoring must be inspected daily or more frequently if required and must be determined to be sound.
- f) The sides of an excavation must be trimmed or scaled to remove any loose material that could endanger workers.
- g) A level area extending 1 metre (3 feet) back from the edge of the trench must be maintained free of materials and equipment.
- h) In excavations over 1.5metres (4 feet), a ladder must be available in the immediate area of the workers. The ladder shall be of such a length that it goes from the bottom of the excavation and extends 1 metre (3 feet) above the ground.
- i) Manufactured or prefabricated support systems including trench boxes and shoring cages must be designed and certified by a professional engineer. The certification must show how and for what soil types and depths the support system may be used and must be available at the site during the use of the system.
- j) The Canadian General Standards Board for specifications for stake colour used to mark underground facilities and has adopted the standard color convention for staking such facilities. The specification is presented below:

<i>Natural Gas or Oil Pipelines.....</i>	<i>Fluorescent Yellow</i>
<i>Telephone or Cable TV Systems .....</i>	<i>Fluorescent Orange</i>
<i>Water Systems .....</i>	<i>Fluorescent Horizon Blue</i>
<i>Electrical Systems .....</i>	<i>Fluorescent Red</i>
<i>Storm and Sanitary Sewers .....</i>	<i>Fluorescent Green</i>
<i>Proposed Centerline of Excavation .....</i>	<i>White Stake or unpainted stake with White Ribbon.</i>
<i>Appurtenances .....</i>	<i>White and Black stake or</i>

<i>Right of way limits, temporary workroom limits, slashing limits .....</i>	<i>unpainted stake with Fluorescent Pink ribbon  Fluorescent Pink stake or unpainted stake with Fluorescent Pink ribbon</i>
<i>Survey Documents, legal survey, bars, Bench marks, reference bars .....</i>	<i>Fluorescent Purple stake or unpainted stake with Fluorescent Purple ribbon</i>
<i>Restricted Areas .....</i>	<i>Fluorescent Pink 3" tape marked with wording "Restricted Area"</i>

k) Remember

- i) No worker shall enter a trench or excavation unless provincial requirements have been met.
- ii) A worker does not have to be completely buried in soil to be seriously injured or killed. Workers who have been only buried up to their waist have died as a result of the pressures exerted by the soil on their bodies.
- iii) Excavations in, or near, "back-filled" or previously excavated ground are especially dangerous since the soil is loose and does not support itself well.
- iv) Water increases the possibility of a cave-in. The increased water pressure exerted on the soil can be the final factor in causing the walls to collapse.
- iv) Clay can be extremely treacherous if dried by the sun. Large chunks of material can break off a trench wall after having been stable and solid for a long period of time.
- v) It is not safe to assume that because the walls of an excavation are frozen that it is safe to enter. Frozen ground is not an alternative to proper shoring.
- vii) An excavation should be considered a confined space and appropriate evaluation and controls undertaken to ensure workers are not exposed to contaminated atmospheres.
- viii) Should a ditch or excavation fail, do not attempt rescue with mechanical equipment.

### 6.3 Power lines

When work is to be performed in the vicinity of overhead power line, the following precautions should be observed.

- a) Proper signage identifying hazard shall be erected.
- b) Safe clearance distances observed (check local requirements).
- c) Qualified personnel only to operate equipment in the immediate area of a power line.

#### Remember

- i) You do not have to make direct contact with a power line to be injured.
- ii) Check local hydro safe working distance.

### 6.4 Compressed Air

- a) Any worker who is in proximity of a working air tool(s) that exceed the safe noise level shall wear approved hearing protection.
- b) When connecting air hoses, a positive lock system is to be used such as safety clips on universal type fittings. Hoses and fittings are to be checked periodically for damage.
- c) Air supply at the compressor shall be shut off and the tool bled before disconnecting a hose.
- d) The hose shall be held securely and aimed in a safe direction away from all workers and public when blowing out debris.
- e) All air compressors shall be parked and secured at a safe distance from the excavation pit to prevent inadvertent rolling or falling into the pit.
- f) Air tools shall be operated at a maximum of 110 psi (760 kPA) air pressure.
- g) It shall be ensured that all guards, covers, controls or other safety devices are not missing or inoperative.
- h) The immediate work area shall be kept clear of all unauthorized personnel.
- i) An air tool shall not be used for any purpose other than that for which it was intended.

## **6.5 Gas Powered Equipment**

- a) Generators shall have a Ground Fault Interrupter circuit breaker for each circuit used.
- b) Jumping Jacks/compactors, as with all equipment that must be moved manually, will be lifted in a proper manner using the legs not the back.
- c) Water pump hoses will be connected and used in a proper manner ensuring back pressure cannot build up to an unsafe level in the discharge line, causing the pump to overheat.
- d) When refuelling small gas engines such as those on jumping jacks, generators and water pumps, the temperature of the equipment will be cool enough to avoid combustion in the event of spillage.
- e) All engines will be operated in a well-ventilated area. If required to operate in deep trenches or enclosed vans, sufficient ventilation or exhaust hoses must be used.

## **6.6 Backfilling**

- a) No backfilling shall be commenced until all personnel are clear of the working area.
- b) The operators of any machines or vehicles being used in backfilling operations shall keep their swampers in sight at all times.
- c) The operators of any truck employed in backfilling operations shall ensure that everyone is clear of the area before approaching the ditch or dumping the load.
- d) Dumping of loads will be as directed by the spotter signals to be used shall be in place prior to dumping.

## 7.0 Maintenance Program

### 7.1 Policy

It is the policy of Imperium Contracting & Project Management Inc. to maintain all Equipment and tools, so as to reduce the risk of injuries to employees or damage to property.

To accomplish this, a Maintenance Program shall be maintained and shall include the following components:

- i) Adherence to applicable regulations, standards and manufacturer's specifications;
- ii) Scheduling and documentation of all maintenance work; and,
- iii) Services of appropriately qualified maintenance personnel.

The management shall be responsible for the application of this program.

**NOTE: *The safety information contained within this policy shall not take precedence over applicable Provincial O.H. & .S. regulations.***

### 7.2 Program

#### 7.2.1 **Manufacturers Specifications**

All equipment and tools shall be used in accordance with the manufacturer's specifications and recommended usage. In other words, use the correct tool or piece of equipment for the work to be performed. These tools and/or equipment shall be maintained according to that manufacturer's specifications or recommendations as well.

#### 7.2.2 **Regulations**

All applicable regulations (Provincial and/or Federal) pertaining to the maintenance of tools and or equipment shall be adhered to. The regulations may differ province to province.

#### 7.2.3 **Standards**

Standards referred to in any regulation or specification shall be met. Where required, outside resources such as qualified engineering personnel shall be used to ensure these standards are obtained.

#### **7.2.4 Equipment Inventory**

A list of all equipment requiring maintenance and/or repair 'shall be assembled.

The list shall include but not be limited to the following items:

- a) Vehicles
- b) Tracked and mobile equipment
- c) Hoisting devices
- d) Power Tools
- e) Temporary lighting and heating equipment
- f) Cable and slings
- g) Hitches and towing devices
- h) Clamps and blocks

#### **7.2.5 Scheduling**

A preventative maintenance schedule shall be developed for the items on the equipment list. The schedule shall be designed to suit the needs of both "Project" and "Overhaul" requirements.

#### **7.2.6 Qualifications**

Qualified personnel shall perform all maintenance duties. This shall also apply to work performed by outside forces.

#### **7.2.7 Documentation**

Documentation shall be kept on all maintenance work performed on the equipment or tools.

This documentation shall include:

- Service and lubrication records
- Monthly vehicle inspection records
- Repair and overhaul records
- Copies of work orders performed by outside forces.

All documents shall be filled out and signed by the persons performing the work.

### **7.2.8 Monitoring**

Personnel responsible for operating and/or maintaining equipment must ensure that appropriate checks and maintenance are completed.

As well, management personnel responsible for the equipment division shall ensure the program is being carried out according to company policy.

## **8.0 Training**

### **8.1 Policy**

All supervisors and site personnel must receive safety orientation prior to the commencement of their duties. This orientation shall cover Safety Programs and requirements of the job.

Employees performing duties requiring special licensing or training must have proof of such training in their possession before commencing their duties. Supervisory staff shall ensure qualified and competent employees fill these positions. Copies of licensing and training shall be kept on file. **Appendix 24** "Training Sheet"

Supervisors shall evaluate an employee's performance to determine whether the employee is competent at the required work task. Direct supervision must be given to employees that are unfamiliar with certain tasks.

Ongoing safety instruction shall be provided to support competency and specific circumstances, as required. Training shall be documented.

### **8.2 Employee Orientation**

It is the supervisor's responsibility to ensure that the worker upon being hired is provided with the following:

- a) Orientation covering company safety programs and safe work practices, as well as reference to applicable Federal or Provincial Regulations and the Project Emergency Plan.
- b) A description of workers duties and responsibilities.
- a) The name of the worker's immediate supervisor and the supervisor in charge of the project.

- b) The name of the first aid attendant and the availability of first aid services.
- c) The name of their Safety Committee Representative (when required).

The supervisor shall evaluate an employee's performance to determine whether the employee is competent at the required work task. Direct supervision should be given to employees unfamiliar with certain tasks.

### **8.3 Project Safety Orientation Outline (Employee)**

#### **8.3.1 Objectives**

- a) Introduce employees to the company Accident Prevention Program.
- b) Familiarize employees with company policy with regard to job safety.
- c) Identify unique or specialized areas of project construction.

#### **8.3.2 Practice**

- a) Attendance sheet and Safety handbooks distributed.
- b) Description of the project given.
- c) Description of safety objectives for project explained.
- d) Safety Policy reviewed.
- e) Section 1 of Company Safety Program reviewed.
- f) WHMIS review, discuss use of propane, labeling, classification and material safety data sheets.
- g) Point out importance of knowing the rules of safe practice. Special emphasis to be placed on the following items:
  - i) Power lines: Clearances to be given and procedures for working around explained.
  - ii) Excavations: Provincial rules regarding ditch slope for bell holes, maximum straight ditch workers may safely enter, use of ladders.

- iii) Hot Lines: Color coding and marking of Hot Lines. Use of equipment and clearances to be observed when working beside. Use of ramps and clearances when excavating around.
- iv) Seat belt usage on equipment promoted.
- v) Rigging: Use of and maintenance of round slings discussed, rigging section in handbook regarding cable clips referred to.
- vi) Pinch Points: Importance of being aware when working around the pipe and equipment.
- vii) Flagging Concerns: Use of flag persons when crossing loads and equipment across roadways.
- viii) Weather: Working with the weather, proper footwear and clothing, adjusting your pace.

## **8.4 Project Safety Seminar Outline (Supervisors)**

### **8.4.1 Objectives:**

- a) Familiarize supervisors with company policy with regard to job safety.
- b) Provide supervisors with an understanding of their role and responsibilities within the safety program.
- c) Provide supervisors with an understanding of their responsibilities for safety according to Provincial Legislation.

### **8.4.2 Practice**

- a) Safety seminars to be held for supervisors at the beginning of each project.
- b) Supervisors are provided with a copy of the Imperium Contracting & Project Management Inc. Safety.
- c) Safety Programs to be reviewed as to content and responsibilities.
- d) Provincial Safety Regulations to be discussed with a special emphasis on the following:
  - i) Excavations: sloping requirements, use of support systems, worker entry.
  - ii) Power lines: clearances and safe work practices.

- iii) Personal Protective Equipment (PPE): use of and maintenance of.
- iv) WHMIS: Applying it to the work.
- v) Traffic Control: Use of flag Personnel.
- vi) Usage of seatbelts on equipment.
- e) Owner company's special rules and project conditions discussed.
- f) Project emergency response plan reviewed.

## **9.0 Accident/Incident Reporting and Investigation**

### **9.1 Policy**

All accidents or incidents must be reported to supervisory staff that shall in turn ensure safety personnel are notified. Reports shall be submitted for the following incidents:

- Accidents requiring medical aid (lost time, fatalities),
- Equipment damage, property damage, fires, fuel, lubricant or chemical spills or near misses.

Where required, notice of accidents/incidents shall be reported to local, provincial or federal authorities within the specified time period. Safety personnel shall investigate all accidents/incidents and appropriate action shall be taken to prevent reoccurrence. Senior management shall be advised of all accidents/incidents and shall review suggestions for remedial action.

**Appendix 18** "Accident/Incident Investigation Form"

## 10.0 Inspections

### 10.1 Policy

Supervisors shall continually inspect for unsafe work practices and conditions, and initiate corrective action. As well, all employees are to report unsafe conditions to their supervisors or safety personnel, who shall ensure corrective measures, are taken without delay.

The Safety Personnel along with the foreman/supervisor shall perform a bi-weekly formal inspection. This inspection shall be documented and reviewed by a member of senior management.

#### Appendix 1 "Weekly Inspection"

# 11.0 Crisis Communication/Emergency Response

## 11.1 Overview

### 11.1.1 OBJECTIVE

The purpose of these Emergency Procedures is to ensure a rapid recovery from a serious accident or deleterious event, to reduce uncertainty and minimize liability, while protecting the credibility and reputation of Imperium Contracting & Project Management Inc.'s specifically the objectives are:

- i) minimize injury to the public and workers,
- ii) minimize damage to the public and property,
- ii) assist in restoring normal conditions as directed by provincial
- iii) authorities (these tasks may, if so directed, take precedence over the above mentioned steps).

These guidelines and procedures are specific to each Project should an emergency develop while working. This plan does not detail safe work practices which apply to the Project but rather deals with how to respond should an emergency arise. These procedures are not intended to eliminate personal judgment and initiative, but instead have been developed to ensure effective emergency communications and follow-up reporting.

The person responsible for initiating and following through the crisis communication protocol is the most senior Imperium Contracting & Project Management Inc. worker at the site of the incident.

It is hoped that these emergency procedures will not have to be used. This will only be possible if everyone is extremely alert, adheres to safe work practices and follows the instructions.

### 11.1.2 CRISIS COMMUNICATION PROTOCOL

- a) Crisis Communications Priorities

The first step is to quickly identify resources at hand and delegate priority activities (e.g. initiate communications render first aid, crowd control etc.).

If there is a gas emergency first call the local gas distributor. The gas personnel will usually then take charge of the situation and all Project and contractor personnel will take direction from them.

If the emergency is the result of a broken power line or electric cable, call local Hydro first. Hydro personnel will initiate the emergency response and take charge.

Once the emergency response has been initiated, contact the Project Superintendent/ supervisor. If the Construction Superintendent is not readily available then contact sequentially either the Safety Personnel net in charge of the site. Imperium Contracting & Project Management Inc. is responsible for notifying and reporting to all owners, authorities and regulatory agencies as required.

The priority of actions to be taken by the initial delegation and subsequent follow-up personnel is as follows:

- i) protect yourself,
- ii) minimize personal injury to others,
- iii) minimize property damage,
- iv) make damaged facilities safe,
- v) protect the environment.
- vi) minimize economic impacts.

Possible incidents which could occur during a construction Project are as follows:

- i) gas emergency.
- ii) communications/cable breakage,
- iii) electrical emergency.
- iv) environmental emergency.
- v) industrial accident,
- vi) public complaint.

A separate procedure has been outlined, detailing the reporting requirements, for each possibility. If more than one type of emergency occurs at the same time, refer to the procedure and reporting requirements for each type of incident.

- b) Emergency Call Report

It is essential that each phone call and conversation be properly documented. It is imperative that the sequence, time and notes be recorded for each contact.

### **11.1.3 DEALING WITH NEWS MEDIA**

In a time of crisis it is essential for a company to demonstrate that it is in control of the situation; that the crisis is being handled in a professional and competent manner. The company will be in the spotlight; confidence must be instilled by its management in the eyes of many public agencies: e.g., regulatory authorities, governments, clients as well as the general public.

Most crisis situations will draw news media attention. Handled effectively, the news media can, in some cases, assist in quickly reaching key audiences with the appropriate message. Handled poorly, the news media can significantly damage the immediate and long term credibility and reputation of the Owner Company. The following criteria are essential for successful media relations:

- a) only the key spokesperson will respond to news media queries.
- b) if physical property or lives are threatened or damaged/injured, the key spokesperson will go to the site immediately and will identify themselves to the news media at the site.

Fundamentally do not offer personal opinion nor speculate, do not place blame nor accept liability and refer media to the designated spokesperson. Unless otherwise directed, all media communication shall be channelled through the designated spokesperson for the Project.

## **11.2 Industrial Accident**

### **11.2.1 ACTION**

In the event of an industrial accident, the following should be acted upon immediately:

- a) If there is a fire or emergency call 911 or the local emergency number for a rescue.
- b) Contact First Aid Personnel:
- c) Contact Safety Personnel:
- d) Contact Project Superintendent and/or Supervisor.
- e) Identify yourself to the fire and police personnel and representatives of other agencies as they arrive on site.

### **11.2.2 REPORTING**

A report must be submitted to Imperium Contracting & Project Management Inc. with 24 hours of any emergency by the person reporting and the person responding to the emergency which must detail each call made in response to the incident.

## **11.3 Gas Emergency**

### **11.3.1 ACTION**

The following are classified as gas emergencies:

- hitting a gas line
- detecting a gas leak

During any gas emergency, the following procedure should be enacted:

- i) Check for and eliminate possible sources of ignition:
  - no smoking or open lights
  - stop all stationery engines (i.e., shut off the fuel supply if a spark plug is normally shorted to stop the engine)
  - prevent vehicle traffic from passing through the area.
- ii) Warn others and secure the area. Although the area to be evacuated will be dependent upon the facility involved, during any gas emergency people should be kept at least 30 metres (100 feet) away.
- iii) If someone is overcome by breathing a gas filled atmosphere get them to fresh air, call 911 or local emergency number, use artificial respiration if necessary keep the individual warm and quiet. If there is an injury or fire, call 911 or local emergency number for a rescue.
- iv) Contact the utility owner to initiate their Emergency Response Plan. Be prepared to provide an accurate description of the location of the incident and, if possible, the type of facility involved. Once the Owner Company is contacted, all Project and contractor personnel may be expected to take direction from Emergency Services.
- v) Contact the following Imperium Contracting & Project Management Inc. Construction personnel:

- i) Superintendent
- ii) Safety Coordinator
- iii) Identify yourself to the fire and police personnel and representatives of other agencies as they arrive on site.

### **11.3.2 REPORTING**

A report must be submitted to Imperium Contracting & Project Management Inc. Safety within 24 hours of any emergency by the person reporting and the person responding to the emergency. This report must detail each call made in response to the incident.

## **11.4 Emergency Response Plan**

Preparedness:

The following response plan has been developed to help you to effectively react should an unexpected incident (accident, serious injury, fire, explosion, etc.) occur in your work area. A map of the work area is included with this plan, the marked shoe-fly's are to be used as evacuation routes should the need arise; other copies are posted at various locations throughout the project. Also included is a list of phone numbers for local emergency services.

Emergency equipment as required by a response team shall be available for immediate use and regularly inspected. If required, response teams shall be formed and are to receive special training.

Firefighting equipment shall be placed at suitable locations throughout the work site. Personnel at these locations shall be competent in the use of such equipment.

## **11.5 First Aid**

The company shall supply qualified personnel to provide first aid treatment. As well, equipment, supplies and suitable transportation for injured parties are also provided. These services are in accordance with Provincial requirements.

### **11.5.1 Bleeding**

- a) Apply hand pressure over top of the wound.
- b) Elevate the limb over heart level if possible.
- c) Apply a compress bandage (if available) and secure the

bandage.

(If the bandage becomes blood soaked, DO NOT REMOVE. Apply another bandage over top.)

- d) Check to ensure that circulation has not been cut off below the wound site. This will be noticeable by a change in skin colour or by numbness.

(Bandages need to be secured to control the bleeding, but not so tight as to cut off the circulation below the wound.)

- e) Elevate the injured limb on a pillow or blanket, or by means of a sling, and transport to medical aid.

### **11.5.2 Electric Shock**

The care for victims of electrical shock is:

- a) Before treating ensure that the hazard of electrical shock has been removed.
- b) If the casualty is unconscious check for breathing. If he is breathing, position him on his side. If he is not breathing administer mouth to mouth resuscitation, then check for heart beat by taking the pulse. If the casualty does not have a pulse, administer CPR.
- c) Check for further injuries that may result from a fall, such as fractures. If you suspect a spinal injury do not move the person.
- d) Check for entry and exit wounds of the electrical charge. Treat as open wounds by covering with clean dressings and securing them.
- e) Seek medical assistance.

### **11.5.3 Emergency Breathing**

- a) Is the person breathing?

Check for breathing by placing your ear close to the casualty's mouth, to feel and hear air movement, and by looking at the chest to see if there is any chest movement.

- b) Is there the possibility of a neck injury?

Check by running the tips of your fingers down the vertebrae at the base of the skull, and down between the shoulders.

Remember, movement of the neck could make the injury worse. Some types of accidents often result in neck injuries - such as falls

where the casualty lands off their feet - or falls when the casualty strikes their head. Do not move them.

If history of the accident a possible neck injury, then artificial respiration should be administered using the jaw thrust. This is accomplished by first positioning the rescuer at the side of the casualty's head. The rescuer's fingers are placed under the angle of the casualty's lower jaw, one hand on each side, thus lifting the neck upward and forward to lift the tongue off the back of the throat. The rescuer's cheek then seals off the nose of the casualty as breaths are given.

- c) If the casualty is not breathing and no neck injury is suspected:
- i) Kneel beside the casualty. Place hand on forehead and tilt backward at the same time. Lift the chin by hooking your thumb under the chin and pulling the chin up toward the ceiling (sky). This will lift the base of the tongue off the back of the throat. This is referred to as opening an airway.
  - ii) Second Breathing Check.  
Look inside the mouth to ensure there are no objects such as gum or food. (If there is, clean these out with your finger).
  - iii) Close the air passage to the nose by pinching close the soft lower portion of the nose. This is to be done in such a way that air will not be allowed to escape through this air passage.
  - iv) Place your mouth over the casualty's mouth and blow over the casualty's mouth to deliver two long breaths.  
  
Look toward the casualty's chest to see if the chest is rising and falling. Continue to blow air into the casualty's lungs once every five seconds or 12 times per minute.  
  
Continue until the casualty revives or until a doctor pronounces the casualty dead, or until a trained person can relieve you, or until you are physically unable to carry on.
  - v) When the casualty revives, and if injuries permit, turn the casualty on their side.
  - vi) Anyone who has been unconscious and/or has stopped breathing and had to be resuscitated, must seek medical attention.

**NOTE: There are many possible concerns when dealing with injured people. It is imperative to have trained First Aiders on your crew**

## **11.6 Medical Emergency**

- a) Stop work in the area of the accident immediately. If possible begin first aid at once. Control bleeding and ensure casualty is breathing. Do not move the person unless you believe a further hazard to them exists.
- b) Contact the company first aid personnel.
- c) Remain Calm. Give the location of the accident and the nature of the injury.
- d) Once the injury has been assessed by company first aid personnel or other qualified persons, the delegated person shall contact emergency services if needed, and give the following information:
  - i) Nature of the injury and number of injured persons.
  - ii) Exact locations of injury site. Refer to the map for best access.
  - iii) If company first aid is transporting injured persons, have dispatch call the hospital with injury information.
  - iv) Have dispatch contact safety coordinator and superintendent.
  - v) If company first aid is transporting the injured party, send along a spare driver or first aider if required.
  - vi) Arrange for someone to guide ambulance from the highway to accident site. Remember most ambulances are two wheel drive.
  - vii) If a helicopter is required, prepare a touch down area. This area should be at least 200 feet wide and at least 200 feet long. This area will be free of vehicles, equipment, people and any obstructions that could interfere with the rotors of the helicopter (Spill piles, overhanging trees, skidded pipe, etc.). Mark this area with flares, survey ribbon, or fluorescent paint as to make it visible from the air. Have personnel control access into this area. Non-essential personnel shall not be permitted access.
  - ix) Do not move any equipment, materials, or other evidence involved in the accident. If possible, ribbon off the area so as not to disturb the accident site.
  - x) Keep all witnesses at the scene. Statements will be required by safety.

- xi) Do not move any equipment, materials, or other evidence involved in the accident. If possible, ribbon off the area so as not to disturb the accident site.
- x) Keep all witnesses at the scene. Statements will be required by safety.
- xi) Do not resume work operations until cleared with the safety coordinator.

## **11.7 Project Emergency Response Plan**

In the event of a field emergency it is important to remember that a panic situation may exist at the accident scene. Be calm and re-assuring. Gather as much information as possible.

### **11.7.1 *Gather Information:***

Define the type of emergency (Accident, Injury, Fire, and Explosion)

- a) If injuries have occurred, find out the nature of injuries and the number of injured parties
- b) Is there first aid at the accident?
- c) Has Company First Aid been notified?
- d) Is additional medical assistance required? (If more than one injury, or injury appears serious, paramedic or doctor should be notified)
- e) Is the accident site accessible for an ambulance?
- f) Is a helicopter required (back injury, life threatening situation).
- g) Is company first aid transporting injured party?
- h) Obtain the exact location of accident/incident. (Have field personnel refer to the map if possible).

### **11.7.2 *Notify Appropriate Emergency Services:***

- a) Highway accident (Ambulance, Police, Fire Department)  
Site accident (Ambulance, Doctor, Hospital, Police)
- b) Fire-Explosion - (Ambulance, Fire Department, Police, Transmission Company, Power Company)

- c) Tell them the nature of emergency, injuries (type of injury and number of injured persons), location of incident (they should have a copy of the site map) and any other information you may be aware of.
- d) Ask them for estimated time of arrival at site and if there is any further information we can provide.

**11.7.3 REPORT:**

- a) Inform personnel at the scene of what has transpired. Give them the estimated time of arrival of emergency services and further instructions if any.
- b) Ask for an update of the situation.
- c) Notify others in the area should there be a risk to them from the incident. (Fire, blowout, etc.)
- d) Inform superintendent and Safety Coordinator
- e) Be prepared to inform the following services if required.
  - i) Occupational Health and Safety
  - ii) Chief Inspector
  - iii) Police or R.C.M.P.

**Appendix 25** "Emergency Contact Form"

# Appendix 1

## Weekly Inspection

Site/Contractor Name:		Date:		
Location:		# of Employees:		
Conducted By:				
<b>S – Satisfactory</b>	<b>NS – Not Satisfactory</b>	<b>NA – Not Applicable</b>		
Item Inspected	S	NS	NA	Requires Immediate Action
<b>1. SITE ACCESS</b>				
Clean, level ground	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Adequate ramps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Adequate stairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Adequate ladders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>2. HOUSEKEEPING</b>				
Clear walkways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Clear work areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Clear access and landing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>3. PERSONAL PROTECTIVE EQUIPMENT</b>				
Head protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Foot protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Eye protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Hearing protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Respiratory protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fall protection (plan, rescue)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>4. LADDERS</b>				
Secured	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Proper angle (extension ladders)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Proper size and type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Safe, usable condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Properly used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Proper Handrail and landings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Non-slip bases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>5. SCAFFOLDS</b>				
Properly erected (all parts used)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Properly secured	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Properly planked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Proper guardrails, toe boards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Proper access to platform	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Acceptable loading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>6. POWER TOOLS, EQUIPMENT</b>				
General condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Proper guards, cords, PPE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Tagging as DEFECTIVE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>7. STAIRWELLS &amp; RAMPS</b>				
Proper filler blocks in metal stairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Adequate lighting in stairwells	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Proper handrails or guardrails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>8. PUBLIC WAY PROTECTION</b>				
Properly located (within 4.5 m)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Entrances clearly marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Covered where required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Min. height, width requirement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Proper rail on street side	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Proper lighting, where required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>9. FALL PROTECTION</b>				
CSA approved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Properly worn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Safe, usable condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Unprotected openings and edges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Working from: Ladders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Scaffolds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Swing stages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>10. GUARDRAILS, BARRICADES</b>				
Located where required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Properly constructed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Adequately secured	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>11. GAS CYLINDERS</b>				
Properly located	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Properly secured	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Properly moved or lifted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Properly hooked up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>12. FIRST AID REQUIREMENTS</b>				
Adequate qualified first aiders on jobsite	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

First aid kits:	Adequate number	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Adequate contents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>13. FIRE PROTECTION</b>					
	Master emergency plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Extinguishers where required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Fully charged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Adequately identified	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>14. ELEVATING WORK PLATFORM</b>					
	Worker training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Properly used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Safe, usable condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Acceptable loading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Manufacturer's operating manual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>15. EXTENSION CORDS</b>					
	Outdoor-type, rated over 300 volts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Condition of casing, ends, connections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	GFCIs used where required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>16. TEMPORARY POWER SUPPLY</b>					
	Properly identified	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Overhead lines flagged & secured	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Surface cables buried or protected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>17. MATERIALS STORAGE</b>					
	Properly located	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Safely piled, stacked, bundled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Properly moved or lifted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Properly labeled (WHMIS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>18. SUSPENDED SCAFFOLDS</b>					
	Properly attached and capable of at least 4 times maximum load	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Outrigger beam tied to fixed support with adequate counterweight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	All mechanical/electrical devices in good working condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Independent lifelines for each worker (extend to ground)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Engineer's drawing on site if required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>19. SIGNS &amp; PRINT MATERIAL</b>					
	OH&S Act and regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	WSIB Form 82 poster	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

MSDSs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Warning signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Emergency phone list	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Report forms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>20. WORKER EDUCATION</b>				
WHMIS training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Company safety policy & program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Injury reporting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hazard reporting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
OH&S Act and Regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Personal H&S responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>21. HYGIENE</b>				
Washroom facilities available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cleanliness of facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Injury/hazard reporting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Personal responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Safety policies and procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## Appendix 2

### First Aid Log Sheet

This form must be completed by the First Aider or designate and kept available.

<b>Name of Injured Person</b>	
<b>Date of Injury (D/M/Y)</b>	
<b>Time of Injury</b>	
<b>Name of Witness(es)</b>	
<b>Nature/Location of Treatment</b>	
<b>Name of First Aider</b>	
<b>Name of Injured Person</b>	
<b>Date of Injury (D/M/Y)</b>	
<b>Time of Injury</b>	
<b>Name of Witness(es)</b>	
<b>Nature/Location of Treatment</b>	
<b>Name of First Aider</b>	
<b>Name of Injured Person</b>	
<b>Date of Injury (D/M/Y)</b>	
<b>Time of Injury</b>	
<b>Name of Witness(es)</b>	
<b>Nature/Location of Treatment</b>	
<b>Name of First Aider</b>	
<b>Name of Injured Person</b>	
<b>Date of Injury (D/M/Y)</b>	
<b>Time of Injury</b>	
<b>Name of Witness(es)</b>	
<b>Nature/Location of Treatment</b>	
<b>Name of First Aider</b>	

This First Aid Log will be collected each month and filed

Date: \_\_\_\_\_  
Location: \_\_\_\_\_



## Appendix 4

### Visitors Sign-In Sheet

INSERT COMPANY NAME						
<u>Visitor Policy</u>						
<b>VISITORS:</b>						
All visitors MUST read Imperium Contracting's Health and Safety policy and be under direct supervision of a Supervisor at all times while on the job site.						
All employees entering the job site who are off duty are considered visitors and must sign in.						
Contractors and suppliers are to complete, sign and return the Contractor/Supplier Responsibility on an annual basis.						
<b>GENERAL PUBLIC:</b>						
General public is not permitted on to the job site, when the general public enters the job site, they classify as a visitor.						
Site: _____						
DATE	NAME	COMPANY	SIGNATURE	TIME	TIME	Supervisors
				IN	OUT	INITIALS
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
*THIS MUST BE POSTED IN A CONSPICUOUS LOCATION *						

## Appendix 5

### Violence Incident Form

Type of Incident:

Physical

Verbal

Other \_\_\_\_\_

**Site Location:** \_\_\_\_\_

**1. Location of Incident**

Address of site or workplace \_\_\_\_\_

Where specifically in the above address did the incident occur i.e. staff area, parking lot, scissor lift...  
\_\_\_\_\_

**2. Medical Attention Required (please explain):**

**3. WITNESSES – name and title of witnesses or persons having knowledge of incident**

\_\_\_\_\_

**4. Police Called? Yes/No**

If Yes, give details: \_\_\_\_\_

**5. WSIB Report issued? Yes/No**

If Yes, give details: \_\_\_\_\_

**6. Investigation conducted? Yes/No**

Names of Investigators: \_\_\_\_\_

**7. Reported to Supervisor? Yes/No**

Name of Supervisor: \_\_\_\_\_

**Assailant Information**

Employee     Customer     Visitor     Delivery Person     Ex-employee     other (specify)

\_\_\_\_\_

Gender  Male     Female    Name (if known) \_\_\_\_\_

Age: \_\_\_\_\_    Height: \_\_\_\_\_    Weight: \_\_\_\_\_    Complexion: \_\_\_\_\_

Other distinguishing marks or visual observations: \_\_\_\_\_

Vehicle description (if any): \_\_\_\_\_

**Other Information**

Has the assailant been involved in any previous incidents with employees? If yes provide details

Did any working condition contribute to the incident?

Please provide any other information that you think may be relevant

Name of Investigator: \_\_\_\_\_

Investigator Signature: \_\_\_\_\_ DATE: \_\_\_\_\_

Supervisor Signature: \_\_\_\_\_ DATE: \_\_\_\_\_

## Appendix 6

### Violence in the Workplace Job Hazard Analysis

Violence in the Workplace Hazard Identification & Risk Assessment Form							
Violent Risk	Fatality 1-4	Injury 1-4	Medical Aid 1-4	Frequency 1-4	Damage 1-5	Training required yes/no	Controls Required
	Controls						
<b>SITE SPECIFIC</b>							
DATE:	Attach separate paper for more details if necessary						
INSPECTOR:							
SITE LOCATION:							

## Appendix 7

### Violence in the Workplace Investigation Checklist

**1. Complainant Information**

- a. Name: \_\_\_\_\_
- b. Address: \_\_\_\_\_
- c. Phone Number: \_\_\_\_\_
- d. Occupation \_\_\_\_\_
- e. Exact Location at the time of the incident: \_\_\_\_\_
- f. Activities before, after and during the incident: \_\_\_\_\_
- g.       Before: \_\_\_\_\_
- h.       During: \_\_\_\_\_
- i.       After: \_\_\_\_\_
- j. Account of Event – A detailed explanation of the event in sequence in relation to the incident-add paper if needed

**2. Assailants Information**

- a. Name: \_\_\_\_\_
- b. Address: \_\_\_\_\_
- c. Phone Number: \_\_\_\_\_
- d. Occupation \_\_\_\_\_
- e. Exact Location at the time of the incident: \_\_\_\_\_
- f. Activities before, after and during the incident: \_\_\_\_\_
- g.       Before: \_\_\_\_\_
- h.       During: \_\_\_\_\_
- i.       After: \_\_\_\_\_
- j. Description of assailants vehicle: \_\_\_\_\_
- k. Physical and Mental State of assailant prior to and at the time of the event: \_\_\_\_\_
- l. Account of Event – A detailed explanation of the event in sequence in relation to the incident- add paper if needed

**3. Witness Information**

- a. Name: \_\_\_\_\_
- b. Address: \_\_\_\_\_
- c. Phone Number: \_\_\_\_\_
- d. Occupation \_\_\_\_\_
- e. Exact Location at the time of the incident: \_\_\_\_\_
- f. Activities before, after and during the incident: \_\_\_\_\_
- g.       Before: \_\_\_\_\_
- h.       During: \_\_\_\_\_
- i.       After: \_\_\_\_\_
- j. Account of Event – A detailed explanation of the event in sequence in relation to the incident-add paper if needed

**4. Reporting of Incident**

Date of Incident \_\_\_\_\_ Time of incident \_\_\_\_\_ am/pm

Date of Reporting \_\_\_\_\_ Time of reporting \_\_\_\_\_ am/pm

Describe any Injury Reported (part of body & left or right side)

\_\_\_\_\_

**5. Exact Location of Incident:**

**6. What participants said and did immediately before and after the incident:**

7. Was there any unusual activity that may have contributed to the incident? Yes/No if Yes specify;

8. Was substance use or abuse a factor? Yes/No if Yes specify:

9. Relationship between the complainant and assailant if any:

10. Investigator's relationship to complainant and assailant if any:

11. Attach photographs of incident site, injuries to any parties, and any damage to property ect.to this investigation sheet.

12. Attach a diagram of the incident site, location and injured worker

**Authorities Notified:**

- 1.
- 2.
- 3.

Investigators Name: \_\_\_\_\_

Investigators Signature: \_\_\_\_\_ DATE: \_\_\_\_\_

Supervisor Name: \_\_\_\_\_

Supervisor Signature: \_\_\_\_\_ DATE: \_\_\_\_\_

Witness Name: \_\_\_\_\_

Witness Signature: \_\_\_\_\_ DATE: \_\_\_\_\_

## Appendix 8

### Violence in the Workplace Assessment

Name:				
Title:				
Department:				
Work department/area: briefly describe your department/area and the type of activities or functions performed by employees in the department.				
<b>Part 1. History</b>				
Task	Yes	No	Describe or Specify	Actions to be taken/ control measures to implement
Have there been incidents when employees in your department have experienced or been threatened with physical violence? If yes described the incidents.				
Have there been incidents when employees in your department have experienced verbal abuse, i.e., shouted at, obscene language, threats or obscene phone calls? If yes describe the incidents				

<b>Part 2. Activities which might expose employees to risk of violence</b>				
<b>Task</b>	<b>Yes</b>	<b>No</b>	<b>Describe or Specify</b>	<b>Actions to be taken/ control measures to implement</b>
Do employees in your department work with money or other valuables? If yes describe.				
Do employees in your department deliver or collect items of value? If Yes Describe.				
Do employees in your department deal with people who may be under the influence of drugs or alcohol? If yes describe.				
Do people in your department deal with people who are deeply troubled or distressed? If yes describe.				
Do employees in your department monitor or regulate the activity of others or carry out procedures or make decisions that adversely affect others? If Yes describe.				
Are employees in your department involved with activities that might elicit a negative or confrontational response? If yes, describe.				
Are there other aspects of work in your department that might spark a violent response? If yes, describe.				

<b>Part 3. Factors that increase the risk of violence</b>				
<b>Working alone: A person works alone when he/she works in a situation where he/she is out of sight and out of hearing of other employees</b>				
<b>Task</b>	<b>Yes</b>	<b>No</b>	<b>Describe or Specify</b>	<b>Actions to be taken/ control measures to implement</b>
Do any of your employees work alone during normal working hours? If yes, describe.				
Do any of your employees work alone after normal working hours? If yes, describe.				
Describe any precautions already taken to safeguard employees of your department who work alone.				
Describe other factors which you feel might increase the risk of violence.				
<b>Part 4. Reducing the risk if violence</b>				
<b>Task</b>	<b>Yes</b>	<b>No</b>	<b>Describe or Specify</b>	<b>Actions to be taken/ control measures to implement</b>
Describe policies or procedures already in place to reduce the risk of violence in your department.				
In light of your responses to the questions in this assessment:  1. Do you consider that you have taken all reasonable steps to prevent or reduce the risk of violence? 2. What further steps would you recommend? 3. What assistance do you need to accomplish any of the steps specified?				

## Appendix 9

### **Employee Assessment- Violence in the Workplace**

Name:

Title:

Manager's Name:

Company:

Date Completed:

#### **Instructions**

Read the assessment carefully and circle the most appropriate answer, or write a description where necessary. A blank sheet of paper has been provided for you (page 3) if you need more room to write or if you have other situations, concerns or thoughts on the topic that you wish to add.

Please be advised that this assessment is a means to collect information to make appropriate violence in the workplace policies and procedures. Individual employee answers will be kept on file but not discussed with co-workers.

1. While an employee of this company have you ever experienced verbal abuse (Teasing, insults, bullying, or swearing)? **Yes** or **No**

a. If yes, did you report the incident(s)? **Yes** or **No**

b. If you did report the incident(s) did you report it- **Orally** or in **Writing**?

c. What was the relationship of the abuser to you?

- i. Co-worker
- ii. Management
- iii. Client/customer
- iv. Member of the public
- v. Visitor
- vi. Other (describe) \_\_\_\_\_

2. While an employee of this company have you ever experienced verbal or written threats? (e.g. you're going to regret that) **Yes** or **No**

a. If yes, did you report the incident(s)? **Yes** or **No**

b. If you did report the incident(s) did you report it- **Orally** or in **Writing**?

c. What was the relationship of the abuser to you?

- i. Co-worker
- ii. Management
- iii. Client/customer
- iv. Member of the public

- v. Visitor
- vi. Other (describe) \_\_\_\_\_

3. While an employee of this company have you ever been threatened with physical harm (e.g. objects thrown at you, vandalism, threatening gestures at you)? **Yes or No**

- a. If yes, did you report the incident(s)? **Yes or No**
- b. If you did report the incident(s) did you report it- **Orally** or in **Writing**?
- c. What was the relationship of the abuser to you?
  - i. Co-worker
  - ii. Management
  - iii. Client/customer
  - iv. Member of the public
  - v. Visitor
  - vi. Other (describe) \_\_\_\_\_

4. While an employee of this company have you ever experienced a physical assault or attack? **Yes or No**

- a. If yes, did you report the incident(s)? **Yes or No**
- b. If you did report the incident(s) did you report it- **Orally** or in **Writing**?
- c. What was the relationship of the abuser to you?
  - i. Co-worker
  - ii. Management
  - iii. Client/customer
  - iv. Member of the public
  - v. Visitor
  - vi. Other (describe) \_\_\_\_\_

5. As an employee do you ever:
- a. Work alone or with a small number of co-workers? **Yes or No**
  - b. Work in a community-based setting? **Yes or No**
  - c. Work late at night or early in the morning? **Yes or No**

6. Do you have any concerns about work rage on the job? Yes or No
- a. What is the source of your concerns?

7. Do you believe that work rage in your workplace is a
- a. **High risk**
  - b. **Medium risk**
  - c. **Low risk**

Appendix 10

Supplier Label

(1. the product identifier)
<b>Gasoline</b>
(2. the risk phrase)
<b>Highly Flammable Liquid</b>
(3. the precautionary statement)
<b>Keep Away From Open Flames</b>
(4. the hazard symbol)

(5. reference that MSDS is available)
<b>For Additional Information Refer To Material Safety Data Sheet</b>
(6. first aid)
<b>If Swallowed, Do Not Induce Vomiting</b>
(7. the supplier identifier)
<b>Southern Alberta Institute Of Technology 1301 - 16th Avenue N.W., Calgary, AB, T2M 0L4</b>

## Appendix 11

### Workplace Label

1. The product identifier

( 1. PRODUCT IDENTIFIER )

**GASOLINE**

2. Basic risk statement

( 2. PRECAUTIONARY / RISK STATEMENT )

**HIGHLY FLAMMABLE**

**KEEP AWAY FROM OPEN FLAME**

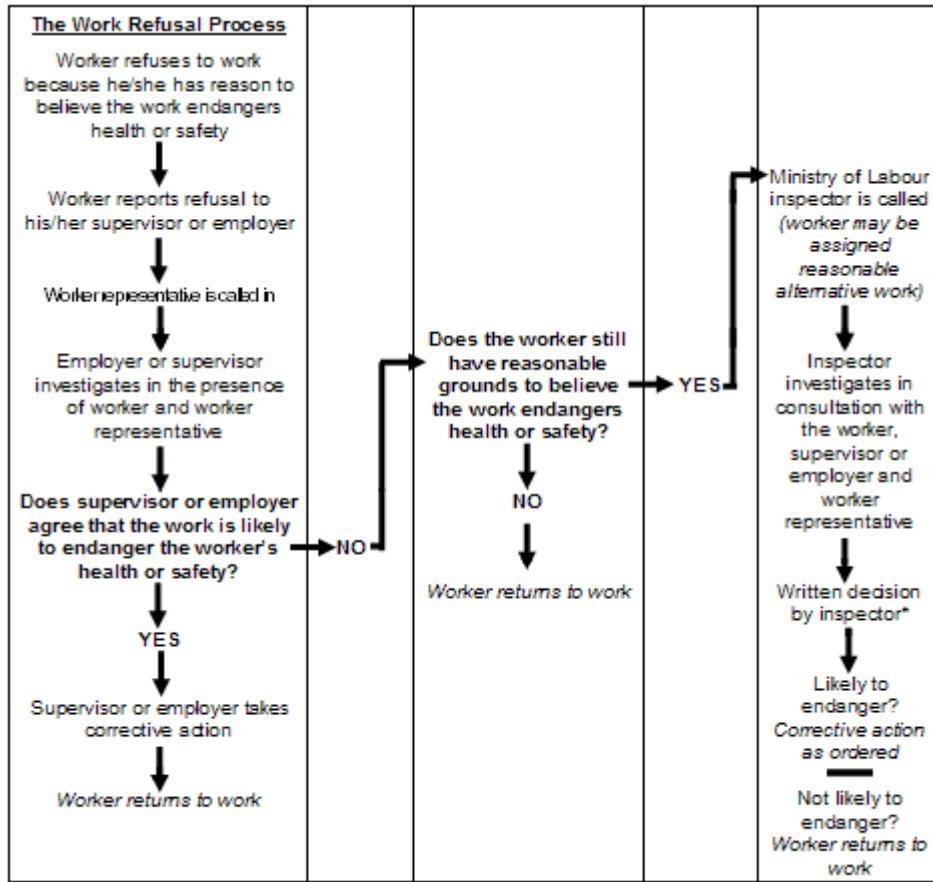
3. A statement that a  
Material Safety Data  
Sheet is available

( 3. reference to MSDS )

**REFER TO MATERIAL SAFETY  
DATA SHEETS FOR ADDITIONAL  
INFORMATION**

## Appendix 12

### Right to Refuse Chart





## Appendix 14

### **Recommendations to the Employer**

#### Joint Health and Safety Recommendations

Recommendations	Date Reported	Date Expected to be Resolved

#### Employers Response to Recommendations

Response to Safety Issue	Date Expected to be completed

# Appendix 15

## Corrective Action Form

This form is to be used to document critical disciplinary and developmental performance discussions.

- Three copies are necessary where a union is present.
  - o One copy will be given to the **worker**, one copy is to be given to the **union** and the third is to be kept in the **workers employee file**.
- Two copies where no union is present

Date: \_\_\_\_\_ Workers Name: \_\_\_\_\_

Site Location: \_\_\_\_\_

- Verbal warning
- First written notice
- Second written notice
- Final written notice

Date of incident: \_\_\_\_\_ Supervisor: \_\_\_\_\_

### Description of incident:

---

---

---

---

### Recommended Action:

---

---

---

---

### Follow up results:

---

---

---

---

Should a similar incident occur or other incident occur while you are employed with Imperium Contracting & Project Management Inc. and depending on the nature and severity of the incident, the outcome will be another written review, suspension or potentially termination of employment. If this is a final notice and further misconduct/performance will result in termination

***I have read and understand this notice of discipline***

Workers Signature: \_\_\_\_\_

Supervisors Signature: \_\_\_\_\_

## Appendix 16 Sample Job Hazard Analysis

Area of Assessment (check one)	Shop	Site	Office	Who Might Encounter:		
		✓		<input type="checkbox"/> Sub-Trade  <input type="checkbox"/> General Public  <input type="checkbox"/> Client/Contractor	<input type="checkbox"/> Other	
Task:	Potential Risk Assessment				Controls Required	
	Hazards Within the Task	*Hazardous Category	*Priority Ranking	Training Required Yes/No	Eliminate, Contain, Revise Procedure, Reduce Exposure	
Manual Lifting	1. Back injuries  2. Pinch points  3. Heavy objects  4. Hands exposed to cuts or lacerations	Physical  Chemical  Ergonomics  Environmental  Safety	Fatality 2  Injury 3  Medical Aid 3  Frequency 4	Yes	*Use mechanical means whenever possible  *Training of all workers in material handling technique/ proper lifting procedures.  *Avoid twisting the body when handling material.  *Use the buddy system when mechanical means is not possible  *Cut resistant gloves should be worn where cut hazards are present	

					<p>*When using knives, do not cut towards your body or towards opposite hand</p> <p>*Secure items that could tip or roll</p> <p>*Ensure travel path is clear</p> <p>*Chemical resistant gloves shall be worn when working with chemicals on this activity</p>
Using Ladders	<ol style="list-style-type: none"> <li>1. Falls</li> <li>2. Reaching overexertion</li> <li>3. Improper Housekeeping</li> <li>4. Level ground</li> <li>5. Overhead electrical wires</li> <li>6. Damaged ladders</li> <li>7. Improper positioning</li> </ol>	<p>Physical</p> <p>Ergonomics</p> <p>Environmental</p> <p>Safety</p>	<p>Fatality 3</p> <p>Injury 4</p> <p>Medical Aid 3</p> <p>Frequenc y 4</p>	Yes	<p>*Ladders must be free from defects and properly secured at the top and bottom at all times.</p> <p>*The ladder is to extend 1 meter (four to five rungs) above the stepping point.</p> <p>*Clear access to the base of the ladder is to be maintained.</p> <p>*Ladders used for access are to be positioned at an angle set to the ratio of for every 4m a ladder has to go up, the bottom of the ladder is placed out from the vertical 1m.</p> <p>*Damaged ladders are too removed and discarded immediately.</p> <p>*3 point contact must be maintained at all times.</p> <p>*Use non-conductive wood or fibreglass ladders when working near power lines.</p>

<p>Portable Electrical Tools</p>	<ol style="list-style-type: none"> <li>1. Electrical Shock</li> <li>2. Removed safety guards</li> <li>3. Improper PPE</li> <li>4. Cuts</li> <li>5. Amputation of body parts</li> <li>6. Lifting heavy tools</li> <li>7. Flying object such as large chips, fragments, particles</li> <li>8. Contact with the blade or motion part of the tool</li> <li>9. kickbacks</li> </ol>	<p>Physical Ergonomics Safety</p>	<p>Fatality 2  Injury 4  Medical Aid 4  Frequency 4</p>	<p>Yes</p>	<p>*Regular inspections are to be carried out by a competent person to ensure portable electrical equipment is maintained in accordance with current regulations and in good condition. Document by using a Prestart checklist.</p> <p>*If high voltages are used then extra precautions and protective measure must be put in place.</p> <p>*When using the tool(s) proper PPE must be worn i.e. gloves, goggles, masks.</p> <p>*Ensure safety guards in in place prior to using the tool</p> <p>*Defective or damaged tools are not to be used</p> <p>*Keep hands out of the line of cut.</p> <p>*Use push stick for small pieces of wood and for pushing past the blade</p> <p>*Operate saws and tools at speed specified by the manufactures.</p> <p>*Stand to the side of the saw to avoid injury from kickback</p>
----------------------------------	--	---	---	------------	--

Step Ladders	<ol style="list-style-type: none"> <li>1. Falls</li> <li>2. Reaching overexertion</li> <li>3. Improper Housekeeping</li> <li>4. Level ground</li> <li>5. Overhead electrical wires</li> <li>6. Damaged ladders</li> <li>7. Improper positioning</li> </ol>	Physical Ergonomics Environmental Safety	Fatality 1 Injury 4 Medical Aid 3 Frequency 4	Yes	<p>*Ladders must be free from defects and properly secured by locking the spreaders.</p> <p>*They must have non-slip feet that are free of dirt and material</p> <p>*Non-slip grips need to be free of debris and grit</p> <p>*Clear access to the base of the ladder is to be maintained.</p> <p>*Step ladders must not be placed against a wall as access or egress unless the spreaders are fully open and locked</p> <p>*Damaged ladders are too removed and discarded immediately.</p> <p>*3 point contact must be maintained at all times.</p> <p>*Use non-conductive wood or fibreglass ladders when working near power lines</p>
Mobile Equipment and Machinery	<ol style="list-style-type: none"> <li>1. Roll over</li> <li>2. Backing up (striking an object or persons).</li> <li>3. Overhead electrical wires</li> <li>4. Pinch points</li> </ol>	Physical Chemical Ergonomics Environmental Safety	Fatality 3 Injury 4 Medical Aid 4 Frequency 2	Yes	<p>*All mobile equipment must satisfy the requirements of the relevant regulations.</p> <p>*Particular attention is to be paid to the provision of roll over and topple protection.</p> <p>*Any necessary protection and or seat restraints</p>

					<p>should be in place and in good order.</p> <p>*Operators are to be trained and competent with copies of current training certificates held on site.</p> <p>*Equipment is to be inspected by operators on a daily basis.</p> <p>*For workers around the machinery a minimum distance of 6 meters away (if there is boom 6m from the extended end of the boom) is to be maintained at all-times unless the operator identifies and authorizes you to approach.</p>
Lifting appliances	<ol style="list-style-type: none"> <li>1. Pinch points</li> <li>2. Unsecured load</li> <li>3. Crushed by material</li> </ol>	<p>Physical</p> <p>Safety</p>	<p>Fatality 3</p> <p>Injury 4</p> <p>Medical Aid 3</p> <p>Frequency 2</p>	Yes	<p>*All lifting equipment shall be maintained and kept in good condition.</p> <p>*Lifting accessories must:</p> <ol style="list-style-type: none"> <li>1. Have a valid inspection certificate</li> <li>2. Have a unique identification number</li> <li>3. Have a safe working load marked</li> </ol> <p>*All documentation shall be checked prior to use of any lifting appliance or accessory</p> <p>*Loads need to be adequately secured to prevent movement and falling of material</p>

Use of powered elevated work platforms or lifts	<ol style="list-style-type: none"> <li>1. Falls/working from heights</li> <li>2. Tip over</li> <li>3. Equipment inspection/maintenance</li> <li>4. Contacting overhead power lines</li> <li>5. Inadvertent movements</li> </ol>	Physical Chemical Ergonomics Safety	Fatality 3 Injury 4 Medical Aid 4 Frequency 3	Yes	<p>*Operator must have a valid EWP ticket or equivalent in order to operate the lifts</p> <p>*Construct all floor hole covers so that they will effectively support 2x the weight of employees, equipment, and materials that may be imposed on the cover at any time</p> <p>*Use at least one of the following whenever employees are exposed to a fall of 10feet or more  1.guardrail system 2. Personal fall arrest system</p> <p>*Inspect equipment daily before use and document  Cut resistant gloves shall be worn when cut hazards are present.</p> <p>*A full body harness is to be worn when operating an elevated work platform and the worker must be tied off to the designated tie off point  *If the machine is to be left unattended it must be locked prior to leaving the machine</p>
Noise		Physical Safety	Fatality 1 Injury 3 Medical Aid 2 Frequency 4	Yes	<p>*Workers and those working in the area of work that involves tools, equipment or machinery that produces noise levels 85dcb or higher must wear hearing protection.</p> <p>*Even if it is only of a</p>

					short period of time.  *More guidance is contained in the company Safety Manual
Flammable Liquids		Physical Chemical Safety	Fatality 3 Injury 4 Medical Aid 4 Frequency 1	Yes	*Store all flammable liquids in their purpose designed containers displaying the " high flammable" warning signs  *Store in an area with adequate ventilation
Fire		Physical Chemical Safety	Fatality 3  Injury 4  Medical Aid 4  Frequency 4	Yes	*A fire safety plan is to be produced for the project and shall consider:  1. Means of detection and raising alarm  2. Effective evacuation procedures  3. Emergency routes  4. Adequate and well maintained firefighting equipment with worker trained in there use
Site visitors		Safety	Fatality 2  Injury 4  Medical Aid 3  Frequency 3		* All visitors are required to sign in at the office  *All visitors to the site are too accompanied by company personnel at all times.  *Visitors required to wear all relevant PPE and abide by all

					safety rules.
<p>Use of Compressed Air</p> <ul style="list-style-type: none"> <li>-Jack hammers</li> <li>-Chipping hammers</li> <li>-Drills</li> <li>-Grinders</li> <li>-Sanders</li> <li>-Framing mailers</li> <li>-Impact tools</li> <li>-.....</li> </ul>	<ol style="list-style-type: none"> <li>1. Back injury from moving compressors</li> <li>2. Eye injury</li> <li>3. Whipping hose</li> <li>4. Tripping hazard</li> <li>5. White finger disease</li> <li>6. Noise</li> <li>7. Air embolism – air entering the body or small cut</li> <li>8. Flying particles</li> </ol>	<p>Physical</p> <p>Ergonomics</p> <p>Safety</p>	<p>Fatality 4</p> <p>Injury 4</p> <p>Medical Aid 4</p> <p>Frequenc y 3</p>	<p>Yes</p>	<p>*Use buddy system when moving compressor</p> <p>*Appropriate PPE is required – glasses, hearing protection</p> <p>*Replace worn out absorption pads and springs to prevent too much vibration</p> <p>*Never tamper with safety devices</p> <p>*Secure hose connections with wire or safety clips to prevent whipping except when automatic cut off couplers are used</p> <p>*Workers working around compressed air are to be inform so they can take proper steps to ensure their safety</p> <p>*Turn off pressure hose when not in use</p> <p>*Turn off air pressure when changing pneumatic tools or attachments</p> <p>*Never kink hose</p> <p>*Before start-up</p>

					check the coupling and fittings, blow out the hose (in a safe direction not directly at another person) to remove moisture, dirt and clean the nipple before connecting the tool
Powder Actuated Fastening Tools	<ol style="list-style-type: none"> <li>1. Flying particles</li> <li>2. Ricochets</li> <li>3. Noise</li> <li>4. Sprains and strains</li> <li>5. Explosions</li> <li>6. Blow through</li> </ol>	Physical Ergonomics Environmental Safety	Fatality 3  Injury 3  Medical Aid 4  Frequency 4	Yes	<p>*The operator must have a valid Powder Actuated fastening Tools training certificate in order to operate the tool</p> <p>*The operator must wear appropriate PPE- hearing protection, a face shield, heavy shirt and long pants</p> <p>*Any workers in the area are also required to wear appropriate PPE</p> <p>*Operators need to work from a balanced position and on a solid surface to prevent sprains and strains</p> <p>*The area needs to have proper ventilation mechanically if necessary</p> <p>*Areas behind and around working area need to be free of other workers in case of a Blow through</p> <p>*The tool must be inspected prior to use</p> <p>*Loaded or unloaded the tool must never be pointed at someone</p>

					<p>*Safety guards must be on the tool</p> <p>*The tool must have 2 separate actions before it will fire  1. Pressure against the surface of the material  2. Action of the trigger</p>
<p>Hand-held Power Circular Saws and Drills, Chop Saws</p>	<ol style="list-style-type: none"> <li>1. Cuts</li> <li>2. Flying debris</li> <li>3. Clothing getting caught in the motion of the tool</li> <li>4. Vibration</li> <li>5. Repetitive motion</li> </ol>	<p>Physical Ergonomics Safety</p>	<p>Fatality 2</p> <p>Injury 4</p> <p>Medical Aid 4</p> <p>Frequency 4</p>	<p>Yes</p>	<p>*Appropriate protective clothing and equipment must be worn for the tool being used, gloves hearing protection, masks, glasses...</p> <p>*Eye protection is essential</p> <p>*Hearing protection in confined spaces, for long periods or when the tool produces 85dbs or more</p> <p>*Where ventilation is inadequate- a dusk mask must be worn</p> <p>*Electrical cords must use a ground fault Circuit interrupter and must be inspected for deficiencies such as frayed cords.</p> <p>*Never wear loose clothing, neck chains, bracelets scarves, hoodies with strings or anything else that</p>

					<p>can get caught in saws or tools with motion.</p> <p>*Leave safety devises in place, under no circumstance will you modify the safety guards</p>
Scaffold *metal Scaffold	<ol style="list-style-type: none"> <li>1. Inadequate foundation</li> <li>2. Contact with overhead power lines</li> <li>3. Injury as a result of dropping tools and scaffold components</li> <li>4. Falls</li> <li>5. Incorrect connections</li> <li>6. Near powers lines or electrical wires</li> </ol>	<p>Physical</p> <p>Environmental</p> <p>Ergonomics</p> <p>Safety</p>	<p>Fatality 3</p> <p>Injury 4</p> <p>Medical Aid 4</p> <p>Frequenc y 4</p>	Yes	<p>*Erecting and Dismantling of scaffolds are to be done by a competent person</p> <p>*Ensure there is an engineer stamp or follow manufacturer procedure for setting up scaffolds</p> <p>* Be aware of your surroundings when using or erecting scaffold look for overhead electrical hazards and maintain safe distance if found. 10 feet way and post signage for warning of hazard.</p> <p>*Inspect all parts of the scaffold when putting it up to ensure there is no damage to any part, if damage is found that piece should be replaced with an adequate replacement part.</p> <p>*Ensure scaffold is placed on flat and solid ground</p> <p>*All parts of the scaffold must be used when erecting the scaffold. Guardrails must be in place,</p>

					<p>*fall protection must be worn when guardrails are not feasible</p> <p>*When scaffold is in use the wheel locks or wheel chokes must be applied in order to prevent involuntary movement.</p> <p>*When moving the scaffold no workers are permitted to on the scaffold. They need to be off the scaffold</p> <p>*Use non-conductive wood or fibreglass ladders when working near power lines.</p>
Housekeeping	<ol style="list-style-type: none"> <li>1. Slips</li> <li>2. Trips</li> <li>3. Falls</li> <li>4. Inadequate foundation for scaffolds and ladders</li> </ol>	<p>Physical</p> <p>Chemical</p> <p>Biological</p> <p>Environmental</p> <p>Ergonomics</p> <p>Safety</p>	<p>Fatality 2</p> <p>Injury 4</p> <p>Medical Aid 2</p> <p>Frequency 4</p>	Yes	<p>*There should be continuous jobsite cleanup</p> <p>*Garbage and rubbish shall be disposal in provided containers</p> <p>*Garbage that is still in the working area must be contained and placed in designated area to prevent clutter.</p> <p>*Workers need to clean as they go</p> <p>*Materials shall be piled, stacked or otherwise stored to prevent tripping, collapsing or falling onto workers</p> <p>*Work and travel areas cleaned and free of clutter and debris</p>

					<p>*Proper lighting will be provided to ensure clear visual of work space</p> <p>*Exits and stairwells are to be kept free of clutter and debris</p>
Demolition	<ol style="list-style-type: none"> <li>1. Exposure to electrical and plumbing</li> <li>2. Flying debris</li> <li>3. Noise, Cuts, Dust</li> <li>4. Vibration</li> <li>5. Chemical hazards</li> <li>6. Insufficient lighting</li> </ol>	<p>Physical</p> <p>Chemical</p> <p>Biological</p> <p>Ergonomics</p> <p>Safety</p>	<p>Fatality 2</p> <p>Injury 3</p> <p>Medical Aid 3</p> <p>Frequency 3</p>	Yes	<p>*Prior to demolition all electrical and plumbing risks should be identified and marked, locked out or shut off to ensure that workers do not come in contact</p> <p>*Proper PPE shall be worn for the job being performed – masks, glasses, gloves, safety shoes, hard hats, hearing protection</p> <p>*Operators of any power tools should have appropriate training and read sections on power tools, compressed air powder actuated fastening tools</p>
A Medium Lift Any lift where the payload weight is over 10 tons but less than 50 tons or any Multi-Crane lift below 75 of either cranes load capacity	<ol style="list-style-type: none"> <li>1. Crushed by material</li> <li>2. Struck by material</li> <li>3. Pinch points</li> </ol>	<p>Physical</p> <p>Environmental</p> <p>Ergonomics</p> <p>Safety</p>	<p>Fatality 4</p> <p>Injury 4</p> <p>Medical Aid 4</p> <p>Frequency 3</p>	Yes	<p>*follow lift plan</p> <p>*Inspect rigging prior to use and ensure it is rated for the load's weight and rigging configuration</p> <p>*A competent rigger shall be available to review rigging activities Keep hands off load to the extent possible.</p>

					Clear load travel path.  *Use tag lines to maneuver suspended material
Concrete Placement Activities	1. Foreign Body to Eye	Physical Chemical Safety	Fatality 1 Injury 3 Medical Aid 3 Frequency 3	Yes	*Ensure eyewash station is within immediate work area of ten 10 seconds of travel
Concrete Preparation- this activity involves the use of Scrabble, Bush Hammer, chipping, Needle gun etc.	1. Noise 2. Vibration exposure to flying particles	Chemical Safety	Fatality 2 Injury 3 Medical Aid 3 Frequency 3	Yes	*A face shield shall be worn during this work activity to prevent material from flying in the face  *Use guards, screen , where possible
Conducting Work on the Roof	1. Heat stress 2. Climbing Ladder 3. Working from height 4. Cold stress	Physical Environmental Ergonomics Safety	Fatality 4 Injury 4 Medical Aid 4 Frequency 4	Yes	*Hydration centres  *Schedules work breaks  *Maintain three point contact while climbing
Drilling into concrete	1. Noise 2. Vibration	Physical Chemical Ergonomics Safety	Fatality 2 Injury 3 Medical Aid 3 Frequency	Yes	*Ensure hearing protection is worn
Excavation- Trenching	1. Falling into excavation 2. Cave in 3. Contact with underground commodity 4. Encapsulation	Physical Chemical Environmental Safety	Fatality 4 Injury 4 Medical Aid 4	Yes	*Barricade six feet back from excavation  *Have an emergency plan in place to rescue trapped workers

	<p>of trenches 5. Egress from trench</p>		<p>Frequenc y 3</p>	<p>*Ensure adequate shoring is maintained</p> <p>*Supervisor to contact the Underground Services who will provide details of any underground utilities</p> <p>*Excavation hazards are controlled through the completion and use of an excavation permit. Daily trench safety reports are used to track day to day changes to the excavation area as well as access to the area</p> <p>*Where the site does not permit a 2-foot setback, spoils may need to be temporarily hauled to another location.</p> <p>*Test for low oxygen, hazardous fumes and toxic gases, especially when gasoline engine-driven equipment is running, or the dirt as been contaminated by leaking lines or storage tanks Insure adequate ventilation or respiratory protection if necessary</p> <p>*Use retaining devices such as trench box, that will extend above the top of the trench to prevent equipment and spoils from falling back into the excavation</p>
--	--	--	-----------------------------	---

					<p>*Set spoils and equipment at least 2 feet back from excavation.</p> <p>*Evaluate soil conditions and select appropriate protective systems</p> <p>*Structure ramps that are used solely for access or egress from excavations must be designed by a competent person</p> <p>*Structural ramps sued in place of steps must have a non-slip surface</p> <p>*Provide stairways, adders, ramps or other safe means of egress in all trenched that are 4feet deep or more.</p>
Form Work	1. Exposure to flying particles	Physical Safety	Fatality 2 Injury 3 Medical Aid 3 Frequenc y	Yes	<p>*Use guards, screens where possible.</p> <p>* A face Shield shall be worn during this work activity to prevent material from flying into face</p>
Form Work for Concrete Pour	1. Noise 2. Impalement 3. Vibration	Physical Chemical	Fatality 2 Injury 3 Medical Aid	Yes	*All connecting rods will be covered with rebar caps or equivalent

			3 Frequenc y		
Grinding	<ol style="list-style-type: none"> <li>1. Laceration</li> <li>2. Exposure to flying particles</li> <li>3. Noise</li> <li>4. Grinding wheel failure</li> <li>5. Vibrations</li> </ol>	Physical  Safety	Fatality 2 Injury 3 Medical Aid 3 Frequenc y	Yes	*Use handle to maneuver grinder  *A Face Shield shall be worn during this work activity to prevent material from flying into face  *Use appropriate hearing protection *Ensure grinding wheel is rated for higher revolutions per min minute (RPM) than grinder. *Ensure guard is on grinder.
Light Lift	<ol style="list-style-type: none"> <li>1. Loss of control of material</li> </ol>	Physical  Chemical  Biological  Environmental  Ergonomics  Safety	Fatality 4 Injury 4 Medical Aid 4 Frequenc y 4		*Clear load path  *Keep hands off load to the extent possible  *A Competent rigger shall be available to review rigging activities.  *Use tag lines to maneuver suspended material. Inspect rigging prior to use and ensure it is rated for the load's weight and rigging configuration.
Use of Cranes	<ol style="list-style-type: none"> <li>1. Falls from flatbed trailer</li> <li>2. Loss of control of material</li> </ol>	Physical  Chemical	Fatality 4 Injury 4	Yes	*Ensure adequate walkways during loading whenever possible to provide

	<ul style="list-style-type: none"> <li>3. Adverse weather</li> <li>4. Inadequate foundation</li> <li>5. Crushing of people or objects</li> <li>6. noise</li> </ul>	<ul style="list-style-type: none"> <li>Biological</li> <li>Environmental</li> <li>Ergonomics</li> <li>Safety</li> </ul>	<ul style="list-style-type: none"> <li>Medical Aid</li> <li>4</li> <li>Frequency</li> </ul>		<p>better access for unloading material and connecting rigging equipment.</p> <p>*Ensure load is secure prior to movement.</p> <p>*Keep hands off material to the extent possible.</p> <p>*Use tag lines to maneuver suspended material Avoid reaching into blind spots and pinch points*stop work with elevated booms or aerial lifts when lighting is within 50 miles</p> <p>*Take cover in vehicle if lighting is within 10miles</p> <p>*Use base plates or mud sills</p> <p>*Do not allow workers to walk under the load</p>
Heavy or Critical Lift	<ul style="list-style-type: none"> <li>1. Loss of control of material</li> <li>2. Heavy lift and critical lift hazard controls are equivalent</li> </ul>	<ul style="list-style-type: none"> <li>Physical</li> <li>Chemical</li> <li>Biological</li> <li>Environmental</li> <li>Ergonomics</li> <li>Safety</li> </ul>	<ul style="list-style-type: none"> <li>Fatality</li> <li>4</li> <li>Injury</li> <li>4</li> <li>Medical Aid</li> <li>4</li> <li>Frequency</li> </ul>	Yes	<p>*Clear load travel path</p> <p>*Inspect rigging prior to use and ensure it is rated for the load's weight and rigging configuration.</p> <p>*Follow lift plan</p> <p>*Keep hands off load to extent possible</p> <p>*Use taglines to</p>

					maneuver load  *A competent rigger shall be available to review rigging activities  *Electrical Critical Lifts - lift over or within the `Safe limit of approach of energized electrical equipment or power lines
<b><u>Site Specific</u></b>					

**Appendix 17**



# Accident/Incident Investigation Form

Accident has resulted in:

- WSIB Lost Time       WSIB Medical Aid       First Aid Only       Near Miss

- Has Functional Abilities Form been issued? YES/NO

Site Location: \_\_\_\_\_

Location Number: \_\_\_\_\_

## 4. REPORTING OF ACCIDENT

Date of Injury \_\_\_\_\_ Time of injury \_\_\_\_\_ am/pm

Date of Reporting \_\_\_\_\_ Time of reporting \_\_\_\_\_ am/pm

Describe Injury Reported (part of body & left or right side)

\_\_\_\_\_

## 5. ACCIDENT TYPE

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Moved against utensil (burn/cut) | 6. <input type="checkbox"/> Fall – from height       |
| 2. <input type="checkbox"/> Moved utensil against (cut/burn) | 7. <input type="checkbox"/> Strain (repeated motion) |
| 3. <input type="checkbox"/> Struck by something              | 8. <input type="checkbox"/> Strain (one motion)      |
| 4. <input type="checkbox"/> Caught In or by something        | 9. <input type="checkbox"/> Chemical contact         |
| 5. <input type="checkbox"/> Slip – from foot level           | 10. <input type="checkbox"/> Other                   |

Detail and estimate cost of product or property damage (if applicable):

\_\_\_\_\_

## 6. WITNESSES – name and title of witnesses or persons having knowledge of accident (for WSIB cases attach witness statements)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## 7. CONTRIBUTING CONDITIONS (number all contributing conditions in order of importance, 1 being the most important)

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Lack of training                         | 14. <input type="checkbox"/> Unsafe design                            |
| 2. <input type="checkbox"/> More than one operator                   | 15. <input type="checkbox"/> Failure to use PPE                       |
| 3. <input type="checkbox"/> Failure to unplug machine                | 16. <input type="checkbox"/> Improper materials/equipment storage     |
| 4. <input type="checkbox"/> Hazardous personal attire                | 17. <input type="checkbox"/> Improper maintenance                     |
| 5. <input type="checkbox"/> Unsafe equipment/facilities/illumination | 18. <input type="checkbox"/> Improper housekeeping/storage            |
| 6. <input type="checkbox"/> Guard not used                           | 19. <input type="checkbox"/> Lack of proper safety tool or device     |
| 7. <input type="checkbox"/> Blade cleaned improperly                 | 20. <input type="checkbox"/> Unsafe method or procedure               |
| 8. <input type="checkbox"/> No/improper sharpening program           | 21. <input type="checkbox"/> Lack of inspection                       |
| 9. <input type="checkbox"/> Wrong equipment for job                  | 22. <input type="checkbox"/> Distracting, teasing, willful misconduct |
| 10. <input type="checkbox"/> Unstable surface                        | 23. <input type="checkbox"/> Fire, explosion hazard                   |
| 11. <input type="checkbox"/> Improper material handling              | 24. <input type="checkbox"/> Other (s) explain _____                  |
| 12. <input type="checkbox"/> Unsafe material placement               |   |
| 13. <input type="checkbox"/> Improper machine operation              |   |

## 8. CORRECTIONS – actions to prevent recurrence, mark with ✓

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Instruction of persons involved | 7. <input type="checkbox"/> Installation of guard or safety device |
|---|--|



## Appendix 19 Fall Arrest Checklist

<b>FALL-ARREST EQUIPMENT INSPECTION</b>						
		<b>Location:</b> _____				
<b><u>Full-Body Harness</u></b>						
Check for:					<b>YES</b>	<b>NO</b>
<input type="checkbox"/>	Webbing frayed, cut, burned					
<input type="checkbox"/>	Stitching looses, ripped					
<input type="checkbox"/>	Metal buckle bent, cracked					
<input type="checkbox"/>	Grommets damaged missing					
<input type="checkbox"/>	Strap keepers broken, missing					
<b><u>Locking Snap Hooks</u></b>						
Check for:					<b>YES</b>	<b>NO</b>
<input type="checkbox"/>	Hook bent, cracked, twisted					
<input type="checkbox"/>	Lock not working properly					
<input type="checkbox"/>	Springs weak, broken, missing					
<b><u>Lanyard with Shock Absorber</u></b>						
Check for:					<b>YES</b>	<b>NO</b>
<input type="checkbox"/>	Webbing frayed, cut, burned, damaged by chemical					
<input type="checkbox"/>	Stitching looses, ripped					
<input type="checkbox"/>	Jacket cut, torn, burned; signs of shock loading					
<input type="checkbox"/>	End loops cut, torn, burned, or stretched					
<input type="checkbox"/>	Stretching from shock loading					
<input type="checkbox"/>	Connection to snap hook					
<input type="checkbox"/>	Knots in rope Lanyard					
<b><u>Rope Grab</u></b>						
Check for:					<b>YES</b>	<b>NO</b>
<input type="checkbox"/>	Fails hand test					
<input type="checkbox"/>	Not used with appropriate diameter and type of rope					
<input type="checkbox"/>	Springs broken, missing					
<input type="checkbox"/>	Gate can't close fully					
<input type="checkbox"/>	Locking pin not working					
<input type="checkbox"/>	Safety latch broken					
<input type="checkbox"/>	Teeth on cams worn					
<b><u>Lifeline</u></b>						
Check for:					<b>YES</b>	<b>NO</b>
<input type="checkbox"/>	Diameter must match that of rope grab					
<input type="checkbox"/>	Polypropylene or equivalent					
<input type="checkbox"/>	Length reaches the ground					
<input type="checkbox"/>	Rope frayed, rotted, cut, weekend by knots					
<input type="checkbox"/>	Discoloration from sun, chemicals					
<input type="checkbox"/>	Attachment to anchor secure Protection where lifeline runs over the edge					
<b><u>Anchor</u></b>						
Check for:					<b>YES</b>	<b>NO</b>
<input type="checkbox"/>	Capacity 16 kilometers (3600 pounds) or more					
<input type="checkbox"/>	One anchor per lifeline					
<input type="checkbox"/>	Signs of deformation					

## Appendix 20

### Monthly Fire Inspection

# FIRE CODE CHECK LIST

This form is the Monthly Inspection Check List.

Must be filled out by a **trained employee**.

Once completed this form must be filed accordingly.

The areas of concern must be resolved, **immediately**.

**Supervisor:**

---

**Location:**

---

**Month:**

---

ITEM	YES	NO	NOTES
The portable Fire Extinguishers are appropriate and readily available.			
The Fire Extinguishers have been Inspected and tag dated			
Emergency plan posted in a conspicuous location			
Are emergency exits clearly marked and free of debris			
Is there two way communication program in place in case of an emergency			

## Appendix 21

### Pre-Start Checklist

**Date:** \_\_\_\_\_

#### Compressed Air Tools

- Electrical cord in good repair no frays
- Electrical cords have ground fault circuit interrupters
- Operator has eye protection
- Springs/Absorption pads not worn
- Safety features in proper working order
- On/off switch in working order
- Check coupling and fitting
- The hose has been blown out
- Free of moisture and dirt
- Air pressure set according to manufacturer's specifications

Workers initials: \_\_\_\_\_

Checked by: \_\_\_\_\_

Comments: \_\_\_\_\_

#### Power Saws

- Electrical cord in good repair no frays
- Electrical cords have ground fault circuit interrupters
- Operator has eye protection
- Operators loose clothing has been removed
- Operators chains, and scarf's have been removed
- On/off switch in working order
- Safety features in proper working order

Worker initials: \_\_\_\_\_

Checked by: \_\_\_\_\_

Comments: \_\_\_\_\_

#### Drills

- Electrical cord in good repair no frays
- Electrical cords have ground fault circuit interrupters
- Operator has eye protection
- Safety features in proper working order
- On/off switch in working order

Workers initials: \_\_\_\_\_

Checked by: \_\_\_\_\_

Comments: \_\_\_\_\_

**Scaffold**

- No damage to frames, braces or other structural components
- No rust
- All required components are installed
- Check for electrical wires where workers will be

Workers initials: \_\_\_\_\_

Checked by: \_\_\_\_\_

Comments: \_\_\_\_\_

**Wood Scaffold**

- No defective planks
- Planks are de-laminated
- No splits, knots or rot
- No damage to structure to frame or braces

Workers initials: \_\_\_\_\_

Checked by: \_\_\_\_\_

Comments: \_\_\_\_\_

**Portable Ladder**

- Side rails have no dents or bends
- Rungs have no dents or bends
- All rungs are secure, no loose rungs
- Are there any electrical hazards where the ladder will be used
- Is free of grease, oil, caucking imbedded stones or other materials
- Non-skid feet are in good repair

Workers initials: \_\_\_\_\_

Checked by: \_\_\_\_\_

Comments: \_\_\_\_\_

**Step Ladder**

- No missing or loose footing
- No electrical hazards where ladder will be used
- Is free of grease, oil, caucking imbedded stones or other materials

Workers initials: \_\_\_\_\_

Checked by: \_\_\_\_\_

Comments: \_\_\_\_\_

**PPE**

- In good repair
- Proper fit for users

Workers initials: \_\_\_\_\_

Checked by: \_\_\_\_\_

Comments: \_\_\_\_\_

**Other**

- Fire extinguisher present

Two way communication available

Worker initials: \_\_\_\_\_

Checked by: \_\_\_\_\_

Comments: \_\_\_\_\_

**Any Additional comments:**

---

---

---

**Checked By Supervisor**

**Name:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Location:** \_\_\_\_\_

**Note: When there is more than 1 item in that category. Please circle the item that needs attention.**

## Appendix 22

### Elevated Work Platform Checklist

Elevated Work Platform Pre- Operational Checklist				Elevated Work Platform Pre- Operational Checklist			
Date:		Operator		Date:		Operator	
Start Hour:		Truck #		Start Hour:		Truck #	
End Hour:		Charge:		End Hour:		Charge:	
Everything operating o.k				Everything operating o.k			
<b>Visual Inspection</b>		<b>Operational Inspection</b>		<b>Visual Inspection</b>		<b>Operational Inspection</b>	
Battery Tray		Parking Brake		Battery Tray		Parking Brake	
Vent Caps		Scissor Control		Vent Caps		Scissor Control	
Connector		<b>Forward Control</b>		Connector		<b>Forward Control</b>	
Cables		Steering		Cables		Steering	
Fluid Levels		Braking		Fluid Levels		Braking	
Sterr Wheels		<b>Reverse Control</b>		Sterr Wheels		<b>Reverse Control</b>	
Drive Wheels		Steering		Drive Wheels		Steering	
Outrigers		Braking		Outrigers		Braking	
Guardrails		Back up Alarms		Guardrails		Back up Alarms	
Fall Arrest Harness		Lights		Fall Arrest Harness		Lights	
D-Ring		Horn		D-Ring		Horn	
Locking Pins		Gauges		Locking Pins		Gauges	
Safety Chain/Doos		Descent Alarm		Safety Chain/Doos		Descent Alarm	
Safety Bar		Manual Lowering System		Safety Bar		Manual Lowering System	
Elec/Hyd Drawer		Quick Disconnect		Elec/Hyd Drawer		Quick Disconnect	
Hyd/Oil Fluid Levels		Emergency Stop		Hyd/Oil Fluid Levels		Emergency Stop	
Extension Platform				Extension Platform			
Main Platform		Listen for Unusal noise		Main Platform		Listen for Unusal noise	
Console/Control Box		Oil Spots on the Floor		Console/Control Box		Oil Spots on the Floor	
Free Wheeling Valve		Fuel/Charge Level		Free Wheeling Valve		Fuel/Charge Level	
Pothole Protector				Pothole Protector			
Wiring Harnes/GFI				Wiring Harnes/GFI			
Leaking Hydraulics				Leaking Hydraulics			
Notes:				Notes:			

## Appendix 23

### Lockout Test

<b>Safe Lock-Out and Test Review Sheet</b>					
Employee Name: _____				Date: _____	
Serial No. _____				Department : _____	
Classification _____					
<b>Equipment Check List</b>					
Locks properly identified	<input type="checkbox"/> YES	<input type="checkbox"/> NO			
Number of locks					
Multiple Lock-Out Clamp	<input type="checkbox"/> YES	<input type="checkbox"/> NO			
Written Lock-Out Procedure	<input type="checkbox"/> YES	<input type="checkbox"/> NO			
"Danger - Do Not Operate" Tags	<input type="checkbox"/> YES	<input type="checkbox"/> NO			
<b>Physical Demonstration or Simulation of Lock-out Procedure</b>				<input type="checkbox"/> YES	<input type="checkbox"/> NO
Type of Equipment Locked-Out					
Type of Power Source(s)	<input type="checkbox"/> Electric	<input type="checkbox"/> Air	<input type="checkbox"/> Steam	<input type="checkbox"/> Hydraulic	<input type="checkbox"/> Gas
Did employee correctly identify and disengage ALL sources of power?	<input type="checkbox"/> YES	<input type="checkbox"/> NO			
if Air, Hydraulic, Steam or Gas powered Equipment, was pressure properly bled?	<input type="checkbox"/> YES	<input type="checkbox"/> NO			
If other mechanical devices provided for Lock-Out, were they used properly?	<input type="checkbox"/> YES	<input type="checkbox"/> NO			
After applying lock(s) did employee test to ensure that all power was properly shut off?	<input type="checkbox"/> YES	<input type="checkbox"/> NO			
<b>Supervisors Remarks:</b>					
<b>Employee's Remarks:</b>					
I have read and understand the Lock-Out Policy					
Employee: _____				Date: _____	
Supervisor _____				Date: _____	
<b>This form must be completed annually and retained as a permanent record</b>					

# Appendix 24

## Training Sheet

### ACKNOWLEDGEMENT OF WHMIS TRAINING

DATE : \_\_\_\_\_

PROJECT : \_\_\_\_\_

JOB No. : \_\_\_\_\_

I CERTIFY THAT I HAVE RECEIVED WHMIS TRAINING AND AM CONFIDENT THAT I UNDERSTAND THE PRINCIPLES OF HANDLING, STORAGE AND USE OF HAZARDOUS MATERIALS AS THEY PERTAIN TO CONSTRUCTION.  
I RECEIVED MY TRAINING IN WHMIS FROM :

UNION OR COMPANY : \_\_\_\_\_ At \_\_\_\_\_

TRAINING DATE : \_\_\_\_\_ Year \_\_\_\_\_

WORKERS NAME \_\_\_\_\_  
(PLEASE PRINT)

SIGNATURE : \_\_\_\_\_

MANAGEMENT SIGNATURE : \_\_\_\_\_

#### OTHER TRAINING CERTIFICATES:

FIRST AID

FALL RESTRAINT

C.P.R.

CERTIFIED LEVEL 1 SAFETY REPRESENTATIVE

SIZZOR LIFTS

\_\_\_\_\_

PROPANE

OTHER (LIST)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Appendix 25

### Emergency Contact Form

<u>Emergency Numbers</u>	
Date:	
Ambulance:	911
Police:	911
Fire Department:	911
Poison Control:	1-800-268-9017
Ministry of Labour:	1-877-202-0008
MOL Local office:	
Ministry of Environment	1-800-268-6060
Local Gas:	
Local Hydro:	
Municipal Water:	
<u>Emergency Response Team</u>	
<b>First Aiders</b>	
Name & Phone #:	
Name & Phone #:	
Name & Phone #:	
<b>Health and Safety Pro-Z</b>	
<b>Site H&amp;S Representative</b>	
Name & Phone #:	
<b>Site Location</b>	
Address:	
Nearest Intersection:	
<b>Prime Contractor</b>	
Company Name:	
Contact Person:	
Office Phone #:	
Home or Cell #:	
<b>Sub-Contractor- Name:</b>	
Company Name:	
Contact Person:	
Office Phone #:	
Home or Cell #:	