Top Notch Roofing Inc.

Health and Safety Manual
# Top Notch Roofing Health and Safety Manual

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Element 1) Safety Policy and Introduction

Top Notch Roofing Inc. Health and Safety Policy

We as employers at Top Notch Roofing are vitally interested in the health and safety of our workers. Protection of workers from injury or occupational disease is a major continuing objective. We are committed to working in a spirit of consultation and cooperation with the workers.

Top Notch Roofing will be committed to providing a safe and healthy work environment. All supervisors and workers must be dedicated to the continuing objective of reducing risk of injury.

We support participation in the program by all employees and will provide proper equipment, training and procedures. Employees are responsible for following all procedures, working safely, and, wherever possible, improving safety measures.

Top Notch Roofing recognizes the rights of workers to work in a safe and healthy work environment.

The responsibilities and accountabilities of all workplace parties are outlined on pages 3 to 6.

An injury and accident-free workplace is our goal. Through continuous safety and loss control, we can accomplish this.

The OH&S policy will be reviewed in collaboration with workers on an annual basis.

Signed:

[Signatures]

President
Marcel Van de Pol

Manager
Walter Roos

Date: May 25, 2018
DEFINITIONS

1. "GoCanvas" – a service (app) that helps replace paper forms and processes with efficient mobile business apps and forms to save money and time on data collection.
2. "Multiple-employer workplace" – a workplace where workers of 2 or more employers are working at the same time;
3. "Prime contractor" – means, in relation to a multiple-employer workplace:
   o the directing contractor, employer or other person who enters into a written agreement with the owner of that workplace to be the prime contractor for the purposes of this Part, or
   o the owner of the workplace if there is no agreement.
4. "Employer" — any person who has one or more persons working for them in or about an industry, through either a hiring contract or an apprenticeship contract.
5. "Management" — in relation to a multiple-employer workplace,
6. "Owner" — the person(s) responsible for the land or premises that are being used as a workplace.
8. "Worker" — a person who has entered into or works under a contract of service or apprenticeship, written or oral, express or implied, whether by way of manual labour or otherwise.
   o the directing contractor, employer, or other person who enters into a written agreement with the owner of that workplace to be the prime contractor, or if there is no agreement, the owner of the workplace

ROLES AND RESPONSIBILITIES

Employers

Every employer must ensure the health and safety of:

- All workers working for that employer, and any other workers present at a workplace at which that employer's work is being carried out, and
- Remedy any workplace conditions that are hazardous to the health or safety of the employer's workers,

Every employer must ensure that the employer's workers:

- Are made aware of all known or reasonably foreseeable health or safety hazards to which they are likely to be exposed by their work,
- Are made aware of their rights and duties,
- Establish occupational health and safety policies and programs,
- Provide and maintain in good condition protective equipment, devices and clothing.
• Provide to the employer’s workers the information, instruction, training and supervision necessary to ensure the health and safety of the workers.

• Provide a copy of the Act and the regulation for review by the employer’s workers, post and keep posted a notice advising where the copy is available for review,

• Consult and cooperate with the joint committees and worker health and safety representatives for workplaces of the employer, and

• Cooperate with the owners and any other person carrying out a duty under this Part or the regulations

**General Duties of Workers**

Every worker must:

• Take reasonable care to protect the worker's health and safety and the health and safety of other persons who may be affected by the worker's acts or omissions at work, and

• Comply with the regulations and any applicable orders.

• Carry out his or her work in accordance with established safe work procedures as required by this Part and the regulations,

• Use or wear protective equipment, devices and clothing as required by the regulations,

• Not engage in horseplay or similar conduct that may endanger the worker or any other person,

• Ensure that the worker's ability to work without risk to his or her health or safety, or to the health or safety of any other person, is not impaired by alcohol, drugs or other causes,

• Report to the crew foreman or employer:
  
  o Any contravention of this Part, the regulations or an applicable order of which the worker is aware, and
  
  o The absence of or defect in any protective equipment, device or clothing, or the existence of any other hazard, that the worker considers is likely to endanger the worker or any other person,
  
  o Cooperate with the joint committee or worker health and safety representative for the workplace, and
  
  o Cooperate with the Board, officers of the Board and any other person carrying out a duty under this Part or the regulations.
**General Duties Crew Foreman**

Every crew foreman must:

- Ensure the health and safety of all workers under the direct supervision of the supervisor
- Be knowledgeable about this Part and those regulations applicable to the work being supervised
- Comply with this Part, the regulations and any applicable orders.
- Ensure that the workers under his or her direct supervision are made aware of all known or reasonably foreseeable health or safety hazards in the area where they work, and comply with the regulations and any applicable orders,
- Consult and cooperate with the safety committee or worker health and safety representative for the workplace, and
- Cooperate with the Owners and any other person carrying out a duty under this Part or the regulations.

**Coordination at multiple-employer workplaces**

The prime contractor of a multiple-employer workplace must:

- Ensure that the activities of employers, workers and other persons at the workplace relating to occupational health and safety are coordinated, and
- Do everything that is reasonably practicable to establish and maintain a system or process that will ensure compliance in respect of the workplace.

Each employer of workers at a multiple-employer workplace must give to the prime contractor the name of the person the employer has designated to supervise the employer's workers at that workplace.

**General duties of owner**

Every owner of a workplace must:

- Provide and maintain the owner's land and premises that are being used as a workplace in a manner that ensures the health and safety of persons at or near the workplace,
- Give to the employer or prime contractor at the workplace the information known to the owner that is necessary to identify and eliminate or control hazards to the health or safety of persons at the workplace.
General duties of suppliers

Every supplier must:

- Ensure that any tool, equipment, machine or device, or any biological, chemical or physical agent, supplied by the supplier is safe when used in accordance with the directions provided by the supplier and complies with this Part and the regulations,
- Provide directions respecting the safe use of any tool, equipment, machine or device, or any biological, chemical or physical agent, that is obtained from the supplier to be used at a workplace by workers,
- Ensure that any biological, chemical or physical agent supplied by the supplier is labelled in accordance with the applicable federal and provincial enactments,
- If the supplier has responsibility under a leasing agreement to maintain any tool, equipment, machine, device or other thing, maintain it in safe condition.

Review and Approval

The Safety Program will be reviewed and approved as follows:

<table>
<thead>
<tr>
<th>What</th>
<th>When</th>
<th>Who</th>
<th>Where</th>
</tr>
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<tbody>
<tr>
<td>Safety Policy</td>
<td>Prior to implementation and at least annually thereafter</td>
<td>Owner / general manager</td>
<td>Management and Safety Rep Meeting</td>
</tr>
<tr>
<td>Health and Safety Manual</td>
<td>Prior to implementation and at least annually thereafter</td>
<td>Health &amp; Safety Representative</td>
<td>Management and Safety Rep Meeting</td>
</tr>
<tr>
<td>Safe Work Practices and Safe Job Procedures</td>
<td>Prior to implementations and at least annually thereafter</td>
<td>Health &amp; Safety Worker Representative and Management</td>
<td>Monthly Site Health and Safety Meeting</td>
</tr>
</tbody>
</table>

All approved documentation will have a record stating both the revision date and who approved it. This page can be found below and on GoCanvas.
Postings

1. The crew foreman of each worksite where workers are regularly employed will designate a location for posting information that is:
   - Easily accessible
   - Protected from the elements
   - Free of obstructions
2. All items will be posted on GoCanvas in accordance with the safety board layout outlined on the next page.
3. At worksites where postings are not practicable, the crew foreman will ensure all important company information is filed in the site binder or on GoCanvas.

Safety Board Layout

All listed items must be posted on each worksite (via GoCanvas) and available to all workers.

- First Aid Assessment
- Emergency Response Plan
- Project Hazard Assessment
- Worksite Inspection
- Site specific Fall Plan
- Directions to Clinic
- Directions to Hospital
- WorkSafeBC Inspection Reports
- Toolbox Talk
- Management and Safety Rep. Meeting minutes

These listed items must be in the site binder/ GoCanvas:

- Health and Safety Policy
- First Aid Certification
- WorkSafeBC First Aid Notice
- WorkSafeBC Notice to Workers
## Health and Safety Manual Changes

<table>
<thead>
<tr>
<th>Change / Revision</th>
<th>Date</th>
<th>Who</th>
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</table>
Element 2) Hazard Assessments and Control

DEFINITIONS

1. “Hazard” — a thing or condition that may expose a person to an injury or occupational disease.
2. “Hazard Assessment” — is a process in which individual hazards of the workplace are identified, assessed, controlled as close to source (location of the hazard) as reasonable and possible and communicated to affected employees. The hazard assessment process is completed when the hazards and controls have been communicated to affected parties.
3. “Risk” — the likelihood that a person may be harmed if exposed to a hazard.
4. “Critical task” — any work-related activity that has the potential to cause death or major injury to a worker or has been listed on any of the hazard assessment forms.
5. “Project” — a work contract that typically lasts for more than one day.
6. “Crew” — a group of workers dedicated to a specific task on a project. Crews will typically have a supervisor/crew foreman and one or more workers.
7. “Severity” — the level of harm that could reasonably be expected to be inflicted in the case of an occurrence.

POLICY

Top Notch Roofing is committed to maintain a workplace in which safety is part of everything we do and is as important as anything we do. One expression of our commitment to safety is the Job Hazard Assessment Process.

It is a Top Notch Roofing policy that all work activities are assessed in order to identify existing and potential risks to the health and safety of workers and those reasonably practicable measures will be taken to eliminate, reduce or control those risks.

PURPOSE

The purpose of this policy is to help implement Top Notch Roofing’s requirement that work activities are assessed in order to identify hazards and to identify reasonably practicable measures to reduce those risks by eliminating, reducing or controlling the identified hazards.

Hazard Assessments are required to assess all work sites jobs and tasks and identify existing or potential hazards before work begins.

Company hazard assessments will be completed/reviewed/adjusted by Management annually.

The pre-project hazard assessment (PPHA) will be completed by the employer for each worksite before work begins and will be reviewed by crew foreman and workers before committing to the job.

Project hazard assessments (PHA) will be completed by the crew foreman and the workers before starting the work. The project hazard assessment must be updated as the job or tasks change throughout the day. Management will review all hazard assessments and sign off with initials.
RESPONSIBILITIES

Owner
- Provide/maintain the owner’s premises in a manner that ensures the health and safety of persons at or near the workplace.
- Give to the prime contractor known information that is necessary to effectively manage hazards at the workplace.
- Comply with all applicable local Occupational Health & Safety (OHS) legislation and regulations.

Management
- Ensure the PHAs are being conducted.
- Train workers in all hazards that can be on site.
- Ensure corrective actions have been completed.
- Provide a safe and healthy workplace.
- Keep written records of orientations and training.
- Establish and maintain a comprehensive OHS program.
- Support crew foremen, safety representatives and workers.
- Immediately investigate all incidents.
- Report serious incidents to the local OHS regulatory authority.
- Provide adequate first aid facilities and services for workers.
- Provide personal protective equipment where required.

Crew Foreman
- Provide the name of designated crew foreman.
- Review pre-project hazard assessment with workers.
- Complete the PHA in collaboration with the workers.
- Ensure the workers understand all hazards.
- Ensure the hazards are corrected or minimized.
- Crew foreman will be responsible for signing off on the PHA.
- Ensure regular toolbox meetings/talks are conducted.
- Where Management fails to meet their full obligations, before commencing work the crew foreman will notify the prime contractor and either:
  - Ensure the prime contractor provides the necessary resources to achieve compliance for the worksite in a reasonable amount of time, or
  - Provide the necessary resources to achieve compliance for all workers under their direct supervision.

Workers
- Report hazards to crew foreman.
- Make suggestions for corrective actions.
- Participate in review of the pre-project hazard assessment.
- Complete PHA with the crew foreman.
- Follow the safe job procedures.
**Subcontractor Management**

1. All subcontractors will go through a pre-qualification process and have their performance reviewed on a regular basis.
2. This process involves the following:
   - Subcontractor Pre-Qualification Form
   - Worker’s Compensation clearance letter (if applicable)
3. The subcontractor pre-qualification will be recorded on the *Subcontractor Pre-Qualification Form*. The site orientation will be recorded on the *Company Orientation Form*.
4. The crew foreman will conduct informal monitoring on an ongoing basis and report any of the following deficiencies to the employer:
   - Safety infractions
   - Safety meetings not being conducted.
5. Management and/or health and safety rep will conduct formal monitoring of subcontractors on a weekly basis with results being recorded on the *Construction Safety Inspection Report Form*.

**Types of Hazard Assessments**

**Company Hazard Assessment**

1. The Company Hazard Assessment contains an inventory of main work tasks conducted by employees on an annual basis. These tasks show the potential hazard, along with a risk rating.
2. Any tasks with a risk rating of “H or E” are considered to be critical tasks and must have a Safe Work Practice or Safe Job Procedure created.
3. Completed and reviewed by the employer annually and made available to workers if requested.

**Pre-project Hazard assessment**

1. The employer will complete a hazard assessment to identify existing or potential hazards at each work site before work begins. The assessment will be dated and will identify hazard control methods to be used.
2. Will be reviewed by the crew foreman and workers and posted on site.

**Project Hazard Assessment**

1. The crew foreman along with the workers will complete a *Project Hazard Assessment Form* prior to beginning any new work project. This will identify any critical tasks and allow time to implement relevant Safe Work Practices or Safe Job Procedures.
2. Completed on all projects.
3. Is to be posted on site – GoCanvas App.
4. Management will review and sign off.
Hazard Assessment Process

**Step 1 - Identify Types of Hazards**

1. Review foreseeable tasks, conditions and things, then determine which pose a safety risk.
   - Tasks – Actions that people take as part of their work (e.g. climbing a ladder, or using a torch)
   - Conditions – Environmental items affecting the worker (e.g. hot weather, or a slippery surface)
   - Things – Physical items that can cause harm (e.g. roof kettle or hot asphalt)

2. Describe how exposure to Actions, Conditions or Things could cause harm.

**Step 2 - Assess Risks**

1. Assign a final risk rating to each hazard identified, based on the following two factors:
   - Severity of the consequence
   - Likelihood of exposure

### UQSafe - Risk Matrix

<table>
<thead>
<tr>
<th>LIKELIHOOD</th>
<th>CONSEQUENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALMOST CERTAIN</td>
<td>Extremely likely</td>
</tr>
<tr>
<td>LIKELY</td>
<td>Will probably occur</td>
</tr>
<tr>
<td>POSSIBLE</td>
<td>Likely to happen but not certain</td>
</tr>
<tr>
<td>UNLIKELY</td>
<td>Possible but not likely</td>
</tr>
<tr>
<td>RARE</td>
<td>Conceivable but extremely unlikely</td>
</tr>
<tr>
<td></td>
<td>INSIGNIFICANT</td>
</tr>
<tr>
<td></td>
<td>Minor</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>Major</td>
</tr>
<tr>
<td></td>
<td>Critical</td>
</tr>
</tbody>
</table>

| INSIGNIFICANT    | Near miss event               |
|                  | No injury or illness          |
| Minor            | First Aid Injury / Illness    |
| Moderate         | Reversible / Irreversible     |
| Major            | Serious Injury / Illness      |
| Critical         | Fatality / Fatality / Fatalities |

### Risk Rating Levels

- **Low**: Green
- **Medium**: Yellow
- **High**: Red
- **Extreme**: Red

- **Low**: Low
- **Medium**: Medium
- **High**: High
- **Extreme**: Extreme

- **Likelihood**
  - Almost Certain
  - Likely
  - Possible
  - Unlikely
  - Rare

- **Consequence**
  - Near Miss Event
  - No Injury or Illness
  - First Aid Injury / Illness
  - Reversible / Irreversible
  - Serious Injury / Illness
  - Fatality / Fatality / Fatalities

- **Severity**
  - Low
  - Medium
  - High
  - Extreme
<table>
<thead>
<tr>
<th>Item</th>
<th>Tasks / Conditions / Things</th>
<th>Hazard</th>
<th>Risk (L/M/H/E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Cutting stripping</td>
<td>Cuts</td>
<td>M</td>
</tr>
<tr>
<td>2.</td>
<td>Hot work (e.g., spark, heat, flame, weld)</td>
<td>Fire, explosion, burns</td>
<td>H</td>
</tr>
<tr>
<td>3.</td>
<td>Installing fall protection anchor point</td>
<td>Falling</td>
<td>E</td>
</tr>
<tr>
<td>4.</td>
<td>Manual handling of heavy loads</td>
<td>Trip, fall, personal injury, or property damage</td>
<td>M</td>
</tr>
<tr>
<td>5.</td>
<td>Operation of mobile equipment</td>
<td>Various exposures</td>
<td>M</td>
</tr>
<tr>
<td>6.</td>
<td>Pulling tools, materials, equipment onto roof Material</td>
<td>falling, Strains</td>
<td>M</td>
</tr>
<tr>
<td>7.</td>
<td>Using cut off saw or skill saw</td>
<td>Cuts, Eye injuries, Fire</td>
<td>M</td>
</tr>
<tr>
<td>8.</td>
<td>Using power drill</td>
<td>Cuts, Sprains</td>
<td>M</td>
</tr>
<tr>
<td>9.</td>
<td>Using roof access ladder</td>
<td>Falling</td>
<td>M</td>
</tr>
<tr>
<td>10.</td>
<td>Using roof cutters</td>
<td>Cuts</td>
<td>L</td>
</tr>
<tr>
<td>11.</td>
<td>Using torches for membrane installation</td>
<td>Burns, Fire</td>
<td>M</td>
</tr>
<tr>
<td>12.</td>
<td>Work near power lines</td>
<td>Arc flash, shock, electrocution</td>
<td>E</td>
</tr>
<tr>
<td>13.</td>
<td>Working near skylights, roof openings and edges</td>
<td>Falling</td>
<td>M</td>
</tr>
<tr>
<td>14.</td>
<td>Working with overhead hazards</td>
<td>Material or equipment falling</td>
<td>E</td>
</tr>
<tr>
<td>15.</td>
<td>Working above 10 ft, or an unusual hazard exists below.</td>
<td>Fall from Heights</td>
<td>H</td>
</tr>
<tr>
<td>16.</td>
<td>Working alone</td>
<td>Various exposures</td>
<td>H</td>
</tr>
<tr>
<td>17.</td>
<td>Working in cold weather</td>
<td>Cold related illnesses</td>
<td>M</td>
</tr>
<tr>
<td>18.</td>
<td>Working in hot weather</td>
<td>Hear related illnesses</td>
<td>M</td>
</tr>
<tr>
<td>19.</td>
<td>Working with or near hazardous materials</td>
<td>Various exposures</td>
<td>H</td>
</tr>
<tr>
<td>20.</td>
<td>Office Ergonomics</td>
<td>Repetitive strain injury</td>
<td>H</td>
</tr>
<tr>
<td>21.</td>
<td>Motor Vehicle Use</td>
<td>Personal injuries, damage to vehicle</td>
<td>H</td>
</tr>
<tr>
<td>22.</td>
<td>Using hand tools</td>
<td>Repetitive strain injury</td>
<td>M</td>
</tr>
<tr>
<td>23.</td>
<td>Using a chainsaw</td>
<td>Cuts, eye injuries, fire</td>
<td>M</td>
</tr>
<tr>
<td>24.</td>
<td>Roof Demolition</td>
<td>Cuts, eye injuries, back injuries, falling through the roof</td>
<td>H</td>
</tr>
<tr>
<td>25.</td>
<td>Changing a truck tire</td>
<td>Back strain</td>
<td>M</td>
</tr>
<tr>
<td>26.</td>
<td>Using grinders</td>
<td>Burns, eye injuries, cuts</td>
<td>M</td>
</tr>
</tbody>
</table>
**Step 3 – Establish Controls**

**The Controls Hierarchy**

1. Elimination or substitution – remove the hazard from the workplace or replace hazardous materials or machines with less hazardous ones.  
   Example: using a different product

2. Engineering – includes designs or modifications to plants, equipment, ventilations systems and processes that reduce the source of exposure.  
   Example: guard rail

3. Administration – alter the way the work is done, including timing of work, policies and other rules, and work practices such as standards and operating procedures.  
   Example: safe job procedure

4. Personal Protective Equipment – equipment worn by individuals to reduce exposure such as contact with chemicals or exposure to noise.  
   Example: Hard hat
**Step 4** - Communicate Hazard Information to Workers

Hazard assessments must be communicated with the workers every morning.

**Company Critical Tasks**

**Definition:** a task that has the potential to produce major loss to people, equipment, process or the environment. Top Notch Roofing has identified the following as critical tasks based on the Company Hazard Assessment.

- Work with overhead hazards
- Motor Vehicle Use
- Working near overhead powerlines
- Installing shingles
- Installing fall protection anchor point
- Working alone
- Working near or with hazardous materials
- Working above 10 ft, or an unusual hazard exists below
- Hot work
- Scaffold use
- Snow removal
- Using Elevated Work Platform
- Installing Guardrail System
- Installing Metal
- Applying Torch On

**Reference Forms**

Company Hazard Assessment - located below and on the GoCanvas App
Pre- Project Hazard Assessment – located below and on the GoCanvas App
Project Hazard Assessment – located below and on the GoCanvas App
Subcontractor Pre-Qualification Form – located below
## Company Hazard Assessment

### Step 1: Identify and assess hazards that would occur on any given jobsite (include office).

<table>
<thead>
<tr>
<th>Item</th>
<th>Tasks / Conditions / Things</th>
<th>Hazard(s)</th>
<th>Risk (L/M/H/E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cutting stripping</td>
<td>Cuts</td>
<td>M</td>
</tr>
<tr>
<td>2</td>
<td>Hot work (e.g., spark, heat, flame, weld)</td>
<td>Fire, explosion, burns</td>
<td>H</td>
</tr>
<tr>
<td>3</td>
<td>Installing fall protection anchor point</td>
<td>Falling</td>
<td>E</td>
</tr>
<tr>
<td>4</td>
<td>Manual handling of heavy loads</td>
<td>Trip, fall, personal injury, or property damage</td>
<td>M</td>
</tr>
<tr>
<td>5</td>
<td>Operation of mobile equipment</td>
<td>Various exposures</td>
<td>M</td>
</tr>
<tr>
<td>6</td>
<td>Pulling tools, materials, equipment onto roof</td>
<td>Falling, Strains, falling objects</td>
<td>M</td>
</tr>
<tr>
<td>7</td>
<td>Using cut off saw or skill saw</td>
<td>Cuts, Eye injuries, Fire</td>
<td>M</td>
</tr>
<tr>
<td>8</td>
<td>Using power drill</td>
<td>Cuts, Sprains</td>
<td>M</td>
</tr>
<tr>
<td>9</td>
<td>Using roof access ladder</td>
<td>Falling</td>
<td>M</td>
</tr>
<tr>
<td>10</td>
<td>Using roof cutters</td>
<td>Cuts</td>
<td>L</td>
</tr>
<tr>
<td>11</td>
<td>Using torches for membrane installation</td>
<td>Burns, Fire</td>
<td>M</td>
</tr>
<tr>
<td>12</td>
<td>Work near power lines</td>
<td>Arc flash, shock, electrocution</td>
<td>E</td>
</tr>
<tr>
<td>13</td>
<td>Working near skylights, roof openings and edges</td>
<td>Falling</td>
<td>M</td>
</tr>
<tr>
<td>14</td>
<td>Working with overhead hazards</td>
<td>Material or equipment falling</td>
<td>E</td>
</tr>
<tr>
<td>15</td>
<td>Working above 10 ft, or an unusual hazard exists below</td>
<td>Fall from Heights</td>
<td>H</td>
</tr>
<tr>
<td>16</td>
<td>Working alone</td>
<td>Various exposures</td>
<td>H</td>
</tr>
<tr>
<td>17</td>
<td>Working in cold weather</td>
<td>Cold related illnesses</td>
<td>M</td>
</tr>
<tr>
<td>18</td>
<td>Working in hot weather</td>
<td>Hear related illnesses</td>
<td>M</td>
</tr>
<tr>
<td>19</td>
<td>Working with or near hazardous materials</td>
<td>Various exposures</td>
<td>H</td>
</tr>
<tr>
<td>20</td>
<td>Office ergonomics</td>
<td>Repetitive strain injury</td>
<td>H</td>
</tr>
<tr>
<td>21</td>
<td>Motor Vehicle Use</td>
<td>Personal injuries, damage to vehicle</td>
<td>H</td>
</tr>
<tr>
<td>22</td>
<td>Using hand tools</td>
<td>Repetitive strain injury</td>
<td>M</td>
</tr>
<tr>
<td>23</td>
<td>Using a chainsaw</td>
<td>Cuts, eye injuries, fire</td>
<td>M</td>
</tr>
<tr>
<td>24</td>
<td>Roof Demolition</td>
<td>Cuts, eye injuries, back injuries, falling through the roof</td>
<td>H</td>
</tr>
<tr>
<td>25</td>
<td>Changing a truck tire</td>
<td>Back strain</td>
<td>M</td>
</tr>
<tr>
<td>26</td>
<td>Using grinders</td>
<td>Burns, eye injuries, cuts</td>
<td>M</td>
</tr>
<tr>
<td>27</td>
<td>Extinguishing a fire</td>
<td>Burns, damage to property</td>
<td>H</td>
</tr>
<tr>
<td>28</td>
<td>Computer Use</td>
<td>Strains</td>
<td>L</td>
</tr>
<tr>
<td>29</td>
<td>Installing shingles</td>
<td>Falls, heat exhaustion/stroke</td>
<td>E</td>
</tr>
<tr>
<td>30</td>
<td>Scaffold Use</td>
<td>slip, trip, fall, electrocution</td>
<td>H</td>
</tr>
<tr>
<td>31</td>
<td>Installing flashing</td>
<td>Cuts</td>
<td>L</td>
</tr>
<tr>
<td>Item #</td>
<td>Name of Procedure / Practice</td>
<td>Training Required? (Formal or OJT)</td>
<td>Date created (DD/MM/YY)</td>
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<tr>
<td>-------</td>
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</tr>
<tr>
<td>2</td>
<td>Hot Work</td>
<td>OJT</td>
<td>04/12/18</td>
</tr>
<tr>
<td>3</td>
<td>Installing Fall Protection Anchor Point</td>
<td>Formal</td>
<td>03/07/18</td>
</tr>
<tr>
<td>13</td>
<td>Overhead powerlines buried powerlines</td>
<td>OJT</td>
<td>04/06/18</td>
</tr>
<tr>
<td>15</td>
<td>Working with overhead hazards</td>
<td>OJT</td>
<td>04/20/18</td>
</tr>
<tr>
<td>16</td>
<td>Working at heights/fall protection</td>
<td>Formal</td>
<td>03/26/18</td>
</tr>
<tr>
<td>17</td>
<td>Working alone</td>
<td>OJT</td>
<td>02/22/18</td>
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<tr>
<td>20</td>
<td>Chemical Hazards WHMIS &amp; TDG</td>
<td>OJT</td>
<td>04/04/18</td>
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<td>22</td>
<td>Motor Vehicle Use</td>
<td>OJT</td>
<td>02/09/18</td>
</tr>
<tr>
<td></td>
<td>Task Description</td>
<td>Type</td>
<td>Date</td>
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<td>---</td>
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</tr>
<tr>
<td>24</td>
<td>Roof Demolition</td>
<td>OJT</td>
<td>12/07/18</td>
</tr>
<tr>
<td>28</td>
<td>Use of Fire Extinguisher</td>
<td>OJT</td>
<td>03/01/18</td>
</tr>
<tr>
<td>30</td>
<td>Installing shingles</td>
<td>OJT</td>
<td>04/12/18</td>
</tr>
<tr>
<td>31</td>
<td>Scaffold Use</td>
<td>OJT</td>
<td>06/01/18</td>
</tr>
<tr>
<td>34</td>
<td>Snow Removal</td>
<td>OJT</td>
<td>03/09/18</td>
</tr>
<tr>
<td>36</td>
<td>Elevated Work Platforms</td>
<td>Formal</td>
<td>06/21/18</td>
</tr>
<tr>
<td>42</td>
<td>Installing Metal (Prolock)</td>
<td>OJT</td>
<td>01/11/19</td>
</tr>
<tr>
<td>43</td>
<td>Install guardrails</td>
<td>OJT</td>
<td>02/11/19</td>
</tr>
<tr>
<td>44</td>
<td>Applying torch on</td>
<td>OJT</td>
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</tbody>
</table>
Pre - Project Hazard Assessment Form

<table>
<thead>
<tr>
<th>Project</th>
<th>Date</th>
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<table>
<thead>
<tr>
<th>Created by</th>
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</thead>
</table>

Instructions:

1. List the work tasks of the job in sequential order.
2. Describe the hazard of each task.
3. Record the overall risk level of each task / hazard.
4. Describe how each hazard will be minimized / eliminated.

<table>
<thead>
<tr>
<th>Task</th>
<th>Hazard</th>
<th>Risk (E/H/M/L)</th>
<th>Description of Control</th>
</tr>
</thead>
<tbody>
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</table>

Below is a list of possible hazards. Please insert into hazard column above as needed.

- Cuts
- Fire
- Explosion
- Burns
- Falling
- Tripping
- Personal Injury
- Property damage
- Various exposures
- Strains
- Contact with workers/other objects
- Eye injuries
- Sprains
- Arc flash
- Shock
- Electrocution
- Material or equipment falling
- Fall from heights
- Cold related illnesses
- Heat related illnesses
- Repetitive strain injury
- Back injuries
- Noise
- Electrical hazards
- Exposure to chemicals in fuel
Are ANY of the tasks mentioned above high risk? Yes  No
# Project Hazard Assessment Form

<table>
<thead>
<tr>
<th>Task</th>
<th>Hazard</th>
<th>Risk (E/H/M/L)</th>
<th>Description of Control</th>
<th>Date and Time Implemented</th>
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</tbody>
</table>

Instructions:

1. List the work tasks of the job in sequential order
2. Describe the hazard of each task
3. Record the overall risk level of each task / hazard
4. Describe how each hazard will be minimized / eliminated
5. Record the date and time the control was implemented
6. Review Pre - Project Hazard Assessment with the crew
7. Update the Project Hazard Assessment if the job or tasks change throughout the day.

Below is a list of possible hazards. Please insert into hazard column above as needed.

- Cuts
- Fire
- Explosion
- Burns
- Falling
- Tripping
- Personal Injury
- Property damage
- Various exposures
- Strains
- Pinch points
- Eye injuries
- Sprains
- Arc flash
- Shock
- Electrocution
- Material or equipment falling
- Fall from heights
- Cold related illnesses
- Heat related illnesses
- Repetitive strain injury
- Back injuries
- Noise
- Electrical hazards
- Exposure to chemicals in fuel
Are ANY of the tasks mentioned above high risk?  
☐ Yes  ☐ No

If yes, review Safe Job Procedure (SJP) and/or Safe Work Practice (SWP) for this high-risk task with crew.

Please add any additional hazards daily or if a new work task has not been previously identified.

<table>
<thead>
<tr>
<th>Task</th>
<th>Hazard</th>
<th>Risk (E/H/M/L)</th>
<th>Description of Control</th>
<th>Date and Time Implemented</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

Communicate

<table>
<thead>
<tr>
<th>Worker</th>
<th>Worker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worker</td>
<td>Worker</td>
</tr>
<tr>
<td>Worker</td>
<td>Worker</td>
</tr>
</tbody>
</table>

☐ Discussed PPE Requirements  ☐ Discussed Communication

<table>
<thead>
<tr>
<th>Communicated by</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td></td>
</tr>
<tr>
<td>Review &amp; Sign-off</td>
<td>Date</td>
</tr>
</tbody>
</table>
Subcontractor Pre-Qualification Form

Please complete the form below and email (form and all attachments) to walter@topnotchroofingbc.com. **If all the information is not provided and all attachments are not submitted** – this will significantly delay approval, or your pre-qualification could be rejected. Please not that this a preliminary pre-qualification form and includes only our minimum requirements. Additional information may be requested by the job owner or due to the type of work to be performed!

TO BE COMPLETED BY THE APPLYING SUBCONTRACTOR

| **Date Pre-Qual completed (dd/mm/yyyy)** |  |
| **Has your company submitted a Pre-qualification form to Top Notch Roofing in the last 30 days?** | ☐ Yes ☐ No |

| **General Company Information** |
| **Company’s Legal Name** |  |
| **Common Company Name** |  |
| **Mailing Address** |  |
| **Street Address** |  |
| **Phone** | **Fax** |
| **Owner / Principle** | **Year Company Founded** |
| **Email Address** |  |
| **Type of Company** | ☐ Sole Proprietorship ☐ Partnership ☐ Corporation ☐ Other |
| **Is your firm owned or controlled by another organization?** | ☐ Yes ☐ No |
| **If yes, please enter the name** |  |
| **Business Registration #** |  |
| **GST #** |  |
| **Insurance Policy #** |  |
| **Insurance Company Name** |  |
| **Total # of current employees** |  |

<p>| <strong>Work Safe BC</strong> |
| <strong>Work Safe BC #</strong> |  |
| <strong>Has your company received any WCB Citations in the last 3 years? If yes, please provide: the date, the violation type and what has been done to prevent similar violations</strong> | ☐ Yes ☐ No |</p>
<table>
<thead>
<tr>
<th>Safety Goals and Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have company safety goals and objectives?</td>
</tr>
<tr>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Do you have a written health and safety program/manual?</td>
</tr>
<tr>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>Please include a copy if available</td>
</tr>
<tr>
<td>□ Included</td>
</tr>
<tr>
<td>Do you hold regular safety meetings?</td>
</tr>
<tr>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>If yes, how often?</td>
</tr>
<tr>
<td>Do your employees receive safety training?</td>
</tr>
<tr>
<td>□ Yes □ No</td>
</tr>
<tr>
<td>If yes, how often?</td>
</tr>
</tbody>
</table>

**Drug and alcohol use are prohibited on the job site! Use of Drugs or Alcohol will result in possible termination of employees / subcontractor!!**

**PERSON AUTHORIZED TO SIGN ON BEHALF OF THE ORGANIZATION**

<table>
<thead>
<tr>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>Title</th>
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</table>

<table>
<thead>
<tr>
<th>Signature</th>
<th>Date (dd/mm/yyyy)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TO BE COMPLETED BY THE HIRING COMPANY**

This subcontractor has been □ accepted □ declined to work for our company.

**Follow-up Actions**

Describe any required follow-up actions or review notes below.

<table>
<thead>
<tr>
<th>Reviewer name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th>Phone</th>
<th>Email</th>
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</thead>
<tbody>
<tr>
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</tbody>
</table>
Element 3) Safe Work Practices

DEFINITION

“Safe Work Practice (SWP)” – a set of guidelines or “do’s or don’ts” on how to perform a specific task (e.g., using ladders, safe lifting).

POLICY

a. SWPs may be created on the Safe Work Practice Template, by the owner and executive administrator.

b. An SWP must be written in any of the following cases:
   • When confronted with a Critical Task that does not already have a SWP in place
   • The hazard assessment results in a risk of “Major” and the hazard cannot be eliminated
   • The results of a Near Miss / Accident Investigation show that an SWP is required

c. The SWP must include the following resources, if needed:
   • Inspection Requirements
   • Forms Requirements
   • Training Requirements

RESPONSIBILITY

It is the responsibility of management and worker representation to review all Safe Work Practices annually.
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<td>122</td>
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<tr>
<td>Safe Work Practice – Overhead Hazards</td>
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</tbody>
</table>
General Safe Work Practice – Basic Personal Protective Equipment

Training: On the Job

Personal protective equipment (PPE) is the last means of protecting workers from injury. PPE is only employed when administrative and engineering controls are ineffective or insufficient. Hazards should be minimized by ensuring that all jobs are well planned, workers are properly trained, and safe work practices and safe job procedures are followed. PPE provides an additional degree of protection from injury.

Eye and Face Protection

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

- Flying objects and particles,
- Molten metals,
- Splashing liquids,
- Ultraviolet, infrared, and visible radiation (welding).

- Workers will wear safety eyewear appropriate to the conditions of the workplace if handling or exposed to materials that are likely to injure or irritate the eyes.
- Ensure your eye protection fits properly (close to the face).
- Clean safety glasses daily, or 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. (Damages to face/eye protection interferes with vision and will not provide the protection it is designed to deliver.)
- Do not modify eye/face protection.
- Do not use eye/face protection which does not have a proper certification. (Various markings or the safety stamp for safety glasses are usually on the frame inside the temple near the hinges of the glasses.)
- Face shields protect the full face from injury and they offer the highest impact protection and shelter from spraying, chipping, grinding, chemicals, and blood borne pathogens.
- A face shield is considered a secondary safeguard to protective eyewear; it should never be worn without safety glasses.

Foot Protection

Safety footwear is designed to protect against foot hazards in the workplace. Safety footwear protects against compression, puncture injuries, and impact. In construction, it is recommended that only the green triangle grade of footwear be used, which also gives ankle support.

- CSA Approved footwear will be worn onsite at all times unless specified by the crew foreman.
• Choose footwear according to the job hazard and approved standards.
• Lace up boot and tie laces securely (boots do not protect if they are a 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).
• Do not wear defective safety footwear (i.e., exposed steel toe caps).
• Do not under protect your feet.
• Do not modify safety footwear.

**Head Protection – Hard Hats**

Hard hats are designed to protect the head from impact from falling objects, bumps, splashes from chemicals or harmful substances, and contact with energized objects and equipment.

- Hard hats will be worn wherever there is a clear and present danger of head injury, unless specified by the crew foreman or the hazard assessment.
- Replace hats that are pitted, holed, cracked or brittle.
- Replace hats that have been subjected to a blow even though damage cannot be seen.
- Remove from service any hard hats if its serviceability is in doubt.
- Do not drill, remove peaks, alter the shell or suspension in any way.
- Do not use solvents or paints on the shell (makes the shell breakdown).
- Do not put chin straps over the brims of certain classes of hard hats.
  1. Do not use any liner that contains metal or conductive material.
  2. Do not carry anything in the hard hat while wearing the hard hat.

**Hearing Protection**

- Use earplugs in noisy environments.
- Make sure your earplugs fit comfortably.
- Clean reusable earplugs after each use.
- All employees are responsible for ensuring that it is appropriate for the hazards, worn properly and in good condition and not to be altered in any way.
• All workers are responsible for ensuring that the hearing protection are with them all day each day.

• It is the responsibility of the crew foreman to ensure that they have a daily supply of ear plugs with them for all workers. If not, let employer know.

• All workers are required to use approved hearing protection when working in or traveling through any work site that is designated as a "High Noise Area" or has a noise level above 85 dBA.

• Do not stand too close to noisy machinery for a long time.

• Do not reuse disposable earplugs.

• Do not share earplugs with your co-workers.

**High visibility vest**

• Always wear the safety vest whenever instructed to do so.

• Ensure that it is appropriate for the hazards, worn properly and in good condition and not to be altered in any way.

• Ensure that the high visibility vest is with workers all day every day.

• Garments must be fitted to the person and comfortable to wear, according to company requirements.

• Vests must be kept clean and well-maintained.

• Replace garments that show signs of wear and tear, soiling, or contamination.

**Respiratory Protection – Disposable respirators**

• Disposable respirators must be worn whenever instructed to do so.

• Ensure disposable respirators are selected, used and maintained in accordance with CSA standards and company requirements.

• Ensure the disposable respirator is the proper size and makes an effective seal to the facial skin of the worker where a tight fit is essential to proper functioning tone.

• Kept in a convenient and sanitary location when not in use.

• Ensure that a worker using the respiratory equipment is adequately trained by a competent person in the proper fit, testing, maintaining, use and cleaning of the equipment.
Safe Work Practice – Bullying and Harassment

Training: On the Job

The definition of bullying and harassment includes any inappropriate conduct or comment by a 'person' towards a worker that the 'person' knew or reasonably ought to have known would cause that worker to be humiliated or intimidated.

A 'person' includes any individual, whether or not they are a workplace party. This means that a 'person' could be a workplace party such as an employer, supervisor, or co-worker, or a non-workplace party such as a member of the public, a client, or anyone a worker comes into contact with at the workplace.

- If you are bullied at work, speak to someone about how you might deal with the problem informally. This may be talking to an employee representative, human resources, or your crew foreman or manager.
- If you feel safe doing so, tell the bully that the behaviour is unwelcome and unwanted:
  - Describe the bullying behaviour, explain why it's unacceptable and describe how it affects you.
  - Focus on the problem not the person. Use “I” language and describe the outcome.
  - Tell the bully firmly you want the behaviour to stop.
  - If you need support to take this step, ask a witness to be present when you approach the bully.
- Keep a factual journal or diary of daily events. Record:
  - The date, time, and what happened in as much detail as possible
  - Names of witnesses
  - The outcome of the event
- Keep copies of any letters, memos, emails, faxes, etc., received from the person.
- Do not retaliate. It can make you look like a bully.
- If your crew foreman is the bully, talk with your crew foreman’s manager, or next in level of management if that does not work.
- Present your concerns in a professional, factual way.
- Bring your record of the bullying with you, including the names of any witnesses.

Where the informal approach fails or if the violence or harassment is more serious, you should bring the matter to the attention of management as a formal written complaint.

On receipt of a formal complaint we will take action to separate you from the alleged harasser to enable an uninterrupted investigation to take place. This may involve a temporary transfer of the alleged harasser to another work area or suspension until the matter has been resolved.

Those involved in the investigation will be expected to act in confidence and any breach of confidence will be a disciplinary matter.

If the report concludes that the allegation is well founded, the harasser will be liable to disciplinary action in accordance with our disciplinary action procedures.

If you bring a complaint of violence or harassment you will not be victimised for having
brought the complaint. However, if the report concludes that the complaint is both untrue and has been brought with malicious intent; disciplinary action will be taken against you.

Information obtained during the investigation, including identifying information about any individuals involved, will not be disclosed unless necessary for the purpose of investigating or taking corrective action or otherwise as required by law. This policy will be reviewed on an annual basis in consultation with the Health and Safety Representative or the Manager.
Safe Work Practice – Chainsaws

Hazards: Cuts, flying debris  Training: On the Job

**General:** Know your equipment. Learn the operation, application and limitations as well as the specific and potential hazards of the equipment before operating it.

- Wear adequate PPE and keep observers at a safe distance from the work area. Minimum PPE for this equipment is eye, hearing and foot protection.
- Check the SDS before starting work for material-specific hazards that could require other PPE.
- Inspect chainsaw before each use. If found defective, tag it, notify the crew foreman immediately and remove from service.
- Fueling of the saw must be done in a well-ventilated area and not while the saw is running or hot.
- An approved safety container must be used to contain the fuel used along with a proper spout or funnel for pouring.
- The correct methods of starting, holding, carrying or storing and use of the saw (as directed by the manufacturer) must be used.
- Before the saw is used to make any cuts, you must make sure that the chain brake is functioning properly and adequately stops the chain.
- The chain must be sharp, have correct tension and be adequately lubricated.
- Complete a maintenance and safety inspection before each use. Record on the Chainsaw Safety Inspection Form.
- If you are using an electric chain saw, ensure all cords are clear of the cutting area before starting a cut.
- Before cutting, check the stock for foreign objects or any other obstructions which could cause the saw to “kick back”.
- Do not use the saw to cut above shoulder height.
- When carrying/transporting a chain saw, the chain bar must be toward the back and the motor shut off.
- When you are finished with the saw, make sure that it is stored in a safe and secure location.
Safe Work Practice – Chemical Hazards WHMIS & TDG, Labelling, Safety Data Sheets and Chemical Storage Guidelines

Training: On the Job

General: There are three main chemical hazards.
- **HEALTH** (poison, radioactive, corrosive, compressed gas, toxic, biohazardous).
- **FIRE** (flammable solid, liquid or gas)
- **REACTIVITY** (reactive, oxidizer, explosive, corrosive, or flammable solid).

When handling chemicals, do the following:
- Keep material contained, away from other chemicals and away from any ignition source.
- Avoid any contact, wear personal protective equipment.
- Know the properties of the chemical and clean up spills.

**WHMIS:** Workplace Hazardous Material Information System has three main features. They are:
- Labeling of all containers of hazardous materials.
- Having safety data sheets (SDS).
- Educating all workers about WHMIS, including:
  - Safe handling and storage of chemicals.
  - Understanding WHMIS symbols and SDS.
  - Being aware of potential hazards.

**The WHMIS Symbols Are:**

**TDG:** The purpose of the Transportation of Dangerous Goods Regulations is to promote safety and to protect the public when dangerous goods are being transported by road, rail, air or ship.
TDG Regulations require that certain guidelines be followed when transporting any controlled product in amounts more than a specified maximum. Some of the products we must transport for use on job sites are covered by TDG regulations. Any employee who is in doubt about a product they are transporting should speak with the crew foreman.

Exemptions:

Propane
Transporting propane by road is exempt from the TDG requirements, if the propane cylinders are:

- Transported in quantities under 501 kg (1105 lbs) or contained in not more than five cylinders
- Transported in an open vehicle with their cylinder label visible to the outside.
- Secured in or on the vehicle in an upright position.
- Not connected for use and their valve protection covers are in place.

Solvents and adhesives
Road transport of job quantities of solvents and/or adhesives that have a flash point of 37.8°C (100°F) or more is exempt from the TDG requirements. Products with a lower flash points (under 37.8°C) are regulated by the TDG Act and require:

- TDG training for the driver and shipper
- Appropriate truck placards
- A shipping manifest

Flammables
Hazards: may ignite if exposed to heat, sparks, friction, flames or incompatible material

- Obtain and read the Material Safety Data Sheets for all materials you work with.
- Wear appropriate PPE: protective gloves, safety glasses.
- Keep away from ignition sources (heat, sparks, and open flames.
- Keep only the minimum quantity required in work areas.
- Store away from oxidizers.
- Store materials in fire-resistant cabinets or other specified storage areas.
- Work with flammable materials should be performed in a fume hood or well-ventilated area.
- Keep storage areas cool and dry.
- Use labelled and approved safety containers.
- Keep containers closed when not in use.
- Bond and ground containers when transferring flammable and combustible liquids.
Oxidizers

Hazards: cause or intensify a fire or cause an explosion, may enhance the combustion of other materials
- Obtain and read the Safety Data Sheets for all materials you work with.
- Wear appropriate PPE: protective gloves, fire resistance clothing, safety eyewear.
- If the reaction can be violent, use barriers to isolate it.
- Keep only the minimum quantity required in work areas.
- Keep the work areas clear of unneeded materials that could react with oxidizers.
- Store away from flammable materials, organic materials, and reducing agents.
- Any spills of oxidizing materials need to be cleaned up immediately and thoroughly.
- Do not open peroxide containers where crystals have formed around the lid.

Compressed Gases

Hazards: explode if heated, punctured, or dropped, severe cold burns or injury
- Obtain and read the Material Safety Data Sheets for all materials you work with.
- Cylinders should be secured to the wall or structure using a chain or strap.
- Protect cylinders from heat and physical damage.
- Keep valve caps on all cylinders not in use or when storing or moving them.
- Before using cylinders, check all fittings and regulators for defects, leaks, oil and grease.
- Use the smallest cylinder required for the work.
- Wear goggles for safety glasses.
- Use proper storage and transportation procedures, found on the “Chemical Storage Guidelines” table on page 47.
- Use a cart designed for moving cylinders.
- Wear steel-toed footwear when handling large cylinders.
- Do not empty a cylinder completely. A slight pressure will keep contaminant out.

Corrosives

Hazards: severe skin burns, serious eye damage/irritation
- Obtain and read the Safety Data Sheets for all materials you work with.
- Wear appropriate PPE: safety eyewear, protective gloves.
- Use corrosion-resistant equipment and materials.
- Work in a fume hood or well-ventilated area.
- Add acid slowly to water; never add water to acid.
- Keep containers closed when not in use.
- Store acids and bases separately from each other and in a well-ventilated area.
- In case of eye/skin contact flush areas with emergency eyewash/shower for 15 minutes and seek medical attention.
• Never return unused material to the original container. It may contain traces of contamination which may cause a chemical reaction.

**Explosion / Reactive substances**

Hazards: fire or explosion

- Obtain and read the Material Safety Data Sheets for all materials you work with.
- Work in a fume hood.
- Wear appropriate PPE: safety eyewear, protective clothing and gloves.
- If the reaction can be violent, use barriers.
- Use only the minimum amount of the material necessary.
- Discard of unopened materials within 12 months, and opened materials within 6 months.

**Skin / Eye Irritant, Acute Toxicity, Hazardous to the Ozone Layer**

Poisonous materials which cause immediate and severe harm.

- Avoid breathing dust or vapors.
- Avoid contact with skin or eyes.
- Wear personal protective equipment which is effective for exposure situation. E.g. protective clothing, gloves, safety eyewear.
- Work in well ventilated areas.
- Wash potentially exposed body parts thoroughly after handling.

**Health Hazard**

Materials which can cause or are suspected of causing serious long-term health effects.

- Work in a well-ventilated area.
- Store in appropriate designated areas.
- Avoid direct contact.
- Use personal protective equipment.: protective clothing, gloves, safety eyewear, respirators.
- Obtain and learn special instructions, controls before use.
- Avoid repeated and / or prolonged exposure situations.
Toxics
Hazards: skin corrosion/irritation, serious eye damage/irritation, specific target organ toxicity, respiratory irritation
- Obtain and read the Material Safety Data Sheets for all materials you work with.
- Use engineered controls such as a fume hood or snorkel when working with the material.
- Wear appropriate PPE: respirator, protective clothing and gloves, safety eyewear.
- Keep only the minimum quantity required in work areas.
- Know the signs and symptoms of exposure to materials being used.

Biohazards
Hazard: infection
- Obtain and read the Material Safety Data Sheets for all materials you work with.
- Work with the materials in a biosafety cabinet.
- Wear appropriate PPE: respirators, eye protection, protective gloves.
- Keep only the minimum quantity required in work areas.

Environment
May be harmful to aquatic life or cause long-lasting effects to the aquatic environment.
- Use products according to directions.
- Avoid release into the natural environment.
- Dispose in accordance with all regulatory requirements and obligations.
Labelling

The purpose of WHMIS labels is to alert workers to the main hazards of controlled products, to provide instructions for safe handling, and to direct workers to the Safety Data Sheet (SDS) for more information. All hazardous products in the workplace must be labelled or marked in some way. Employers are responsible for making sure all hazardous products have labels. Workers are to let their crew foreman know if a label is missing or unreadable.

There are two types of labels:

• Supplier labels
• Workplace labels

Supplier Labels
Suppliers must provide labels on containers of all controlled products sold or imported for use in the workplace.

Supplier labels are required to include the following information:

• Product identifier (product name)
• Hazard symbols
• Risk phrases
• Precautionary statements
• First Aid measures
• Reference to the SDS
• Supplier identifier (suppler name)

All information on the label must be provided in English and French in Canada.

Small quantity Supplier Label

For controlled products in a container less than 100 ml in volume, supplier labels must include the following information.
• Product identifier (product name)
• Supplier information
• Hazard symbols
• Reference to SDS.

WHMIS information on supplier labels must be bilingual.
Workplace labels

If the controlled product remains in its original container, with a supplier label on it, no additional labeling is required.

Workplace labels are required on containers of controlled products produced on site, and on secondary containers where the product has been transferred from the original container.

Workplace labels may also be used to replace a damaged or missing supplier label on an original container.

Workplace labels must include the following information:
- Product identifier (product name)
- Safe handling information and
- Reference to the SDS

The format for workplace labels is flexible but they must be in the English language. The label may include WHMIS hazard symbols or other pictograms.

Figure 4.2 - Example of a workplace label.

<table>
<thead>
<tr>
<th>Methyl Alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Use in well ventilated area</td>
</tr>
<tr>
<td>• Avoid contact with skin and eyes</td>
</tr>
<tr>
<td>• Keep away from spark and flame</td>
</tr>
<tr>
<td>• Refer to Safety Data Sheet</td>
</tr>
</tbody>
</table>

** Exclusion to Workplace Labels**

A workplace label is not necessary for WHMIS controlled products:
- When the controlled product is poured into a container and it is used immediately.
- If the material is under the control of the person who decanted it and is all used during the work shift. A product identifier must be attached to the container.

If the hazardous material is not used right away, or if more than one person will be in control of the material, a workplace label is required.
Safety Data Sheets

Safety Data Sheets WHMIS requires suppliers to provide their customers with information about any material under the Hazardous Product Regulations. A Safety Data Sheet (SDS) is a technical document developed by the supplier that provides information specific to the hazardous material such as hazards, controls, safe handling and storage guidelines, emergency procedures for the controlled product etc.

It is important for a worker to always be familiar with the hazards of a product before they start using it. One should look at an SDS, match the name of the product on the container to the one on the SDS, know the hazards, understand safe handling and storage instructions, as well as understand what to do in an emergency.

Think of an SDS as having four main purposes. It provides information on:

a. Identification: for the product and supplier.
b. Hazards: physical (fire and reactivity) and health.
c. Prevention: steps you can take to work safely, reduce or prevent exposure, or in an emergency.
d. Response: appropriate responses in various situations (e.g., first-aid, fire, accidental release).

**Note:** For hazardous products that do not an SDS available, contact the executive administrator in the office and send a picture of the product.
## Chemical Storage Guidelines

<table>
<thead>
<tr>
<th>Class of WHMIS Materials</th>
<th>Recommended Storage</th>
<th>Incompatible WHMIS Materials for storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable Liquids</td>
<td>In grounded flammable storage cabinet</td>
<td>Corrosives (acids and bases), Oxidizers, Poisons</td>
</tr>
<tr>
<td>Flammable Solids</td>
<td>Store in a separate dry, cool area away from incompatible materials</td>
<td>Corrosives (acids and bases), Oxidizers, Poisons</td>
</tr>
<tr>
<td>Compressed Gases – Flammable</td>
<td>Store in a cool, dry gas storage area away from incompatible materials</td>
<td>Oxidizers and Toxic Compressed Gases, Oxidizing Solids, Corrosives, Poisons</td>
</tr>
<tr>
<td>Compressed Gases – Oxidizing</td>
<td>Store in a cool, dry gas storage area away from incompatible materials</td>
<td>Flammable gases</td>
</tr>
<tr>
<td>Compressed Gases – Poisonous</td>
<td>Store in a cool, dry gas storage area away from incompatible materials</td>
<td>Flammable Liquids and Solids, Corrosives (bases), Oxidizers, Toxics</td>
</tr>
<tr>
<td>Corrosives – Acids</td>
<td>Store in a separate storage cabinet away from incompatible materials</td>
<td>Flammable Liquids and Solids, Corrosives (acids), Oxidizers, Toxics</td>
</tr>
<tr>
<td>Corrosives – Bases</td>
<td>Store in a separate storage cabinet away from incompatible materials</td>
<td>Flammable Liquids and Solids, Corrosives (acids), Oxidizers, Toxics</td>
</tr>
<tr>
<td>Oxidizers</td>
<td>Store in a spill tray inside a non-combustible cabinet, separate from incompatible materials</td>
<td>Flammable and Combustible Liquids and Solids, Corrosives, Toxics</td>
</tr>
<tr>
<td>Poisons</td>
<td>Store separately, in vented, cool, dry area in an unbreakable chemically resistant secondary container</td>
<td>Flammable Liquids and Solids, Corrosives (acids and bases), Oxidizers</td>
</tr>
<tr>
<td>Biohazardous Materials</td>
<td>Special storage</td>
<td>Refer to MSDS</td>
</tr>
<tr>
<td>Explosives</td>
<td>Special storage</td>
<td></td>
</tr>
<tr>
<td>Shock-Sensitive Materials</td>
<td>Store in secure location away from all other chemicals</td>
<td>Flammable Liquids, Oxidizers, Corrosives (acids and bases), Poisons</td>
</tr>
<tr>
<td>Water-Reactive Chemicals</td>
<td>Store in dry, cool location and protect from water fire sprinklers</td>
<td>Separate from all aqueous solutions, Oxidizers</td>
</tr>
<tr>
<td>Radioactive Materials</td>
<td>Special storage</td>
<td></td>
</tr>
<tr>
<td>General Chemicals – Non-Reactive</td>
<td>Store on general laboratory benches or shelving preferably behind glass doors</td>
<td>Refer to MSDS</td>
</tr>
</tbody>
</table>
Safe Work Practice – Cleaning Solvents & Flammables

Hazards: fire, health effects – irritation, intoxication, suffocation

PPE: Hand, Face and Eye protection, Respiratory Protection

Training: On the Job

General: Cleaning solvents are used in day-to-day work to clean tools and equipment. Special care must be taken to protect the worker from hazards which may be created from the use of these liquids. Wherever possible, solvents should be nonflammable and nontoxic. The foreman must be aware of all solvents/flammables that are used on the job and be sure that all workers who use these materials have been instructed in their proper use and any hazard they pose.

- Use nonflammable solvents for general cleaning.
- When flammable liquids are used, make sure that no hot work is permitted in the area.
- Store flammables and solvents in special storage areas. Certain products must be protected from freezing – check labels before storing.
- Check toxic hazards of all solvents before use. (SDS)
- Provide adequate ventilation where all solvents and flammables are being used.
- Use goggles or face shields to protect the face and eyes from splashes or sprays.
- Use rubber gloves to protect hands.
- Wear protective clothing to prevent contamination of the worker’s clothes.
- When breathing hazards exist, use the appropriate respiratory protection.
- Ensure that proper containers are used for transportation, storage and field use of solvents/flammables. If containers are leaking or damaged, or if labels are missing or difficult to read, inform your crew foreman.
- Ensure SDS sheets are available and supplier or workplace labels are visible.
- Where solvents are controlled products, ensure all employees using or working near the use or storage are trained and certified in the Workplace Hazardous materials Information System. Ensure all WHMIS requirements are met.
- Never leave solvents in open tubs or vats – return them to storage drums or tanks.
Safe Work Practice – Compressed Air

Hazards: flying debris, hearing damage

PPE: Eye protection

Training: On the Job

- Ensure that the air pressure has been turned off and the line pressure relieved before disconnecting the hose or changing tools.
- All hose connectors must be of the quick disconnect pressure release type.
- Ensure other workers in the area are made aware of or have restricted access to hazard area.
- Hoses must be checked on a regular basis for cuts, bulges or other damage.
- Ensure that defective hoses are removed from service, tagged and reported to crew foreman, who will dispose of it.
- A proper pressure regulator and relief device must be in the system to ensure that correct desired pressures are maintained.
- The correct air supply hoses must be used for the tool/equipment being used.
- Compressed air or steam must not be used for blowing dust, chips, or other substances from equipment, materials and structures if any person could be exposed to the jet, or to the material it expels or propels and an injury or health hazard due to fire, explosion or other cause is likely to result.
- Compressed air may be used in specially designated areas for blowing dusts or other substances from clothing being worn by workers, provided that
  a. The substances have an exposure limit greater than 1.0 mg/m^3, as established by section 5.48 of OHS Regulation. “Except as otherwise determined by the Board, the employer must ensure that no worker is exposed to a substance that exceeds the ceiling limit, short-term exposure limit, or 8-hour TWA limit prescribed by ACGIH”.
  b. Appropriate respirators and eye protection are worn, and
  c. The compressed air supply pressure is limited to a pressure of 70 kPa gauge (10 psig), or safety nozzles which have the same pressure limiting effect are used.

Definitions

1. "8-hour TWA limit" means the time weighted average (TWA) concentration of a substance in air which may not be exceeded over a normal 8 hour work period.
2. “ACGIH” means:
   a. the American Conference of Governmental Industrial Hygienists publication entitled Threshold Limit Values and Biological Exposure Indices, dated 2002, as amended from time to time, or
   b. the American Conference of Governmental Industrial Hygienists publication entitled Documentation of the Threshold Limit Values and Biological Exposure Indices, as amended from time to time.
Safe Work Practice - Computer Use

Hazards: repetitive strain injury, neck, shoulder and back pain, eye strain, headaches

Training: On the Job

Chair:
- Adjust chair, comfort is important.
- Adjust seat height so that your forearms are parallel to the floor or sloping slightly downward.
- Shoulders should be relaxed and not hunched, and elbows and upper arms should be close to your body.
- Adjust the backrest angle of your chair to feel comfortable.
- Use a footrest if required so that the thighs are parallel to the floor or sloping slightly downward.

Monitor
- Should be directly in front of you.
- Screen should be approximately an arm’s length away.
- The top of the screen should be at eye height and free of glare and reflections.

Mouse
- Use a mouse pad close to the keyboard to prevent over reaching.
- Use a straight wrist.

Laptop
- Whenever possible, connect to an external keyboard and mouse and position screen above desk height.

Breaks
- Have a break to relieve the fixed posture and fixed visual focus.
- Varying the task throughout the day is best.
- For extended computer work, short frequent breaks for 2-3 minutes every 20-30 minutes is recommended.

Maintenance
- Keep your equipment in good working order.
- Screen flicker, sticking keys on keyboards and rough running mice should be adjusted/repaired or replaced.

Report and hazardous situations to your employer.
Safe Work Practice – Electrical Cords, Tools & Equipment

Hazards: Electrocution, tripping
PPE: work gloves
Training: On the Job

- Inspect power cords and plugs daily, and discard if worn or damaged.
- Do not use light duty power cords.
- Have any cord that feels more than comfortably warm checked by an electrician.
- Do not tie knots in power cords. Knots can cause short circuits and electric shocks.
- Loop the cords or use a twist-lock plug.
- Keep power cords away from heat, water and oil. These substances can damage the insulation and cause a shock.
- Always handle all wires as though they are energized.
- Make sure tools are switched off before connecting to a power supply, and disconnect power supply before making any adjustments, changing accessories or storing a tool.
- Make sure all tools are properly grounded or double-insulated. The grounded tool must have an approved 3-wire cord with a 3-prong plug. This plug should be plugged into a properly grounded 3-pole outlet.
- Replace open-front plugs with dead-front plugs. Dead-front plugs are sealed and present less danger of shock or short circuit.
- Never break off the third prong on a plug.
- Replace broken three-prong plugs and make sure the third prong is properly grounded.
- Do not allow vehicles to pass over unprotected power cords. Cords should be put in conduit or protected by placing planks alongside them.
- Never use extension cords as permanent wiring. Use extension cords only to temporarily supply power to an area that does not have a power outlet.
- Do not wear loose gloves, clothing or jewelry while using revolving power tools.
- Long hair should be tied back.
- Do not bypass the switch and operate the tool by connecting and disconnecting the power cord.
- Never carry electrical tools by the power cord.
- Do not clean tools with flammable or toxic solvents, and do not operate tools in an area containing explosive vapors or gases.
- Do not use light duty power cords for heavy load applications.
- Do not disconnect the power supply by pulling or jerking the cord from the outlet. Pulling the cord rather than the plug may result in electric shock.
- Do not overload the circuit by plugging several power cords into one outlet.
- All defective cords, tools, and equipment must be tagged and immediately reported to crew foreman who will decide if it needs to be disposed.
**Safe Work Practice – Excessive Noise**

**Hazards:** hearing damage  
**PPE:** hearing protection  
**Training:** On the Job 

**General:** Where noise created by a work process may frequently exceed 85 decibels (dBA), steps must be taken to protect workers.

- **Estimating Noise Levels:** If it is not possible to carry on a normal conversation without raising the voice when standing at approximately arm’s length, the noise level is probably greater than 85 dBA.
  - A “buzzing” or “ringing” sensation in the ears or other part of the head after being exposed to the noise in question often indicates hearing loss may be developing.
  - The ability to hear better in the morning than after work, of difficulty in hearing high pitched sounds or normal conversation in a slightly noisy background, may indicate that damage to the ear is occurring.

- **Typical Noise Levels:**
  - Rustle of leaves .......................................................... 20  
  - Quiet house ....................................................................... 40  
  - Copier at 2 meters .......................................................... 50  
  - Normal conversation ....................................................... 60  
  - Students in a noisy classroom ........................................ 80  
  - Loud lawnmower (at operator’s level) .............................. 90  
  - Shout at 1.5 meters ............................................................ 100  
  - Pneumatic chipper (at operator’s level) ............................ 120  
  - Jet plane .............................................................................. 130-140  
  - Saturn rocket .................................................................... 190

- **Adding Noise Levels:** Sometimes it may be necessary to determine the effect of adding one or more noise sources. **The result cannot be obtained by simply adding the individual noise levels.** If two noise sources, each producing 80 dB when operating separately, are operated at the same time, the resulting noise level will be 83 dB not 160 dB.

- **Reducing Noise Levels:** All reasonable means will be used to reduce excessive noise levels where required work is taking place. The means to reduce noise levels may include any of the following:
  - Eliminating or modifying the noise source.
  - Substituting quieter equipment or processes.
  - Enclosing the noise source.
  - Installing acoustical barriers or sound-absorbing materials.

- **Hearing Protection:** Appropriate hearing protection must be used when working in areas where there is excessive noise.
Safe Work Practice – Fall Protection

Training: Formal Fall Protection Training by third party

Hazards: worn out equipment, rips

Inspect all fall protection equipment before use.

Personal Fall-Arrest Systems

- Personal fall-arrest systems will be rigged so that employees cannot free-fall more than 6 feet or contact any lower level. They must be able to withstand twice the potential impact of a fall, or 5,000 pounds.
- When used at a hoist area, the personal fall-arrest system will limit an employee’s movement to the edge.
- Personal fall-arrest systems will be inspected prior to each use. Also, if the system was used to arrest a fall, it must be removed from service and inspected before reuse.

Connectors

- Connectors will be made of steel or an equivalent material, with a corrosion-resistant finish and smooth surfaces and edges.
- D-rings and snap hooks will have a tensile strength of 5,000 pounds and be proof-tested to a minimum tensile load of 3,600 pounds.
- All snap hooks will lock.
- Unless they are the locking type designed for such connections, hooks will not be connected to webbing, rope or wire rope; another snap hook; a D-ring to which another snap hook or connector is attached; a horizontal lifeline; or any object shaped in such a way that accidental disengagement could occur.
- When used with a horizontal lifeline that could become a vertical lifeline, connectors will be capable of locking in both directions on the lifeline.
- Do not mark the software or engrave the end used on the hardware.

Lanyards and Lifelines

- Lanyards and vertical lifelines will have a minimum breaking strength of 5,000 pounds and be protected against cuts and abrasions.
- When vertical lifelines are used, each employee will be attached to a separate lifeline.
- Rip stitch and tearing or deforming lanyards and self-retracting lanyards and lifelines and lanyards that do not limit free-fall distance to 2 feet will be capable of bearing 5,000 pounds when fully extended. Self-retracting lanyards and lifelines that do limit free-fall to 2 feet must be able to bear 3,000 pounds.
- The rope and strap components of fall-arrest systems will be made of synthetic fibers.
- Lanyards will be destroyed when either the manufacturer’s label becomes unattached or any of the colored threading inside the strap can be seen.
- Lanyards are to be 5/8” diameter nylon or equivalent.

Body Belts and Harnesses

- Body harnesses will be fitted according to company requirements (Element 6).
- Harnesses will not be used to hoist materials.
- The D-rings on the safety belts should be centered on the person’s back.
• All safety belts, full body harnesses and lanyards must be C.S.A. certified and carry a C.S.A. label.
• Safety harnesses and belts are to be snug-fitting and worn with all hardware and straps intact and properly fastened.

Anchorages
• Anchorages will be independent of other anchorages being used to support or suspend platforms.
• They will be capable of supporting 5,000 pounds per employee attached or twice the total weight, including tools, for each employee.
• Such systems will not be attached to guardrails or hoists.

Rope Grabs
• Meet CSA requirements.
• When attaching a rope grab to a lifeline, always make sure the arrow on the grab points along the line to the anchor point.
• After putting the rope grab on the lifeline, give it a firm tug in the direction of a fall to make sure it engages.
• Ensure that lifeline and rope grab match. Rope grabs are designed to work with certain types and diameters of lifelines.
• Remember to tie a knot in your lifeline at the farthest point where you need to travel. The knot ensures that the rope grab will not run off the free end of your line.
• On a vertical lifeline, always position the rope grab as high as possible above your D-ring to minimize free fall.
• Make sure you have clearance below. Fall arresters may slide down the lifeline as much as one metre before arresting your fall.
• Inspect rope grabs before use. Check for distortion, rust, sharp edges, and moving parts that don’t move easily.
• A rope grab that arrests a fall should be taken out of service until it can be inspected and recertified for use.

Fall Protection Equipment to be formally inspected once a month and recorded on the appropriate form:
• Fall Protection Equipment Inspection (includes rope grab, lifeline, lanyard & anchorage connector)
• Fall Protection Equipment (Harness) Inspection
Safe Work Practice – Fatigue

Hazards: personal injury, errors on the job

Training: On the Job

Fatigue refers to mental or physical exhaustion that stops a person from being able to function normally. It is more than simply feeling tired or drowsy. Fatigue is caused by prolonged periods of physical and/or mental exertion without enough time to rest and recover.

Hazards from fatigue can:
- Reduce the ability to make decisions
- Reduce communication skills
- Reduce attention
- Reduce the ability to handle stress
- Reduce reaction time
- Reduce productivity and performance

Hazards can also result in:
- Increased errors in judgement
- Increased sick time, absenteeism, and the rate of turnover
- Increased medical costs

Signs and symptoms:
- Tiredness or sleepiness
- Memory lapses
- Difficulty concentrating
- Slower reaction times

At work:
- Vary work tasks so that you stay alert.
- Take regular breaks.
- Tell your crew foreman or manager if you are feeling fatigued.

Outside of work:
- Make sleep a priority.
- Improve the quality and quantity of your sleep.
- Choose what you eat and drink carefully.
- Learn the warning signs of fatigue and to recognize them in yourself, so that you can take a break or have a power nap.

When you see the signs of fatigue in a co-worker, draw their attention or the attention of a crew foreman to the situation to ensure they are able to work safely.
Safe Work Practice – Fire & Use of Fire Extinguisher

PPE: work gloves, safety glasses

Hazards: burns, chemical inhalation, handling hazards

Training: On the Job

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.
- Ensure extinguishers are recharged immediately after they have been discharged.

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 sweeping 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 unites) 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.

**REMEMBER THE P A S S WORD**

**P**ull the safety pin (usually a twist-pull action)

**A**im the nozzle, horn or hose at the base of the fire

**S**queeze the trigger handle

**S**weep from side to side (watch for reflash)

A monthly formal inspection of fire extinguishers is to be recorded on the Monthly Fire Extinguisher Inspection form.
Safe Work Practice – Floor, Wall & Roof Openings

Hazards: falls
PPE: fall protection, guardrails
Training: On the Job

- Any opening or hole in a floor, roof or other work surface into which a worker could step or fall must be adequately guarded.

- All floor openings with a drop of more than 4 feet must be guarded with standard railing and toe board.

- Do not use covers for floor openings unless it is absolutely necessary to perform the job.

- Where the covering or guardrail and toe board, or any part of the guardrail and toe board, is removed for any reason, an effective alternative means of protection must be provided immediately.

- All open-sided floors, walkways, platforms, ramps and runways with a drop of more than 4 feet must be guarded with standard railing and toe board as outlined above.

- Wall openings with a drop of more than 4 feet must be guarded as required.

- All stairs with four or more risers must be provided with railings.

- Railings, posts and wall opening barriers must be constructed to withstand force of at least 200 lbs.
Safe Work Practice - Gas powered equipment

Hazards: fire, fumes from fuel

PPE: safety glasses, face shield, work gloves

Training: On the Job

- Inspect equipment before use.
- All guards must be in place and the equipment is in good order.
- Use extra care when filling the gas tank.
- Never fill close to a source of ignition (vapours can travel over one metre).
- Never over-fill the tank.
- Use a funnel to help avoid a spill.
- Always keep the gas cap tight and store fuel in a safe container away from any source of ignition. The contents of the container must be marked.
- If using a cutting or grinding tool, make sure the disk and/ or blades are in sound condition and suitable for intended use.
- Never drop or bang a tool with grinding disk or cutting blades; cracks could form, causing the disk or blade to shatter, creating the danger of serious injury.
- Do no try to force the equipment to do more than it was designed for.
- Before changing or installing any attachments, the unit must be switched off and completely shut down.
Safe Work Practice – Gasoline Handling & Storage

General: OH&S Regulations states that: “static charge accumulations during transfer of flammable liquids...from one container to another are prevented by electrically bonding the containers”.

Hazards: may ignite if exposed to heat, sparks, friction, flames or incompatible material.
PPE: work gloves, safety glasses

Training: On the Job

- There is only one place to handle gasoline – that is outdoors. Filling, transferring or draining gasoline in any kind of building is extremely dangerous. It just takes a spark, a pilot light or a broken trouble light to cause fire, explosion and terrible disfiguring burns.

- Smoking is prohibited while fueling is in progress or while handling gasoline. Open fires, welding or other operations involving flame or spark are not permitted in fueling zones.

- Stationary storage fuel tanks must be vented and kept clear of buildings and, if the tank is not buried, it must be grounded.

- Gasoline must be carried in closed containers, and fuel storage areas must be adequately vented.

- When split fuel loads are transported, labels must be affixed to the dome openings and draw-off outlets to identify the products contained.

- An outer protective shield must be placed on the muffler and the exhaust assemblies and must be positioned in such a manner that is clear of unloading connections on the fuel tank.

- Motors on equipment must be stopped before fueling begins.

- When fueling equipment, the metal fill nozzle must be kept in contact with the lip of the tank to prevent any static accumulation.

- Care must be taken not to overfill tanks.

- Drivers must keep their equipment in good condition.

- Only factory equipment (or grounded fuel hose) may be used to construct extended filler hoses on electric fuel pumping systems.

- Electric fuel pumps must obtain their source of power ONLY from the truck carrying the fuel – NOT from the unit being filled.
Safe Work Practice – Guardrail System

Hazards: falls
PPE: work gloves
Training: On the Job

- Guardrails must be inspected before use.
- Ensure guardrail material is free of damage and defects.

Wherever possible, guardrails must be installed:
- Along the open edges of roofs and floors
- On formwork, scaffolds, and other work surfaces
- Around openings in floors, roofs, and around skylights
- Wherever workers are exposed to the risk of falling

- Guardrails must be installed no more than 30 cm (1 foot) from the open edge.
- They must be able to withstand all loads specified in OHS Reg. Part 4.58.
- Guardrails must have:
  - A top rail, mid rail, and toeboard secured to vertical supports
  - A top rail between 0.9 m (3 feet) and 1.1 m (3 feet, 7 in.) high
  - A toeboard at least 100 mm (4 inches) high - 89 mm (3.5 inches) high if made of wood – and installed flush with the surface
  - Posts no more than 2.4 meters (8 feet) apart.

- Guardrails can also be wire rope and manufactured systems of metal frames and wire mesh.
- Posts and rails must be capable of withstanding a force of at least 900 N (200 lbs) applied at any point.
- When guardrails are temporarily removed, the open edge should be roped off and marked with warning signs. Workers inside that area must wear fall protection and be tied off.
- OH&S Requirements can be found in the Regulations Part 4. (4.54 - 4.58.1)
- All workers involved in the installation, maintenance or removal of a guardrail system must use a fall protection system if required by regulations.

Guardrails using rope or other non-rigid material
- A rope rail must be able to withstand a load of 550 N (125 lb.) applied in any direction at any point on the rope rail.
- A guardrail system using a rope rail must be installed with sufficient setback from the outer face of the parapet, the floor opening or the open edge of the floor or work surface, as the case may be, or from any other hazard, such that when the rope rail is subjected to a horizontal load of 550 N (125 lb.) applied at any point, the rope rail will not deflect:
  - (a) past the outer face of the parapet,
  - (b) past the edge of the floor opening,
  - (c) past the open edge of the floor or work surface, or
  - (d) into the hazard.
- A rope rail must be made of a material that will remain stable and functional, having regard to the following:
- Climate conditions
- Exposure to high temperature sources or by-products of high temperature processes such as welding or cutting.
- Chemical exposures that may occur due to the location of the workplace where the guardrail system is to be installed or the work that will be taking place near the guardrail system.

- A rope rail must not be made of natural fibre rope or other material relying on natural fibre for tensile strength.
- If the lack of visibility of a rope rail is a hazard, high visibility coloured markers or flagging must be installed on the top rail of the guardrail system at intervals not exceeding 2 m (6.5 ft).
- Workers who are required to work within 2 m (6 ½ ft) of a roof edge must be provided with and use a method of fall protection.
- A warning barrier (such as yellow tape, physical barrier) placed 2 m (6 ½ ft) from the roof edge may be used to prevent an unprotected worker from entering the fall hazard area. Roofers working outside the warning barrier must use fall protection.
- Parapet walls of less than 102 cm (40 in.) in height must not be used in place of guardrails.
Safe Work Practice – Hot Work

Hazards: burns, explosion, fire

PPE: Eye, hearing and hand protection, safety boots, face protection

Training: On the Job

- Try to weld only in well-ventilated areas.
- Do not weld, cut or grind near flammable or combustible materials, liquids, vapors and dusts.
- Have the appropriate fire extinguisher close by.
- Use only approved equipment in good condition.
- Inspect equipment for loose connections, bare wires or cables before operating. Make sure the machinery is properly grounded.
- Handle compressed gas cylinders safely, following proper use and storage procedures.
- Keep aisles and stairways clear of cables and equipment.
- Keep other people a safe distance from welding and cutting operations.
- Learn first aid techniques for burns, poison inhalation, shock and eye injuries.
- Know where the eyewash stations are and how to use them.
Safe Work Practice – Housekeeping

General: Good housekeeping is one of the best methods of preventing injuries. Effective housekeeping practices must be observed at all times.

PPE: safety footwear
Hazards: Tripping, slipping

Training: On the Job

- Gather up and remove debris to keep work site orderly.
- Plan for the adequate disposal of scrap, waste and surplus materials.
- Keep work area and all equipment tidy.
- Designate areas for waste materials and provide containers.
- Keep stairways, passageways, ladders, scaffold and gangways free of material, supplies and obstructions.
- Secure loose or light material that is stored on roofs.
- Keep materials at least 2 m. (5 ft.) from openings and roof edges.
- Remove or bend over nails protruding from lumber.
- Keep hoses, power cords, welding leads, etc. from laying in heavily travelled walkways or areas.
- Ensure structural openings are covered/protected adequately. (eg. Floor openings)
- Do not permit rubbish to fall freely from any level of the project. Use chutes or other approved devices.
- Do not throw tools or other materials.
- Do not raise or lower any tool or equipment by its cable or supply hose.

Flammable/Explosive Materials

- Store flammable or explosive materials such as gasoline, oil and cleaning agents apart from other materials.
- Keep flammable and explosive materials in proper containers with content clearly marked.
- Dispose of greasy, oily rags and other flammable materials in approved containers.
- Store full barrels in an upright position.
- Keep gasoline and oil barrels on a barrel rack.
- Store empty barrels separately.
- Post signs prohibiting smoking, open flames and other ignition sources in areas where flammable and explosive materials are stored or used.
- Store and chain all compressed gas cylinders in an upright position.
- Mark empty cylinders with the letters "mt," and store them separately from full or partially full cylinders.
- Ventilate all storage areas properly.
- Ensure that all electric fixtures and switches are explosion-proof where flammable materials are stored.
- Use grounding straps equipped with clamps on containers to prevent static electricity buildup.
- Provide the appropriate fire extinguishers for the materials found on-site. Keep fire extinguisher stations clear and accessible.
Safe Work Practice – Installing Shingles

Hazards: falls, heat exhaustion/heat stroke, sun exposure, falling materials

Training: On the Job

- Always use fall protection.
- Tie off to anchors on the roof such as ridge brackets or straps. If there are no anchors, install them before starting work.
- When moving from one anchor point to another, always tie off to the next one before unhooking from the previous one. This ensures fall protection at all times.
- To minimize acceleration and avoid striking the ground below in case of a fall, limit the amount of slack in your lifeline.
- When using a ladder, make sure it is a safe distance from powerlines. It is also a good idea to use a non-conductive ladder to avoid shocks.
- Have drinking water available at all times, especially when it’s hot outside.
- Take more frequent breaks and, if possible, find a place out of the sun to cool down.
- Make sure that everyone is aware of the symptoms of heat exhaustion and heat stroke and knows how to treat them.
- When choosing a sunscreen, always use one with at least an SPF of 15 and reapply throughout the day.
- Use a “broad spectrum” sunscreen that provides protection from UVA and UVB rays.
- Bundles of shingles are heavy. Use mechanical devices to get the shingles to the roof.
- Do not carry shingles up a ladder because you cannot maintain 3-point contact while doing so.
- If you use a forklift or boom truck to hoist shingles to the roof, make sure that it is clear of overhead powerlines and that the landing area on the roof can support the weight of the shingles.
- The wind is often stronger at roof height than at ground level. Make sure that shingles and other roofing supplies are secure.
- Alert workers on the ground about the work being done on the roof.
- Never hoist material over other workers or bystanders. If the load shifts and falls, someone could be seriously hurt.
- It can be difficult to find a comfortable posture when handling materials. Your ankles, knees, and lower back suffer the most. Remember to straighten up, stretch, and adjust your posture often.
- Use caution with air-nailers.
- Do not override safety devices or alter the nailer in any way.
- Air lines and extension cords are always slip and trip hazards. On a sloped roof, even a minor slip can lead to a fall.
- Bring cords and lines up from directly below the work area rather than running them across the roof.
- Always wear hearing protection and safety glasses when cutting or using air nailers.
- You must wear CSA protective footwear at all times. There are styles that are made specifically for work on sloped surfaces.
- Keep your knives sharp to reduce strain on your hands and arms.
- Use kneepads to reduce contact pressure on your knees.
Low Slope/ Flat Roof

- Always use fall protection.
- Cover or build guardrails around roof openings. Remember that skylights are considered roof openings.
- Have drinking water available at all times, especially when it’s hot outside.
- Take more frequent breaks and, if possible, find a place out of the sun to cool down.
- Make sure that everyone is aware of the symptoms of heat exhaustion and heat stroke and knows how to treat them.
- When choosing a sunscreen, always use one with at least an SPF of 15 and reapply throughout the day.
- Choose a “broad spectrum” sunscreen that will provide you with protection from both UVA and UVB rays.
- Many roofing injuries are related to improper material handling. You can reduce material handling injuries by eliminating double handling, bending at your knees, properly planning work, and using mechanical devices to minimize manual labour.
- Always clean up your work area and keep it free of slip and trip hazards.
- Proper planning, setup, access, storage, and garbage disposal will help reduce injuries.
- Ensure that the public is protected at all times from falling material.
- Choose flame retardant clothing rather than synthetic materials. Synthetic materials can cause more severe burns.
- Make sure that your pant legs do not have cuffs. Cuffs trap dirt and liquid.
- Wear your pant legs over boots, especially when carrying or working with hot asphalt.
- Wear long-sleeved shirts buttoned at the cuffs. Pull your sleeves over your knit wrist gloves to prevent asphalt from getting in the gloves.
- Always wear CSA-approved safety glasses, hard hat, and boots.

- Guardrails around the perimeter of the work area are the preferred method of fall protection. Remember that you must protect yourself from falling when putting up the guardrails by using another means of fall protection such as travel restraint or fall arrest.
- Work facing the roof perimeter and avoid walking backward.
- Follow proper procedures and practices for the set up and use of ladders.
- Use caution when working with loose insulation, asphalt, polyethylene, smooth surface roofs and areas with water, snow, frost or ice. All of these can be extremely slippery.
- Mark tripping hazards (such as vents, drains, electrical conduit) so that they are visible to all workers.
- Workers who are required to work within 2 m (6 ½ ft) of a roof edge must be provided with and use a method of fall protection.
- A warning barrier (such as yellow tape, physical barrier) placed 2 m (6 ½ ft) from the roof edge may be used to prevent an unprotected worker from entering the fall hazard area. Roofers working outside the warning barrier must use fall protection.
- Parapet walls of less than 102 cm (40 in.) in height must not be used in place of guardrails.
Safe Work Practice – Ladder Hoist

Hazards: falling objects

PPE: work gloves

Training: On the Job

- Only trained operators can use the hoist.
- Select an area that is clear of power lines or any other obstructions that could affect the safe operation of the hoist.
- Inspect the hoist rigging for any wear or damage each day prior to use.
- Do not exceed the load capacity of the hoist.
- Ensure the load is secure and the area is cordoned off to prevent workers or others from being close when the hoist is in operation.
- Trail-run the hoist with a light load on each daily start up to make sure everything is working safely.
- Immobilize the hoist at the end of the day to prevent possible use by others.
Safe Work Practice – Manual Lifting

Hazards: muscle strain injuries, crush injuries, damage

PPE: hand/foot/hearing and eye protection

Training: On the Job

It is very important to stay healthy and prevent injury to your lower back when you are on the job. Good ergonomic design in the workplace is important, as are the rules for safe lifting and carrying. Always follow these rules, even for lifting light objects:

- Place your feet apart for good balance.
- Bend your knees.
- Hold the object as close to your body as possible.
- Lift smoothly and slowly.
- Pivot with your feet—don’t twist your back.
- Push, rather than pull, a load.
- Share the load with a partner.
- Get mechanical assistance for heavy loads.
- Ensure the area is free of debris (remove tripping hazards).
- Check the area that you are moving the object to. Ensure that the area is free of debris and tripping hazards.
- Know what your lifting capacity is. Know what you’re lifting and approximately how heavy it is.
- Get assistance to lift heavy objects.
- Ensure work area is left tidy and clean when you are done
- Never lift or obtain heavy objects from over shoulder height; obtain an appropriate step ladder or rolling staircase with locking wheels.
Safe Work Practice - Mobile Equipment

Hazards: personal injury, damage to equipment

Training: On the Job

- Inspect equipment for safety defects. Remove any defective equipment from service, and report to crew foreman who will dispose of it, if necessary.

When operating equipment:
- Know equipment safety features. Know how they operate and use them properly.
- Do not use machines that have not passed inspection.
- Reduce backing whenever possible – it is the most dangerous movement.
- Know where your blind spots are.
- Don’t rely on mirrors alone – turn and look behind you before backing.
- Look for people on foot around you.
- Maintain a safe operating speed.
- Fasten seatbelts whenever the equipment is in motion.
- Slow down for curves and during abnormal weather or operating conditions.
- Make sure the attachments are fully lowered to the ground and that parking brakes are set before leaving any equipment unattended.
- Always use wheel chocks unless parked at a ready line or parking space with wheel depression.
- Do not use the bucket as work platform or as a means of personnel transport.
- Do not endanger personnel through carelessness handling of machine.
- STOP when you are signaled to or anytime you are in doubt.
- Report unsafe workers and work practices to crew foreman.

When you are walking on site:
- Keep eye contact with the operator. You must see and be seen. Never assume an operator can always see you.
- Wear a high visibility vest at all times.
- Be alert; stay clear; hear warnings; look for hazards.
- Do not walk beside, in front, or behind mobile equipment that is operating.
- Do not position yourself between the swing radius of articulating machinery and other stationary objects.

Pre-Trip inspections to be recorded on the “Daily Driver Pre-Trip Inspection” form.
Safe Work Practice – Motor Vehicles

Hazards: personal injury, damage to vehicle
Training: On the Job

- Vehicle must be regularly inspected. Daily inspection of company vehicles is to be recorded on the “Daily Driver Pre Trip Inspection” form.
- Maintenance must be performed on all motor vehicles, and maintenance documentation must be recorded on the Maintenance Record form.
- Any employee operating a company vehicle must be a qualified, licensed operator, and must obtain prior authorization from the crew foreman or manager.
- All operators must observe provincial vehicles laws and regulators.
- All brakes, lights and warning devices must be operative.
- Ensure weight limits and load sizes are observed/controlled.
- All motor vehicles must be equipped with seat belts, and workers must use them as required when operating the vehicle.
- A motor vehicle which may be used in such a way that a worker other than the operator may be placed at risk by an unexpected reverse movement must be equipped with a back-up alarm.
- Passengers must observe standard safety practices (i.e. workers are not permitted to ride on the exterior of a vehicle).
- Safe access and egress must be provided on trucks used to transport workers.
- All vehicles must be equipped with a first aid kit and fire extinguisher.
- Vehicles must not be left running unattended.

Tools and equipment must be adequately secure when being transported:
- All loads must be tied securely to the vehicles with straps or ropes to prevent slippage.
- Finishing materials must be protected from rubbing or other damage; pack them in cardboard, fabric or wood.
- Any material extending 4 ft. (1.2 m) past the rear of the vehicle must be flagged with red material.
- Always drive slowly and cautiously when transporting material.

When operating a motor vehicle:
- Look and think ahead.
- Adjust your driving to the road conditions.
- Obey signs, lines and traffic signals.
- Stay 4 seconds behind other vehicles.
- Be courteous – don’t take chances.
- Take extra care when backing up – get out and look if necessary.
- Concentrate on you driving – stay alert.
- **DON’T DRINK AND DRIVE.**
Safe Work Practice – Office Safety

General: All work performed in office and administrative areas must be conducted using safe work practices, and areas must be maintained free of recognized hazards.

Hazards: trip, slip, falls, repetitive strain injury

Training: On the Job

- Guard the sharp edges of furniture to prevent personal injury.
- Keep desk “pull-out” writing surfaces closed when not in use.
- Practice good housekeeping. Keep floors free of items that might cause tripping.
- Keep waste cans out of the way; do not overfill them.
- Prevent slipping accidents by cleaning up spills immediately.
- Keep razor blades, tacks and other sharp objects in closed containers.
- Use the proper tool for the job at hand (e.g. a stable remover to remove staples).
- Report immediately any damaged electrical cords, broken switches, loose connections or bare wires, or other defects to the manager.
- Unplug any office machine that smokes, sparks or delivers an electrical shock. Report immediately to the manager.
- Avoid overloading the top drawers of filing cabinets to avoid the possible tipping of the cabinet when the drawers are opened.
- Open only one drawer of the file cabinet at a time to prevent tipping.
- File cabinets should be placed where their use will not interfere with office traffic patterns.
- Keep file and desk drawers closed when not in use.
- Be sure to use proper lifting techniques. Make arrangement with personnel, skilled in moving, to shift furniture and other heavy objects.
- Use only stools or ladders for climbing.
- Be careful with flammable liquids. Only the quantity needed for use should be in the work place. They should be kept and used in a ventilated area, away from excessive heat or ignition sources.
- Power switches must be off, or the cord unplugged, when electrical equipment is being cleaned or serviced.
- Office doors must be kept free of obstructions at all times to permit emergency egress.
- Jewelry, long hair and clothing must be kept clear of moving parts of all office machines.
- If it is necessary to run a cable or electrical cord across the floor, a cable cover or tape must be used to protect the wiring and prevent tripping.
- Report any observed pest control problems to the manager.
- Do not participate in horseplay.
- Do not overload electrical outlets.
- Do not plug a multiple outlet strip (an extension cord with multiple electrical receptacles) into a second multiple outlet strip.
• Do not lean too far back in chairs. This may result in over-balancing and a fall.
• Do not cover air vents or obstruct air flow from registers.
• Do not place furniture, equipment or materials in locations that will interfere with air movement around thermostats.
• Never run with scissors.
• Do not stand on swivel chairs or use them as step stools.
• Never attempt to apply any pest control chemical yourself.

Office inspection to be done monthly, recorded on the “Office Inspection” form.
Safe Work Practice – Overhead Powerlines / Buried Powerlines

Hazards: Arc flash, shock, electrocution

Training: On the Job

Roofing often means having to work near overhead electrical lines. Workers and equipment must remain at a safe distance from electrical wires, including wires that bring power into the building. Please review and adhere to the following procedure when planning and performing work near overhead power lines:

- Before work begins, examine the work area to establish that the safe limits of approach distances to overhead power lines contained in Table 1 can be maintained.

- Contact the operator of the power line to determine the operating voltage of the line and confirm the safe approach distance.

- Do not allow equipment or objects to approach the overhead power line closer than the safe limit of approach specified.

- If work is being carried out near the safe limit of approach, assign a worker to act as an observer to ensure that the required distance is maintained.

- Request assistance from the power line operator if the work must be performed at a distance that is less than those specified in Table 1 (on following page).

- Do not place materials under or adjacent to the overhead power line if it reduces the clearance above ground required by OH&S Regulations. Contact the power line operator for assistance to determine the required clearance between the power line and the ground.

- Warning signage must be installed, where possible, to identify high voltage levels and clearance requirements.

- If you have to work within those prescribed limits, contact the appropriate power utility to get the electrical lines insulated or de-energized.

Table 1

WorkSafeBC’s general limits of approach

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Minimum Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 750 V</td>
<td>0.9 m / 3 feet</td>
</tr>
<tr>
<td>751 V to 75 kV</td>
<td>3 m / 10 feet</td>
</tr>
<tr>
<td>75 kV to 250 kV</td>
<td>4.5 m /15 feet</td>
</tr>
<tr>
<td>Over 250 kV to 550 kV</td>
<td>6 m / 20 feet</td>
</tr>
</tbody>
</table>
Safe Work Practice - Personal Conduct at Work

Hazards: personal injury, damage/ loss of property/equipment

Training: On the Job

Horseplay
- No worker shall engage in any activity that may be a hazard to co-workers, the public, the work area, or the environment.

Fighting
- Fighting will not be tolerated at any time by any employees with co-workers, crew foreman, or the public. Any worker caught fighting will be subject to disciplinary action.

Theft
- Any worker caught stealing tools, equipment, materials, or supplies from the company or suppliers will be subject to disciplinary action. The matter will be referred to the proper authorities for possible investigation and prosecution.

Substance Abuse
- If any worker is suspected or caught using any illegal or controlled substances, disciplinary action will ensue.

Misuse or Destruction of Equipment and/or Property
- Any misuse or abuse of tools, equipment, property, vehicles, or supplies will result in immediate disciplinary action. All of the items mentioned above must be used in the manner for which they were intended and as per manufacturer’s specifications and company requirements.

Insubordination/disobedience
- No worker shall ride on any piece of equipment unless he/she is occupying a seat designated for such a purpose and is specifically trained in the operation of that piece of equipment.
- At no time will insubordination be tolerated. All workers are required to listen to and abide by the directions of their crew foreman, managers, superintendents and any other personnel that have authority over them; this extends to Ministry of Labour, Ministry of the Environment, Police, Fire, and EMS officials. Any worker failing to abide by this rule will face immediate disciplinary action.
Safe Work Practice – Propane
Hazards: property damage, fire
Training: On the Job

Danger: Do not use industrial/commercial propane cylinders for household products, such as barbeques. These cylinders supply liquid propane; barbeque cylinders use propane already in a vapor state. To do so can result in serious injury and property damage.

Propane Leaks:
- If you detect or suspect a gas leak, immediately turn off all sources of propane at the cylinder or tank and clear the area.
- Follow company procedures for gas leaks.
- If there is any accumulation of propane, decrease the concentration by ventilating the area and insure that no sources of ignition are present.
- To locate a gas leak, uses a mixture of soap and water or a leak detector solution. If the relief valve opens, apply cold water to the container to decrease pressure and allow the relief valve to close.

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 the 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.

- Always wear basic and specialized PPE when using and handling propane (i.e. eye protection, hand protection, etc.).
- All installations, use of propane on the job, must comply with the OHS and other government regulation that applies.
- Nylon slings must be used in a “choker” fashion when loading, off-loading or lifting propane tanks.
- “Lifting Lugs” provided on tanks are not to be used. Slings are to be wrapped around the shell of the tank.
- Tank valves and regulators are to be removed prior to any movement of the tank.
- Crane hooks must be equipped with a “safety latch”.
- Prior to transporting, close the valve and secure the cylinder in an upright position. If the cylinder is placed in a trunk, prop the trunk lid open.
- 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.
- Except in an emergency, any movement or repositioning of tanks shall be performed by a competent worker.
- Prior to connecting a propane cylinder to any equipment, ensure the equipment is approved for use with propane. If in doubt, ask your crew foreman.
- Uses only approved hoses and protect it from heat or damage.
• Only competent workers who are instructed and/or trained are permitted to remove and replace cylinders.
• Be careful when handling propane – it can cause frostbite if it comes in contact with the skin.
• If the cylinder valve is not closed during storage, if air has entered while the cylinder is empty, or if the valve is changed, the cylinder must be purged to remove any contaminants. Purging may only be done by a qualified person.
• Tanks are not to be heated to increase flow.
• Tanks are not to be hooked up and used without proper regulators.
• Never drop cylinders or strike them against a hard object. Always put the cylinder down in an upright position.
• Never use propane indoors or in a poorly ventilated area.
• Ensure used propane tanks are picked up by propane supplier on a regular basis. Do not leave empty or half empty tanks lying around project sites, yard spaces, etc.
• Workers who transport specific volumes of propane must have transportation of dangerous goods training.
• Follow proper manual lifting method when unloading or loading propane tanks.
• Never store or place a propane cylinder indoors or in an enclosed area such as a basement, garage, shed, or tent.
• Never store or place a propane cylinder in an area of excessive heat (120 degrees or higher) or near a stove, fireplace, or other heat source. The heat builds up pressure inside the cylinder, which may cause the pressure relief valve to release propane. Flash fires or explosions can result from exposing cylinder to heat.
• Never store or place a spare cylinder under or near a barbecue grill.
• Do not smoke or have any ignition sources such as flames or spark producing electrical tools in the area while handling or transporting cylinders.
• Always transport and store a cylinder in a secure and upright position in order that the safety release valve will function properly and so it will not fall shift, or roll.
• Always close the cylinder valve and, if required, seal with a plug, even if the cylinder is empty.
• Never keep a filled cylinder inside a hot vehicle or transport it inside a closed trunk.
• Always place the cylinder in a well-ventilated part of the vehicle.
• Always proceed directly to your destination and immediately remove the cylinder from your vehicle.
Safe Work Practice – Propane Torch Use

A flame from a propane torch can reach temperatures of over 1093°c. Roofers applying torch on products can receive serious burns from both the torch flame and the hot modified bitumen sheets they are applying.

Hazards: Burns, fire
Training: On the Job

- When using a torch, workers must wear additional protective clothing (gloves, eye protection).
- Check the SDS before starting work for material specific hazards that could require other PPE.
- Prior to use, ensure that torching equipment is in good working order and the cylinder valves are clean. Check that fittings, hoses and heads are secure.
- Use soapy water to check connections for leaks.
- Only use a spark lighter or electronic starter to light torch.
- Use only approved high-pressure hoses to connect torches to regulators.
- Protect the propane hose from damage by:
  - Keeping torch flame away from hose.
  - Keeping hose free of kinks.
  - Not running over hose with equipment.
  - Not using the hose to lift the cylinder.
- A torch flame is difficult to see in daylight, be aware of and keep away from the flame.
- Other than the operator, all workers should stay at least two or three meters away from the torch.
- When a torch is used an adequate fire extinguisher must be available.
- Fuel lines are to have regulators.
- Secure propane bottles in an upright position.
- Set torch units onto support leg position when not in use.
- Ensure that the propane bottles are properly shut off when not in use and that the torch is properly stored.
- At the end of the day, disconnect hoses and store properly.
- Do not use defective equipment. Immediately notify crew foreman, who will decide if it should be disposed.
- Never leave an operating torch unattended.
- Do not use torches for heating of work areas or thawing of lines and equipment, etc. when the equipment is not in use.
- Do not smoke near or around bottles.
- Never direct the flame at, near, or toward the cylinder.
- Do not use torch with the fuel cylinder tipped more than 60 degrees from its upright position as this may cause torch to flare.
- Never use handheld torches inside a building.
**Safe Work Practice – Snow Removal**

Hazards Present: awkward positions, forceful exertions, extreme temperatures, slips and trips, strains/sprains, dehydration, exposure to traffic

PPE: foot protection, high vis vest, gloves, appropriate winter clothing

Training: On the Job

- Inspect required PPE and replace if required.
- Immediately report suspect equipment to crew foreman, who will dispose any damaged/defective equipment.
- Ensure that you have access to water before, during and after the snow shovelling.
- Dress in layers where possible and be aware of the wind chill.
- Stretch your muscles focusing on your upper body.
- Select proper shovel for your size.
- Notify someone that you will be doing snow removal.
- Keep your arms at a 90-degree angle to the handle when scooping.
- Keep your feet at hip width apart and the shovel close to your body.
- Swat with your legs apart, knees bent and back straight.
- Lift with your legs.
- Scoop small amounts of snow into the shovel and walk to where you want to dump it.
- Clean off all equipment and return it to the appropriate storage area.
- Do not modify equipment in any way.
- Do not leave equipment running while unattended.
- Do not use equipment if it is damaged.
- Do not use your knees to help push and lift the scoop.
- Do not lift the scoop, pushing it forward quickly and stopping, or tilting it gently will allow the snow to slide out.
- Do not use a roof rake from a ladder.
- Do not hold a shovelful of snow with your arms outstretched.
Safe Work Practice – Torch-applied Roofs

Hazards: fires, burns

Training: On the Job

When installing torch-applied roofs, take the following precautions:

- Wear proper personal protective equipment, including hard hats, safety boots, eye protection and gloves. Clothing should be flame-resistant (cotton or wool – no synthetics).
- Check the roof surface for combustible material. Remove what can be removed.
- Inspect torches before use. Equipment must be in good working order, with fittings, hoses, and head secure and cylinder valves clean. If found defective, tag and report to crew foreman who may dispose it.
- Do not use leaking propane equipment. If a leak occurs during operation, stop immediately.
- Store equipment in protective cases.
- When not in use, set torch units on their support leg position with torch head pointing at an upward angle.
- Do not place torch units over a curb or roof edge.
- Unless you are the torch operator, stay at least two or three meters away from the flame.
- Do not torch directly on can’t strips, insulation, wood, grease, lint exhaust, or any other flammable material.
- Never torch directly at flashing, corners, voids in the roof and roof deck, or behind metal counter flashings.
- Take extra care when torching near pipes, fresh air vents, and HVAC units since flame could be sucked into the building.
- Do not torch near gas and electrical lines.
- When shutting off the torch, close the propane cylinder valve first. Let the remaining gas in the hose burn off, and then close the torch valve.
- Disconnect the hose at the end of the day.
- Ensure that workers have been adequately trained to install torch-applied modified bitumen roofing systems, including appropriate training in the storage, handling, and use of roofing propane.

Fire Prevention

- Cease torching at least three hours before leaving for the day.
- Designate a person responsible in the event of a fire.
- Make sure all workers know the escape route.
- Keep the local fire station number handy.
- Keep the proper fire extinguisher close by.
- Inspect the roof for hot spots at the end of work stoppage using an infrared thermometer to take temperature readings.
- At the end of the monitoring period, inspect the building interior (with owner’s representative) before leaving the site.
Safe Work Practice – Working alone

Hazards: various exposures
Training: On the Job

"Working alone" means the performance of any work function by a worker who:
(a) is the only worker for that employer at that workplace at any time
(b) is not directly supervised by the employer, or another person designated as a supervisor by the employer, at any time.

"Working in isolation" means working in circumstances where assistance is not readily available in the event of injury, ill health or emergency.

• Before starting work at an isolated site, a hazard assessment must be performed, and the risks identified. Safety precautions must then be taken to eliminate or reduce those risks prior to starting work.
• Assigned tasks must be appropriate for a single person.
• In all cases, a worker working alone must have an effective means of communication, such as a two-way radio, phone, cellular phone, etc. Where necessary, a call-in schedule may be pre-arranged, and the worker will be required to check in with the crew foreman (or another person) at specific times.
• The required PPE must be used at all times.
• Safe work practices and job procedures must be observed at all times.
• A worker may be required to take other precautions, such as:
  o limiting or prohibiting certain specific activities,
  o requiring the worker to have specific minimum training or experience related to the work, and/or
  o ensuring there are emergency supplies for use when travelling under extreme weather conditions.
• Worker must stop work if tired, overheated or too cold, as these conditions are dangerous if no one is there to monitor.
• Be aware of your surroundings.
Safe Work Practice – Working at Heights

General: Falls are the worst danger faced by most workers. Every day somebody falls – from scaffolds, ladder, platform, etc. Any misuse of a ladder is enough to cause a fall.

Training: Formal Fall Protection training and Aerial Lift training by third party

Hazard: fall from heights
- Select the proper PPE.
- Inspection PPE.
- Understand fall distances.
- Use acceptable anchor points.
- Ensure workers can get safely to and from where they work at height.
- Ensure equipment is suitable, stable and strong enough for the job, maintained and checked regularly.
- Take precautions when working on or near fragile surfaces.
- Provide protection from falling objects.
- Consider emergency evacuation and rescue procedures.
- Do not overload ladders – consider the equipment or materials workers are carrying before working at height. Check the pictogram or label on the ladder for information.
- Do not overreach on ladders or stepladders.
- Do not rest a ladder against weak upper surfaces, e.g. glazing or plastic gutters.
- Do not use ladders or stepladders for strenuous or heavy tasks, only use them for light work of short duration (a maximum of 30 minutes at a time).
- Do not let anyone who is not competent (who doesn’t have the skills, knowledge and experience to do the job) work at height.

Three Ways to Fall:
- Pulling or pushing while standing on a ladder can cause it to slide in reaction to the force you create.
- If a wrench jumps off the bolt when you pull or push, the sudden give can cause you to fall.
- Many workers have fallen trying to grab a tool they just dropped. Never grab for anything you’ve dropped – let it fall.

Fall Protection:
- When your feet are more than 3 meters above the floor or ground, you must wear a fall arresting device. There are a few exceptions, such as:
  - Working on a roof with a slope of, or less than, 18 degrees (3 to 1);
  - Connecting support structure of a scaffold; or
  - Securing a load on a truck.
- You must be orientated on the use of the safety harness by your crew foreman or employer.
- Know how to inspect your safety harness for wear or damage, such as frayed or damaged webbing, cracked or deformed D-rings, etc.
- When the safety harness is not in use, make sure that it is stored in a safe, dry and secure place.
Safe Work Practice – Working in Cold Weather

Hazards: hypothermia, serious personal injuries, skin injury

PPE: face and eye protection

Training: On the Job

• Wear several layers of clothing rather than one thick layer to capture air as an insulator.
• Wear synthetic fabrics next to the skin to “wick” away sweat.
• If conditions require, wear a waterproof or wind-resistant outer layer.
• Wear warm gloves.
• Wear hats and hoods.
• Tight-fitting footwear restricts blood flow. You should be able to wear either one thick or two thin pairs of socks.
• If clothing gets wet at 2°C or less, change into dry clothes immediately and get checked for hypothermia.
• If you get hot while working, open your jacket, but keep your hat and gloves on.
• Take warm, high-calorie drinks and food.

Safe Work Practice – Working in Hot Weather

Hazards: heat stroke, exhaustion

Training: On the Job

• Wear light, loose clothing that allows sweat to evaporate. Light coloured garments absorb less heat from the sun.
• Drink small amounts of water (8 oz) every half hour. Don’t wait until you are thirsty.
• Avoid coffee, tea, beer, or other drinks that make you go to the bathroom frequently.
• Avoid eating hot, heavy meals that increase your body temperature.
• Remember that your physical condition can reduce your ability to deal with the heat.
• Learn to recognize the signs and symptoms of heat stress in yourself and co-workers.
• Avoid working alone in conditions where heat stress is possible.
• Acclimatize you body (gradually expose yourself to heat and work).
• Take rest breaks in a cool or well-ventilated area. Take more breaks during the hottest part of the day or when doing hard physical work. Allow your body to cool down before beginning again.
• Schedule work to minimize heat exposure. Do the hardest physical work during the coolest part of the day.
• To replace the salt lost by sweating, workers can eat salty foods. Salt tablets are not recommended.
Hand Tools

Safe Work Practice – Cutting Tools & Tin Snips

Many types and sizes of snips and cutting tools are available. Use the correct tool for the job. Wear safety glasses or a face shield and protective gloves when using cutters or snips.

Hazards: Cuts, flying pieces

Training: On the Job

• Inspect tools before use. If defective, tag tool and report to crew foreman immediately who may dispose it.
• Choose the proper tool for the job. Cutters and snips are designed for a specific type and size of material.
• Prevent injury from flying metal by wrapping a burlap bag, cloth or rag around the cutting jaws. Metal flies when cut. The harder the metal, the farther it will fly.
• Warn those in the area to take precautionary measures to avoid possible injury from flying metal pieces.
• Keep cutting tools in good repair.
• Adjust and lubricate cutter and moving parts daily if heavily used.
• Do not use a cutting tool until you are trained in its proper and safe use.
• Do not use cushion grip handles for jobs requiring insulated handles. Cushion grips are for comfort primarily and do not protect against electrical shock.
• Do not use cutters which are cracked, broken or loose.
• Do not exceed the recommended capacity of a tool.
• Do not cut diagonally.
• Do not rock cutters from side to side when cutting wire.
• Do not pry or twist with tool when cutting.
• Keep materials being cut at right angles to the cutting edges of jaws.
• Do not hammer on cutting tools to achieve greater cutting power.
• Do not expose cutter to excessive heat.

Snips: There are four kinds of snips:

  o Left cut – for making cuts to the left as well as straight cuts.
  o Right cut – for making cuts to the right as well as straight cuts.
  o Straight cut – for making straight cuts and shallow cuts to the right or left.
  o Offset – permit you to keep your hands above the cut while cutting directly through the center of a large sheet.

• Use snips for cutting soft metal only. Hard or hardened metal should be cut with cutting tools.
• Use hand pressure for cutting. Never hammer or use your foot to exert extra pressure on cutting edges. If extra pressure is needed, use a larger tool.
• Cut so that the waste is on the right if you are right handed.
• Avoid springing the blades by trying to cut metal that is too thick or heavy for the snips used.
• Keep the nut and the pivot bolt properly adjusted at all times. Oil the pivot bolt occasionally.
• Do not try to cut sharp curves with straight cut snips.
• Do not cut sheet metal thicker than .15 cm (0.062 in).
• Do not extend the length of handles to secure greater leverage.
• Do not attempt to re-sharpen snips in a sharpening device designed for other tools.
• Do not use cushion grip handles for jobs requiring insulated handles.
Safe Work Practice – Hammer Tacker / Stapler

Hazards: flying staples

PPE: safety glasses, work gloves

Training: On the Job

- Make sure that the work area is clean and there is no debris on the ground.
- Check the hammer tacker carefully before each use. The handle should be attached to the head firmly. The handle should not be splintered or cracked. Swing the hammer tacker lightly to make sure that the handle is not loose. If found defective, tag and report to crew foreman who may dispose it.
- Always have enough clearance from fellow workers.
- If you are going to be working with your hammer tacker for long periods of time, make sure you choose one that has an insulated handle. This helps you protect your hand from vibrations and impact of the pressure that you are putting.
- Always choose a handle that is of the right size so that the pressure that you use is applied correctly.
- While using a stapler, make sure you are sitting in a secure place, or have secure footing.
- If working at heights, make sure you are balancing correctly.
- Your ladder should be sturdy since the movements you make with the hammer tacker can throw you off balance.
- Do not use hammer tackers which have edged handles.
Safe Work Practice - Hammers

Hammers: Hammers and other striking tools are widely used and often abused. Hammers are made for specific purposes in various types and sizes, with striking surfaces of varying hardness.

Hazards: eye injuries, flying pieces, bruises
Training: On the Job

- Wear safety glasses when there is a possibility of eye injury.
- Inspect before use. Immediately tag if defective, remove from service and notify crew foreman who may dispose it.
- Select hammers according to their intended use. Misuse can cause the striking face to chip, possibly causing serious injury.
- Choose a hammer with striking face diameter approximately 2.54 cm (1 in) larger than the face of the tool being struck.
- Strike a hammer blow squarely with the striking face parallel to the surface being struck.
- Always avoid glancing blows and over and under strikes.
- Look behind and above before swinging hammer.
- Watch the object you are hitting.
- Hold the hammer with your wrist straight and your hand tightly wrapped around the handle.
- Do not use a hammer with a loose or damaged handle;
- Do not use rough handles that are cracked, broken, splintered, sharp-edged or loose;
- Do not use any hammer head with dents, cracks, chips, mushrooming or excessive wear.
- Do not redress, grind, weld or reheat/treat a hammer head.
- Do not strike with the side or cheek of the hammer.
- Do not use one hammer to strike another hammer.
Safe Work Practice – Hand Tools – Ergonomics

Hazards: cuts, lacerations, bruises, flying pieces, repetitive strain injury

Training: On the Job

Reducing risk of injury:
Keep the following suggestions in mind when selecting and using tools:

- Fits the job you are doing — selecting the right tool is very important.
- Fits the space available — pick a tool that fits your workspace.
- Reduces the force you need to apply — for jobs needing higher torques, consider ratchet tools to minimize the torque on your wrist.
- Is properly maintained — blunt or dull tools such as saws, cutters, screwdriver tips, or any tool in a poor state of repair can compromise your safety and increase the effort needed to operate them.

- Bend the tool, not your wrist: Hand tools should be designed so that the user can grasp, hold, and manipulate the tool without bending the wrist to do the job.

- Minimize the weight of hand tools. Tools used on a repetitive basis and weighing over one pound should be counterbalanced. The tool’s center of gravity should be as close to the center of the grip as possible.

- Operate hand tools within a range allowing the shoulder to be relaxed and the elbow to be close to the body with approximately 85 – 120° of movement allowed between the upper and lower arm.

Handles
- Choose handles with a broad cushioned gripping surface which is hard enough to prevent metal chips or other debris from becoming embedded in it.
- Choose handles that will not absorb oils and other liquids which could irritate skin.
- Choose single-handled tools with flanges. These can help to prevent the hand from slipping off the tool.
- Choose handles that let the hand wrap around the tool to avoid slippage:
  - precision grip: recommended diameter – 4 cm (1.5 in)
- power grip: recommended diameter – 12 mm (0.45 in)
- Do not use tools with handles that press into the palm of the hand. Handles should be long enough to extend beyond the palm.

Choose two-handled tools with the following features:
- A means of opening the tool after use, such as a spring return. The spring force should be low enough so that it does not cause undue strain on the operator to keep the tool closed.

- A grip span of 6-9 cm (2 1/2 - 3 1/2 in)

- Sufficient space between the handles to prevent palm or fingers from being pinched.
Safe Work Practice – Hand Tools General Operation

Hazards: hazards: cuts, lacerations, bruises, flying pieces, repetitive strain injury

Training: On the Job

- Ensure that employees are properly trained in the safe use of hand tools.
- Select the right tool for the job. Substitutes increase the chance of having an accident.
- Use tools designed to allow wrist to stay straight. Avoid using hand tools with your wrist bent.
- Use good quality tools.
- Inspect tools for defects before use. Replace defective tools. All defective tools must be immediately tagged, reported to the crew foreman and taken out of service.
- Keep cutting tools sharp and cover sharp edges with a suitable covering to protect the tool and to prevent injuries from unintended contact.
- Ensure that the handles of tools like hammers fit tightly into the head of the tool.
- Pull on a wrench or pliers. Never push unless you hold the tool with your palm open.
- Point sharp tools (e.g., saws, chisels, knives) laying on benches away from aisles and handles should not extend over the edge of the bench top.
- Maintain tools carefully. Keep them clean and dry and store them properly after each use.
- Carry tools in a sturdy tool box to and from the worksite.
- Wear safety glasses or goggles and well-fitting gloves appropriate for the hazards to which you may be exposed when doing various tasks.
- Keep the work environment clean and tidy to avoid clutter which may cause accidents.
- Use a heavy belt or apron and hang tools pointed down at your sides, not behind your back.
- Keep the work space tidy. Store tools properly when not in use.
- Do not use tools for jobs they are not intended to do. For example, do not use a slot screw driver as a chisel, pry bar, wedge or punch, or wrenches as hammers.
- Do not apply excessive force or pressure on tools.
- Do not cut towards yourself when using cutting tools.
- Do not hold the stock in the palm of your hand when using a cutting tool or a screwdriver. Always lay it on a workbench or in a vice.
- Do not wear bulky gloves to operate hand tools.
- Do not throw tools. Hand them, handle first, directly to other workers.
- Do not carry tools in a way that interferes with using both hands on a ladder, while climbing on a structure, or when doing any hazardous work. If working on a ladder or scaffold, tools should be raised and lowered using a bucket and hand line.
- Do not carry a sharp tool in your pocket.
- Do not leave tools lying around on elevated structures such as a platform or scaffold as they may be bumped and fall.

Formal monthly inspection of hand tools to be recorded on “Hand & Portable Power Tools Inspection” form.
Safe Work Practice – Knives

Hazards: flying pieces, cuts

PPE: work gloves, safety glasses

Training: On the Job

- Inspect knives before use, and if broken or blade is chipped, tag the knife as defective, immediately report it to the crew foreman, who may dispose of it, and request a new knife.
- Only use a utility knife for cutting through cardboard, opening boxes, cutting ropes, packing straps, sealing tape, shrink wrap, etc.
- Wear safety glasses when using a knife.
- Always cut away from yourself and others.
- Always store the knife with the blade withdrawn into the handle.
- When cutting deeply, use several small cuts.
- Always use a sharp blade. A dull blade requires more force to make a cut, which could lead to tool slippage. Replace the blade as soon as you notice it tearing material instead of cutting.
- Dull or rusted blades should be safely removed and disposed of in an identified disposal container.
- If you must remove a blade segment of a knife, and it does not have a blade removal tool, you must:
  - Wear protective gloves
  - Extend the blade to its break line or just past
  - Use pliers to apply pressure to the blade until the tip breaks off, and
  - Dispose of the blade properly

- Do not hand or toss a utility knife to another. Where possible put knife down on flat surface, with the blade in and allow the other person to pick it up.
- Do not try to catch a falling utility knife.
- Do not use utility knife for activities other than its intended purpose.
- Do not twist or gouge the material being cut when using the knife as this may cause the blade to snap.
- Do not leave a knife blade extended when not in use or unattended.
- Do not extend the blade beyond one blade segment.
Safe Work Practice – Nibblers

Hazards: Exposed moving parts and electrical hazard with the potential to cause harm through impact and cutting, noise, slips, trip and falls, and temperature.

PPE: Gloves, eye protection, hearing protection

- The machine must not be used when damp and must not be operated in a wet environment.
- Always inspect cable and plug before using machine. If found defective, tag and notify crew foreman.
- Put the plug into the main socket only when machine is switched off.
- Ensure task is clearly understood before starting.
- Ensure guarding is in place (if applicable).
- Identify ON/OFF switch.
- Ensure work pieces are appropriately secured prior to cutting.
- Ensure the correct cutter bit is installed to thickness of sheet metal.
- Ensure hair, loose clothing, rags etc. is kept clear of moving parts when in use.
- Ensure jewellery and accessories (e.g. bracelets) are not worn when operating equipment.
- Check that the blade runs ‘true’ and does not wobble.
- Check that the cord is always well away from the blade.
- Keep hands clear of work piece and away from blade.
- Switch off nibbler before removing waste material from the table.
- Ensure good housekeeping practise are in place to minimize waste build-up.
- Do not carry machine by the cable.
- Take regular breaks from continuous operation to minimize vibration hazards.
- Maintain regularly to ensure smoother operation and less vibration.
- Back out frequently on deep cuts to clean and cool cutter bit.
- Allow cutter bit to cool prior to handling.
- Always remove the plug from the power supply socket before carrying out any work on the machine, when interrupting work and when not using the machine.
- The knife should not rub on the jaws: Possible danger of cutting tool breakage.
- Do not exceed the maximum allowable material thickness.
Safe Work Practice - Pliers

General: Pliers are made in various shapes and sizes and for many uses. Use the correct pliers for the job.

Hazards: hand injuries
Training: On the Job

• Cut at right angles.
• Choose pliers that have a grip span of 6-9 cm (2 ½ – 3 ½ in).
• Choose tools with sufficient space between the handles to prevent your palm or fingers from being pinched.
• Pull on the pliers; do not push.
• Do not cut hardened wire unless pliers are specifically manufactured for this purpose.
• Do not expose pliers to excessive heat.
• Do not bend stiff wire with light pliers. Needle nose pliers can be damaged by using the tips to bend large wire. Use a sturdier tool.
• Do not use pliers as a hammer.
• Do not hammer on pliers to cut wire or bolts.
• Do not extend the length of handles to gain greater leverage. Use a larger pair of pliers or a bolt cutter.
• Do not use cushion grip handles for jobs requiring insulated handles. Cushion grips are primarily for comfort and do not protect against electric shock.
• Do not use pliers on nuts and bolts; use a wrench.
• Never rock from side to side or bend wire back and forth against cutting edges.
• Inspect tool before use. All defective tools must be immediately tagged and reported to the crew foreman, who will dispose of if necessary.
Safe Work Practice - Screwdrivers

General: Screwdrivers are made in various shapes and sizes and form many uses. Use the correct screwdriver for the job.

Hazards: hand injuries
Training: On the Job

- Inspect tool before use. If found defective, tag it, and notify crew foreman who may dispose it.
- Choose contoured handles that fit the shank tightly, with the flange to keep the hand from slipping off the tool.
- Keep the screwdriver handle clean. A greasy handle could cause an accident.
- Use screwdrivers with insulated handles for electrical work.
- Use a screw-holding screwdriver to get screws started in awkward, hard-to-reach areas.
- Use an offset screwdriver in close quarters where a conventional screwdriver cannot be used.
- Use a screwdriver that incorporates the following features when continuous work is needed:
  - A pistol grip to provide for a straighter wrist and better leverage.
  - A “yankee drill” mechanism which rotates the bit when the tool is pushed forward.
  - A ratchet device to drive hard-to-move screws efficiently (alternatively, use a powered screwdriver).
- Exercise extreme care when using a screwdriver near live electrical circuits.
- File a rounded tip square making sure the edges are straight.
- Store screwdrivers in appropriate place so that the proper screwdriver can be selected quickly.
- Do not lean or push on a screwdriver with any more force than necessary to keep contact with the screw. A screw properly piloted and fitted will draw itself into the proper position when turned. Keep the shank directly over the screw being driven in.
- Do not hold the stock in one hand while using the screwdriver with the other. If the screwdriver slips out of the slot you may cut your hand.
- Do not hammer screws which cannot be turned.
- Do not grind the tip to fit all sizes of screw heads.
- Do not use a defective screwdriver (rounded edges or tips, split or broken handle).
- Do not use a screwdriver for prying, punching, chiseling, scoring, scraping or stirring paint.
- Do not use pliers on the handle of a screwdriver for extra turning power. A wrench should only be used on the square screwdriver shank designed for the purpose.
- Do not expose a screwdriver blade to excessive heat.
- Do not use a screwdriver to check if an electrical circuit is live.
- Do not carry screwdrivers in your pockets.
Safe Work Practice - Vises

General: Most vises can be used for a wide variety of work. Select the most suitable vise which is strong enough for work. Vises are usually mounted on workbenches, or similar firm supports, to hold material in place.

Hazards: hand injuries

Training: On the Job

- Wear safety glasses.
- Attach vise securely. Place bolts in all the holes in the base of the vise. Use lock washers under the nuts.
- Mount a vise so that the stationary jaw projects slightly beyond the edge of the workbench. This allows long work to be clamped in the vise without interference from the edge of the workbench.
- Use a vise large enough to hold the work without strain.
- Keep work in the vise as close to the jaws as possible to prevent vibrations.
- Support the end of extra-long work, rather than putting extra strain on the vise.
- Keep all threaded and moving parts clean, oiled and free of chips and dirt.
- Use jaw liners in a vise where there is any possibility of marring the work.
- Replace a bent handle and worn jaw inserts.
- Do not bend a heavy rod in a light vise.
- Do not cut into the jaws.
- Do not apply heavy pressure at the corner of the vise jaws.
- Do not use a handle extension for extra clamping pressure.
- Do not use the jaws of the vise as an anvil.
- Do not hammer on the handle to tighten beyond hand pressure.
- Do not use any vise that has the slightest crack.
- Do not repair a vise by welding or brazing.
- Inspect tool before use. If tool is found defective, tag it and notify the crew foreman immediately, who may dispose it.
**Power Hand Tools**

**Safe Work Practice – Air Powered Tools**

Air-powered tools include nailing and stapling guns, grinders, drills, jack hammers, chipping hammers, riveting hammers and wrenches.

Hazards: flying chips, dust, noise

PPE: Wear safety glasses and, where necessary, safety shoes and hearing protection.

Training: On the Job

Inspection requirements: Inspect the tool before connecting to the air supply. Ensure screws and caps are securely tightened. If tool is found defective, tag it and notify the crew foreman who may dispose it.

- Avoid tripping hazards created by hoses laid across walkways or curled underfoot.
- Ensure hose connections fit properly and are equipped with mechanical means of insuring connection (chain or wire).
- Install quick disconnects of pressure release type rather than disengagement type. Attach the male end of connector to the tool not the hose.
- Check hoses regularly for cuts, bulges and abrasions. Replace if defective.
- Blow out airline before connecting tool, hold hose firmly and blow away from yourself and others.
- Turn off air pressure to hose when not in use or when changing power tools.
- Choose air-supply hoses that have a minimum working pressure rating of 1035 kPa or 150% of the maximum pressure produced in the system, whichever is higher.
- Post warning signs and shields in areas where tools are used, and others may be exposed to flying chips, dust, and excessive noise.
- Exercise care to prevent hands, feet, or body from injury in case the machine slips or the tool breaks.
- Reduce operator fatigue. Support heavy tools by means of counter balance wherever possible.
- Do not use compressed air to blow away debris or to clean dirt from your clothes, or those from others.
- Do not point the tool towards yourself or others, regardless of whether it is empty or not.
- Do not operate at pressure above the manufacturer’s rating.
- Do not lay hoses across walkways.
- Never hold operating triggers in the ‘on’ position, while moving between work positions.
- Operating triggers must never be secure in the ‘on’ position, under any circumstances.
Safe Work Practice – Angle Grinder

Hazards: moving & rotating parts, inhalation of fumes and dust particles, electrocution from power faults, faulty equipment or incorrect use, movement of work piece, burns from hot materials or friction

PPE: safety glasses, appropriate footwear, close fitting/protective clothing, hearing protection

Training: On the Job
Do not use this power tool unless you have been instructed in its safe use and operation.

- Use only in designated grinding area – erect screens if necessary.
- Examine the power cord, extension lead, plugs, sockets and power outlet for damage.
- Ensure that the grinding disc, guard and attachments (including handle) are secure and correctly fitted.
- Inspect the equipment before use. If found defective, tag it and report to crew foreman who may dispose it.
- Do not use damaged grinding disc.
- Always inspect the work piece to ensure that there aren’t any items which might damage the grinding wheel or cause injury to the operator.
- Secure and support the work piece using clamps, bench vices, etc.
- Ensure all other workers are clear of the immediate work area.
- Keep fingers and hands & power cords clear of the grinding disc.
- Never make adjustments while the angle grinder is running.
- Do not switch off the angle grinder when it is under load, except in an emergency.
- Allow angle grinder to reach operating speed before applying to work piece & increase load gradually.
- Do not lift or drag angle grinders by the cord.
- Keep flexible electrical cords clear of oil, grease, machines and sources of heat.
- Be aware of flying sparks. Hold grinder so that sparks fly away from you, other people and flammable materials.
- Do not leave the angle grinder running & only use the grinder when hand held.
- Do not touch the work piece immediately after grinding operation as it may be extremely hot.
- Avoid trip hazards and prevent damage to electrical cord(s).
- Do not walk on, wheel objects over, or drop materials / tools on flexible electrical cords.
- Clean bench and work area & place all waste material in bin.
- Return angle grinder & rolled up extension leads to storage area.
Safe Work Practice - Cut-Off Saw Safety

Hazards: Noise, vibration transmitted through handles, flying objects as saw makes the cut, cutting disc explosion due to high RPM, pinch points from unguarded drive belt, cuts,

PPE: Eye protection, hearing protection, protective footwear, hand protection

Training: On the Job

- Inspect blades for cracks, warping, overheating or excessive wear before use. If found defective, tag and report to crew foreman who may dispose it.
- Limit persons or bystanders in the area a cut-off saw is being used.
- Use the saw only for its intended application.
- Match saw discs to the material being sawed.
- Leave guards on saws always.
- Maintain guards in good condition.
- Adjust guards with the saw OFF.
- Adjust the guard before cutting.
- Use wet methods when cutting concrete.
- Concrete dust cutting exposes the operator to silica, a potentially cancer-causing dust.
- Match saw RPM with blade RPM – Never use blades with RPM limits LOWER than saw maximum RPM.
- Follow direction of travel when mounting a cutting wheel.
- Remove cutting wheels when transporting a saw – transportation movement can damage a blade.
- Mount cutting discs with the correct tools.
- Fuel gasoline-powered saws only when the saw has cooled.
- Use a funnel and safety gasoline can when fueling cut-off saws.
- Start saw properly, on the ground – never “jerk start” cut-off saws.
- Do not set saw down until the blade has stopped.
- Never “hand off” a saw with the blade rotating.
Safe Work Practice – Drills

Hazards: flying debris, cuts, sprains

PPE: Safety glasses

Training: On the Job

Inspection requirements: Inspect all drills before use. If drill is found defective, tag and notify the crew foreman immediately, who may dispose it.

- Keep drill vents clear to maintain adequate ventilation.
- Always keep drill bits sharp.
- Keep all cords clear of the cutting area during use.
- Disconnect power supply before changing or adjusting bit or attachments.
- Tighten the chuck securely. Remove chuck key before starting drill.
- Secure workpiece being drilled to prevent movement.
- Slow the rate of feed just before breaking through the surface.
- Drill a small pilot hole before drilling of large holes.
- Clamp stock so work will not twist or spin.

Choosing the proper bit or attachment:
- Select the bit or attachment suitable to the size of the drill and the work being done.
- Use only bits and attachments are properly seated and tightened in the chuck.
- Ensure that the bit or attachments are properly sealed and tightened in the chuck.
- Use auxiliary (second) handle for larger work or continuous operation.
- Do not use a bent drill bit.
- Do not exceed the manufacturer’s recommended maximum drilling capacities.
- Do not use a hole saw cutter without the pilot drill.
- Do not use High Speed Steel (HSS) bits without cooling or lubrication.
- Do not reach under or around stock being drilled.
- Do not overreach. Keep proper footing and balance at all times.
- Do not drill with one hand while holding the material with the other.
Safe Work Practice - Drills, Hammer Drills & Chipping Hammers

**General:** All of these tools are used to make holes. They generate considerable torque. They create dust and shavings which can easily get into eyes, particularly when you are using the equipment overhead.

Hazards: flying debris, cuts, injuries

**Training: On the Job**

- Know your equipment. Learn the operation, application and limitations as well as the specific and potential hazards of the equipment before operating it. Refer to the operating manual. Have someone with experience assist you before using the tool on your own.
- Inspect tools before use. If found defective, tag and notify crew foreman who may dispose it.
- Wear adequate PPE and keep observers at a safe distance from the work area. Minimum PPE for the equipment is hard hat, safety glasses and steel toed boots. Check the SDS before starting work for material specific hazards that could require other PPE.
- Ensure that there is adequate room to work with the equipment. Don’t stick yourself in a corner. Make sure that you have control over the equipment as it can build up considerable torque and may tend to twist.
- If you are working off a ladder or scaffold, make sure that the equipment is secured in case you drop it. If by chance you do drop the tool, never try to reach for it – let it drop. Reaching out to grab a tool that is falling can lead to losing your balance and falling off or your ladder or scaffold.
- Use extreme caution when drilling through the floor. Provide protection for all occupants, personnel, workers and material below the floor. Debris generally drops from the hole when it penetrates the bottom of the concrete.
- Make sure that the equipment is returned to its case and locked up when you are finished with it.
- Do not lower the drill by the cord – this will eventually short out or break the cord.
- Do not get your hands between the drill and a stationary object. If it binds, the recoil can crush hands and finger.
Safe Work Practice – Equipment and Machinery

Hazards: flying debris, cuts, injuries

PPE: safety glasses, hearing protection, steel toed shoes/boots

Training: On the Job

- Operate equipment or machinery only with all factory installed or approved guards and control devices in place.
- Check all the guards and control devices prior to use.
- Inspect equipment for defects or changes in condition at the beginning and of each shift.
- Any defective equipment or machinery must be tagged, immediately removed from service and reported to crew foreman, who may dispose of it.
- Keep proper clearance from all structures and voltage lines.
- Do not operate equipment or machinery that you are not familiar with and have not received training on.
- Never clean, oil, adjust or repair equipment or machinery until after it is turned off and/or disconnected from its power source.
- Never suspend loads over workmen.
Safe Work Practice – Hand-held circular saws

General: This type of powered hand tool is one of the most commonly used. Because of this common use, there are numerous accidents due to carelessness and thoughtless acts.

Hazard: cuts, flying pieces – eye injuries

Training: On the Job

- Ensure workers are trained in the safe use of equipment before operating.
- Wear adequate PPE and keep observers at a safe distance from the work area.
- Minimum PPE for this equipment is safety glasses and steel-toed boots. Check the SDS before starting work for material specific hazards that could require other PPE.
- Inspect before use. If found defective, tag and report to crew foreman who may dispose it.
- Always ensure that there is adequate ventilation as hazardous fumes can be created under certain circumstances. Refer to SDS.
- The proper sharp blade designed for the work to be done must be selected and used.
- The power supply must be disconnected before changing the blade.
- Before the saw is set down, be sure the retracting guard has fully returned to its down position.
- Both hands must be used to hold the saw while ripping.
- Ensure all cords are clear of the cutting area before starting a cut.
- Before cutting, check the stock for foreign objects or any other obstructions which could cause the saw to “kick back”.
- When ripping, make sure that the stock is held securely in place. Use a wedge to keep the stock from closing and causing the saw to bind.
- When you are finished with the saw, make sure that it is stored in a safe and secure location.
Safe Work Practice - Heat Guns

Hazards: fumes, fires, eye injuries

PPE: safety glasses, gloves

Training: On the Job

- Always inspect heat gun before use. If any part is found defective immediately, tag and report to crew foreman who may dispose it.
- If using a gun inside, make sure that the area is ventilated to prevent accumulation of fumes.
- Never use a heat gun on lead-based paint since it can release toxic fumes.
- Make sure there is no debris on the surface you are working on.
- Always keep a fire extinguisher nearby.
- When you plug in a heat gun, always use an outlet that’s grounded.
- Always use the heat setting recommended by the manufacturer.
- Always hold the heat gun by the plastic enclosure.
- Do not touch nozzle or accessory tips, or store heat gun until the nozzle has cooled to room temperature. The metal nozzle requires approximately 20 minutes to cool before it can be touched. Contact with the nozzle or accessory tip could result in personal injury.
- Place the heat gun in a clear area away from combustible materials while cooling to prevent materials from igniting.
- Keep heat gun moving to avoid excessive temperatures. Pausing or lingering in one spot may ignite or melt the workpiece or the material behind it.
- Do not cut off air flow by placing nozzle too close to workpiece. Keep intake vents clean and clear of obstructions. Restricting air flow may cause the heat gun to overheat.
- Place the heat gun on a stable, level surface when not hand held. Use the support pads or support stand. Place cord in a position that won’t cause the heat gun to tip over.
- Do not leave the heat gun unattended while running or cooling down. It could tip, causing fire or burns.
- Do not apply airflow directly on glass. The glass may crack or shatter, resulting in property damage or personal injury.
- The proper amount of heat for each job depends on the temperature range selected, distance between the nozzle and workpiece, and the length of time heat is applied.
- Use a back and forth motion when applying heat unless concentrated heat is desirable.
- Unplug tool immediately after use, before removing or changing the nozzle and before performing any service or maintenance on the tool.
- Store the tool in a dry place.
Safe Work Practice - Metal Saws / Hot cutoff /Chop saws

General: Make sure you understand operating instructions and are properly trained before operating a hot metal saw. Hot metal saws, often referred to as cut-off saws or chop saws, use an abrasive cut-off wheel. The making may be dry or wet, low or high speed, and either hand operated or automatic.

Hazards: flying particles, cuts
PPE: eye, hearing and hand protection, respiratory protection
Training: On the Job

- Handle and store wheels as directed by the manufacturer.
- Inspect equipment before use. Inspect all wheels for possible damage before mounting. Check the machine speed against the established, maximum safe operating speed marked on the wheel. If found defective, tag and report to crew foreman who may dispose it.
- Ensure that mounting flanges are equal and the correct diameter (at least ¼ of the wheel diameter).
- Use mounting blotters when they are supplied with wheels.
- Clamp work firmly in place when using non-reinforced cut-off wheels.
- Use properly designed safety guard covering at least one half of the grinding wheel.
- Ensure that saw has a start/stop button within easy reach.
- Allow mounted wheels to run at operating speed, with guards in place, for one minute before cutting.
- Bring wheel into contact with the work without bumping on impact.
- Turn off coolant before stopping the wheel to avoid an out-of-balance condition.
- Keep working surface clean of scraps, tools and materials. Keep floor around saw clean and free of oil and grease.
- Immediately remove damaged equipment, including cords, and report to your crew foreman, who will dispose of it.
- Do not operate the chop saw in explosive atmospheres, such as in the presence of flammable liquids, gas or dust.
- Do not abuse the cord. Never use the cord to carry the tool.
- Do not use a cracked wheel or one that has been dropped or damaged.
- Do not force a wheel into the machine or alter the size of the mounting hole; if the wheel does not fit the machine, get one that will.
- Do not exceed the maximum operating speed marked on the wheel.
- Do not use mounting flanges whose bearing surfaces are not equal, clean, flat and free of burrs.
- Do not tighten the mounting nut excessively.
- Do not grind on the side of the wheel.
- Do not start the machine until the wheel guard is in place.
- Do not stand directly in front of the cutoff wheel.
- Do not jam, bend or pinch the wheel.
- Do not force cutting so that the motor slows.
- Do not cut without proper ventilation.

Formal monthly inspection to be documented on the “Cut Saw Inspection” form.
Safe Work Practice - Pneumatic Equipment

Hazards: flying particles, eye injuries

Training: On the Job

- Permit only trained workers to operate pneumatic nailing and stapling tools.
- Wear proper eye and hearing protection.
- Make sure the tool is maintained in safe operating condition.
- Inspect the tool before connecting to the air supply:
  - Check safety mechanisms if applicable.
  - Ensure that screws and cylinder caps are securely tightened.
  - Make sure the air pressure is as specified by the manufacturer of the tool.
  - If found defective, tag and report to crew foreman who may dispose it.
- Before using, check that the tool is properly connected to the air supply and is in working order, with the safety mechanism operable.
- Always handle the tool as if it contains fasteners.
- Always use a work-contacting element that limits the contact area to one as small as practicable.
- Make sure the mechanical linkage between the work-contacting element and trigger is enclosed.
- Disconnect the tool from the air supply and exhaust all air from the tool by squeezing the trigger when:
  - Not in use
  - Cleaning or adjusting
  - Clearing a blockage
- Only use fasteners recommended by the manufacturer of the tool, and when reloading follow company procedures.
- Ensure you have the right amount of air pressure for the size and type of nail you are using (caution: too much pressure can cause a nail to go right through the material and could cause a serious injury to other workers)
- Do not operate the tool at air pressures above the manufacturer’s specifications.
- Do not point the tool at yourself or any other person.
- Do not squeeze the trigger unless the nosepiece of the tool is directed at a safe work surface.
- Do not transport or load the tool with your finger on the trigger.
- Do not secure the trigger in the on position.
- Do not overreach when using the tool.
- The trigger of a pneumatic nailing or stapling tool must not be taped or otherwise secured in the “on” position, or held in the “on” position while moving between operations.

Record monthly inspections on the Air Nailing Inspection form.
Safe Work Practice - Portable Generator

Hazards: Fire, electrical

Training: On the Job

PPE: steel toed boots, eye and hand protection

- Always inspect generator before use. If found defective, tag and immediately report to crew foreman may dispose it.
- Use the Generator Maintenance Checklist inspection before starting and after starting it.
- Always store your portable generator in a dry, clean area that is easy to get to. When the lights go out, you don't want to trip over things to get the power going.
- Pull generator to well ventilated work area.
- Use fresh gasoline when possible. If the generator is likely to sit long periods of time before being run again, use a gasoline stabilizer.
- Start the generator at least once a month and let it run for a few minutes. If yours has a battery, trickle charge the battery from time to time to ensure it is ready to go.
- Check cords that are to be plugged into the generator for frays and exposed wires.
- Place cord out of way of workers walk path when possible.
- Do not use frayed or defective extension cords.
- Do not run the generator in the rain or snow. Keep it in a shed, under an overhang, or a portable shelter if possible.
- Do not add gasoline to a generator that is running. Always shut off the generator and let it cool down before refilling it.
- Complete a formal maintenance check according to company requirements and document on the Generator Maintenance Checklist.
Safe Work Practice – 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. Wear safety glasses to protect against flying particles. Gloves, aprons, safety boots and respiratory protection are advisable, depending on the work.

Hazards: flying particles

PPE: eye protection, hearing protection, gloves

Training: On the Job

- Always inspect grinders before use. If found defective, tag and report to crew foreman who may dispose it.
- Do not use grinder if you have not been properly trained.
- Ensure the grinder is suitable for the task.
- Ensure proper guards are in place and that adequate PPE is used. (Disconnect the power source when performing initial visual check of the machine or when changing wheels.)
- Never use a grinder without a guard. One exception to this rule is if the wheel is two inches or less, it is not required to have a guard.
- Familiarize yourself with the grinder operation before commencing work. Check that the machine does not vibrate or operate roughly.
- 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.
- Stand away from the wheel when starting a grinder.
- Before grinding, run newly mounted wheels at operating speed for one minute to check for vibrations.
- Remove hanging jewelry.
- Tie or confine long hair.
- Roll up sleeves.
- Use racks or shelves to store portable grinders.
- Check that the wheel speed marked on the wheel is equal to or greater than the maximum speed of the grinder.
- Unplug or unlock the grinder before doing adjustments.
- Allow object you are grinding to cool before handling it.
- Grinder speed should be checked periodically.
- Do not use grinders near flammable materials.
- Do not clamp portable grinders in a vise for grinding handheld work. Use clamps or another method to secure the work piece.
- Do not use liquid coolant with portable grinders.
- Do not tighten the mounting nut excessively.
• Never use the grinder for jobs for which it is not designed.
• Never exceed the speed marked on the wheel.
• Make smooth contact with the work piece and avoid bumping action or excessive pressure.
• Do not allow anyone to stand in front of a spinning grinding wheel at any time.
• Always keep both hands on the tool.
• Use caution when grinding in corners because a sudden, sharp movement of the grinder may occur when the wheel strikes the secondary surface.
• Do not apply side pressure on the grinding or cutting wheel.
• Never override the ON/OFF switch or secure it in the ON position.
• If excessive vibration occurs or it operates roughly upon starting, immediately shut the tool off and check the grinder and wheel for damage.
• Grinders and grinding wheels should be handled carefully to avoid damage.
• Ring test before use: Wheels should be tapped gently with a light non-metallic implement, such as the handle of a screwdriver for light wheels, or a wooden mallet for heavier wheels.
• If they sound cracked (dead), they should not be used.
Safe Work Practice – Portable Wheel Grinder Mounting

Hazards: hand injuries

PPE: gloves, safety eyewear

Training: On the Job

Depressed Centre Wheels
- Inspect wheel before use. If found defective, tag and report to crew foreman who may dispose it.
- Replace worn or bent reusable adapters. A damaged adapter will not mount properly.
- Ensure grinder spindle should runs true. The adapter must tighten against this shoulder. Use spacers provided with adapters if the spindle is too long.
- The wheel will wobble if the shoulder is not square with the spindle, or if the adapter does not tighten against the shoulder. This can result in wheel breakage.
- Do not reuse ‘throw-away’ adapters.
Safe Work Practice – Powered Hand Tools Ergonomics

Hazards: repetitive strain injury

PPE: work gloves, safety glasses

Training: On the Job

- Inspect tool before use. If found defective, tag and report to crew foreman who may dispose it.
- Bend the tool not your wrist.
- Choose tools which can be used without bending the wrist. Hand tools should be designed so that the operator can grasp, hold, and use the tool with minimal bending of the wrist.
- Select the tool with the workplace layout and job design in mind. Sometimes a tool is correct for one operation and incorrect for another.
- Keep the weight of hand tools to a minimum. Tools used on a repetitive basis and weighing over 0.5 kg (1 pound) should be counter balanced. The center of gravity of the tool should be as close to the center of the grip as possible.
- Reduce power to the lowest possible setting to complete the job. This reduces tool vibration at the source.
- Choose tools that have increased handle mass relative to tool body, to reduce vibration.
- Choose tool handles that are covered with cork, rubber, plastic or plastic bonded to steel to reduce vibration.
- Choose hand tools with two handles to permit better manipulation and easier holding of the tool.
- Choose tools with trigger strip, rather than trigger button. This will allow more force to be exerted over a greater area of the hand, reducing muscle fatigue.
- Ensure that the trigger works easily. This reduces the effort needed to operate it.

Formal inspection to be completed monthly and documented on the “Hand & Portable Power Tools Inspection” form.
Safe Work Practice – Power Leaf blowers

Hazards: flying debris, noise

Training: On the Job

Pre-operational safety checks:

- Inspect leaf blower muffler, air intakes and air filer to ensure they are in good working condition.
- Ensure that all switches are functioning.
- Faulty equipment must not be used. Tag and report suspect machinery immediately to your crew foreman who may dispose it.

PPE:

- Wear CSA footwear to protect feet from tool and flying debris.
- Always wear long pants and long-sleeved shirts to protect from debris.
- Always wear safety glasses, gloves, dust mask, and hearing protection

Operation safety:

- When starting the leaf blower, point tool towards an open area and hold with two hands.
- Do not point blower in the direction of people or animals. Ensure bystanders are at least 15 meters away.
- Stop blowing if you are approached by another person.
- Ensure you are standing on a stable surface.
- Do not blow towards open windows and doors.
- When operating, do not allow grass and debris to build up on your tool, as this can lead to damage and breakdown.
- Never leave blower running unattended.
- Be aware of the potential for ejected material and ensure that no person or animal is endangered when operating the equipment.

Gas

- Always use caution when working with or around gasoline because it is extremely flammable.
- Ensure you use the correct fuel mixture in the gas tank. Wrong mixture can damage your tool and could potentially cause injury.
- Ensure your leaf blower is stored in a secure environment to avoid gas leaks and spills (fire hazard).

Fuelling

- Let engine cool for at least 10 minutes before refueling to avoid risk of ignition. Even if engine is cooled down, always use a proper filling device and exercise caution to prevent spilling onto engine or exhaust.
- If an emergency occurs while conducting this task, or there is an equipment malfunction, engage emergency stop and follow the lock out procedure.

Record monthly maintenance of the Leaf Blower Maintenance Checklist.
Safe Work Practice - Power Roof Cutters

Hazards Present: falls, flying objects, dust

PPE: eye and dust protection

Training: On the Job

- Hoist the roof cutter to roof level by attaching the lifting cables to the roof cutter’s lifting lugs.
- Be certain all safety guards, shields and pins are secure and locked into place before starting.
- Inspect before use. Inspect cutter blade condition and tightness before starting the engine. Do not operate a cutter with an excessively worn, damaged or loose blade. If anything is found defective, tag and report to crew foreman who may dispose it.
- Use manufacturer’s recommended cutting blades only.
- Do not modify the cutter or operate a modified machine.
- Wear personal protective equipment including safety footwear, dust mask, eye and ear protection while operating the roof cutter.
- Operate a roof cutter only on flat or near level built-up roofing systems.
- Electrical cords, propane hoses, ropes and equipment shall be removed from the work area. Dock mounted electrical and service lines shall be identified and marked.
- Remove debris from the work area before starting the roof cutter.
- Reduce dust levels by wetting down the surface of the roofing system with water.
- Do not allow other workers to work near or walk in front of the cutter while in operation.
- Wear eye and/or dust protection while working in the vicinity of an operating roof cutter.
- Guard all roof openings prior to operating the roof cutter.
- Operate roof cutters only in straight lines, parallel to the roof edge. The operator shall never be positioned between the operating cutter and an unguarded roof edge.
- Operate the roof cutter directly from behind with both hands controlling the machine.
- Avoid cutting deeper than the thickness of the roof insulation as the structural decking may be damaged by the cutting blade.
- When re-fuelling the roof cutter, shut off engine and allow it to cool down prior to refueling. If fuel is spilled, clean up the excessive fuel before restarting the engine.
- Remove the fuel container from work area.
- Shut off the engine when the roof cutter is left unattended.
- Never walk backwards while operating a roof cutter.
- Never tilt the roof cutter during operation.
- Do not attempt to cut metal roof decks with the roof cutter blades.
- Do not operate a roof cutter when impaired by alcohol or other drugs.
- Never reach into the blade area when the engine is operating. Keep hands away from blade and drive belts.
Safe Work Practice - Power Roof Sweepers

Hazards: flying debris, noise

PPE: work gloves, safety glasses

Training: On the Job

- Only qualified roofers trained in the operation of a power roof sweeper shall operate this machinery.
- Power sweepers shall be operated and maintained in accordance with the equipment manufacturer’s instructions. A qualified mechanic shall repair or replace damaged sweeper components prior to its use.
- Hoist the sweeper to roof level by attaching the lifting cables to the sweeper’s lifting lugs.
- Be certain all safety guards, shields and pins are secure and locked in place before starting the engine.
- Use manufacturer’s recommended replacement brush assembly only.
- Wear personal protective equipment including safety footwear, dust mask, eye and ear protection while operating the roof sweeper.
- Operate the roof sweeper only on flat or near level built-up roofing systems.
- Electrical cords, propane hoses, ropes and equipment shall be removed from the work area prior to operating the roof sweeper.
- Where practical, reduce dust levels by wetting down the surface of the roofing system with water, prior to operating the sweeper.
- Eye and/or dust protection should be worn while working in the vicinity of an operating roof sweeper.
- Operate the roof sweeper directly from behind with both hands controlling the machine.
- Operate the sweeper parallel to the roof edge. The sweeper operator should never be positioned between the operating machine and the unguarded roof edge.
- When re-fuelling, shut off the engine and allow it to cool before refueling. If fuel is spilled, clean up the excessive fuel prior to restarting the engine. Remove the fuel container from the work area.
- Guard all roof openings.
- Shut off the engine when the sweeper is left unattended.
- Inspect sweeper before use:
  - Air filter
  - Choke shutter
  - Fuel system
  - Cooling system
  - Recoil starter rope
  - Screws/nuts/bolts

- If found defective, tag it, remove from service and immediately report to crew foreman.
Safe Work Practice – Power Tools General

Hazards: flying debris, eye injuries, strains

PPE: eye and hearing protection

Training: On the Job

- Inspect tool, power cords and electrical fitting for damage, broken or inoperative guards prior to each use. If found defective, tag and report to crew foreman who may dispose of it.
- Switch tools off before connecting them to a power supply.
- Ensure tools are properly grounded (three prong plug) and are double insulated.
- Keep power cords clear of tools during use.
- Suspend power cords over isles or work area, when possible, to prevent stumbling or tripping hazards.
- Avoid octopus connections. (Do not plug several power cords into one outlet)
- Do not wear gloves, loose clothing, or jewellery when operating power tools.
- Do not use electric tools in wet or damp conditions unless tool is connected to a ground-fault circuit interrupter (GFCI).
- Do not carry electrical tools by power cord.

Formal inspection to be completed monthly and documented on the "Hand & Portable Power Tools Inspection" form.
Safe Work Practice – Reciprocating Saw (Sawzall)

General: The reciprocating saw or sawzall can be used in the same place that you would use a hacksaw, handsaw or drywall saw. This enables you to do the work faster and with less strain and exertion.

Hazards: strains, eye injuries, hand injuries

PPE: work gloves, safety glasses

Training: On the Job

- Inspect equipment before use. If found defective, tag and report to crew foreman who may dispose it.

- Know your equipment. Learn the operation, application and limitations as well as the specific and potential hazards of the equipment before operating it. Refer to the operating manual if necessary. Have someone with experience assist you before using the tool on your own.

- Wear adequate PPE and keep observers at a safe distance from the work area. Minimum PPE for this equipment is safety glasses. Check the SDS before starting work for material-specific hazards that could require other PPE.

- Ensure that there is adequate room to work with the sawzall. Don’t stick yourself in a corner.

- Watch where the piece that you are cutting off will fall, and make sure that your or someone else has control over it.

- If you are working off a ladder or scaffold, make sure that the sawzall is secured in case you drop it. Reaching out to grab a falling tool can lead to losing your balance and falling off your ladder or scaffold.

- Make sure the sawzall is returned to its case and locked up when you are finished with it.
Ladders and Platforms

Safe Work Practice – Elevating Work Platforms

Hazards present: electrocution, weight of load, tip-over hazards, pinch points, other workers, high noise levels, slips, trips and falls, damaged machine, bodily injury, collision,

PPE: Safety Boots, Safety Glasses, Hard Hat, Hearing protection, Gloves, High Visibility Vest, Fall Protection

Formal Training
• Aerial lift training
• Fall protection training

Check the job site for:
• Ditches; debris; drop-offs or holes; untamed earth fills; bumps and obstructions; overhead obstructions.

Inspect platform at the beginning of each shift for:
• Uncontrolled motion
• Loose connections or missing fasteners
• Improper adjustments
• Cracked welds
• Broken or frayed wire ropes
• Inefficient brakes
• Poor tire condition and pressure
• Missing load capacity postings
• Damaged electrical wires or hydraulic or pneumatic lines

If found defective, immediately report to crew foreman.

General Practices
• Receive professional training (theory and practical) on the exact piece of equipment you will be operating. Read the operator’s manual and safety signs on the machine and have a complete understanding of all safety devices and controls before operating the machine.
• Read, understand and follow your employer’s safety and worksite rules and regulations, along with all applicable provincial regulations that apply before operating the machine.
• Always perform a pre-operation inspection and function tests on the equipment before each use. If any machine fails an inspection, you must ensure it is immediately tagged and removed from service until repairs can be made by a qualified technician.
• Conduct a hazard assessment prior to engaging the machine. Be alert for any hazards like drop offs, holes, slopes, slippery or uneven surfaces, overhead obstacles, power lines or any other visible hazards.
• Always wear certified fall protection equipment and be connected to the designated anchor points. Body harnesses and lanyards or self-retracting lifeline will reduce the chance of an operator being thrown from the platform of a boom.
• Platforms must only be raised on a solid level. If the level alarm sounds, the machine needs to be repositioned to a more level surface. If the level alarm sounds while you are
already elevated immediately lower the platform and move the machine to a more level surface.
- Always refer to the manufacturer safety recommendations and operator manual for confirmation of minimum safety height clearance information.
- Never stand or sit on the guardrails of the platform. You must have a firm footing on the platform floor at all times. If you are required to reach an overhead area that is just out of reach for the platform, determine if the selected aerial work platform is the right one for the job. Never take a chance.
- Never exit an elevated boom or aerial lift platform unless you have been properly trained, be tied off at all times and be in possession of an approval letter from the manufacturer that provides the proper instruction.
- Never climb down from a raised platform. If possible, have a mobile phone or two-way radio with you while in the platform and always have a rescue plan in place.

Before raising or moving the platform:
- Check for overhead obstructions and electrical wires. Regulations set minimum distances that platforms must be from electrical wires.
- Place on a firm and level surface only.
- Position outriggers or stabilizers.
- Install platform guardrails properly and check that gates or openings are closed.
- Ensure that ropes, electrical cords and hoses will not entangle in the work platform.
- Clear area around platform of workers when raising or lowering platform.
- Ensure barriers on scissor type lifting mechanisms are in place to prevent entry.
- Load platform evenly according to manufacturer’s instructions.

Using and elevating work platform:
- Have proper training before operating controls on a job.
- Tow only vehicles that are designed specifically for that use.
- Wear a safety harness that is fixed to a platform attachment point.
- Maintain three point-contact when getting on or off the platform.
- Look in direction of travel and ensure that path is firm and level.
- Maintain firm footing on platform.
- Measure the distance to electrical wires and minimum clearance distances.
- Do not extend platform capacity.
- Do not use planks, ladders or other devices on the platform to gain extra height.
- Do not stand on guardrails to gain extra height.
- Do not lean over platform railing.
- Do not climb up or down extensions or scissor areas.
- Do not use a defective platform.
- Do not use platform as a jack.
- Do not use guardrails to carry materials unless designed for this purpose.
- Do not lift overhanging loads.
- Do not use platform for pulling, pushing or dragging materials.
- Do not use platform without guardrails in place.

Formal inspection to be documented on the Elevated Work Platform Inspection form.
Maintenance Check: □ Engine oil level □ Hydraulic oil level □ Engine coolant level □ Batteries □ Tire pressure
Safe Work Practice – Extension Ladders

Hazard: falls

Training: On the Job

- Inspect ladder before use. Check all locks on the ladder are properly engaged. If found defective, tag and report to crew foreman who may dispose it.
- Station a person at the foot of the ladder when it is not possible to tie it at the top. This is effective only for ladders up to 5m (16 ft) long.
- The person at the foot of the ladder should face the ladder with each hand on a side rail and with one foot resting on the bottom rung.
- Place ladder feet ¼ of the ladder’s working length away from the base of the structure.
- Erect ladder so that a minimum of 1m (3 ft) extends above the landing platform.
- Raise and lower ladder from the ground. Ensure locking ladder hooks are secure before climbing.
- Erect an extension ladder so that the upper section rests on the bottom section.
- Tie off the securing rope.
- Place ladder on a firm, level surface and ensure secure footing.
- Maintain the minimum overlap of sections as shown on the ladder label.
- Do not use a ladder near electrical wires.
- Do not overextend. Maintain minimum overlap of sections.
- Do not climb higher than the fourth rung from the top of the ladder.
- Do not use ladder on ice, snow or slippery surfaces without securing the ladder’s feet.
- Do not extend the top section of the ladder from above or by “bouncing” on the ladder.
Safe Work Practice – Ladder Storage & Handling
Hazards: falling objects
PPE: work gloves, steel toed shoes/boots
Training: On the Job

- Store ladders where they are not exposed to the weather.
- Whenever possible, store ladders horizontally on racks. To prevent sagging, support ladders every 2 meters (6 feet).
- Keep ladders clean and free of foreign materials.
- Ensure that storage areas are easy to access. Return ladders to the storage area after use.
- Avoid long overhangs beyond support points when transporting ladders on vehicles.
- Pad racks on vehicles with soft material to reduce wear and road shocks.
- Tie ladders to each support point to minimize damage. Load other equipment so that ladders are not damaged in transit.
- Mark ladders which overhang vehicles with a red or orange flag.
- Grasp ladders near the center when carrying them.
- Use caution when carrying ladders through passageways, doorways or any place where your view is obstructed.
- Use a partner to help carry long or heavy ladders.
- Ensure that you and your partner are on the same side when carrying a ladder. Work out in advance any hand or voice signals to coordinate stopping or changing direction.
- Do not hang ladders from rails or rungs.
- Do not store materials on ladders.
- Do not expose fiberglass ladders to excessive temperatures (above 93°C/200°F).
- Do not hold the front of ladders at head level when carrying.

Formal ladder inspection to be completed monthly and recorded on the “Ladder Inspection” form.
Safe Work Practice – Portable Ladders
Hazards: falls
Training: On the Job

- Always use the right ladder for the job. Consider strength, type and CSA approval.
- Inspect the ladder before and after each use – if defects are found, tag and report to crew foreman, who may dispose it.
- Get help when handling a heavy or long ladder.
- When setting up a ladder, check for overhead lines, clear the area around the base and top of ladder. Secure base and “walk” the ladder up into place.
- When in position, the ladder must protrude one (1) meter above the intended landing point (unless the manufacturer specifies a longer overlap) and be set at the proper angle of one (1) horizontal to every four (4) vertical (1/4 of ladder’s working length away for the base of the structure).
- Ensure ladder is on firm footing (using slip resistant feet or secure blocking). Rest both top side rails on secure surface (and tie off if required).
- Where tying off is not possible, station a person at the foot of the ladder – this person should face the ladder with a hand on each side rail and one foot resting on the bottom rung. Attach a ladder stay across the back of a ladder where a surface cannot stand the load. Extend the stay across a wind for firm support against the building walls or farm.
- Tie yourself off with a safety harness when working 3 m (10 ft) or more off the ground or when working with both hands.
- Set up barricades and warning signs when using a ladder in a doorway or passageway.
- Clean muddy/slippery boot soles before mounting the ladder.
- Face the ladder when going up or down and when working from it, keeping the center of your body within the side rails. Grip the ladder firmly and use the three-point contact method when moving up or down.
- Ensure that only one person is on a single width ladder.
- All electrical equipment used during ladder work must be in good condition and be properly grounded.
- Rest frequently to avoid arm fatigue and disorientation when the work performed demands reaching and looking up above your head. If you become dizzy or panicky, drape your arms over a rung and rest your head against another rung or side rail.
- Climb down slowly.
- Keep ladders away for electrical sources.
• Do not use a ladder as a scaffold plank or runway.
• Do not carry objects in hands – hoist materials or use a tool belt.
• Do not work from top three rungs – ladder may slip at the base.
• Do not use makeshift items as a substitute for a ladder.
• Do not use a portable ladder in place of a fixed stairway or scaffold.
• Do not splice together short ladders to make a longer ladder.
• Do not rest ladder on its rungs; ladder must rest on both side rails.
• Do not allow anyone to stand under the ladder.
• Do not overreach – climb down and move ladder when necessary.
• Do not straddle the space between a ladder and another object.
• The base of the ladder’s side rails must rest on a firm, level foundation.

Monthly ladder inspection to be recorded on the “Ladder Inspection” form.
Safe Work Practice – Scaffolding (Fixed and Mobile)

Hazards: collapse of scaffold, incorrect assembly, material handling hazards, struck by falling objects, slip/trip/fall, noise, electrocution, sprains/strains, exposure to weather

PPE: hearing and eye protection, foot protection, hand protection, safety vest

Training: Formal – Elevated Work Platform training by third party

- Ensure all components are well maintained.
- Read and follow the manufacturer’s specifications, assembly instructions and warning labels.
- Check and maintain all scaffold parts. Tag defective parts and report it to crew foreman, who may dispose of it.
- Ensure scaffold remains level and plumb at all times. Incomplete or defective scaffolds must never be accessed.
- Use barricades, danger tags or warning signs to prevent unauthorised access.
- Ensure edge protection (hand rails, mid-rails and toe boards) is provided at every open edge of a work platform.
- Familiarise yourself with safe work procedures for the task.
- Review weather conditions before starting.
- Castor brakes are to be applied at all times while the mobile scaffold is stationary.
- Access is to be only by way of an internal ladder.
- Only work on fully planked work platforms.
- Ensure that working platforms are kept clear of debris and obstructions along their length.
- Limit the number of workers on a scaffold at any one time.
- Do not use components that are in poor condition.
- Do not mix components from differently branded scaffolding systems.
- Do not work during a storm, wet conditions or high winds.
- Do not climb on the scaffold itself.
- Do not exceed the safe working load of the scaffold.
- Do not make any unauthorised alterations to the scaffold (such as removing guard rails, planks, ties, toe boards and braces).
- Do not permit workers or other persons to stand directly below a scaffold.
- Do not drop materials from the platforms.
- Do not fix high voltage leads and cables to the scaffolding.
- Never use ladders or makeshift devices on top of scaffolds to increase height.
- Do not leave tools and equipment on scaffolds.
- Do not move scaffold while workers are on the scaffold work platform.
Scaffolds & Decks

Hazard: falls
PPE: fall protection, work gloves
Training: Formal – Elevated Work Platform training by third party

- Check the following before using scaffolding:
  - base is sound, level and adjusted
  - legs are plumb, and all braces are in place
  - locking devices and ties are secured
  - cross members are level
  - planks, decks and guardrails are installed securely
- If found defective, immediately notify the crew foreman.
- Remove snow/ice from scaffold platforms, ladders, access area.
- Use an access ladder, not scaffold frame, unless the frame is specially designed to be climbed.
- Ensure that scaffolding is securely attached to the building structure. The effects from winds increase when scaffolds are covered.
- Protect all planked or working levels with proper guardrails, mid rails and toe boards along all open sides and at the ends of scaffold platforms.
- Replace guardrails that were removed while hoisting materials. Wear fall protection until guardrails are reinstalled.
- Do not jump onto planks or platforms.
- Do not overload scaffold frames or platforms.
- Do not force braces – level scaffold until proper fit can be made.
- Do not rest materials or equipment on guardrails.
- Do not climb or stand on cross braces or guardrails.
- Do not try to repair bent or kinked frames – throw them out.
- Do not work on scaffolds during storms or high winds.
- Do not work below a scaffold without overhead protection.
- Do not use ladders or makeshift devices on top of scaffolds to increase height.
- Do not use scaffolds near electrical wires.

Decks:

- Clean planks at ends to prevent lengthwise movement. Planks may be wired down, provided wire does not create a tripping hazard. Where planks overlap, rest cleated end on support.
- Ensure that scaffold planks meet the requirement of Section 174 of the OH&S Regulations.
- Secure fabricated planks and platforms on their end support.
- Ensure that adjoining planks are of uniform thickness for an even platform.
- Lay planks side by side across the full width of the scaffold.
- Check scaffold planks for large knots, worm holes and a steeply sloping grain at the edges, spike knots, splits and checks. Discard any planks showing these or other defects.
• Check hooks and hardware of prefabricated platform units regularly for looseness, distortion and cracks. Damage can occur if the platforms are dropped or thrown.
• Clean ice, snow, oil and grease off planks. Platform decks should be slip resistant and should not accumulate water.
• **Storage:** Stack planks on a firm level surface to prevent warping. Band ends of boards. Do not paint, as this conceals defects. Do not use scaffold planks as a base to stack materials or as ramps or temporary roadways.
Safe Work Practice – Step Ladders

Hazards: Falls, Falling objects, Awkward posture, sprains/strains, electrocution
Training: On the Job

General: As with all ladders, make sure that the stepladder is in good condition, and is the right ladder for the job to be done. (See Ladder Inspection Checklist.) Stepladders are to be used only on clear and even surfaces.

- Keep stepladder close to work. Avoid pushing or pulling to the side of the stepladder.
- Use a stepladder that is about 1 m (3 ft) shorter than the highest point you have to reach. This gives a wider, more stable base and places shelf at a convenient working height.
- When in the open position ready for use, the incline of the front step section shall be one (1) horizontal to six (6) vertical.
- The stepladder is only to be used in the fully opened position with the spreader bars locked.
- All stepladders must meet CSA Standard.
- Ensure proper footwear is worn.
- Only carry light materials and tools.
- Keep both feet on the same rung or step throughout the task.
- Always carry tools on a belt or tool pouch and materials are hoisted.
- Ensure rungs are grasped rather than the side rails for more safety if a foot slips.
- Unlock and fully collapse the step ladder and carry it parallel to the ground.
- Ensure ladders are stored to avoid damage and personal injury.
- Tag and report suspect equipment to crew foreman, who may dispose any damaged/defective equipment.
- Do not over reach. Move stepladder when needed.
- Do not “shift” or “walk” stepladder when standing on it.
- Do not stand, climb or sit on stepladder top or pail shelf.
- Do not overload. Stepladders are meant for one person.
- Do not use a stepladder to brace or support a work platform or plank.
- Do not climb a stepladder that is leaning against a wall. Use a straight ladder.
- Do not use a stepladder on boxes, unstable bases or scaffolds to gain additional height.
- Do not climb the back of a stepladder.
- Do not push or pull stepladder sideways. It is less stable in those directions where a person or vehicle can hit it. Erect suitable barriers or lock doors shut.
- Do not use the ladder without thoroughly inspecting it before each use.
- Do not operate equipment without wearing PPE.
- Do not stand higher than the second tread below the top plate of any stepladder.
- Do not use blocks, rocks, or other items to gain height.
• Do not use step ladder near the edge of an open floor, penetration, open windows, stairwells, unprotected edges or on scaffolding to gain extra height.
• Do not position a ladder where it can be bumped or dislodged.
• Do not use metal or metal reinforced ladders when working on live electrical installations.
• Do not use a closed stepladder as a non-self-supporting ladder.
• Do not climb from one ladder to another.
• Do not use step ladders as trestles as they are not designed for this type of use.
• Do not use ladder in strong winds, inclement weather, or when visibility is poor
• Do not use any power equipment or tools specifically designed to be operated with two hands.
• Do not use tools which require a high degree of leverage type force which, if released, may cause the user to over balance or fall from the ladder.
• Do not work over other people.
• Do not use a faulty step ladder.
Safe Work Practice – Suspended Work

Hazard: falls
Training: On the Job

- Ensure that the platform is installed and maintained according to OH&S Regulations, standards and manufacturer’s specifications.
- Inspect all equipment before each shift and before erecting. If found defective, immediately notify crew foreman.
- Use a safety harness attached to an independent life line. Maintain lanyard attachment at highest point possible.
- Ensure that suspended platform roof beams and attachments are secure.
- Ensure that the roof or parapet wall is structurally sound to support either outriggers or cornice hooks.
- Check for kinked or damaged supporting ropes.
- Secure all ropes at anchor ends.
- Ensure that all safety equipment, stops, override switches and brakes function.
- Prevent contact between welding or grinding equipment and wire safety or suspension ropes.
- Secure hand tools to the platform.
- Ensure that power source is secured and properly guarded.
- Secure platform when not in use.
- Ensure that guardrails and toe boards are in place.
- Extend suspension ropes completely to the ground or terminate with wire rope clips. This prevents the stage from running off the end of the ropes.
- Test by raising the fully loaded platform a few feet off the ground before going aloft.
- Do not exceed platform rated load capacity.
- Do not enter or leave the platform other than at ground level or at other safe access points.
- Do not allow electric cables or connections to lie in gutters or other areas where water can collect.
- Do not join platforms unless they are designed to be joined.
- Do not use damaged or defective equipment.
Material Handling

Safe Work Practice – Hand Signals Overhead Crane

Hazards: falling objects

Training: On the Job

- Signals must be given by a standard method.
- Hand signals can be used if the crane operator can see the signaler clearly.
- A signaler is required where:
  - A crane is working near power lines.
  - The crane operator cannot at all times see the hook, load, or crane’s path of travel.
- The crane operator must move the crane on signals from only one signaler. However, a stop signal should be obeyed from anyone.
- A signaler must:
  - Be in clear view of the crane operator.
  - Have a clear view of the load and the equipment.
  - Keep persons outside of the crane’s operating area.
  - Never direct a load over a person.
Safe Work Practice – Hand Signals Hoisting Operations

No response should be made to unclear signals.
Safe Work Practice – Material Handling & Storage

General: Manual material handling accident and falls are frequent. Every worker and crew foreman has a safety role to play in handling and storing materials

Hazards: strains, sprains, pinch points

Training: On the Job

- If uncertain of proper handling procedures for the product refer to the WHMIS/SDS.
- Determine how the material will be transported. Whenever possible use trucks, boom trucks, forklifts, dollies and hoists.
- Ensure the vehicle operator is skilled enough for the job at hand and has good visibility.
- Where possible, palletize materials.
- On arrival to jobsite, check for breakage or spillage before off-loading.
- Check if there is a fire risk. Keep flammable materials away from potential ignition sources.
- Check power line hazard.
- Evaluate the route where materials have to move; i.e corners, obstructions, etc.
- Ensure there are enough workers to do the job right.
- Ensure there is a safe working space for workers, equipment and material.
- Ensure that appropriate PPE is used.
- When lifting by hand: do not attempt to lift items that are obviously too heavy or bulky. Check for slivers, nails and sharp edges. Ensure that you have a clear view and path for carrying materials. Avoid twisting, keep back straight. Lift with your legs, not your back. Ensure that your grip is firm.
- Do not exceed the recommended load limits of vehicles used in handling materials.
- Do not pile material too high so it won’t be susceptible to toppling over or unstable if bumped on the bottom.
- Place or store heavy items at mid-body height for safe retrieval.
- Clean up floors to prevent a slip or trip.
Safe Work Practice – Overhead Crane Operation

Hazards: overloading, electrical hazards, falling loads

PPE: hard hat, eye protection, gloves, protective footwear

Training: Formal – Crane Operation

- The operator shall inspect and test the equipment at the beginning of each day and report discrepancies to the crew foreman.
- Ensure all loose materials, parts, blocking and packing have been removed from the load before lifting.
- Remove any slack from the sling and hoisting ropes before lifting the load.
- Make sure that the lifting device seats in the saddle of the hook.
- Verify that the load is not heavier than the maximum load capacity.
- Move crane controls smoothly. Avoid abrupt, jerky movements of the load.
- Follow signals only from one slinger in charge of the lift, except a stop signal.
- Make sure everyone is away from the load before hoisting.
- Sound a bell, siren or other warning device and start to hoist slowly.
- Ensure nothing links or catches on the load while raising it or traveling.
- Ensure that nothing obstructs the movement of a load.
- Keep the load under control when lowering a load. If the braking system stops working, the load can usually be lowered by reversing the hoist controller to the first or second point.
- Stay in a crane cab during power failure. Place controls in "off" position, attract attention and wait for help.
- Remove the load hanging on crane hooks.
- Raise all hooks to a mid-position.
- Spot the crane at a designated location.
- Before closing the main switch, make sure that all controllers are in the "off" position.
- Do not lower the load below a level that corresponds to less than two full wraps of wire rope left on the drum.
- Do not carry anything in your hands when going up and down ladders. Items that are too large to go into pockets or belts should be lifted to or lowered from the crane by rope.
- Do not operate a crane if limit switches are out of order, or if cables show defects.
- Do not lower the blocks below the point where less than two full wraps of cable remain on the drum.
- Do not attempt lifts beyond the rated load capacity of a crane or slings.
- Do not lift a load from the side. Centre the crane directly over the load before hoisting to avoid swinging the load.
- Do not allow anyone to ride on a load or hooks.
- Do not leave slings dangling from the load hook. Have sling hooks placed on the sling ring when carrying slings to the load.
- Do not raise loads higher than necessary to clear objects.
- Do not pass a load over workers.
- Do not reverse a motor until it has come to a full stop except to avoid accidents.
- Do not walk on the crane runway.
- Do not leave suspended loads unattended.
Safe Work Practice – Overhead Hazards

Hazards: falling objects, materials, and tools
Training: On the Job

- Hard hats must be worn whenever falling objects may be present.
- Hard hats will protect the head from falling objects like small chunks of brick, mortar, scraps and small hand tools but not against large falling objects.
- Take extra care to make sure objects will not fall from scaffolding or other work platforms.
- Clean up the work area often.
- Do not throw waste or scrap off the roof or scaffold without a trash chute. Use a waste receptacle that can be removed by a forklift or other machine.
- Keep safety lanyards on tools that may fall.
- Do not hang power tools by cords off handrails.
- Secure all tools and materials to prevent them from falling on people below.
- Isolate areas below roof work where people may be struck by falling material, debris, or tools.
- Use toe boards on scaffolding & areas with guardrails.
- Pay attention to what is going on around you, particularly when cranes and machines are lifting materials on the jobsite.
- Overhead loads are dangerous. Stand clear of overhead loads.
- Employees must not work in areas where materials are loaded and unloaded.
- Use only safe rigging, hooks and slings when lifting loads.
- Warn others when a load may be lifted overhead.
- Move from the area until the load has been placed.
Element 4) Safe Job Procedures

DEFINITION

1. “Safe Job Procedure (SJP)” – a written step-by-step description of how to complete a job safely and efficiently from start to finish (e.g. lockout, confined space entry, hoisting, rigging). SJPs must clearly identify the hazards the worker could be exposed to, the steps required to complete the task (in proper order), and the control measure (also known as safe work procedures or execution plans).

POLICY

d. SJPs may be created on the Safe Job Procedure Template, by the owner and executive administrator.
e. An SJP must be written in any of the following cases:
   - When confronted with a Critical Task that does not already have an SJP in place
   - The hazard assessment results in a risk of “Major” and the hazard cannot be eliminated
   - The results of a Near Miss / Accident Investigation show that an SJP is required
f. The SJP must include the following resources, if needed:
   - Inspection Requirements
   - Forms Requirements
   - Training Requirements

RESPONSIBILITY

It is the responsibility of management and worker representation to review all Safe Job Procedures annually.
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Safe Job Procedure – Chain Saw Operation

Hazards Present: injury/death from falling objects, strains and sprains, toxic chemicals gas and oil, flying debris, cuts lacerations from blade saw

PPE: Safety Boots, Safety Glasses, Face Shield, Gloves, Chain Saw Chaps or Pants, Hard Hat, Hearing Protection

Additional Training: chain saw training

All employees, prior to operating a chain saw must demonstrate competency in safe handling procedures or receive proper instruction from their crew foreman or employer.

1. Inspect before use. If found defective, tag and report to crew foreman who may dispose it.
2. Put on Personal Protective Equipment.
3. Check fuel and bar oil.
4. Check chain to ensure that it is not dull, rusty or overly loose or tight.
5. Adjust the chain to the proper tension; too tight heating or break, too loose it could come off.
6. Engage the chain break.
7. Prior to starting saw check the material to be cut for any nails or debris that may damage the saw blade or cause the saw to kick back.
8. If possible, raise the material to be cut off the ground so the blade doesn't dig into the ground, and get damaged.
9. Start the saw turn power switch to the ‘on’ position choke and pull cord.
10. Disengage the chain brake and ensure that the chain oil is lubricating the chain. If it is not, turn the saw off and immediately report the defect to your crew foreman.
Safe Job Procedure – Changing a Truck Tire

Hazards Present: back strain
PPE: Foot/Eye Protection
Training: On the Job

1. Put on foot protection.
2. Engage the emergency brake.
3. Block wheels on truck.
4. Place jack:
   1. Rear Axle – rubber block suspension – under walking beam.
   2. Front Axle – under axle close to wheel to be changed.
5. Loosen all wheel nuts and break loose all wheel lugs.
6. When all lugs have been loosened, remove wheel nuts.
7. Remove tire (use tire lifting jack when removing a front tire).
8. Clean spacer and oil studs.
9. Replace tire.
10. Position lugs and nuts, then tighten.
11. Release brakes and check for wheel true rotation.
12. Re-apply brakes.
13. Lower jack and remove blocks. Have wheel nuts torque to proper specifications as soon as possible.
Safe Job Procedure – Cut-off / Chop Saw

Hazards Present: noise, vibration, dust, flying objects, cutting disc explosion, pinch points
PPE: Foot/Hand/Hearing/Respiratory Protection Safety Glasses and Face Shield
Training: On the Job

1. Inspect before use. If found defective, tag and report to crew foreman who may dispose it.
2. Put on appropriate PPE.
3. Set saw on floor or secure surface.
4. Connect saw to properly grounded 110V power source. Use GFCI if required.
5. Make sure all guards are in place and working properly.
6. Make sure over-hanging portion of the work piece is properly supported and level to the base of the machine.
7. Keep the body positioned to either side of the work piece, but not in line with the wheel.
8. Let the wheel run up to speed before engaging work piece (approx. 2-3 seconds).
9. Inspect the wheel for chips or cracks and change the blade if any are found.
10. Ease the blade into the work piece – do not force it or overload the motor.
11. When the material is cut through, disengage the trigger and bring the blade back to the upright position. Do not let go of the handle and let the blade spring back by itself.

Formal inspection to be recorded on the “Cut Saw Inspection” form.
Safe Job Procedure – Durolast Installation

Hazards: falling, tripping, slipping, strains

PPE: work gloves, safety footwear

Training: On the Job

Membrane Installation

1. The prefabricated roof section is unrolled and position on the deck to expose the first 6-inch securement tab.

2. Place fasteners and plates in the center of the tab and at the spacing along the tab required to meet the fastening pattern.

3. After the fasteners have been installed, apply the Duro-Last Tab Sealer to the top of the fastening tab and also to the bottom side of the membrane that will cover the fastening tab. The application rate for this 2-sided application must be 30 square feet per gallon of tab sealer. This application rate will cover both sides along 30 feet of the tab.

4. Use a solvent resistant 9-inch medium nap paint roller to apply the sealer in an even coat with no puddles or globs. When not in use, keep the tab sealer container closed.

5. Once the tab sealer has been applied, quickly unfold the roof section to expose the next fastening tab.

6. Pull the membrane taut and then push the membrane into the adhesive using a heavy-duty squeegee. Take care to eliminate any air pockets. This step must be done before the tab sealer tacks up or else an additional coat of sealer will need to be applied.

7. Repeat the steps above until the roof section is completely attached.

8. Position the next roof section to provide a 9-inch overlap along the edge parallel with the fastening tabs.

9. After securing the reverse tab(s), if present, on the new section, the tab sealer may be applied so that it covers a 6-inch wide strip at the edge of the previous section. The tab sealer must also be applied to the bottom side of the new section. Care must be used to keep the tab sealer off the membrane where the hot air weld will occur.

10. Use a squeegee to push the membrane into the adhesive and to remove air pockets. Tab sealer is not required along “end-laps” between roof sections and the overlap only needs to be 6 inches.

Perimeter Membrane Installation

1. The first fastening tab on all perimeter roof sections that have tabs parallel with the roof edge or parapet wall, must be between 24-36 in from the edge or the wall. If the parapet wall is greater than 24-inch tall, the perimeter tab may be places up to 63-inch away from the roof edge when utilizing roof sections with maximum lap spacing of 60-inch on center.
2. When using roof sections with fastening tabs spaced 120-inch, the first tab along all perimeter roof edges must be located 24-36-inch from the edge.

3. The second tab must be placed 84-96-inch from the edge. Parapet wall height does not change this requirement.

4. On buildings with multiple roof levels, treat all roof edges as perimeter edges if they stand 3-feet or more above adjacent or surrounding roof areas.

Hot-Air Welding

1. Position the membrane so that the top membrane overlaps the bottom membrane a minimum of 9-inch. Ensure the welding area is dry, clean and free of foreign material.

2. Weld the top membrane to the bottom membrane using a hand-held welder or an automatic welding machine, and silicone roller. A minimum 1-1/2-inch wide continuous weld is required.
Safe Job Procedure – Emergency Procedure - Electrical Shock
Hazards present: machinery/person that contacted wire may still be in contact, any new hazards due to incident, residual charge

PPE: safety glasses, safety boots, hearing protection, high visibility clothing

Additional Training: first aid/CPR

1. Put on necessary PPE.
2. Use caution as injured or unconscious may still be in contact with the live wire or equipment.
3. Shut power down if safe to do so.
4. Call emergency services.
5. Meet emergency services and direct them to scene.
6. If possible, administer first aid.
7. Advise management of incident as soon as possible.
8. Secure the incident scene to preserve as much of scene as possible.
9. Obtain the names, addresses and phone numbers of any witnesses.
Safe Job Procedure – Emergency Procedure - Injury

Hazards Present: machinery that caused injury may still be able to cause injury, new hazards due to incident, biological – pathogens

PPE: surgical gloves, safety gloves, safety boots, hearing protection, high visibility clothing

Additional Training: first aid / CPR

Bleeding:
1. If the injured person is bleeding from an external wound, control the bleeding immediately.
2. Apply direct pressure to the wound with a clean sterile dressing. (Never attempt to remove an impaled object from a wound).
3. Keep the injured person in a comfortable position.
4. Elevate the injured body if possible.

Burns:
1. For minor burns, flush area with cool water.
2. Cover the burn area lightly with a clean, sterile loose dressing and call for medical help.
3. For serious burns, covered the injured area with clean, damp dressings, and get medical help.

Breathing:
1. If the injured person is not breathing but has a pulse, start artificial respiration immediately.

Cardiopulmonary Resuscitation (CPR):
1. If the victim’s breathing has stopped and you cannot find a pulse start CPR and AR immediately.
2. For adults and children use 30 CPR compressions and two ventilation breaths. You are required to have formal training in the use of these procedures prior to performing CPR.

Shock (Non-Electric)
1. Reassure the injured person that help is coming.
2. Place the injured person in the recovery position if possible.
3. Otherwise, place injured person in a comfortable position that allows for easiest breathing and loosen clothing around neck, waist, and chest.
4. Keep the injured person warm.
5. Watch for signs of breathing trouble.

Heat Exhaustion
1. Place the injured person in a cool place with feet and legs elevated.
2. Loosen tight clothing.
3. Remove excessive clothing.
4. Give conscious injured person small sips of water as tolerated.
5. Place unconscious injured person in recovery position.
6. Monitor breathing.
7. Call 911 for transport to medical aid.
Heatstroke
1. Place person in cool area.
2. Remove excessive clothing.
3. Place person in cool bath or sponge / douse with cool water.
4. Monitor body temperature closely.
5. Monitor breathing.
6. Call 911 for transport to medical aid.

Emergency (Medical) Procedures
1. Call for emergency medical services.
2. Call 911 OR the local paramedics/E.M.T.
3. Provide the following information:
   - Identify yourself
   - Location
   - Telephone number
   - Number of individuals injured
   - Type of Injury
   - Condition of injured
   - First aid treatment being provided
   - Other information as requested
4. Direct EMT to the location of the injured or ill participant.
5. Limit the area around the injured or ill participant to first aid providers and move other participants and bystanders away from the area.
**Safe Job Procedure – Extension Ladder Setup**

Hazards: falls, slips, property damage  
Training: On the Job

When setting up an extension ladder, use the following methods to avoid straining muscles or losing control of the ladder.

1. Inspect before use. If found defective, tag and report to crew foreman who may dispose it.
2. With ladders weighing more than 25 kg (55 lb), or where conditions complicate the task, have two persons set up the ladder as follows:
3. Lay ladder on ground close to the intended location.
4. Brace ladder base using the helper’s feet.
5. Grasp top rung with both hands, raise top end over your head and walk towards the base of ladder.
6. Grasp the centre of the rungs to maintain stability.
7. Move erect ladder to desired location.
8. Lean it forward against the resting point.

One person can erect a short ladder as follows:

1. Place bottom of ladder firmly against the base of a building or stationary object.
2. Lift top of ladder and pull upwards to raise ladder to a vertical position.
3. Transfer ladder to its required position when it is erect.
4. Keep ladder upright and close to the body with a firm grip.

The method for lowering any ladder is the reverse procedure of erecting it. Do not raise or lower a ladder when extended.

Ladder inspection to be recording on the “Ladder Inspection” form.
**Safe Job Procedure – Eye wash station use**

Hazards present: lack of visibility, eye injury due to contaminant

PPE: safety glasses, full face shield

Training: On the Job

Procedure

1. Shout out for help to allow co-workers to assist you.
2. Get to the eye wash station and follow directions on station.
3. Rinse both eyes with copious amounts of water for a minimum of 15 minutes.
4. Keep your eyelids open by using your hands to ensure adequate flushing of the eyes.
5. Continue rinsing eyes until emergency medical personnel arrive to assist.
6. Contact 911 in event of emergency.
7. Fill out an incident/accident report form.

Please note: The emergency eye wash station is only for first aid. It is not medical treatment for chemical exposures. Make certain that you seek proper medical attention. It is important to inform the physician what you were exposed to.
**Safe Job Procedure – Flashing Installation**

Hazard: cuts, falls  
PPE: gloves, safety eyewear

Training: On the Job

1. Before going on to roof, ensure ladder is properly set up and workers are wearing adequate fall protection and PPE.
2. Make corner flashing from step flashing.
3. Once you have shingled up to the sidewall, cut a piece of step flashing at a 45° angle from the outside corner to the bent seam.
4. Bend it down and back to sit flat on the corner.
5. Sink two nails in the wall near the top, one on each face.
6. Lay a bead of sealant. Where the next piece of flashing will overlap, apply a bead of caulk to seal the corner.
7. Bend the first piece along the plumb line. The first piece of step flashing needs one bend so that it laps cleanly over the corner flashing installed in the previous step.
8. Sink one nail into the side wall to hold the step flashing in place.
9. Begin the weave. With step flashing, you do a little flashing, then a lot of roofing, then a little more flashing, and so on. Each piece of step flashing laps over the shingle below and under the shingle above. The bottom edge of the flashing should extend just below the nail line.
10. Attach each piece with a single nail high enough to be covered by the next course of flashing, the building wrap, and the siding.

When the roof ends in a peak:

1. For the first side, cut the step flashing along the fold line, and bend down the lower flap.
2. Drive one nail to hold in in place.
3. Caulk the top. Once you've come up the other side with step flashing and shingles, you're ready to put on the final piece.
4. Apply a vertical bead of caulk.
5. Make the last piece of flashing. Cut along the fold line, bend down the flap, and press the pieces together along the caulk joint.
6. Sink one nail into the wall to secure the last piece.

**Vent Pipe Flashing**

1. If the shingles are already laid down, lift the shingles around the vent and slide the upper portion of the vent flashing beneath them.
2. Cut a membrane material to seal between the vent flashing and the roof.
3. Cut an opening for the vent.
4. Apply a thin bead of silicone around the opening and the vent pipe area and lay the membrane in place.
5. Place the vent flashing on top of the membrane. The metal flashing should overlap the material.
6. Nail the base of the vent into place with your galvanized roofing nails. The shingles should lay on top of the upper portion of the vent flashing and the bottom portion will be on top of the shingles and showing.
7. Apply some silicone along the shingles to help secure them better to the flashing as well as however else you attached the shingle (such as tar and/or nails).

Valley Flashing
1. Before you apply the flashing, you need to lay a waterproof membrane.
2. Lay the underlayment and set your valley flashing on top.
3. When you lay your flashing down, make sure it is flush with the drip edges and bottom of the valley.
4. Trim as needed with your tin snips.
5. Nail the flashing in place every foot or so along the outside edges.
6. Seal any seams with roofing cement and nail heads for extra protection.
Safe Job Procedure – Fueling Equipment and Vehicles
Hazards Present: burns from fire/explosions, exposure to chemicals in fuel, Inhalation of vapours, injuries related to fuel in the eyes

PPE: gloves, eye protection, safety boots, protective clothing

Training: On the Job

1. Put on PPE.
2. Pull equipment up to pump.
3. Shut off vehicle.
4. Exit vehicle in the proper manner.
5. Remove filler cap.
6. Ensure you use the right type of fuel.
7. Put filler hose in tank.
8. Turn on switch or open valve.
9. Proceed to fill tank.
10. Fill to manufacturers specifications.
11. Turn off switch or close valve.
12. Remove filler hose from tank.
13. Put filler cap back on.
Safe Job Procedure – Genie Operating Instructions

Hazards: falls, electrocution, tip-over hazards, bodily injury, collision, fire, explosion, damage machine hazards

Operators must be trained before using the Genie.

Starting the engine

1. At the ground controls, turn the key switch to the desired position.
2. Be sure both ground and platform control red Emergency Stop buttons are pulled out to the ‘on’ position.
3. Gasoline/LPG models: Choose fuel by moving the fuel select switch to the desired position.
4. Move the engine start toggle switch to either side. If the engine fails to start or dies, the restart delay will disable the start switch for 3 seconds.

If the engine fails to start after 15 seconds of cranking, determine the cause and repair any malfunction. Wait 60 seconds before trying to start again.

All models: In extreme cold conditions, 20°F / -6°C and below, warm the engine for 5 minutes to prevent hydraulic system damage.

Gasoline/LPG models: In extreme cold conditions, 20°F / -6°C and below, the machine should be started on gasoline, then switched to LPG.

Emergency Stop

1. Push in either ground or platform red Emergency Stop button to the ‘off’ position to stop all functions and turn the engine off.
2. Repair any function that operates when the red Emergency Stop button is pushed on.

Selecting and operating the ground controls will override the platform red Emergency Stop button.

Auxiliary Controls

Use auxiliary power if the primary power source (engine) fails.

1. Turn the key switch to ground or platform control.
2. Pull out the red Emergency Stop button to the ‘on’ position.
3. Move the lift/drive select switch to the lift position when operating auxiliary controls from platform.
4. Press down the foot switch when operating the auxiliary controls from the platform.
5. Simultaneously hold auxiliary power switch on and activate the desired function.

The drive and steer functions will not operate with auxiliary power.

Operation from Ground

1. Turn the key switch to ground control.
2. Pull out the red Emergency Stop button to the ‘on’ position.
3. Gasoline/LPG models: choose fuel by moving the fuel select switch to the desired position.
4. Start the engine.

To Position Platform

1. Hold the function enable switch to either side.
2. Move the appropriate toggle switch according to the markings on the control panel.

   Drive and steer functions are not available from the ground controls.

   Machines equipped with Platform Level Control Disable Function: The platform level toggle switch will not operate when the primary boom is raised past the drive speed limit switch.

Operation from Platform

1. Turn the key switch to platform control.
2. Pull out both ground and platform red Emergency Stop buttons to the on position.
3. Gasoline/LPG models: Choose fuel by moving the fuel select switch to the desired position.
4. Start the engine. Do not press down the foot switch when starting the engine.

To Position Platform

1. Move the lift/drive select switch to the lift position (if equipped).
2. Press down the foot switch.
3. Slowly move the appropriate function control handle or toggle switch according to the markings on the control panel.

   Machines equipped with Platform Level Control Disable Function: The platform level toggle switch will not operate when the primary boom is raised past the drive speed limit switch.

To Steer

1. Move the lift/drive select switch to the drive position (if equipped).
2. Press down the foot switch.
3. Slowly move the control handle in the direction indicated by blue or yellow triangles OR press the thumb rocker switch located on top of the drive control handle.

   Use the color-coded direction arrows on the platform controls and the drive chassis to identify the direction the wheels will turn.

To Drive

1. Move the lift/drive select switch to the drive position (if equipped).
2. Press down the foot switch.
3. Increase speed: Slowly move the drive control handle off center.
   Decrease speed: Slowly move the drive control handle toward center.
   Stop: Return the drive control handle to center or release the foot switch

   Use the color-coded direction arrows on the platform controls and the drive chassis to identify the direction the machine will travel. Machine travel speed is restricted when the booms are raised.
Drive Enable

- Light on indicates that the boom has moved just past either non-steer wheel and the drive function has been interrupted.
1. To drive, hold the drive enable switch to either side and slowly move the drive control handle off center. Be aware that the machine may move in the opposite direction that the drive and steer controls are moved.
2. Always use the color-coded direction arrows on the platform controls and the drive chassis to identify the direction the machine will travel.

Generator

1. To operate the generator, move the generator toggle switch to the generator position. The engine will continue to run but no drive or platform functions will operate.
2. Plug a power tool into the power to platform GFCI outlet.
3. To resume machine functions, move the generator toggle switch to machine functions position. All functions will operate.

Stopping the engine

1. Push in the red Emergency Stop button and turn the key switch to the ‘off’ position.

After Each Use

1. Select a safe parking location – firm level surface, clear of obstruction and traffic.
2. Retract and lower the boom to the stowed position.
3. Rotate the turntable so that the boom is between the non-steer wheels.
4. Turn the key switch to the ‘off’ position and remove the key to secure from unauthorized use.
5. Chock the wheels.
Safe Job Procedure – Grinding – Wheel Changing
Hazards present: pinch points, cuts and lacerations, electric shock, long hair, rings/jewellery

PPE: safety glasses, safety boots, gloves, hard hat

Training: On the Job

Procedure

1. Put on PPE.
2. Inspect equipment before use. If found defective, tag and report to crew foreman who may dispose it.
3. Unplug the bench grinder to remove power.
4. Remove the wheel guard screws and the wheel guard.
5. Hold the opposite wheel firmly. Remove the nut and flange.
6. Remove the old wheel and replace it with the new one.
7. Assemble the flange and nut onto the spindle. Tighten the spindle nut just enough to hold the wheel firmly. If the nut is tightened too much, the wheel may be damaged.
8. Attach the wheel guard.
9. Turn the grinder on and let it come up to speed and idle for one minute.

Note: Turn the spindle nut on the right-hand side counter-clockwise to loosen. Turn the spindle nut on the left-hand side clockwise to loosen.
Safe Job Procedure – Grinding - Portable

Hazards present: strains, abrasions, fire, sparks, noise,

PPE: safety glasses, safety face shield, gloves, hearing protection, safety boots, hard hat, fire retardant clothing

Training: On the Job

Procedure:

1. Put on PPE.
2. Check grinder wheel for obvious faults and defects. If found defective, tag and report to crew foreman who may dispose it.
3. Ensure trigger mechanism operates properly.
4. Ensure circuit interrupter is in place and is working properly.
5. Remove all flammables in the area where work is to take place.
6. Ensure fire extinguisher is nearby.
7. Turn off power prior to performing any adjustments.
8. Control the trigger mechanism with one hand while using the other on the grinder body to ensure control over grinder unit.
9. Use the flat side of the wheel for grinding purposes.
10. Make sure grinding disc has stopped rotating before setting the grinder down.
11. Check to make sure that there are no fires or sparks.
12. Unplug / disconnect grinder when finished, place back in designated location and clean up the area.
Safe Job Procedure – Hammer Tacker / Stapler

Hazards: eye injuries, hand injuries

PPE: safety glasses, safety gloves

Training: On the Job

1. Put on PPE.
2. Inspect before use. If found defective, tag and report to crew foreman who may dispose it.
3. Choose the correct staple for the job.
4. Load the magazine on the hammer tacker. Release the magazine spring and load the clip of the hammer tacker with staples.
5. Use your free hand to position the material you want to staple while preparing to insert the staple with the hammer tacker in your other hand.
6. Take aim at the position where you want to insert the staple and strike the material in the correct spot.
7. When not in use, ensure the tool is kept secure so that it does not slide/fall off roof.
8. When finished, store the tool in the proper location.
Safe Job Procedure – How To Carry a Ladder

Hazards: tripping, falling, hitting objects/people

PPE: safety footwear

Proper technique should be followed when carrying a ladder to avoid injury to oneself, other people or objects. Be aware of obstacles in your surroundings when you carry a ladder. Move slowly, especially if not used to using a ladder, and follow these steps.

1. Place the closed ladder sideways on the ground with the rungs facing you. The top of the ladder should be to your left and bottom to your right.
2. Stand next to the rung which is about one-third up the ladder from the bottom end. The longer the ladder, the closer you will have to stand to the middle rung in order to maintain balance.
3. Turn your body left so it is at a right angle to the ladder facing toward the top end.
4. Bend at the knees without bending or leaning with your back.
5. Grab the outside rail with your right hand. If the ladder is too heavy to carry with one hand, grab the inside rail with your left hand at the same time.
6. Lift the ladder using your knees, not your back. If it feels like too much weight is tipping toward the front or back, set the ladder down and move a little closer to the end that feels more weighted before trying to lift again. Keep arms fully extended while carrying.
7. Use your feet to turn, not your waist. Before turning, check for obstacles at each end.
Safe Job Procedure – How to Put on a Full Body Harness

Training: Formal Fall Protection training by third party

1. After inspecting the harness, grab the dorsal (back) D-ring and give the harness a shake while lifting harness up. This ensures harness strapping is not tangled.
2. Unfasten all buckles (mating and/or tongue buckle).
3. Slip one arm through the harness making sure dorsal D-ring is on your back.
4. Slip your free arm through the other side of harness and position straps on shoulders.
   Chest strap will be across your chest if positioned correctly.
5. Reach between legs and grab one leg strap.
6. Bring strap up between legs and connect mating or tongue buckle.
7. Repeat for other leg strap.
8. Connect chest strap by attaching mating buckle closures. Ideal position for the chest strap is about six(6) inches below the shoulders.
9. Adjust waist belt. (if included)
10. Adjust leg and chest straps to size. If you can slip your three lead fingers between yourself and webbing, proper sizing has been achieved.
Safe Job Procedure – How to Load a Nail Gun
Hazards: cuts, eye injuries

Training: On the Job

PPE: safety glasses

1. Put on safety glasses.
2. Inspect gun before use. If found defective, tag and report to crew foreman who may dispose it.
3. Get a nail clip containing nails for the model you are using.
4. Position the nail clip directly in line with the sleeve of the nail gun. Ensure the nail heads are pointed at the barrel.
5. Slide the nail clip into the notch located at the base of the sleeve.
6. Hold the nail gun upside down. The nails need to fall at the end of the nail gun’s sleeve and you can do this by simply holding then nail gun in an upside-down position.
7. Press and hold the spring mechanism button located on the sleeve.
8. Slide the spring into its proper position.
9. As you slide down the spring mechanism, listen for a clicking sound that indicates that the clip is in its proper place. Make sure you hear this sound before using your nail gun.
Safe Job Procedure – How to Use a Caulking Gun

Hazards: hand injuries
PPE: work gloves
Training: On the Job

Loading a Caulking Gun

1. Put on hand protection.
2. Pick up gun and press the release at the rear of the gun with your thumb, releasing the plunger at the back of the gun.
3. Pull the plunger all the way back.
4. Put the tub into the gun, with the nozzle in the front.
5. Push the plunger tightly into the back of the tube and remove your thumb. The gun is now loaded.
6. Cut the tip of the cartridge so that the hole matches the size of the gap you want to fill.
7. For smaller bead size, cut closer to the tip of the nozzle.
8. For larger bead size, cut farther from the tip of the nozzle.
9. Repeatedly push a nail through the hole to puncture the inner seal.

Apply

1. Test the bead size on newspaper or a paper towel to ensure it is the appropriate size.
2. When applying caulk, it is better to pull the caulk gun along the joint.
3. Hold the tube at a 45-degree angle to the joint being filled.
4. Apply steady pressure to the trigger of the caulk gun.
5. To stop the flow of caulk, release the trigger and pull back the rod behind the cartridge.
6. Tool newly applied caulking. (Tooling is passive over the entire applied bead of caulk to smooth it and push caulk into the gap between your substrates.
7. Use a caulk finishing tool to pass over the entire bead.
8. Tooling and tape removal should be done before the caulk begins to dry/cure and skin over. For best results, remove tape by carefully pulling it away from you at a 45-degree angle.

Refill

1. Slide the caulk thread end into the opposite end to the trigger, and gently set to the position with one or two squeezes of the caulking gun to hold it in.
2. Take up the slack of the caulking gun bar or slide to JUST hold it.
3. Cut the screw end cover of the caulk tube away leaving most of the thread still on.
4. Attach the point tube that guides the caulk.
5. Cut the point tube to about 1/8-inch size of angle at about 50 degrees so it is like a needle tip.

Capping off Partially Used Caulk

1. Caulk stoppers are the best way to ensure your caulk does not dry out between uses.
2. If you do not have a stopper, place a nail at least 2 inches in the nozzle of the caulk tube.
3. Wrap the nozzle tightly in plastic wrap or foil.

Reopening a Used Tube

1. Cut the nozzle using a utility knife slightly larger (closer to the base of the nozzle) than the previous cut.
2. Drive a screw into the nozzle through the hardened caulk, leaving enough room to grab the end.
3. Use the screw to pull the hardened caulk out of the nozzle.

Always inspect gun before use. If found defective, tag and report to crew foreman.
Safe Job Procedure – How to Use a Paper Shredder

Hazards: pinch points, tripping

Use

1. Plug in the paper shredder into an open outlet.
2. Turn on the paper shredder. Press the “power” button on top.
3. Take a piece of paper and slide it into the slot. Check that you are shredding only materials meant for its use. Materials such as paperclips can break the shredder blade.
4. Turn off the paper shredder once you finish.

How to unjam a paper shredder

1. As soon as you notice a jam beginning to form, stop the shredder to keep things from getting any worse.
2. If needed, empty the wastebasket.
3. If that does not work, switch the shredder to “reverse” and plug it back in. Ensure your fingers or any other tools are not near the shredder opening when you plug it in.
4. If the shredder jams in reverse, unplug the shredder again and switch to “auto” and plug it back in.
5. Reduce the thickness of your load before re-shredding.

If still jammed

1. Switch the control button to reverse.
2. Pull the paper to remove jammed paper (as much as possible).
3. Turn off shredder.
4. Apply shredder oil to the feed slot.
5. Let oil soak in to paper and machine for 30 minutes.
   Note: Repeat 1 & 2 steps if needed
6. Switch the control button to “Auto/On”.
7. Use thick paper stock or greeting card to push the jam through.
8. Reduce the number of sheets being fed.
9. Refeed the paper.

No power to the shredder or does not shred paper

1. Make sure power cord is plugged into a functioning 120V standard household power outlet. Or, try using a different working outlet.
2. Overheating with extended use: in the event that the shredder has shred continuously beyond the maximum running time and overheated, the unit will automatically shut off. If this happens, switch the shredder “Off” for 30 minutes or longer before resuming normal operation.
3. Check if the control button is in “Auto” position.
4. Check if the head unit portion of the shredder is correctly seated onto the included wastebasket.

If shredder runs continuously

1. Unplug machine from wall socket.
2. Find the activation sensor in the center of feed slot.
3. Use a cotton swab to gently wipe away any dust or debris that has collected on the sensor.

If shredder does not feed or shred credit card or small piece of paper

1. Position credit card or small piece of paper over the credit card section of the Feeder (center position).
2. Try again.
Safe Job Procedure – Installing Durolast Drain Boot and Drain Rings

Hazards: falling, slipping, tripping, strains

PPE: work gloves

Training: On the Job

1. Put on PPE.
2. The roof membrane installed around the drain must be fastened prior to installing the drain boot flashing. Use the same fastener spacing that was used to install the roof membrane but do not exceed 18 inches on center. A minimum of one fastener must be installed.
3. Apply Duro-Caulk Plus to the outside of the drain boot before it is inserted into the drain pipe.
4. Once inserted, the drain boot shall be heat welded (hot-air) to the field membrane.
5. A pair of expandable composite drain rings (CDR) should then be installed as low into the drain boot as possible, within a minimum depth of 6 inches.
6. Sealant and CDRs must be installed at the same depth in the drain.

Drain Ring Installation

1. Insert the first drain ring as low into the installed drain boot as possible, 6 inches minimum depth.
2. Cut the compression ring cord to expand the ring.
3. Install the second ring in a like manner with the opening located opposite the opening of the first ring.
4. Cut the compression ring cord to expand the ring.
Safe Job Procedure – Installing Electrical Stack Roof Flashing (Durolast)

Hazards: falling, strains, slipping, tripping, shock

PPE: work gloves

Training: On the Job

1. Put on PPE and follow safe job procedures for getting onto the roof.
2. Make certain that the wiring is not “hot”.
3. Be certain that the hole in roof deck is sized appropriately with no sharp edges. The hole in the roof deck cannot exceed the diameter of the electrical stack pipe.
4. Cut an appropriate-sized hole through both materials over the hole in the roof deck. If installing on an existing roof, remove debris or materials that may prevent the electrical stack flange from laying flush on the deck.
5. Remove the top portion of the plastic head from the electrical stack. Do not detach the bottom portion of the head from the stack.
6. Position electrical stack head based on requirements. Use a membrane compatible adhesive (for single ply) to adhere underside of electrical stack flange to the roof deck.
7. Lower the flashing onto the roof deck.
8. Secure electrical stack to the roof deck with a minimum of 5 round head fasteners screwed into a solid substrate. Fastening evenly spaced, 1” from edge of flange, is optimal.
9. Run the wiring up through the electrical stack leaving at least 18” of excess wiring above the top of the stack.
10. Fold wiring into a tight radius, conforming to the shape of the bottom of the plastic head.
11. Punch out the appropriate hole in bottom of the head and feed the wires through the hole.
12. Snap the top of electrical head securely onto the bottom of electrical head.
Safe Job Procedure – Installing Malarkey Roofing Shingles

Hazards: falling, back injuries, strains, cuts
PPE: work gloves, fall protection equipment, eye protection

1. Ensure PPE is worn.
2. Ensure ladder (if needed) is set up according to safe job procedures.
3. Follow the manufacturer’s instructions below to install shingles.
4. When finished, clean up work area.

Shingle Fastening

Type of Fasteners: Fasteners must be minimum 12-gauge (0.105 inch [3 mm]) shank, galvanized steel, stainless steel, aluminum or copper roofing nails, with a 3/8" (10 mm) head, compliant with ASTM F1667, and long enough to penetrate through all layers of roofing materials and at least ¾" (19 mm) into the roof sheathing. Where the roof sheathing is less than ¾" (19 mm) thick, the fasteners shall penetrate through the sheathing.

Malarkey approves the use of hand-nailing and/or pneumatic nailers for applying fasteners, but nails must be driven flush to the shingle surface and not overdriven, underdriven or driven at an angle, especially on low slope installations where water runs off less freely and leaks could result. When fastening adjacent shingles, butt them loosely together to prevent buckling.

Nailing Pattern: Under normal conditions, use four (4) fasteners for each full shingle. Fasteners must be placed above the cutouts and below the seal-down strip, approximately 1" (25 mm) in from each end of the shingle, with the two remaining nails above the cutouts and below the sealant. (See Figure 6)
Wind Resistance and Hand-Sealing: Malarkey shingles are manufactured with strips of a factory-applied, thermal sealant that is activated by the heat of the sun after the shingle is on the roof. Exposure to the sun’s heat bonds each shingle to the one below for wind resistance.

A variety of conditions like cold weather, high winds or blowing dust, however, can affect the ability of the sealant strip to activate and prevent shingles from self-sealing during, or shortly after, installation. If shingles have not sealed after a reasonable time period, hand-sealing (also called hand-tabbing) is strongly recommended.

Note: Malarkey’s wind warranties apply only when shingles are sealed, whether by hand-sealing or activation of the self-sealing strips. Failure to seal under adverse circumstances like those described above is not a manufacturing defect.

To hand-seal a shingle, apply a quarter-size dab of asphalt roof cement conforming to ASTM D4586 under each tab corner, and press shingles firmly into the cement. Excessive use may cause blistering; correct amounts should not bleed out from under the shingle. (See Figure 7)

![Figure 6 - 3-Tab, 4-Nail Fastening Pattern](image)

**Steep Slope Fastening of 3-Tab Shingles**

Roof decks with slopes greater than 21" (533 mm) per 12" (305 mm) require installation with six (6) fasteners per shingle and hand-sealing of tabs. Fasteners must be placed above the cutouts and below the sealant strip, approximately 1" (25 mm) in from each end of the shingle. The remaining four fasteners are set above the cutouts and below the sealant approximately 1" (25 mm) on each side of the cutouts. (See Figure 8)
Shingle Pattern Layout and Application

Traditional 3-Tab Shingle Pattern Layout (55/8" [143 Mm] Offset, Seven Course Diagonal Method)

Starter Course:

1. Install Malarkey Smart Start™ starter shingles or use 3-tab shingles with the tabs cut off. Cut 6" (152 mm) off the left end of the first starter shingle, and lay it on the lower left-hand corner of the roof, overhanging the rake and eave edges (to include perimeter metal) by ¼"- ¾" (6-19 mm).
2. Whether using factory starter shingles or 3-tab shingles with the tabs cut off, ensure they are positioned with the factory-applied sealant strip face up and the strip adjacent to the eave edge of the roof.
3. Fasten with 4 nails, 1½"- 3" (38-76 mm) up from the eave, with one fastener 1" (25 mm) from each side of the starter and the remaining two evenly spaced on the same line as the end fasteners. Do not place fasteners in the seal-down strip.
4. Continue across the eave with full-length starter shingles, butting them loosely together to avoid buckling.

First Course of Shingles

5. Start the first course with a full-length shingle laid directly over the starter course. Begin at the lower left-hand corner of the roof and apply flush with the edges of the starter course on both eave and rake sides (maintaining the ¼"- ¾" [6-19 mm] roof overhang).
6. Fasten as described in the Shingle Fastening section above.

Second through Succeeding Courses

7. Start the second course with a shingle from which 55/8" (143 mm) has been cut from the left end.
8. Position the remaining 33¾" (857 mm) piece over the underlying shingle and align the bottom edge along a line level with the top of the cut outs in the preceding course, leaving an exposure of 55/8" (143 mm).
10. Start the third course with a shingle from which 11¾" (286 mm) has been cut from the left end; the fourth course with 167/8" (429 mm) cut off; the fifth course with 22½" (572 mm) cut off; the sixth course with 281/8" (714 mm) cut off; and the seventh course with 33¾" (857 mm) cut off. Pieces cut from shingles along one rake edge can be used either to continue the diagonal installation pattern or finish off courses at the opposite rake.
11. Apply a full-length shingle adjacent to each of the first seven courses to extend the pattern. Always butt factory edge to factory edge when installing the stairstep method. This helps maintain a straight layout of the remaining shingles. Butt shingles loosely together to prevent buckling.

12. The eighth course begins again with a full-length shingle, so repeat the 1-to-7 course cycle on up the roof.

Note: Shingles may be laid from either the left- or right-hand side. Start at either rake edge and follow layout and cutting instructions as required for proper application. Offsets must be no less than 4" (102 mm). (See Figure 9)

**Figure 9 - 3-Tab Shingle Layout Pattern**

**Constructing Roof Valleys**

Similar to a roof deck being prepared for shingles by first applying an underlayment, roof valleys must be likewise prepared before they can be “constructed” with shingles. Closed-cut and Open Metal Valley applications are recommended for 3-tab shingles (instructions to follow); Woven and Open Membrane Valley styles are also acceptable.

**Valley Underlayment**

1. Center a full-width strip of self-adhering, Arctic Seal® underlayment (or equivalent conforming to ASTM D1970) in the valley and apply it directly to the roof deck.
2. Ensure the membrane is tight to the deck without bridging in the center of the valley. Field underlayments can be woven across the Arctic Seal® or lapped over it a minimum of 6" (152 mm) on each side.
3. When fastening, be aware no fasteners are allowed within 6" (152 mm) of the valley centerline. Valley underlayment must be in place for each method described next.

**Closed-Cut Valley Construction**

Given the particular construction of closed-cut valleys, start applying shingles on the intersecting roof that has less slope or height. This approach will better protect the valley and aid the flow of water off the roof.

1. Lay a first course of shingles along the eave on that side of the roof, and continue it across the valley and onto the adjoining roof at least 12" (305 mm). Do not make a joint
in the valley. Should a shingle fall short, add-in one or two tab sections so the joint falls outside line of the valley.

2. Press the shingles well into the break of the valley, and nail using normal fastening methods, remembering no fasteners are allowed closer than 6" (152 mm) to the valley centerline.

3. Besides the nails used to secure the shingle, add another in the upper corner at the end of each shingle crossing the valley.

4. Repeat these procedures with the first course of shingles on the intersecting roof, extending it across the valley, over the top of the shingles laid before, and at least 12" (305 mm) onto the adjoining roof surface.

5. Press into the valley, and fasten as before.

Note: The first course of shingles are the only ones woven in this fashion.

6. Return to the side of the roof you began with, and resume laying shingle courses across the valley and onto the adjoining roof at least 12" (305 mm).

7. Complete the installation of shingles on that roof section.

8. Snap a chalk line 2" (51 mm) from the centerline of the valley on the unshingled side.

9. Begin applying shingle courses on the unshingled side, trimming them diagonally at the chalk line to match the centerline angle, and cropping the upper corner of the last shingle at a 1" (25 mm), 45 degree cut. Doing this will direct water into the valley.

10. Embed the ends of the cut valley shingles in a continuous 3" (76 mm) wide bead of asphalt roof cement conforming to ASTM D4586, and press them into the adhesive.

11. Complete the installation of shingles on that roof section. (See Figure 10)

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**Figure 10 - Closed-Cut Valley Application**

**Open Metal Valley Construction**

Metal valley flashing (valley metal) used with Malarkey shingles must be minimum 24" (610 mm) wide and 26 gauge. Preformed, “W”-shaped flashing is recommended.

1. Center the valley metal over the underlayment, press it into the break of the valley, and secure with fasteners no more than 1" (25 mm) from the outside edges at a spacing of 10" (254 mm) to 12" (305 mm) O.C.
2. Set overlapping ends of the valley metal in a continuous bead of sealant, achieving a lap of 4" (102 mm). DO NOT FASTEN THE METAL LAP. For additional sealing, a continuous 9" (229 mm) wide strip of self-adhering Arctic Seal® may be applied over the fasteners on each side of the metal liner.

3. Lay a first course of shingles along the eave of one roof area and over the valley, making sure the end of the last shingle meets or goes beyond the centerline of the valley metal. Never use a shingle trimmed to less than 12" (305 mm) in length to finish a course running into a valley.

4. If necessary, trim a tab off the adjacent shingle in the course to allow a longer portion to be used. Nail no closer than 6" (152 mm) to the centerline.

5. Complete the installation of shingles on that roof section.

6. After all shingles have been installed in the valley, snap a chalk line that extends out from the centerline on the shingled side a minimum of 2" (51 mm), and trim the shingle ends to the chalk line.

7. Cut the ends diagonally to match the centerline angle, and crop the top of each shingle at a 1" (25 mm), 45 degree cut.

8. Embed the ends of the cut valley shingles in a continuous 3" (76 mm) wide bead of asphalt roof cement conforming to ASTM D4586, and press them into the adhesive.

9. Continue installing shingles on the adjoining roof as described above. (See Figure 11)

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**Figure 11 - Open Metal Valley Application**

**Flashing Applications**

Intersections of Roof and Vertical Sidewall: Minimum 26-gauge, metal step flashing is used in the junction between a sloping roof and intersecting sidewall (on a dormer, for example) to protect this area from moisture intrusion.

Step flashing can be square or rectangular, but 8-inch (203 mm) by 8-inch (203 mm) dimensions are common and satisfactory for our purposes. Being 8" wide allows the flashing to be bent at 90 degrees and pushed against the transition of roof to wall, the horizontal flange extending 4" (127 mm) out onto the roof deck and the vertical flange 4" (127 mm) up the wall assembly.

Being 8" long allows individual step flashing pieces to overlap each other in water-shedding fashion as they are installed.
Individual step flashing pieces are integrated with each course of shingles as they are applied to intersect the sidewall. A ¼"- ¾" (6-19 mm) gap between the shingles and vertical bend of the flashing is recommended. To allow for possible roof movement, fasten each piece of flashing to the roof deck and not the sidewall.

Installation is as follows:

1. Atop the Smart Start™ starter course at the eave, place the first piece of flashing*. The horizontal flange should be flush with the eave edge of the starter and the vertical flange against the sidewall, counter-flashed by the wall cladding.
2. Fasten the horizontal flange of the flashing to the roof deck with two nails placed 1" (25 mm) from the upper edge and spaced an equal distance apart.
3. Lay a first course shingle down on the roof, positioning it close to the sidewall but leaving a ¼"- ¾" gap between the end of the shingle and vertical bend in the step flashing.
4. Fasten in place. The horizontal flange of the flashing will no longer be visible, but you can still see the vertical flange along the sidewall.
5. Place the second step flashing atop the first course shingle and position it up from the eave edge of the shingle, matching the shingle tab exposure, and fasten as before.
6. Lay a second course shingle on the roof, position leaving a gap, and fasten.
7. Place the third step flashing atop that, overlapping the end of the previous step flashing at the point of shingle exposure (overlap is typically 2" [51 mm]).
8. Continue like this on up to the top of the sidewall intersection, alternating between the placement of step flashing and shingles.
9. The final step in this area is to carefully lift the lower corner of every shingle closest to the sidewall, and hand-seal them to the flashing below.

Note: Any time the flanges of flashing cover the seal-down strips of 3-tab shingles, the course of shingles above it needs to be sealed to the flashing. Doing so protects the shingles from blow-offs in high winds. * The “first piece of flashing” in this instance might well be “kickout” flashing, a piece of flashing cut and angled to direct water out and away from the side of a structure. To accommodate the angled part, yet still serve as the initial piece of step flashing, the kickout will likely have a greater length than a regular piece of step flashing. Otherwise, the installation of shingles and step flashing to follow is the same. (See Figure 12)
1. Install shingle courses up to the vent pipe and cut a hole in the shingle to be positioned over the pipe.
2. Install the pipe jack or boot (top and side flanges may be set in sealant). Additional, optional weatherproofing: Unexposed pipe jack flanges (top and both sides) may also be stripped-off with minimum 6" (152 mm) wide Arctic Seal®, covering all fasteners used to secure the flanges, and tying onto the field underlayment a minimum of 3" (76 mm).
3. Continue roofing around the pipe, cutting shingles to fit on the sides and top of the pipe jack flanges. Ensure shingles extend beyond the downslope side of the pipe itself. Shingles that overlap any part of the flanges should be sealed to the flange with asphalt roof cement conforming to ASTM D4586. Correct amounts should not bleed out from under the shingles; excessive use may cause blistering.
4. Apply pressure to seal. (See Figure 13)
Cap (Counter) and Chimney Flashings

1. The metal flashing apron for the front of the chimney shall be installed over the last course of shingles below the chimney and its vertical flange extending up the face of the chimney.
2. The metal flashings of chimneys, skylights, vents, and adjoining walls must be counter-flashed with sheet metal cap flashing.
3. Cap flashing (also called counter flashing) should originate in the masonry mortar joints of the chimney and be mortared-in or caulked with urethane sealant to ensure a watertight connection.
4. Cap flashing should then turn down the chimney and extend a minimum of 2” (51 mm) over the step flashings at all roof-to-sidewall intersections. (See Figure 14)

Chimney Saddles and Crickets

1. Apply Arctic Seal® self-adhering underlayment (or equivalent conforming to ASTM D1970) atop chimney saddles prior to the installation of flashing assemblies. Flashing for chimney saddles and crickets shall be minimum 26-gauge galvanized or stainless steel, designed to cover the entire surface, and extend vertically 4” (102 mm) up the chimney.
2. Install a bead of mastic on the edges of chimney saddles and crickets.
3. Press overlapping shingle courses into the mastic to seal.
4. Seal all relief cuts and corners. (See Figure 15)
Hips and Ridges

Factory-produced, Malarkey hip and ridge shingles are recommended for all Malarkey shingle roofs. An acceptable, alternative method using 3-tab shingles is also described below. Shingles with Scotchgard™ Protector from 3M require hip and ridge shingles with Scotchgard™ Protector be installed with them.

All four of Malarkey’s hip and ridge shingle types feature this algae-resistant protection. Malarkey hip and ridge shingles also include a factory-applied, thermally activated seal-down adhesive that provides additional protection against blow-off.

When applied in cold weather or a windy location, however, it is recommended each ridge shingle be hand-sealed under each lower corner with a quarter-size spot of asphalt roof cement conforming to ASTM D4586.

To avoid damage to hip and ridge shingles in cold weather, Malarkey recommends warming them sufficiently to prevent damage during installation.

**Low-Profile Installation** (10" And 12" Ridgeflex™ Hip And Ridge Shingles)

Prepare for application by separating each hip and ridge shingle at the perforations: The 10" RidgeFlex™ produces four (4) individual hip and ridge strips (see Figure 16), and the 12" RidgeFlex™ produces three (3) (see Figure 17). Note the seal down strips.
Each scored strip is 13¼" (337 mm) tall and has an exposure of 55/8" (143 mm). You will be installing these individual pieces, and all are installed sealant side up.

Detail drawings to follow in this section show the installation of hip and ridge shingles along a roof ridge, but hips are essentially the same.

Application begins at the bottom of the hip or from the end of the ridge opposite the direction of prevailing winds with a hip and ridge starter shingle.

**RidgeFlex™ Starter Shingle**

1. Create a starter shingle by cutting off the lower 55/8" (143 mm) portion of a RidgeFlex™ shingle strip and use the 75/8" (194 mm) remainder as a starter. (See Figure 18)
2. Apply the starter shingle (with seal-down strip adjacent to the roof edge) over the bottom corner of the hip or on either end of the ridge, overhanging the corner or end by ¼"- ¾" (6-19 mm), and bending the starter shingle along its centerline to form into place (ensure shingles are sufficiently warm to avoid cracking).

3. Fasten with two nails, approximately 3" (76 mm) back from the leading edge and 1" (25 mm) up from each side. (See Figure 19)

![Image of starter shingle and fastening](image-url)

**Figure 19 - Placement and Fastening of the RidgeFlex™ Starter Shingle**

RidgeFlex™ Hip and Ridge Shingles:

1. Lay the first RidgeFlex™ shingle strip on top of the starter shingle (maintaining the overhang).

2. Fasten with two nails, 1" (25 mm) more than the designed exposure and 1" (25 mm) up from each side so succeeding hip and ridge shingles conceal nail heads.

3. Continue installing hip and ridge shingles, maintaining the exposure of 55 /8" (143 mm) and fastening with one nail on each side and 1" (25 mm) up from the edge so succeeding shingles conceal nailheads.

4. At the end of the ridge, cut a shingle strip, and use the lower 55 /8" (143 mm) portion of a RidgeFlex™ shingle to create an end cap.

5. Position to maintain the exposure of 55 /8" (143 mm) and set the cap in asphalt roof cement conforming to ASTM D4586.

6. Press down firmly to seal. (See Figure 20)
Should adverse conditions exist (like high winds), the end cap can also be face-nailed.

1. Place two (2) nails on each side, 1" (25 mm) back from each end, and 1" (25 mm) up from the sides.
2. Cover the nailheads with a dab of sealant.

Using 3-Tab Shingles As Hip And Ridge Shingles

Make hip and ridge shingles by taking a 3-tab shingle and cutting it vertically into thirds. For a neater appearance, taper the top half of the shingle 1" (25 mm) on each side so it is narrower than the lower exposed portion. (See Figure 21)

Install as you would the low-profile RidgeFlex™ hip and ridge shingles.

**High-Profile Installation** (Ez-Ridge™ And Ez-Ridge™ Xt Hip And Ridge Shingles)

Malarkey’s EZ-Ridge™ is a high-profile hip and ridge shingle specially designed to accompany laminate and designer shingle applications, but it lends a distinctive appearance to 3-tab shingle roofs as well. Detail drawings to follow in this section show the installation of shingles along a roof ridge, but hips are essentially the same. Instructions for installing along rake edges are at the end of the section. Given the added thickness of EZ-Ridge™ shingles, ensure your fasteners are long enough to penetrate all layers and at least ¾" (19 mm) into the roof sheathing. Where the roof sheathing is less than ¾" (19 mm) thick, the fasteners shall penetrate through the sheathing.
Application begins at the bottom of the hip or from the end of the ridge opposite the direction of prevailing winds with a hip and ridge starter shingle.

**EZ-Ridge™ Starter Shingle**

1. To create an EZ-Ridge™ starter shingle, cut off the 8¼" (210 mm) exposure portion of the shingle, and use the 3¼" (83 mm) remainder (with sealant strip) as the starter. (See Figure 22)

![Figure 22 - Cutting an EZ-Ridge™ Shingle to Make a Hip and Ridge Starter Shingle]

2. Save the exposure portion because it can be used as the end cap on the opposite end of the ridge.

Note: On the end of an EZ-Ridge™ shingle is a film strip that prevents the shingles from sticking together while in the box they're packaged in. It is not designed to be removed.

3. Place the EZ-Ridge™ starter shingle flush to the rake at the peak, and position it so the seal-down strip is adjacent to the roof edge.

4. Push down on the center of the shingle and adjust it to fit the pitch of roof. Fasten with two (2) nails, one (1) on each side, ¾" (19 mm) behind the cutout and ½" (13 mm) up from the side. If installed correctly, fasteners should be covered by the overlying EZ-Ridge™ shingles to come, leaving none exposed.

**EZ-Ridge™ Hip and Ridge Shingles**

1. Apply a full-size EZ-Ridge™ shingle over the starter and overhang the end of the ridge by ¼"- ⅜" (6-19 mm).

2. Push down on the center of the shingle and adjust it to fit the pitch of roof. Fasten this shingle and those to follow with two (2) nails, one (1) on each side, ¾" (19 mm) behind the cutout (not on the exposed part of the shingle) and ½" (13 mm) up from the side.

3. Continue installing EZ-Ridge™ shingles across the ridge, overlapping each with the side cutouts of the underlying shingle, and producing a consistent exposure of 8½" (210 mm).

4. Fasten in the same manner as the first. (See Figure 23)
5. For the last hip and ridge shingle in the run, remove the cut out end of an EZ-Ridge™ shingle and trim to fit or use the exposure portion of the shingle you cut earlier to create the starter.

6. Set this end cap in asphalt roof cement, maintaining the 8¼" (210 mm) exposure. (See Figure 24)

Should adverse conditions exist (like high winds), the end cap can also be face-nailed.

   1. Place two (2) nails on each side, 1" (25 mm) back from each end, and 1" (25 mm) up from the sides.
   2. Cover the nailheads with a dab of sealant.

Note: The end cap can also be flipped around to preserve the high-profile appearance and give a finished look to the ridge.

   3. Position it to overhang the end of the ridge by ¼"- ¾" (6-19 mm). (See Figure 25)
Ez-Ridge™ Rake Edge Installation

Instructions are the same as those above with these exceptions:

1. Always start at the low end of the roof.
2. Have the high-profile, finished end of EZ-Ridge™ shingles in the lowest position. (See Figure 26)

Note: Installation with exposed nails may affect the aesthetic appeal of EZ-Ridge™ shingles.

Re-Roofing Over Existing Asphalt Shingles

For best performance and appearance, it is recommended old roofing be completely removed from the deck. When roofing over existing asphalt shingles, it is recommended only 3-tab shingles be overlaid. Roofing over laminates and heavyweights creates an irregular surface across each course that may prevent the newly installed shingles from sealing down properly, leaving them more susceptible to wind damage.
In some areas, building codes do not require removal of old roofing if: 1) The existing shingles and framing will support the workers installing the roofing, the new roof itself, and required dead loads; and 2) The old wood deck is sound and able to provide good anchorage for nails. Make the surface as smooth as possible by replacing missing shingles and securely nailing all buckles, raised tabs or curled shingles.

Malarkey is not responsible for a potentially objectionable appearance of the new surface from any irregularity in the substrate caused by remaining roofing.

Additional ventilation should be provided, and longer nails will likely be necessary to penetrate a minimum of ¾" (19 mm) into the roof deck or completely through plywood or OSB sheathing.

Installing UL 2218 Class 3 or Class 4 impact resistant shingles over existing roofs negates their impact resistance and will not make them eligible for insurance discounts. FINAL NOTE These instructions are meant to act as a general guide.

If you have questions about this installation or any Malarkey roofing product, please contact our Technical Services Department weekdays at (800) 545-1191 or (503) 283-1191, 7:00 am to 5:00 pm, Pacific Time. You can also email us at technicalinquiries@malarkeyroofing.com. Thank you.
Safe Job Procedure – Installing Metal Roof (Prolock)

Hazards: falling, strains

PPE: fall protection, work gloves, non-slip work shoes

Training: On the Job

1. Before starting the work, ensure access to roof is safe and secure, and all required PPE is worn.
2. Follow manufacturer’s instructions before for installation.
3. Clean up work area when finished.

Roof Preparation

1. Make sure there are no nails or other objects that might puncture the underlayment of roof panels.
2. Check details for possible roof penetrations which must be added to the roof prior to panel installation.
3. Cover roof deck with underlayment. When installing over strapping, run the felt parallel with the metal panels, making sure that the felt is tight.
4. Snap a chalk line along the gable end where the first panel will be installed. This line should be ½” away from the edge of the roof and square with the eave.

Panel Installation: Determine which flashings need to be installed prior to roof panels (eave flashings).

1. Align the female edge of the first panel with the chalk line along the gable end. Allow the roof panel to overhang fascia minimum 1”. The panel must be 1-1/2” down from the ridge.
2. After the roof panel is properly aligned, screw down the roof panel on the female side; fasten down the panel at the nailing flange.
3. Install the gable flashings.
4. Snap the second panel at the seam. Work the seam together from eave to ridge. Do not work the seam from the middle to each end.
5. Fasten down the panel by screwing the flange through the slots. If the slots are not located on the strapping, screw the flange using the slots as a guide.
6. Apply panels as shown.
7. Attach large closures at the top of the panel.
8. Fasten Z bar over the closures at the top of the panel.

Solid sheeting

1. On solid sheeting, screw down panels every 24” from eave to ridge.
2. Place the screws in the flat pan beside the major rib. In heavy wind areas you may need to put screws on both sides of a major rib at the ridge and eave.
3. On low slopes use the sealer tape on the side laps. Also, use the stitch screws on the side lap every 16” as this compresses the lap into the sealer tape.
4. On strapping spaced every 16”, screw every second strapping unless you are in a heavy wind area; then screw every strapping.

Eave
1. Install the eave trim using roofing nails.
2. If sealer tape is being used, install before panels.
3. Apply panels perpendicular to the eave leaving 1” overhang past the eave.

Gable
1. Gable trim will cover the first rib on the starting side of the gable edge.
2. At the finishing gable edge, if a rib is not near the finishing edge a 90 degree fold is needed.
3. Place sealer tape under hemmed edge of the gable trim.
4. Install flashing by firmly pressing the trim down on the panel.
5. Fasten trim down through the hem and sealer tape with colored screw.
Prow

1. Install underlay and eave flashing following the eave detail.
2. Install prow flashing with a roofing nail behind the sealer tape line. Also fasten the fascia face with a color matching woodgripper roofing screw.
3. Place down sealer tape as shown.

4. Install panels leaving 3-1/2” parallel to the 90 degree fold for drainage.
Vented Ridge

1. Remove 1” to 1-1/2” out of the roof sheeting on both sides of the roof deck.
2. Install underlay and eave trim following the eave details.
3. Install roof panels perpendicular to the eave line leaving 1” to 1-1/2” open for vent out flow.
4. Fasten down the bottom side of the ridge clips with 1 screw to start through the oversized pre-drilled hole to access the fastening hole.
5. Bend up the front of the clip to slide in the profile vent.
6. Fasten down the front of the clip.
7. Attach gable flashing down following the gable detail.
8. Fasten ridge cap with neoprene washer stitch screw to the vent clips.

Non-vented Ridge

1. Install underlay and eave trim following the eave detail.
2. Install roof panels perpendicular to the eave leaving room to install the Z bar above the placed panels. Any slight differences in length at the ridge will be covered by the ridge flashing.
3. After panels are installed, place tab closures near the top of the panels at the ridge.
4. Install Z bar over panels and closures.
5. Install gable trim following the gable detail.
6. Place ridge cap and fasten ridge flashing to the Z bar with a neoprene washer stitch screw.
Peak Vented

1. Remove 1” to 1-1/2” of roof sheeting to all outflow.
2. Install underlay and eave trim following the eave detail.
3. Install prolock perpendicular to the eave leaving the outflow void open and leaving proper overhand at the eave.
4. Install profile vent clip starting with the bottom screw only through the guided pre-drilled hole.
5. Fold up the front and slide in the profile vent.
6. Fasten down the front of the clip.
7. Install gable trim following the gable details.
8. Fasten peak cap with neoprene washer stitch screws to the vent clips.

**NOTE:** Vented peak caps will be custom and the top slope length will depend on the framing detail of each job. Roof pitch is required for fabrication.
Peak Non-vented

1. Install underlay and eave trim following the eave detail.
2. Install panels perpendicular to the eave leaving 1" to 1 1/2" for installation of Z bar at the top of the roof deck.
3. Prolok panels are installed perpendicular to the eave and tab closures are placed near the top of the panels at the peak.
4. Install Z bar over the closures and panels.
5. Install gable trim following the gable details.
6. Place peak cap and fasten flashing to the Z bar with a neoprene washer stitch screw and a wood gripper in the front fascia.

Vented End Wall

1. Install panels perpendicular to the eave 1" to 1-1/2" away from the wall.
2. Fasten the bottom side of the vent clips.
3. Bend up the front and slide in the profile vent.
4. Fasten down the front of the clip.
5. Install end wall flashing with a stitch screw into the vent clip.
Non-vented End Wall

1. Install underlay and follow the eave detail.
2. Install panels perpendicular to the eave 1” to 1-1/2” away from the wall.
3. Install tab closures near the top of the panels.
4. Install Z bar over the tab closures and prolock panels.
5. Fasten the end wall flashing with a stitch screw through Z bar.
Valley

1. Overhang valley flashings at the eave and scribe a line on the underside of the valley trim.
2. Cut the flashing and overhang the valley 1”.
3. When joining end laps up the valley, overlap flashing 6” and place 2 rows of sealer tape.
4. Fasten down the flashings with roofing nails behind the sealer tape rows up the edge of the valley flashing.
5. Place 2 rows of sealer tape parallel to the valley behind the designated panel cut line.
6. Panels should be installed leaving 3-1/2” of room from the center line of the valley.

![Valley Diagram]

Sidewall

1. Install underlay and eave flashing following the eave detail.
2. Install prolock panels perpendicular to the eave.
3. If a rib is not present at the sidewall, rip panel 1” larger and bend the 1” up 90 degrees to replicate a rib.
4. Install sealer tape under the hem on the sidewall trim.
5. Install flashing by firmly pressing flashing onto the panel.
6. Fasten with colored screws through the hem and sealer tape.
1. Attach lower section panels 1” to 1-1/2” lower than the roof plane from the upper slope so the Z bar has room to be installed.
2. Install closures near the top of the panels on the lower section.
3. Fasten down the Z bar over the lower section panels.
4. Install RT1 flashing with a roofing nail above the sealer tape placement.
5. Fasten the RT1 lower face into the Z bar with a stitch screw.
6. Attach sealer tape as shown and install the upper roof portion panel with 1” overhang over the RT1 flashing.
Roof Transition (RT2 & RT2L)

1. Attach roof panels 1” to 1-1/2” down from the transition leaving proper overhang.
2. Attach closures across the transition line.
3. Fasten Z bar over the closures and panels.
4. Attach the transition flashing with roofing nail on the top slope behind the sealer tape line and fasten the bottom face with a stitch crew to the Z bar.
5. Attach sealer tape as shown and install top section panels.
Safe Job Procedure – Installing Pipe Flashing (Westform)
Hazards: slip, trip, falling

PPE: fall protection / guardrails

Training: On the Job

1. Ensure work area is clean and roof access is safe.
2. Cut to pipe diameter marked on Flashers (this is approximately 20% smaller than the diameter of the pipe).
3. Slide the Flashers down the pipe, using water to lubricate is necessary.
4. Form and bend the aluminum base of the Flashers to fit the surface of the roof.
5. Seal the Flashers by applying urethane / silicone sealant between the Flashers and the roof.
6. Use a large slot screw driver to press the base down tightly.
7. Fasten the Flashers with weather-resistant fasteners to complete the seal.
Safe Job Procedure – Installing Roof Anchors

Hazards Present: falls

PPE: fall protection

Training: On the Job

1. Follow the First Man Up, Last Man Down rule: the first person to go up the ladder is responsible for installing the anchorage point, tying off, and installing more anchor points if needed. Then, the last person to go down the ladder removes the anchorage(s).

Attaching the roof anchor

1. Spread the anchor base legs apart to match the surface it will be mounted on, either a roof peak or a flat surface.
2. Position the anchor on the roof such that the 12 nail holes along the center of the legs are over (framing) member.
3. Push down to minimize any gap between the anchor and the sheathing and nail.
4. Install all 12 nails or screws - 6 nails/screws per leg into the rafters and sheathing.

Removal of Roof Anchor

1. Pry off the anchor from the roof. Screws should be removed rather than just prying the anchor from the roof.

Connecting to the Roof Anchor (figure 9)

1. Use a self-locking snap hook or self locking and self closing carabiner to connect to the installed roof anchor.
2. When connecting, make sure connections are fully closed and locked.
3. When using an energy absorbing lanyard, connect the energy absorber “pack” end to the harness.
4. When using a self retracting lifeline, make sure the device is properly positioned so that the retraction is not hindered.

Figure 9
Inspection

1. Inspect the roof anchor for physical damage. Look carefully for any signs of cracks, dents, or deformities in the metal. Check for bending; the roof anchor legs should be flat. Rivets should be securely attached and fully cinched (not pulling through the hole).
2. Inspect the roof anchor for signs of excessive corrosion.
3. Ensure the condition of the roof anchor will support the roof anchor loads.
4. Ensure the roof anchor is still securely attached. If loose, do not use.
5. Inspect each system component or subsystem according to the Anchorage Connector Inspection form.
6. Record the inspection date and results on the Anchorage Connector Inspection Form.
7. If inspection reveals a defective condition, remove unit from service immediately, tag and report it to crew foreman, who may dispose of it.
**Safe Job Procedure – Installing Rope Grab**

Hazards: falling, strains

PPE: fall protection equipment

Training: On the Job

Install the rope grab as follows:
1. Before use, inspect the rope grab. If found defective, tag and report to crew foreman who may dispose it.
2. Lift the locking lever.
3. Loosen the locking bolt.
4. Wrap the rope grab around the 16mm (5/8”) lifeline with the arrow on the rope grab pointing up.
5. Tighten the locking bolt until snug.
6. Push the locking lever into the body of the rope grab.
7. Check the operation of the device by holding the attachment ring and moving the rope grab up and down the rope.
8. Pull abruptly downward on the ring to test if the cam will activate and arrest the movement on the rope.
9. For rope grabs with a permanently attached lanyard and/or shock absorbers, attach the end of the lanyard to the anchorage connector on the back of the user’s harness. Rope grabs without a permanently attached lanyard would be connected to the harness with a 0.6m (2 feet) long lanyard and/or shock absorber attached to the eye on the rope grab. (Note: The performance of the rope grab decreases when the lanyard is shorter or longer than the recommended 0.6m (2 feet).

Formal inspection to be recorded on the “Rope Grab Inspection” form.
Safe Job Procedure – Installing Shingles and Underlayment (Oakridge)

Hazards: falls, cuts

Training: On the Job

PPE: fall protection

1. Before getting onto roof, ensure roof access is safe and secure and that PPE is worn.
2. Follow the instructions below for shingle installation.
3. Clean up work area when finished.

Oakridge Shingles

Speciality Eave Flashing

1. Use Owens Corning® self-sealing ice and water barrier on the eaves in all regions of the country where roofs are susceptible to leaks from ice and water backup.
2. Apply starting at the eave edge and extend upslope a minimum of 24 inches from the interior wall line. See Fig. 1.

Underlayment

a. Standard Slope (4” in 12” or more).

Application of underlayment, metal drip edges, and eaves flashing: See Fig. 2.

1. Apply one layer of underlayment over metal drip edge at eaves. Use only enough fasteners to hold in place.
2. Overlap successive courses 2”. Overlap course ends 4” Side laps are to be staggered 6’ apart.
3. Apply metal drip edge over underlayment at rake
**Underlayment**

b. Low Slope (2” in 12” to less than 4” in 12”).

Application of underlayment, metal drip edges, and eaves flashing: See Fig. 3.

1. Apply 19” starter strip of underlayment over metal drip edge as eaves. Use only enough fasteners to hold it in place.
2. Use 36” strip of underlayment for remaining courses, overlapping each course 19”. Side laps are to be staggered 6’ apart.
3. Apply metal drip edge over underlayment at rake.

*Or* WeatherLock self-adhered underlayment or equivalent with a standard overlap of 3” and metal drip edge. See Fig. 3A

**Shingle Fastening**

1. Place fasteners 6 1/8” from bottom edge of each shingle and 1” from each end.
   Standard Pattern: Use four fasteners. See Fig. 4.
   Six Nail Pattern: Use six fasteners. See Fig. 4A.
   Mansard or Steep Slope Fastening Pattern: Place fasteners 6 1/8” from bottom edge to secure both layers of the shingle. See Fig. 4B.
REQUIRED: For slopes exceeding 60 degrees or 21 inches per foot, use six fasteners and four spots of asphalt roof cement per shingle. Apply immediately; one 1” diameter spot of asphalt roof cement under each shingle tab. Center asphalt roof cement 2” up from bottom edge of shingle tab. See Fig. 4B

Roof Cement where required must meet ASTM D-4586 Type 1 or 2 (Asbestos Free).

Six nail fastening pattern is required for maximum wind warranty. In addition, Owens Corning Starter Shingles are required along the eave and rake. (See Starter Shingle instructions for details.)

Shingle Application

These shingles are applied with a 6 1/2” offset, with 5 5/8” exposure, over prepared roof deck, starting at the bottom of the roof and working across and up. This will blend shingles from one bundle into the next and minimize any normal shade variation. Application with offsets of 4” or 8” are also acceptable.

Caution must be exercised to assure that end joints are no closer than 2” from fastener in the shingle below and that side laps are no less than 4” in succeeding courses. Refer to course application steps for specific instructions.
**Starter course**

1. Use an Owen’s Corning Starter shingle product of trim 5 5/8” from the starter course shingle.
2. Trim 6 ½” off the rake of the starter course shingle and flush with the drip edge along the rake and eaves edge, and continue across the roof.
3. Use 5 fasteners for each shingle, placed 2” to 3” up from eaves edge. See Fig. 5. (If no drip edge is used, shingles must extend a minimum of ½” and no more than 1” from rake and eaves edge.)

**First Course**

1. Apply first course starting with the full shingle even with the starter course. See Fig. 5A.
2. Fasten securely according to fastening instructions. See Fig. 4.

**Second Course**

3. Remove 6 ½” from the left end of this shingle and apply the remaining piece over and above the first course shingle and flush with edge of the first course with 5 5/8” exposure. See Fig. 5B.
4. Fasten securely according to fastening instructions. See Fig. 4.

**Third Course**

5. Remove 13” from the left end of this shingle and apply the remaining piece over and above the second course shingle flush with edge of the second course with 5 5/8” exposure. See Fig. 5C.
6. Fasten securely according to fastening instructions. See Fig. 4.
Fourth Course

7. Remove 19 1/2” from the left end of this shingle and apply the remaining piece over and above the third course shingle and flush with edge of the third course with 55/8” exposure. See Fig. 5D.

8. Fasten securely according to fastening instructions. See Fig. 4.

Fifth Course

9. Remove 26” from the left end of this shingle and apply the remaining piece over and above the fourth course shingle and flush with edge of the fourth course with 55/8” exposure. See Fig. 5E.

10. Fasten securely according to fastening instructions. See Fig. 4.

Sixth Course

11. Remove 32 1/2” from the left end of this shingle and apply the remaining piece over and above the fifth course shingle and flush with edge of the fifth course with 55/8” exposure. See Fig. 5F.

12. Fasten securely according to fastening instructions. See Fig. 4.
**Succeeding Courses**

13. For succeeding courses, repeat first through sixth course. See Fig. 5G.

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**Valley Construction**

Closed-Cut Valley. See Fig. 6.

A closed-cut valley can be used as an alternative to woven and open valley and is applied as follows:

1. Lay a 36" wide valley liner of self-adhered membrane underlayment or equivalent. A 36" wide minimum 50 lb. smooth surface roll roofing can also be used as a valley liner.
2. Lay all shingles on one side of valley and across center line of valley a minimum of 12".
3. Fasten a minimum of 6" away from center line on each side of valley. Strike a chalk line 2" from the center line of the unshingled side.
4. Apply shingles on the unshingled side up to the chalk line and trim, taking care not to cut the underlying shingles.
5. Clip upper corners of these shingles, cement and fasten. Both woven and metal valleys are acceptable alternatives.

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**Step Flashing**

1. Use 10" long and 2" wider than expected exposure corrosion-resistant metal where roof planes butt against vertical sidewalls or chimneys. See Fig. 7.
Hip & Ridge Application

Use corresponding Owens Corning Hip & Ridge shingles to best complement shingle color. Follow specific application instructions as printed on the Hip & Ridge shingle package. See Fig. 8.

Fig. 8  Hip & Ridge Application
Instalación de caballete y cumbres

Prevailing Wind Direction
Dirección del viento predominante

Exposure
Exposición
Safe Job Procedure – Installing Shingles, Underlayment, Flashings (IKO)

Hazards: cuts, falls

Training: On the job

PPE: fall protection, hearing protection

1. Before getting onto roof, ensure roof access if safe and secure and that PPE is worn.
2. Follow the instructions below for shingle installation.
3. Clean up work area when finished.

Low Slope Application

Standard three-tab shingles may be applied conventionally, providing tabs are adequately sealed against wind lift, and special underlayment is used. For best low slope roof waterproofing performance, IKO recommends covering the entire low sloped area with one ply of one of IKO’s Ice and Water Protection products Armourgard, Goldshield, or Stormshield™, applied with a 3” (75 mm) lap and 6” (150 mm) endlaps. Once the IKO Ice and Water Protection product is laid down over the entire low sloped area, the three-tab shingles can be applied according to their normal application procedures. IKO’s Ice and Water Protection products are excellent for this type of application since they seal around the shanks of the penetrating fasteners, preventing leakage which may result from ice backup or wind-driven rain. Caution: IKO’s Ice and Water Protection products are vapor barriers, so if used on entire roof areas, thorough ventilation must be ensured to avoid condensation beneath the roof deck.
The shingles are then applied over the underlayment in the same manner as described for normal slopes, except that extra care must be taken to ensure that tabs are adequately sealed down, since the angle of the wind against a low slope roof can cause tabs to lift more easily than on a normal slope. Note: Two layers of No. 15 plain felt is also acceptable as an underlay in low sloped roof areas. The felt plies should be cemented together from the eave up to a point at least 24" (600 mm) beyond the inside wall line.

**Hip and Ridge Areas**

Use individual shingles cut from 3-tab strip shingles by dividing at the cutouts. Bend each resulting tab down the center and apply over hips and ridges, exposing 5-5/8" (143 mm) of each shingle to the weather. Nail 6" (150 mm) back from the exposed end, 1" (25 mm) in from each side. Start hips at the bottom and work up. Start ridge at the end away from the prevailing wind direction and work back. Note: For some products, doubling of ridge caps is suggested; check shingle bundle wrapper application instructions for details.

Alternatively use one of IKO’s hip and ridge accessory products, following installation instructions printed on the wrapper. Note: Longer nails must be used to install ridge cap shingles to accommodate the additional shingle layers. The final shingle should be set in cement, and the exposed nail heads of the final shingle should be covered with cement.
Care and Handling of Materials

Asphalt shingles should be stacked only on smooth, even surfaces to avoid damaging the bottom shingles in the stack. They should be stacked no more than 15 bundles high, as too great a weight on the lower shingles may cause sticking in the bundle and bleeding of the asphalt coating through the granule surfacing. If stored outside, they should be protected from the weather, and in summer from the direct heat of the sun. Please use caution when stacking bundles on sloped roofs.

Roll roofing must always be stored on its end and never be allowed to lie on its side which would cause distortion with flattening of the roll as well as possible sticking in the roll. Care must be taken to avoid damage to the ends of the roll. Before using roll roofing, it must be unrolled flat then cut into convenient lengths of 12' to 18' (3.5 m to 5.5 m) and laid out in a warm place until completely relaxed and flattened out. In cold weather, stand roll roofing in a warm place until pliable before unrolling.

Bituminous roof coatings, cements and adhesives tend to stiffen when cold. Before applying in cold weather, they should be kept in a warm place until readily workable.

Re-Roofing

Old asphalt shingles or old roll roofing need not be removed providing the strength of the old roof structure is not impaired and is adequate for the additional weight, and providing there is sufficient nail holding power in the old roof to hold the new shingles. If the old roofing is removed, the deck is repaired and application of the roofing follows that described for the new work.

If the old roofing remains in place, nail down or cut away all loose, curled or lifted shingles; remove all loose or protruding nails and sweep surface clean. For old roll roofing, slit all buckles and nail down smoothly; remove all loose and protruding nails and sweep surface clean.

Ventilation

To remove excess attic heat and humidity during the summer and excess water vapor during the winter, proper ventilation must be installed. The net free area of ventilation should be at least 1/300th of the horizontal projection of the roof area. (Some roof designs i.e., low slope roofs and cathedral ceilings may require a 1/150 ration). For maximum effectiveness, the ventilation system should be balanced. Half of the net free ventilating area should be located in the soffits. The other half should be at or near the ridge. Venting at the soffits and at the ridge should be spread as uniformly as practical. Ensure ventilation airways are not obstructed by insulation, and that ventilation meets local building code requirements.

Nails

Use only hot dipped, galvanized roofing nails, 10 to 12 gauge, with not less than 3/8" (10 mm) diameter heads, long enough to penetrate at least 3/4" (20 mm) into roof deck.

For new work - 1" (25 mm) long, 1/2 lb.(227g)/ bdl.
Over old asphalt shingles - 1-1/2" (38 mm) long, 3/4 lb. (340g)/bdl.
Over old wood shingles - 1-3/4" (45 mm) long, 1 lb. (454g)/bdl.
Drive nails straight with heads in firm contact with the surface of the shingle, but not so hard as to tear or fracture the shingle. Nail consecutively across the shingle or drive inner nails first. Never nail shingle ends first. Use 4 nails per shingle, except for slopes of 56° (18:12) or steeper which require 6 nails per shingle. Use of 6 nails is also recommended for steep slopes and high wind areas and winter applications. See diagram on the right.

**Roof Deck Preparation**

New Work: The deck must be smooth, firm and dry. Plywood minimum 1/2" (12 mm) is recommended for best roof performance. Board decks should be covered with a layer of plywood sheathing minimum 1/4" (6 mm) to reduce shingle buckling.

Buckling is not covered by our Limited Material Warranty.

Note: Unless the roof deck is to be shingled immediately, it should be protected from the weather, as the drying and shrinkage of a roof deck, which has been shingled wet, will buckle and twist the shingles. Use a single layer of underlayment lapped 2" (50 mm) and nailed sufficiently to hold in place.

**Metal Drip Edge**

For efficient water shedding at the roof’s edges, particularly when no eavestrough is used, it is suggested that a metal drip edge be installed directly on the wood deck at eaves and over the underlayment along the rakes. This should be of corrosion resistant sheet metal with a 2" (50 mm) to 4" (100 mm) roof flange and bent downward over the edges of the roof. It should be set on the deck into a band of asphalt plastic cement and nailed along the back edge of the flange at not more than 16" (400 mm) intervals.

**Eaves Protection**

For ice dam protection, install an Ice & Water membrane to cover the roof deck from the eave to at least 24" (600 mm) beyond the inside wall line, or at least 36" (900 mm) from the eave, whichever is greater. One of IKO’s Ice and Water Protection products – Armourgard, Goldshield, or Stormshield™ is recommended, applied in accordance with the directions printed on each box. Alternatively, No. 25 Glass Base Sheet may be used, laid with at least 4" (100 mm) head lap and end laps cemented with asphalt cement; if more than one course is necessary, the lap
must be outside the exterior wall line. Or, cement two layers of felt underlay together using asphalt cement.

Note: Eave protection is not required on roofs over unheated buildings such as carports, porches, etc.

Underlayment

1. Apply underlayment, either asphalt saturated felt or synthetic underlayment, such as IKO’s Stormtite, in horizontal courses up the roof with 2” side laps and 4” end laps.
2. Trim the sheet to fit the final course at peak. One layer of asphalt saturated felt (or equivalent) is required over the entire deck to qualify for ASTM E108 Class A fire rating or which may be required per the local building code.

Low slope: For roof slopes less than 4:12 down to 2:12 apply underlayment in successive courses by overlapping the preceding sheet by 19” with 4” ends. Alternately, apply a single layer of Ice and Water Protector over the entire deck per manufacturer’s instructions.

Apply Drip Edge at the Rakes

1. Apply metal drip edges on top of any underlay along rake edges, spacing nails approximately 12” apart.

Install flashing

Corrosion-resistant flashing must be used to help prevent leaks where a roof meets a wall, another roof, a chimney or other objects that penetrate the roof. Flashing shall conform to the requirements of applicable building code and good roofing practice.
Flashings – Chimney

Since chimneys are sometimes built on foundations which are separate from the house proper, some differential settlement may occur. To avoid possible fracturing or cracking of materials at this junction, base flashings are secured only to the deck and separate cap flashings are fixed only to the chimney. To direct water around larger chimneys, a wooden cricket or saddle is built on the deck before the underlayment is applied. One of the most common flashings is made of sheet metal. Whether or not a cricket is needed depends on the size of the chimney (see National Building Code).

1. Shingles are laid up to the chimney. The low-side metal base flashing is applied by concealed cleat nailing the lower portion over the shingles.
2. The upper portion metal base flashing covering the saddle is installed.
3. Side flashings are then applied in conjunction with shingle application (Image 1).
4. As each course of shingles is laid, an 8" x 8" (200 mm X 200 mm) (or larger), metal “soaker” is applied 4" (100 mm) over the shingle and 4" (100 mm) up the chimney.
5. Nail through the metal and underlying shingle so that the nail head is well covered by the next shingle course.
6. The trimmed shingles overlapping the metal are embedded in a 3" (75 mm) band of asphalt plastic cement. Particular care is taken to make the chimney corners tight against the flow of water.
7. Cap flashing (Image 2) is then installed into mortar joints and down over base flashing (Image 3).
Flashings – to Vertical Wall

The drawing on the right illustrates the preferred method. The shingles overlapping the flashing should be well embedded in asphalt plastic cement and the wall cladding should completely cover the top of the flashing.

Flashings – Vent Pipes

The diagram on the right illustrates one of the best methods. The flange is set into a thin coat of asphalt plastic cement and nailed sufficiently to hold in place. Shingling is then continued up the roof. Where the flange is covered by the roofing, the shingles are embedded in asphalt plastic cement.

Step 7: Install valleys

Valleys

A valley exists where two slopes of a roof join at an interior angle so that run-off is toward and down the join. Valleys should be constructed after eaves flashing and underlayment, but before shingles are applied.
Open Metal Valley

For longer performance, metal flashed valleys are recommended.

1. Complete valley flashing before shingles are applied. Center a 36” (900 mm) width strip of one of IKO’s Ice and Water Protection products – Armourgard, Goldshield or Stormshield™ (A) in the valley.
2. Ensure flashing is tight to the deck, then fasten with only enough nails to hold in place, nailing at the edges only.
3. Center a minimum 24” (600 mm) wide, minimum 28-gauge pre-finished/ galvanized metal valley liner (B) in the valley and fasten with only enough nails to hold in place, nailing at the edges only.
4. Snap two chalk lines (C) the full length of the valley, 6” (150mm) apart at the top and increasing in width 1/8” (3 mm) per foot towards the bottom.
5. When the shingles are being applied, lay them over the valley flashing, trim the ends to the chalk line, and cut a 2” (50 mm) triangle off the corner to direct water into the valley (D).
6. Embed the valley end of each shingle into a 3” (75 mm) bad of asphalt plastic cement (E), and nail the shingles 2” (50 mm) back from the chalk line.

![Diagram of valley flashing](image)

Closed cut or woven valleys may also be acceptable. See shingle package for details.

Install starter course

IKO recommends using Leading Edge Plus™ Starter Shingles.

1. Fold the Leading Edge Plus shingle along the perforation to separate.
2. Cut the first starter shingle in half.
3. Beginning at the left corner of the roof, start the eaves course by positioning one of the halves granule side up with the sealant adjacent to the eaves. It should overhang the eaves and rake edge by 1/4” to 3/4”.
4. Start the rake course by taking the remaining half and positioning it flush to the top edge of the eaves starter with the sealant adjacent to the rake edge overhanging the rake edge by 1/4” to 3/4”.
5. Fasten the half-length shingles with nails located about 3” from the eaves edge and 1” in from each end with a third in the center.
6. Complete the eave and rake starter courses with full lengths of starter shingles maintaining a 1/4” to 3/4” overhang and fastening with four nails per shingle.

Caution: Wear soft rubber-soled shoes to avoid scuffing the shingles.

**Install the first course**

1. Start with a full-length shingle applied flush with starter course at rake and eave. Use four nails per shingle placed as shown below.
2. After the first shingle in the course is installed, continue with full length shingles to complete the first course, trimming the last shingle so that it matches the overhang of the starter course below.

Nailing on steep slopes/high wind areas:

1. For high wind areas or on slopes of 21:12 (60°) or more, use six nails per shingle placed as shown below. Ensure that no nail is within 2” of a joint/cutout of the underlying shingle.
2. Seal down each shingle at time of application with three 1” diameter spots of roofing cement placed under the shingle 2” above the bottom edge and equally spaced along the shingle. Use roofing cement sparingly, as excessive amounts may cause blistering.
Chalk Lines

Since slight variations in the dimensions of asphalt shingles are unavoidable, sufficient chalk lines should be struck to ensure accurate vertical and horizontal alignment of shingles. Vertical lines every 4 or 5 shingle lengths are recommended. The number of horizontal lines needed will depend on the skill of the applicator in keeping horizontal alignment straight. Remember that shingle courses on either side of a dormer must meet accurately above the dormer.

To aid in alignment, snap horizontal chalk lines. Cambridge exposure is 5-7/8”.

Install the second, third and fourth courses

1. Trim off 10”, 20”, and 30” respectively, from the left end of the starting shingle and apply to overhang rake edge by 1/4” to 3/4”.
2. Continue each course across the roof with full shingles butting ends loosely.
3. Align the bottom edge of the shingles with the tops of the saw teeth of the shingles in the underlying course. Note: Other offsets between 6” – 10” may be used. These alternative offsets will not adversely affect the applicable provisions of IKO’s Limited Warranty but may in some instances result in aesthetic issues.

Install the fifth and succeeding courses

4. Repeat the sequence of the first four courses up the roof. For maximum wind protection, cement shingles at rake edges.
Manually seal shingles (if needed)

Sealing Down Tabs

When climate, weather or job conditions are such that the asphalt adhesive on the shingles may not be effective and when shingles are used in high wind areas, shingle tabs should be sealed down to prevent damage from repeated lifting and fluttering in the wind.

1. Use a spot of asphalt plastic cement, 1" (25 mm) in diameter applied with a caulking gun or putty knife under each tab, located 1" (25 mm) above the cutout in the underlying shingle. Do not use too large a spot of cement, since evaporation of the volatile solvent in the cement could migrate through the shingle tab, dissolving its asphalt content and causing it to blister.

This procedure is especially recommended for all installations in high wind areas for the top five courses of shingles immediately below any roof ridge, which are usually most susceptible to wind uplift.

On slopes steeper than 56° (18:12) from the horizontal, shingle tabs must be sealed as described above, since contact between the tabs and the underlying course is insufficient for the self-seal adhesive to be effective.

Do not remove the plastic strips from the shingles’ underside. Its only purpose is to prevent the shingles from sticking together in the bundle. It serves no purpose once the shingles have been applied.

Install hip and ridges

IKO recommends its pre-cut Hip and Ridge products, or pre-formed high profile IKO UltraHP. For IKO pre-cut Hip and Ridge products bend each piece over the hip or ridge, and nail per instructions on the wrapper. The final shingle should be set in roofing cement and the exposed nail heads of this shingle should be covered with roofing cement. For IKO UltraHP, follow the instructions on the box. Prior to application in cold weather, store hip and ridge shingles in a heated area to allow for easier bending.

Color Matching

To minimize an appearance of color shading, use shingles of the same production date (this code appears on the side of the bundle), use shingles of the same blend code (letter and two digits appearing immediately after the color on the side of the bundle), intermix shingles from different bundles, following recommended application patterns and avoid blocking. Avoid mixing different lot numbers on any one roof elevation. Also, an appearance of color variation in a newly applied roof, particularly in a dark solid color, can result from the backing material on a shingle having transferred or rubbed off on the face of the next shingle while the shingles were in the bundle. This will wash off naturally with a few rains and sunlight.
Safe Job Procedure – Installing Stack Flashings (Durolast)

Hazards: falling, strains

PPE: work gloves, fall protection

1. Put on PPE.
2. Ensure roof access is safe and secure before going on.
3. The roof membrane installed around the penetration must be fastened prior to installing the stack flashing. Use the same fastener spacing that was used to install the roof membrane but do not exceed 18 in. on center. At least one fastener must be installed. On reroofing applications, remove the existing flashing to ensure a watertight fit.
4. Place the stack flashing around the penetration.
5. Heat weld the vertical seam if the stack was ordered “open”.
6. Weld the stack flashing skirt to the roof membrane. Care should be taken to smooth out the skirt so that it is wrinkle-free.
7. Apply a bead of Duro-Caulk Plus to the penetration ¼ in. below the top of the stack flashing.
8. Install a stainless-steel band approximately ¼ in. from the top of the stack flashing.
9. Tighten the band to draw the flashing firmly into the sealant.
10. Apply a bead of Duro-Caulk Plus around the top of the flashing to assure a positive seal.
11. Clean up work area when finished.
Safe Job Procedure – Ladders

Hazards: falls, slips

Training: On the Job

1. Inspect ladder before use. If found defective, tag and report to crew foreman who may dispose it.
2. Rest top of ladder against solid surface that can withstand the load. A portable ladder must extend at least one meter above any surface the ladder is used to access.
3. Attach a ladder stay across the back of ladder where a surface cannot stand the load. Extend the stay across a window for firm support against the building walls or window frame.
4. Secure a portable ladder at the top to prevent it from slipping sideways or the foot from slipping outwards. A portable ladder in use must slope at an angle of one horizontal to four vertical.
5. If it is not possible to tie off the ladder, have someone hold the foot of the ladder whenever possible. The person at the foot should face the ladder with a hand on each side rail and one foot resting on the bottom run. (This is effective only for ladders up to 5m (16 ft) long.)
6. Attach hooks on top of ladder rails where the ladder is to be used at a constant height.
7. Secure the base of the ladder against accidental movement. Securing the ladder at the foot does not prevent side slip at the top.
8. Maintain 3-point contact by keeping two hands and one foot, or two feet and one hand on ladder at all times.

Formal inspection to be recorded on the Ladder Inspection Form.
Safe Job Procedure – Manual Lifting

Hazards: Muscle Strain injuries, crush injuries, damage
PPE: Hand/Foot/Hearing & Eye Protection

Training: On the Job

1. Put on PPE.
2. Before lifting, make sure that the path where you will carry the load is clear and free of obstructions.
3. Make sure there is a place and a way to set down the load without injuring your fingers.
4. Warm up before lifting to avoid muscle strain.
5. Get a good footing.
6. Bend your knees; get a good grip on the object to be lifted.
7. Tighten your abdominal muscles and lift by straightening your legs. Keep your back straight; keep your arms and the object being lifted close to your body.
8. Lift slowly and take small steps.
9. Keep your balance and do not twist or turn as you lift and carry. Move your feet to turn your body direction.
10. To put the object down again, do not bend from the waist. Keep your back straight and bend your knees, keeping the object close to your body until it is placed in a secure position.
Safe Job Procedure – Office Printer (LaserJetPro)

Hazards: health hazards, hot and moving parts, cuts, electrical hazards

Training: On the Job

Load the paper input tray
1. Pull the tray out of the product.
2. Slide open the paper length and width guides.
3. To load legal-sized paper, extend the tray by pressing and holding the extension tab while pulling the front of the tray outward.
4. Place the paper in the tray and make sure that it is flat at all four corners.
5. Slide the paper length and width guides so that they are against the stack of paper.
6. Push down the paper to make sure that the paper stack is below the paper limit tabs on the side of the tray.
7. Slide the tray into the product.

Use
1. Make sure the printer is hooked up properly.
2. Open the page to be printed.
3. Go to “File” and “Print Setup”.
4. Choose how you want the page to look.
5. Go to “File” then “Print”.

Clear jams in the paper input tray
1. Pull out the tray, and lift the jam access door above the tray
2. With both hands, grasp the paper, and carefully pull it free from the product.
3. Replace the tray.
4. Press the OK button to continue printing.

Clear jams from the output bin
1. With both hands, grasp the paper, and carefully pull it free from the product.

Clear jams from the rear door
1. Open the rear door.
2. With both hands, grasp the paper, and carefully pull it free from the product.
3. Close the rear door.

Print on both sides with Windows
1. On the File menu in the software program, click Print.
2. Select the product.
3. Click the Properties and Preferences button.
4. Click the Finishing tab.
5. Select the Print on both sides (manually) check box.
6. Click the OK button to print the first side of the job.
7. Retrieve the printed stack from the output bin.
8. Maintaining the same orientation, place it with the printed side facing down in the input tray.
9. On the control panel, press the OK button to print the second side of the job.
Safe Job Procedure – Overhead Powerlines

When any work activity takes place near energized overhead high-voltage lines, the following procedures must be followed:

1. Determine what activities may take place near overhead high-voltage lines.
2. Determine the voltage of the overhead lines through the authoring controlling the system (for example, BC Hydro).
3. Maintain minimum clearance (see voltage – distance table) at all times.
4. Do not use a tape measure or stick to physically measure the distance from an energized power line. Estimate the distance from the ground, and if in doubt, provide for more clearance.

If the minimum distance from the electrical conductor cannot be maintained, and movement by a worker or equipment may result in entering these minimum distances:

1. Stop work immediately.
2. Call the power authority controlling the electrical system and arrange for a worksite meeting. At the meeting, decide whether the energized electrical conductors can be de-energized, effectively guarded, or displaced/rerouted.
3. Get assurance in writing (form 30M33) from the power authority indicating which of the three actions they will take and when it will be done.
4. Keep written assurances on the worksite and inform all workers who will be directly affected by the power authority actions.
5. Design a qualified safety – watcher who can:
   a. Monitor equipment and material movement
   b. Give an instant STOP signal to the equipment operator when the equipment or load is too close to the electrical conductor
   c. Make sure equipment, work tools, or loads do NOT contact the electrical guarding.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Minimum approach distance for working close to exposed electrical equipment or conductors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase to phase</td>
<td>Metres</td>
</tr>
<tr>
<td>Over 750 V to 75 kV</td>
<td>3</td>
</tr>
<tr>
<td>Over 75 kV to 250 kV</td>
<td>4.5</td>
</tr>
<tr>
<td>Over 250 kV to 550 kV</td>
<td>6</td>
</tr>
</tbody>
</table>

OHS Regulation Part 19 Electrical Safety

Form 30M33 – Forms are individually coded and can be ordered from WorkSafeBCStore.com, but a sample can be found for viewing online @ WorkSafeBC.com.
Safe Job Procedure – Powered Hand Drills

Hazards present: Eye Injuries, Flying Metal and debris, Hot Metal Burns, Strains, Cuts and Lacerations, Slips Trips and Falls, Electric Shocks

PPE: Safety Glasses, safety boots, gloves, hearing protection, hard hat
Training: On the Job

Procedure
1. Put on PPE.
2. Remove drill from storage case and perform visual inspection. If found defective, tag and report to crew foreman who may dispose it.
3. Put on personal protective equipment.
4. Punch guide hole in material.
5. Ensure drill is unplugged prior to changing bits, performing maintenance on drill.
6. Select correct drill bit for hole.
7. Plug drill into circuit interrupter and then interrupter into wall.
8. Maintain a firm grip on drill bend arms slightly to absorb shock if bit grab.
10. Clean drill and store in case when finished.

Formal monthly inspection to be recorded on Hand and Power Tools Inspection Form.
Safe Job Procedure – Proper Use of Foam Earplugs
Hazards present: high noise level from machines or tools

PPE: ear plugs
Training: On the Job

Procedure

1. Using clean hands, roll and compress the entire earplug into a thin cylinder.
2. To make insertion easier, pull back and up on the outer part of the ear.
3. Insert the earplug into the ear canal and hold it in place for a few seconds until it expands and blocks out noise.
Safe Job Procedure – Reciprocating Saw
Hazards: flying debris, cuts, pinching

PPE: eye protection, protective clothing, hearing protection

Training: On the Job
Before each use, inspect the general condition of the saw. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, and any other condition that may affect its safe operation.

Operating Procedures

1. Put on PPE.
2. Locate yourself in a good steady position prior to making cuts with the reciprocating saw.
3. If the reciprocating saw has a variable speed control, set on fast speed for cutting wood and on slow speed for cutting metals.
4. Select the correct blade for the type of material being cut with the recip. saw.
5. Place the rocker shoe against the work when cutting with the recip. saw.
6. Do not place excessive pressure on the saw while cutting and become over balanced.
7. If the saw requires excessive pressure to cut, it is in need of a new blade. Change the blade before continuing to use the saw.
8. To make a plunge cut (internal cut) with the reciprocating saw place the rocker shoe on the material and tilt the saw forward slowly until the blade cuts through the material. Too much forward pressure will usually cause the blade to break prematurely.
9. Ensure blade is and saw are still in good condition before putting away.
Safe Job Procedure – Roof Demolition
Hazards: falls, slips, trips

PPE: hand protection, eye protection, fall protection

Training: On the Job

1. Put on appropriate PPE: fall protection, safety glasses, work gloves.
2. Prepare for the tear-off. Install roof jacks, if used.
3. Strip the roof. Tear off the ridge caps so you can work the fork or shovel (or other tool used) under the shingles near the peak.
4. Once the ridge caps are gone, slide the fork under the shingles and felt paper and pry the shingles up.
5. Remove shingles in a 2- to 3- ft. wide section as you work down the roof.
6. Push shingles down to the roof jacks. If they do not slide down the roof carry them to the edge of the roof and thrown them into the trash container.
7. Watch for soft areas as you walk the roof.
8. Dispose shingles before the pile gets too large and they slide off the roof. If you couldn’t get the trash container close to the house, throw the shingles onto a tarp on the ground. Make the pile on a flat area away from flowers and shrubs.
9. Evaluate existing flashing. For flashings you plan to reuse: Bend flashing upward off the shingles. Once it is out the way, pull any nails and remove shingles and underlayment that are underneath. Be careful not to damage the flashing.
10. Do the same with step flashing.
11. Strip the roof edges. Remove the roof jacks and work the shingles loose along the roof edge.
12. Pull off the shingles with your hands and carry them to the trash container.
13. Remove valley flashing. Starting at the top of the valley pry the metal edges loose.
14. Clean off the roof to avoid slips and falls. Watch for any nails that may have been missed earlier and pull them.
15. Clean up entire work area when finished.
Safe Job Procedure – Scaffolds
Hazards: slips, falling

PPE: fall protection

Assembly:
1. Put on PPE.
2. Check location for: Ground conditions; obstructions; overhead wires; tie-in problems; changes in elevation.
3. Use safety harness which is tied off to scaffold or lifeline.
4. Assemble frame scaffolds with one other person (one on the scaffold, one passing materials).
5. Check for squareness and alignment of all scaffold parts.
6. Use jackscrews to eliminate hazards created by temporarily jacking up the erected scaffold to add shims.
7. Inspect locking devices frequently.
8. Install ladders as erection proceeds. When scaffolds are to be in place for extended period, install a stairway.
10. Inspect planks prior to use.
11. Complete platform fully at each working level before assembling the next level.
12. If any parts are found defective, tag and report to crew foreman who may dispose it.

Dismantling:
1. Ensure stability of structure.
2. Clear platform of all materials and debris before dismantling.
3. Proceed in reverse order of erection.
4. Dismantle each tire completely before starting the one below.
5. Work from full platform decks while removing braces and frames.
6. Remove jammed or rusted components with caution.
7. Do not throw or drop boards or parts from a height.
8. Check and maintain all scaffold parts.
9. Lubricate moving parts of all fittings.
Safe Job Procedure – Setting / Disabling House (Office) Alarm

Hazards: slips / trips

Training: On the Job

Leaving the house:

1. Locate alarm.
2. Type passcode in keypad.
3. Press “1” for Away.
4. Close all doors behind you and leave within 60 seconds.

Disabling alarm:

1. Unlock door to get inside house.
2. Locate alarm keypad.
3. Type passcode in keypad.
Safe Job Procedure – Tag-Out Procedure

Hazards: broken tools

PPE: gloves

1. If tools or equipment are found defective, they must be tagged ‘out of service’, stored in a location away from regular work activities and reported to the crew foreman.

2. All repair tags (tape and permanent marker are allowed) used to identify damaged equipment as unsafe for operation will be:
   - Easily recognizable
   - Securely fastened
   - Constructed of material appropriate to worksite conditions

3. All repair tags should record the following information:
   - Date
   - Problem
   - Who tagged it
Safe Job Procedure – Use of Fire Extinguisher

Hazards Present: inhalation of smoke, inhalation of fire extinguisher chemical, burns, eye injury, slips trips and falls
PPE: safety glasses, safety boots, gloves, high visibility clothing
Training: On the Job

1. Call emergency services – 911.
2. Only use fire extinguisher is safe to do so.
3. Carry extinguisher in upright position to fire.
4. Pull pin of extinguisher, hold hose or horn in one hand.
5. When using a ABC fire extinguisher use the P.A.S.S method:
   a. Pull the pin
   b. Aim at the base of the fire
   c. Squeeze the trigger
   d. Sweeping motion of the fire extinguisher
7. Take extinguisher out of service and have it re-charged.

Formal monthly inspection to be recorded on the “Monthly Fire Extinguisher Inspection” form.
Safe Job Procedure – Using a Portable Generator
Hazards present: inhalation of carbon monoxide, fire/explosion, burns, electrocution, slip/trip

PPE: Foot Protection, hand and eye protection

Training: On the Job

1. Put on PPE.
2. Locate unit in a well-ventilated area, away from air intake ducts.
3. Ensure unit is set up on level ground with secure footing.
4. Pre-Operational Check:
   - Fuel and oil levels (top up before staring, if required).
   - Fan belts, air filter, guarding.
   - Check unit for loose bolts, leaks, etc.
5. a) To Start a Gasoline Generator:
   - Turn switch/breaker to OFF position.
   - Unplug cords.
   - Position throttle to ½ or ¾.
   - Pull choke to ON position (cold start).
   - Push start button/pull starter cord.
6. b) To Start a Diesel Generator:
   - Disconnect load/switch OFF/breaker OFF/unplug cords.
   - Push glow plug button.
   - Push START button/turn on key.
7. Allow unit to run until engine reaches operating temperature (10-15 minutes).
   Check for abnormal noises or vibration.
8. Slowly add load (example: breaker, one switch at a time, one cord at a time).
9. Check generator rpm and output levels, volts and amps – compare to recommendations on product manufacturer’s rating plate (located on unit).

Inspection and maintenance to be recorded on the “Generator Maintenance Checklist” form.
Safe Job Procedure – Using an Air Compressor
Hazards Present: noise, foreign particles, leaks, overheating

PPE: Foot Protection, eye protection

Training: On the Job

1. Pre-Operational Check:
   - Fuel, oil (if applicable), anti-freeze levels (top if required).
   - Fan belts, air filter, guarding.
   - Walk around the unit to check for obvious leaks.

2. a) To Start a Diesel Compressor:
   - Pull throttle control approximately ¾ of the way out.
   - Push in and hold the glow plug button.
   - Push the starter button until starts.
   - Hold glow plug button until adequate oil pressure is achieved.

   b) To Start a Gasoline Compressor:
   - Pull throttle control approximately ¾ of the way out.
   - Pull out choke.
   - Push the starter button until it starts.

3. Run the compressor for a warm-up period (about 15 minutes or until operating temperature is reached.

4. Once the unit has warmed up, push the throttle control until the compressor reaches normal idle speed.

Formal inspection to be recorded on the “Air Compressor Inspection Checklist” form.
**Safe Job Procedure – Using Hand Saws**

Hazards present: cuts and lacerations, eye injuries, slips and trips

PPE: Safety glasses, safety boots, gloves, hearing protection

Training: On the Job

1. Put on PPE.
2. Inspect before use. If found defective, tag and report to crew foreman who may dispose it.
3. Start the cut by placing your hand beside the cut mark with your thumb upright and pressing against blade.
4. Start cut carefully and slowly to prevent blade from jumping.
5. Pull upward until blade bites.
6. Start with partial cut, and then set saw at proper angle.
7. Apply pressure on down stroke only.
8. Hold stock being cut firmly in place.
9. Use a helper, a supporting bench or vice to support long stock if required.
10. Put saw away in designated location and clean up work area.
Safe Job Procedure – Using Nibblers

Hazards: Exposed moving parts and electrical hazard with the potential to cause harm through impact and cutting, noise, slips, trip and falls, and temperature.

PPE: Work gloves, safety glasses, steel-toed shoes

Training: On the job

Switching ON/OFF

1. Check that the cable and plug are not damaged.
2. Switching the power tool ON: Slide switch forward (I)
3. Switching the power tool OFF: Slide switch backwards (0)

Adjusting the cutting direction

1. Loosen the union nut by approximately 3 revolutions.
2. Pull the die holder in the cutting direction, push up and notch it into the groove.
3. Tighten the union nut.

Changing the punch

1. Before changing the tool, pull out the main plug. For an optimum cut, change the die and punch at the same time.
2. Loosen the union nut.
3. Remove the die holder.
4. Change the punch.
5. Refit the die holder again.
6. Tighten the union nut.

Changing the die

1. Unscrew the screw.
2. Press out and change the die.
3. Tighten the screw.
Safe Job Procedure – Using Roof Cutters

Hazards: cuts, eye injuries

PPE: eye glasses, foot protection

Training: On the Job

To start engine:
1. Put on PPE.
2. Inspect before use. If found defective, tag and report to crew foreman who may dispose it.
3. Turn fuel valve lever to the ON position.
4. To start cold engine, move the choke lever to the CLOSED position.
5. Move the throttle level away from the MIN position, about 1/3 of the way towards the MAX position.
6. Turn the engine switch to the ON position.
7. Pull the starter grip on the recoil start lightly until you feel resistance, then pull quickly to start engine.

Cutting operation:
8. Position roof cutter where cutting will be started
9. Make sure the blade guard is in the DOWN position.
10. Use depth control rod to lower blade to the roof surface.
11. Adjust depth to where it’s just deep enough to cut through the top layers of roofing felts but not more than half the thickness of the insulation.
12. Once the blade has been lowered into cutting depth, push it along a straight path while keeping a pace that allows you to control the roof cutter and your footing. Cutting a crooked path will damage the blade.
13. When you reach the end of the cut and need to stop, push down on the handle bar and allow the depth control rod to lock into the idle position.
14. Move saw to the next area where you need to cut and repeat process.
15. Shut off engine when done cutting and cleanup work area.
Safe Job Procedure – Violence in the Workplace, Assault and Robbery

Training: On the Job

Workplace Violence and Assault Policy

All employees of Top Notch Roofing are entitled to work in an environment free of violence. The company will take all reasonable measures to ensure that no employee is exposed to the risk of violence or assault during their employment by enforcing a “zero tolerance” policy. Violators of the policy will be subject to disciplinary action in accordance with company developed procedures, or at the discretion of senior management.

Occupational Health and Safety Regulation defines “Violence” as “the attempted or actual exercise by a person, other than a worker, of any physical force so as to cause injury to a worker and includes any threatening statement or behaviour which gives a worker reasonable cause to believe that he or she is at risk of injury.

An assault is carried out by a threat of bodily harm coupled with an apparent, present ability to cause harm.

Identifying a Potentially Violent Person

Signs that a person is potentially violent may include, but are not limited to:

- Their face is turning red or white.
- Their expression is angry, sneering or glaring.
- They are pacing, making nervous, repetitive or violent movements, shaking, clenching jaw or fists, approaching too near, or perspiring heavily.
- They are using a loud voice and/or abusive language.
- Their breathing is shallow or rapid.
- If you notice these signs, take action. Get help from crew foreman or management immediately.

Communicating with a Potentially Violent Person

- Do not confront the person by glaring or staring.
- Remain calm and use a calm manner.
- Speak slowly and clearly in a sure tone.
- Do not attempt complicated explanations during a tense situation.
- Ask the person to talk and pay close attention.
- Do not advise the person to relax or be calm.
- Use silence to placate the person.
- Do not defy, criticize, insult, interrupt or patronize.
- Do not crowd the person. Allow them about 2 to 4 feet of space.
- Do not fight with the person. Leave the situation and if necessary, get help from the police.

Problem Solving with a Potentially Violent Person

- Try to see the situation from the person’s point of view in order to figure out how to fix the problem.
• Do not take the situation lightly.
• Direct the person’s attention to the issue.
• Ask the person how to fix the problem.
• Be positive about criticism. If you agree with it, admit this. If you disagree, try to discuss the situation.
• Do not lie or make unreasonable commitments.
• Make minor requests, such as taking the discussion to a quiet area.
• Divide the problem into smaller chunks and deal with them one at a time.
• Be clear about the consequences of violence and provide other options.
• If the person is an employee, do not discuss discipline until the situation is more stable.
• Do not immediately turn down the person’s request.
• Do not try to negotiate with someone who is making threats. End the conversation calmly and if necessary, get assistance.

Ending an Abusive Telephone Call

• Interrupt in a courteous but firm tone.
• Make it clear that abusive behaviour is not acceptable, and that you will end the conversation if they don’t stop.
• Report the abusive call to your manager.
• Halt the call in a courteous but firm tone if the abusive person calls again.
• Make it clear that abusive behaviour is not acceptable, and that you will forward the call to your manager if they don’t stop.
• Put the caller on hold.
• Report the holding caller to your manager.
• Forward the caller to your manager.

Imminent Danger – Immediate Reporting

Any work who finds or considers themselves or someone else to be in imminent danger at work can summon immediate assistance by contacting police:

• 911 (emergency)
• 604-792-4611 (non-emergency)

Violent Incidents / Threats of Violence

Workers who become involved in or witness a violent incident or a threat of violence or who receive a report of such an incident are required to:

• Ensure their own safety (remove yourself from situation, see refusal to work procedure)
• Do what is safely possible to ensure a victim’s safety.
• Do not try to resolve the incident yourself or interfere with violent individuals.
• Call 911 if necessary.
• Make a formal report / statement to their crew foreman.
Non-urgent threats

Incidents involving statements or behaviors that do not present an immediate risk of physical harm, but make the worker feel threatened or otherwise concerned for his/her safety must be reported promptly to their crew foreman. Examples include harassing or bullying behaviour, a threatening comment, note, email, voicemail, gesture or a behaviour such as stalking.

The worker should contact the next level in management or the owner if their crew foreman is the problem. A formal report must be completed.

Robbery

- Stay calm.
- Do not argue.
- Listen.
- Do not follow or attempt to capture the thief—this places you and others in great danger.
- Do not surprise the thief or move unexpectedly.
- Try to be observant and remember details:
  - What is he/she wearing;
  - What does he or she look like? How tall are they;
  - What colour hair does he or she have;
  - Does he or she have any unusual characteristics such as tattoos or piercings;
  - If he or she had a weapon, describe it, and;
  - After he or she leaves, try to avoid touching anything the thief has touched. Make a note of the items that were touched.

After a robbery:

- If you can do so safely, record the license plate and the make and model of the vehicle the thief used.
- Never try to chase the thief.
- Notify police immediately by calling 911 and provide them with as much information as possible, including the route the thief took when leaving (remember not to try to follow the thief).
- Record all information observed about the thief.
- Lock all doors (if applicable) and do not let anyone enter.
- Ask all witnesses to remain until police arrive.
- Contact your crew foreman or management.
- Do not discuss the robbery with media or bystanders;
- Cooperate fully with the police investigation;
Element 5) Company Rules

List of Rules
Any employee found to be acting in contravention of company rules as shown below will be treated in accordance with the Rule Encouragement and Enforcement Procedures.

<table>
<thead>
<tr>
<th>Rule Description</th>
<th>Enforcement Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow client / site safety rules</td>
<td>Limit cell phone use to designated times</td>
</tr>
<tr>
<td>Follow safety-related responsibilities</td>
<td>Complete vehicle walk-around prior to moving</td>
</tr>
<tr>
<td>Report all accidents / incidents/near misses</td>
<td>Practice daily hygiene and clean work clothes</td>
</tr>
<tr>
<td>Report to work fit for duty</td>
<td></td>
</tr>
</tbody>
</table>

Rule Encouragement and Enforcement Procedures
All warnings will be recorded and documented on the Non-Compliance Form by the crew foreman.

Progressive Discipline
1. Should a worker display non-compliance, the crew foreman will verbally notify the worker and retrain the worker on the company requirements.
2. Should a worker display further continued non-compliance, the crew foreman will issue a written warning discussing the identified problematic situations with the worker.
3. Should the problematic situation continue, the crew foreman may terminate the worker as a way to resolve the situation.

Immediate Termination
1. Employees may go through the progressive disciplinary process up to and including immediate termination for any of the following:
   - Harming or threatening any person at work or a company function
   - Intentional misuse of or tampering with company property
   - Failure to notify the crew foreman of impairments that could cause safety hazards
   - Possession or use of alcohol or illegal drugs at work

Action Plan
Management will review all completed Non-Compliance Forms received and take appropriate action.

Form Reference
Non-Compliance Form- located below and on GoCanvas
# Non-Compliance Form

<table>
<thead>
<tr>
<th>Employee Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Name</td>
<td>Worksite</td>
</tr>
<tr>
<td>Issued by</td>
<td>Signature</td>
</tr>
</tbody>
</table>

## Description of Infraction

- [ ] Verbal warning
- [ ] Written warning
- [ ] Termination

**Crew Foreman’s report:**

---

## Employee Statement (check appropriate statement)

- [ ] I agree with the company’s statement.
- [ ] I disagree with the company’s statement for the following reasons:

---

**Employee signature**

**Date**

## Senior Management Action Plan

---

**Signature**

**Date**
Element 6) Personal Protective Equipment

DEFINITIONS
1. “Anchor” – a component or subsystem of a fall protection system used to connect the other parts of a fall protection system to an anchorage. It includes an anchorage connector.
2. “Anchorage” – a secure connection point for a fall protection system.
3. “Fall Arrest System” – a system that will stop a worker’s fall before the worker hits the surface below.
4. “Fall Protection System” – a) a fall restraint system, b) a fall arrest system, or c) work procedures that are acceptable to the Board and minimize the risk of injury to a worker from a fall.
5. “Fall Restraint System” – a system to prevent a worker from falling from a work position, or from travelling to an unguarded edge from which the worker could fall.
6. “Full Body Harness” – a body support device consisting of connected straps designed to distribute the force resulting from a fall over at least the thigh, shoulders, and pelvis, with provision for attaching a lanyard, lifeline, or other components.
7. “Horizontal lifeline system” – a system composed of a synthetic or wire rope, installed horizontally between 2 anchors, to which a worker attached a personal fall protection system.
8. “Lanyard” – a flexible line of webbing, or synthetic or wire rope, that is used to secure a safety belt or full body harness to a lifeline or anchor.
9. “Lifeline” – a synthetic or wire rope, rigged from one or more anchors, to which a worker’s lanyard or other part of personal fall protection system is attached.
10. “OJT” – On the Job Training
11. “Personal Fall Protection System” – a worker’s fall restraint system or fall arrest system composed of a) a safety belt or full body harness, and b) a lanyard, lifeline and any other connecting equipment individual to the worker that is used to secure the worker to an anchor, an anchorage or a horizontal lifeline system.
12. “Safety belt” – a body support device consisting of a strap with a means for securing it about the waist and attaching it to other components.

POLICY
Top Notch Roofing will ensure that appropriate PPE is available for employees and they are wearing it whenever required. In addition, all affected employees will receive appropriate PPE-specific training. While basic PPE training will be covered during orientations and toolbox talks, more formal training may be provided for specialized PPE. All PPE selected to protect against specific identified hazards will meet applicable standards as defined by the applicable local Occupational Health and Safety (OHS) Regulations.
RESPONSIBILITIES

1. The employer must ensure that a fall protection system is used when work is being done at a place, a) from which a fall of 3 m (10ft.) or more may occur, or b) where a fall from a height of less than 3 m involves a risk of injury greater than the risk of injury from the impact on a flat surface.

2. Crew Foremen will ensure that appropriate PPE is:
   ● Available to workers
   ● Properly worn when required
   ● Properly clean and stored
   ● Maintained and repaired as required
   ● Inspected and tested as required

3. Workers who are required to use PPE will:
   ● Be trained in the proper use of PPE if current training has not been provided
   ● Use the equipment in accordance with training and instruction
   ● Inspect the equipment before use
   ● Refrain from wearing PPE outside of the work area where it is required if to do so would constitute a hazard
   ● Immediately report any damaged or defective PPE to the crew foreman

4. A worker who is assigned responsibility for cleaning, maintaining, or storing PPE will do so in accordance with training and instruction provided.

PROCEDURE

1. Workers are expected to show up for all shifts with any necessary PPE that is relevant to their job duties. Failure to bring or wear necessary PPE while at the worksite may result in disciplinary action.

2. PPE will:
   ● Be used in accordance with recognized standards and provide effective protection
   ● Not in itself create a hazard to the wearer
   ● Be compatible, so that one item of PPE does not make another item ineffective
   ● Be maintained in good working order and in a sanitary condition

3. The project hazard assessment that is completed by the crew foreman and the workers will determine any additional PPE.

4. All SWP and SJP show what PPE is required for each job or task. Please review before work starts.

The selection of a method for fall protection depends on what is practicable. Employers are expected to make a reasonable assessment and use good judgement in making this decision. What is practicable depends on the circumstances of each workplace and is a matter of assessment and judgement.
Other Acceptable Work Procedures (other than control zones or safety monitor)

- **Installation or removal of fall protection equipment** (first man up/last man down rule).

- **Light duty work for short duration.** The use of a ladder may be acceptable for certain "light duty" tasks, as long as the work is completed under certain circumstances:
  o Working off of a portable ladder doing a "light duty task," such as an inspection or painting, where the ladder will be set up with its base at the same physical location for sporadic, short-term work. While performing the task, the worker should keep his/her centre of gravity (worker’s waist) between the side rails of the ladder and should generally have one hand available to hold on to the ladder or other support to maintain three points of contact. The ladder is not to be positioned near an edge, drop in height or floor opening that would significantly increase the potential fall distance. (Note that if the work on a ladder is likely to exceed 15 minutes at one physical location, some form of fall restraint or fall arrest protection should be used.) Where terrain and accessibility allow for other means of performing the work (e.g., a scissor lift or movable work platform), the use of other such means is to be considered prior to completing the work from a portable ladder.
  o Where work duration is approximately 15 minutes or less and the tasks are "light duty," the work may be completed from a portable ladder where use of a work platform is not practicable.
  o Work done from a ladder must be done in full compliance with Part 13 of the Regulation (especially Division 2 - Ladders, including sections 13.4, 13.5, and 13.6). Section 13.6(1) of the Regulation states that "if work cannot be done from a ladder without hazard to a worker, a work platform must be provided." If the work cannot be completed in full compliance with the requirements for safe ladder use under Part 13 a ladder must not be used for that work.
  o In circumstances where frequent ladder movement is required to complete multiple short duration tasks, each task may be considered as a separate instance of "short duration" work.

- **Roof inspection or estimation.** Provided the worker minimizes exposure to any unguarded edge as much as possible and provided other factors such as environmental conditions (e.g., wind or ice), roof slope, and surface finish do not present an undue hazard.

- **Transfers between fall protection systems.** Brief transfers between fall protection systems where the worker is protected by having a three-point contact (two feet placed firmly on a suitable supporting surface along with one hand supporting the worker, while the other hand is used to transfer a connection from one fall protection system to another).
## Provision of PPE

<table>
<thead>
<tr>
<th>PPE Type</th>
<th>Provided by</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Worker</td>
</tr>
<tr>
<td>Clothing for protection from the elements</td>
<td>★</td>
</tr>
<tr>
<td>Eye protection</td>
<td>☐</td>
</tr>
<tr>
<td>Face protection</td>
<td>☐</td>
</tr>
<tr>
<td>Fall protection equipment</td>
<td>☐</td>
</tr>
<tr>
<td>General purpose work gloves</td>
<td>★</td>
</tr>
<tr>
<td>Hearing protection</td>
<td>☐</td>
</tr>
<tr>
<td>High-visibility distinguishing apparel</td>
<td>☐</td>
</tr>
<tr>
<td>Disposable respirators</td>
<td>☐</td>
</tr>
<tr>
<td>Respiratory protection equipment</td>
<td>☐</td>
</tr>
<tr>
<td>Safety footwear</td>
<td>★</td>
</tr>
<tr>
<td>Hard hats</td>
<td>☐</td>
</tr>
</tbody>
</table>

## Types of PPE

### Clothing for Protection from the Elements

1. Polyester, Nylon, or other similar synthetic materials are not permitted when working near flames or hot asphalt due to their high flammability and lack of protection. It is preferable to wear clothing made of cotton or similar fire-resistant material.

2. Shirts must have a minimum 4” sleeve.

3. Pants must cover the ankle, be free of tears, and not be loose enough to cause snagging.
Disposable Respirators

1. Disposable respirators must be worn whenever instructed to do so.
2. A fit test will be carried out for all workers in all of the following cases:
   - Before initial use of respirator
   - At least once a year
   - When there is a change in respirator face-piece
   - When changes to the user’s condition could affect the respirator fit
3. The protection factor of a disposable respirator is 5, compared to 10 if wearing a half mask respirator or 50 if wearing a full-face respirator.
4. Fitting Instructions: Must be followed each time respirator is worn.
   1. Pre-stretch top and bottom straps before placing respirator on the face (8210 only) (Fig. 1).
   2. Cup the respirator in your hand, with the nosepiece at your fingertips, allowing the headbands to hang freely below your hand (Fig. 2).
   3. Position the respirator under your chin with the nosepiece up. Pull the top strap over your head resting it high at the top back of your head. Pull the bottom strap over your head and position it around the neck below the ears (Fig. 3).
   4. Place your fingertips from both hands at the top of the metal nosepiece. Using two hands, mold the nose area to the shape of your nose by pushing inward while moving your fingertips down both sides of the nosepiece (Fig. 4).
      (Pinching the nosepiece using one hand may result in improper fit and less effective respirator performance. Use two hands.)
   5. Perform a User Seal Check prior to each wearing. To check the respirator-to-face seal, place both hands completely over the respirator and exhale sharply. Be careful not to disturb the position of the respirator. If air leaks around nose, readjust the nosepiece as described in step 4. If air leaks at the respirator edges, work the straps back along the sides of your head (Fig. 5). If you CANNOT achieve a proper seal, DO NOT enter the contaminated area. See your crew foreman.

5. Removal Instructions: See step 3 of Fitting Instructions and cup respirator in hand to maintain position on face. Pull bottom strap over head. Still holding respirator in position, pull top strap over head and remove respirator.
6. All fit tests will be recorded on the Fit Test Record Form; the respirator screenings will be recorded on the Respirator User Screening Form by the user, and all completed forms will be sent to the office to be filed in the computer.
7. Fit tests will be done inhouse by a trained company designate.
Eye Protection

1. Workers will wear safety eyewear appropriate to the conditions of the workplace if handling or exposed to materials that are likely to injure or irritate the eyes.
2. Properly fitting safety eyewear appropriate to the conditions of the workplace must be worn if a worker:
   - Has 20/20 or less vision in either eye or is blind in either eye,
   - or
   - Is working on or testing electrical equipment energized at a potential greater than 30 volts.
4. Bifocal or trifocal glass lenses must not be used if there is danger of impact, unless they are worn behind impact-related goggles or other eye protection acceptable to the Board.
5. If the use of polycarbonate or plastic prescription lenses is impracticable because of the conditions of the workplace and there is no danger of impact, workers may use prescription lenses made of treated safety glass meeting the requirements of ANSI Standard Z87.1-1989, *Practice for Occupational and Educational Eye and Face Protection*.
6. Safety eyewear must be fitted with side shields when necessary for the safety of a worker. Safety glasses should fit tight enough to the head that they do not fall off when bending over.

Fall Protection Equipment

Instructions:

1. All fall protection equipment will:
   - Consist of compatible and suitable components
   - Be sufficient to support fall restraint of fall arrest forces
   - Meet and be used in accordance with applicable CSA ANSI standards
2. Only one personal fall restraint or fall arrest system will be connected to each anchor point at any time unless authorized by an engineer.
3. Anchors must have an ultimate load capacity (in any direction) as shown in the table below.

<table>
<thead>
<tr>
<th>Type of Anchor</th>
<th>Fall Restraint</th>
<th>Fall Arrest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary</td>
<td>800 lb. (3.5 kN) or 4x the weight of the worker</td>
<td>5,000 lbs (22.2 kN)</td>
</tr>
<tr>
<td>Permanent</td>
<td>5,000 lb. (22.2 kN)</td>
<td></td>
</tr>
</tbody>
</table>

4. All connectors used in a personal fall arrest or personal fall restraint system will:
   - Have an attached and legible manufacturer’s tag or stamp indicating CSA or ANSI approval
   - Not be marked on the software or engraved by the end used on the hardware
5. All snap hooks and carabiners will be:
   - Fitted with a functioning auto-locking mechanism
   - Used in a manner that prevents forced roll-out, three-way loading, cross-gate loading, or gating over an edge
6. Only full body harnesses will be used in a Fall Protection System and will:
   - Have an attached and legible manufacturer’s tag indicating CSA or ANSI approval
● Be fitted properly for each intended end-user
● Not be marked with felt pen on the webbing or engraving on metal components

7. The full body harness must be fitted in accordance with the following steps:
   ● Sub-pelvic strap just below the buttocks
   ● Leg straps tight enough that when you put your hand through and make a fist you are unable to pull your fist out
   ● Chest strap across the mid chest
   ● D-ring positioned between shoulder blades

8. Before using a fall restraint or fall arrest system, all equipment will be visually inspected by the end user.

9. In addition to (7), the crew foreman, or designated worker, will conduct a formal inspection of all fall protection equipment and system components and document the results on the Fall Protection Equipment Inspection Form.

10. The crew foreman, or designated worker, will document formal inspection results on the Fall Protection Equipment Inspection Form.

11. Any equipment that is past the manufacturer-recommended service life, appears to be damaged or defective, or shows signs of deployment will not be used and will be reported to the crew foreman.

12. Damaged or defective fall protection system components that are permanent fixtures will not be used until they have either been replaced, or inspected and re-certified by the manufacturer, an authorized agent of the manufacturer, or a certified engineer.

13. When not in use, all fall protection system components will be:
   ● Stored indoors, whenever possible, or stored in a cool, dry environment away from direct sunlight and rain, if possible
   ● Kept free of dirt, oil, grease, markers, chemicals, abrasive materials, and anything else that may damage the equipment.

General Purpose Work Gloves

1. Gloves must protect the entire hand and wrist area.
2. Gloves should be made from leather or cut resistant material unless otherwise instructed.

Hard Hats

1. Hard hats will be worn wherever there is a clear and present danger of head injury, unless specified by the crew foreman or the hazard assessment.
3. Hard hats may be worn backwards, providing the suspension adjustment is positioned at the back of the head and this is permitted by the manufacturer.
4. Hard hats will not be altered or marked with paint, felt markers, or any other making device.
5. Materials attached to a hard hat must not affect the hat’s ability to protect the head.
6. Damaged hard hat or hat with missing, mismatched, or modified components must be removed from service.

### Hearing Protection

1. Hearing protection must be worn whenever a worker is working around noise levels above either of the following exposure limits:
   - 85 dBA Lex daily noise exposure level
   - 140 dBA peak sound level
2. The following table shows equipment and their associated daily noise exposure levels.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Noise Exposure Levels (measured in dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rustle of leaves</td>
<td>20</td>
</tr>
<tr>
<td>Manual tools</td>
<td>80</td>
</tr>
<tr>
<td>Compressor</td>
<td>40-90</td>
</tr>
<tr>
<td>Mobile Equipment</td>
<td>91</td>
</tr>
<tr>
<td>Hand held drill</td>
<td>95</td>
</tr>
<tr>
<td>Shout at 1.5 metres</td>
<td>100</td>
</tr>
<tr>
<td>Power saw</td>
<td>110</td>
</tr>
<tr>
<td>Leaf blower</td>
<td>110</td>
</tr>
<tr>
<td>Chainsaw</td>
<td>120</td>
</tr>
</tbody>
</table>

3. The education and training of workers exposed to noise above the exposure limits stated in (1) should include the following:
   - Results of any noise exposure measurements
   - Effects of noise on hearing
   - Proper use and maintenance of hearing protection
   - Purpose of hearing testing
4. The employer must give workers who are exposed to noise that exceeds noise exposure limits:
   - An initial hearing test as soon as applicable after employment starts, but not later than 6 months after the start of employment, and
   - A test at least every 12 months after the initial test.
5. Hearing tests must be administered by an audiologist.
6. The employer must ensure that the authorized hearing tester sends test results to the Board.
### Respiratory Protective Equipment

1. Any respiratory protective equipment must comply with *CSA Standard CAN/CSA-Z94.4-11 – Selection, use, and care of respirators*.

2. The crew foreman will ensure all respirators:
   - Are purchased from an authorized dealer
   - Consist of compatible and suitable components
   - Are sufficient to protect against the identified environment
   - Meet applicable regulatory standards

3. Wherever a respirator requires an effective seal with the face for proper functioning, a fit test will be performed by a trained company designate.

4. The fit test will be carried out in all of the following cases:
   - Before initial use of a respirator
   - At least once a year
   - When there is a change in respirator face-piece
   - When changes to the user’s physical condition could affect the respirator fit.

5. Any personal protective equipment that will be worn the same time as a respirator and could interfere with the respirator fit will be during the fit test.

6. Fit tests will be documented on the *Respirator Fit Test Record* and a *Respirator Screening Form* will be filled out for each user.

7. Workers will perform a positive and negative pressure seal check before each use of a respirator that requires an effective seal with the face for proper functioning.

8. Cartridges will be changed in accordance with company requirements. Whenever a new cartridge is installed, the installation date will be clearly indicated on the cartridge using a suitable marking device.

9. When not in use, all respirators will be:
   - Stored indoors where practicable, or stored in a cool, dry environment away from direct sunlight and rain, if practicable
   - Kept free from dirt, oil, grease, markers, chemicals, abrasive materials, and anything else that may damage the equipment.

### High-Visibility Vest

1. High-visibility vests must be worn whenever instructed to do so, and

2. Must meet Type 1, Type 2, or Type 3 criteria of WCB Personal Protective Equipment

3. For safety and best performance, garments should be fitted to the person and comfortable to wear. It should be done up properly around the body with no loose or dangling components. The garments should sit correctly on your body and stay in place during your work. Garments should be selected and worn so that no other clothing or equipment covers the high-visibility materials.

4. High-visibility vests must be kept clean and well-maintained. Replace garments that show signs of wear and tear, soiling, or contamination as it will no longer be able to provide acceptable levels of visibility.
10. Before using a respirator, all components of the system will be visually inspected by the end user.
11. Any equipment that appears to be damaged or defective will not be used and will be reported to the crew foreman and tagged as 'out of service'.

**Safety Footwear**

1. CSA approved footwear will be worn onsite at all times unless specified by the crew foreman.
2. Workers will ensure their safety footwear is maintained in a condition that provides adequate or intended protection.
3. Ensure that steel toed boots are fit snug and have ankle support.
4. Maintenance - must be replaced if there are any holes or completely worn-down soles.

**Training Requirements**

<table>
<thead>
<tr>
<th>Type</th>
<th>Who</th>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
</table>
| Formal        | Anyone who works at height       | Fall protection              | Topics should include the following:  
|               |                                  |                              | • Equipment standards (CSA/ANSI)  
|               |                                  |                              | • Fall Protection Regulation  
|               |                                  |                              | • Fall Protection Systems  
|               |                                  |                              | • Practical Harness Fitting  
|               |                                  |                              | • Fall Protection System Setup/Analysis  |
| Formal or OJT| Anyone who completes the Fall Protection Equipment Inspection Form | Fall Protection Inspection  | Topics should include the following:  
|               |                                  |                              | • Manufacturer requirements  
|               |                                  |                              | • Inspection criteria  |
| Formal or OJT| Anyone who needs to wear a respirator | Respiratory Protection | -Respirator fit test and instruction  
|               |                                  |                              | -Any persons responsible for performing fit testing will be certified to do so through _______________  |

**Forms Reference**

Fall Protection Equipment Inspection Form – located below and on GoCanvas

Fit Test Record – located below and on GoCanvas

Respirator User Screening Record – located below and on GoCanvas
**Fall Protection Equipment Inspection Form**

<table>
<thead>
<tr>
<th>Harness Description</th>
<th>Tracking / Serial Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspected by</td>
<td>Date</td>
</tr>
</tbody>
</table>

Mark any deficiencies on the above diagram and include a corresponding comment next to the appropriate system component check.

**System Component**

<table>
<thead>
<tr>
<th>Webbing</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Stitching</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D-Rings</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Buckles</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Labels &amp; Markings</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Harness Result**

<table>
<thead>
<tr>
<th>Pass</th>
<th>Fail</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>
Fit Test Record

Date: ____________________  Respirator user screening form submitted: Y ☐ N ☐

Name: ____________________  Function: ____________________

Department/Location: ______________  Fit Test Type:  Qualitative (QLFT)

Challenge agent used: ______  PPE tested with: (circle) hard hat – hearing protection – safety eyewear – others: ______________ N/A ☐

Unusual face feature: (circle)  Dentures - Corrective eyewear - facial jewellery - facial hair - Cosmetics – Scars – Others: ____________________

Respirator(s) Selected:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model # and Type</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Taste threshold:  10  20  30  Unable to taste  (circle one)

Test Performed

<table>
<thead>
<tr>
<th>Test Performed</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Pressure user seal check, worker demonstration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Pressure user seal check, worker demonstration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bitrex (PPE, hood and collar) 30 sec. x 7 exercises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Normal breathing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Deep breathing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Turn head from side to side</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Nodding head up and down</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Light body movement / exercise (above CSA requirements)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Talking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Normal breathing (Optional)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(P = pass, F = Fail, N = not completed)

Roles and Responsibilities discussed: Y ☐ N ☐  Respirator limitation discussed: Y ☐ N ☐

General Knowledge of Respirator use discussed: Y ☐ N ☐

Care and practical use discussed: Y ☐ N ☐

Worker Fit tested name & signature: ____________________

I was fit tested on the respirator(s) stated above and was informed on the subject checked above.

Fit tester name & signature: ____________________

This Respirator Fit Test was performed in accordance with CSA Standard Z94.4-02.

Worker supervisor name & signature: ____________________

I am aware that this worker was fit tested with the respirator stated above. This worker has been trained on respirator use in accordance with CSA Standard Z94.4-02.
Respirator User Screening Form
(For initial and periodic screening of respirator users in conjunction with CSA Standard Z94.4, Clause 11.)

When completed, this form is for testing purposes only; its contents are confidential, and the information provided is not to be shared with other sources.

Part 1: Employer Information
Worksite Address: __________________________________________________________
Employer Name: __________________________________________________________
Employer #: __________ Telephone #: __________________________
Supervisor Name: __________________________ Date: _________________________

Part 2: Respirator User Information
Name: __________________________________________________________
Title/Occupation: __________________________________________________________
Employer #: __________ Telephone #: __________________________

Part 3: Conditions of Use
Activities requiring respirator use: __________________________________________
Frequency of respirator use: □ daily □ weekly □ monthly □ yearly □ uncertain
Exertion level during use: □ light □ moderate □ heavy □ other
Duration of respirator use per shift: □ <1/4 hr □ >1/4 hr □ > 2hr □ variable □ unknown
Temperature during use: □ < 0° C □ > 0 and < 25° C □ > 25 ° C
Atmospheric pressure during use: □ reduced □ normal/ambient □ increased

Special Work Considerations
Uncontrolled Hostile Environment:
□ Emergency Escape □ Fire Fighting □ Riot/Police Activity □ Rescue Operations □ IDLH
□ Hazardous materials (Emergency) □ Oxygen Deficiency □ Confined Spaces
□ Other: ___________________________________________________________________

Other Personal Protective Equipment:
□ Additional types of personal protective equipment required, specify: ______________
□ Estimated total weight of tools/equipment carried during respirator use: Maximum: ______
Average: __________

Part 4: Types of Respirators Used (…… Check all that apply):
□ Tight-fitting □ Non- tight-fitting (ie/ hood) □ SCBA-open circuit
□ Mouth bit □ Supplied-air, demand □ SCBA-closed circuit
□ Air-purifying, non-powered □ Supplied-air, continuous-flow □ SCBA-escape
□ Air-purifying, powered □ Supplied-air, pressure-demand □ SCBA-closed circuit escape
□ Combination pressure demand/supplied-air with escape □ Supplied-air suit
□ Combination supplied-air with air-purifying elements □ Other – specify: _____________

Part 5: Respirator User’s Health Conditions (Check the YES or NO box only….. DO NOT SPECIFY)
(a) Some conditions can seriously affect your ability to safely use a respirator. Do you have, or do you experience any of the following, or another condition that may affect respirator use? □ Yes □ No

<table>
<thead>
<tr>
<th>Condition</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortness of breath</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breathing difficulties</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic bronchitis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emphysema</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lung disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chest pain on exertion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allergies</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Hypertension | Cardiovascular disease | Thyroid problems | Diabetes
---|---|---|---
Neuromuscular disease | Fainting spells | Dizziness/nausea | Seizures
Temperature susceptibility | Claustrophobia/fear of heights | Hearing Impairment | Dentures
Panic Attacks | Color blindness | Asthma | Pacemaker
Vision impairment | Reduced sense of smell | Reduced sense of taste | Back/neck problems
Facial features/skin conditions | Prescription medication to control a condition

**Other Condition(s) affecting respirator use:**

(b) Have you had previous difficulty while using a respirator? □ Yes □ No
(c) Do you have any concerns about your future ability to use a respirator safely? □ Yes □ No

A “YES” answer to item (a), (b), or (c) above indicates further assessment by a health care professional is required prior to respirator use. NOTE: Medical information is NOT to be offered on this form.

Signature of Respirator User: ____________________________
Supervisor’s Initials: ____________________________ Date: ____________________________

**Part 6: Health Care Professional Primary Assessment (... If required)**

**Assessment Date:** ____________________________
Respirator use permitted? □ YES □ NO □ UNCERTAIN
Referred to medical assessment? □ YES □ NO
Comments:
--------------------------------------------
--------------------------------------------

**Reassessment Date:** ____________________________
Name of Health Care Professional: ____________________________ Title: ____________________________
Signature of Health Care Professional: ____________________________

**Part 7: Medical Assessment (... If required)**

□ Class 1. NO Restrictions
□ Class 2. Some specific restrictions apply:
□ Class 3. Respirator use is NOT permitted

Name of Physician: ____________________________
Signature of Physician: ____________________________
Element 7) Preventative Maintenance

**POLICY**
The company will maintain a system to list all company vehicles and equipment that need maintenance which shows:

- company vehicle and equipment identifier (i.e., name or unit #)
- required maintenance frequency (i.e., hours, kilometres, use)

The list will be updated when new or modified equipment is put into use.

**PROCEDURE**

________________________ must complete any repair or maintenance work done on company vehicles. All maintenances performed will be documented on the Maintenance Record by the executive administrator.

<table>
<thead>
<tr>
<th>Item</th>
<th>Examples</th>
<th>Document</th>
<th>Scheduled Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tools/Equipment</td>
<td>Nail gun, compressor</td>
<td>Inspection Forms</td>
<td>NO</td>
</tr>
<tr>
<td>Company Vehicles</td>
<td>Trucks</td>
<td>Pre-Trip Use</td>
<td>YES</td>
</tr>
</tbody>
</table>

Pre-trip / Use documents will be included in the specific safe work practice or safe job procedure for each tool, vehicle, or piece of equipment.

1. The crew foreman will ensure any tools or company vehicles deemed unsafe for operation are assessed to determine if it is practicable to repair or maintain them.
2. If the tool or vehicle is beyond reasonable repair, it will be rendered permanently inoperable and disposed of as soon as practicable.

Tagging Procedure

4. If tools or equipment are found defective, they must be tagged ‘out of service’, stored in a location away from regular work activities and reported to the crew foreman.
5. All repair tags used to identify damaged equipment as unsafe for operation will be:
   - Easily recognizable
   - Securely fastened
   - Constructed of material appropriate to worksite conditions

6. All repair tags should record the following information:
   - Date
   - Problem
   - Who tagged it
A list of equipment types and their requested maintenance is shown in the table below.

<table>
<thead>
<tr>
<th>Item</th>
<th>Types of service (what needs to be done?)</th>
<th>Frequency (xx hours or xx km)</th>
<th>Reference (where is the frequency stated?)</th>
<th>Maintained by whom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas-powered roof sweeper</td>
<td>General servicing</td>
<td>Monthly</td>
<td>Safe Work Practice – Power Roof Sweeper</td>
<td>Crew foreman or worker designate</td>
</tr>
<tr>
<td>Gas-powered leaf blower</td>
<td>General servicing</td>
<td>Monthly</td>
<td>Safe Work Practice – Power Leaf Blowers</td>
<td>Crew foreman or worker designate</td>
</tr>
</tbody>
</table>

**Forms Reference**
- Generator Maintenance Checklist – located below and on GoCanvas
- Leaf Blower Maintenance Checklist – located below and on GoCanvas
- Maintenance Record – located below and on GoCanvas
Generator Maintenance Checklist

Date:
Inspector:

Monthly / Before Starting

☐ Check fluid levels (fuel, oil, trans/radiator)
☐ Air filters & crankcase breather clean & clear
☐ Checked for leaks
☐ Belt tension (where applicable)
☐ Fuel tank full & cap secure
☐ Fuel filter clean
☐ Isolation switch position
☐ Spark or glow plug and leads secure
☐ Battery charge indicator
☐ Battery fluid level, terminals & leads
☐ Exhaust secure & compliant
☐ All safety guards secure and functional
☐ Any loose, damaged or worn parts
☐ Debris build up cleaned and cleared

After starting:

☐ All gauges undamaged and functional
☐ No abnormal noises and vibrations
☐ Any fluid leaks
☐ Emergency stop switch functional

Every six months:

☐ Change oil and filter
☐ Change the air and fuel filters
☐ Clean crankcase breather
☐ Change air cleaner element
☐ Check radiator hoses

Once a year:

☐ Clean cooling systems

List any defects / comments:

☐ Generator in good enough condition to use?

Signature of Inspector:
Leaf Blower Maintenance Checklist

Date:

Inspector:

☐ Flush the fuel tank of old gasoline. Refill with fresh proper fuel.
☐ Clean the outside of carburetor and the space around it.
☐ Clean the fan blades on the flywheel.
☐ Check the fuel filter and fuel line. Replace if necessary.
☐ Check all cables and the connections.
☐ Change spark plug if needed.
☐ Check and clean the muffler’s spark arrest screen if necessary (only on mufflers with a catalytic converter).

☐ Equipment in good enough condition to use? If not, remove from service and immediately report it to crew foreman. List any defects below.

Comments / defects:

Signature of inspector:
A list of company vehicle types and their requested maintenance is shown in the tables below.
<table>
<thead>
<tr>
<th>Item / Vehicle</th>
<th>Service Performed</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>
Element 8) Training

DEFINITIONS
1. “Competent” – qualified, suitably trained, and has sufficient experience to work safely.
2. “Qualified” – being knowledgeable of the work, the hazards involved, and the means to control the hazards, by reason of education, training, experience, or a combination thereof.
3. “Training” – a process by which knowledge, skills, and competencies are acquired.
4. “New” – any person who is:
   - New to the workplace
   - Returning to a workplace where the hazards in that workplace have changed during the worker’s absence
   - Affected by a change in the hazards of a workplace
   - Relocated to a new workplace if the hazards in that workplace are different from the hazards in the worker’s previous workplace
5. “Young” – any employee who is under 25 years of age.

POLICY
The company will ensure that all employees, including subcontractors, have, or will receive, training to assist in the safe performance of their job duties and all training will be delivered by the employer. Each Safe Work Practice and Safe Job Procedure will describe training requirements for the related practice or procedure.

Formal training may be delivered in house or by a third-party trainer. These training sessions may range from 1-16 (or more) hours each and consist of a formal lesson plan, student workbook, practical exercises, and a documented test.

Formal training requirements will be listed on the Company Orientation Form.

Example of formal training:
- fall protection

On-the-Job-Training (OJT)
1. OJT is related to specific tasks and hazards at each worksite and is almost always delivered in house by means of a Toolbox Talk (or other method). OJT requirements will be listed on the Company Orientation Form.
2. OJT must be delivered by the employer.
3. Examples of OJT: power tools, ladder use, onsite fall protection plan

Orientations
1. Orientations are required for all personnel, including subcontractors, wishing to gain access to the worksite, unless accompanied at all times by an experienced company representative.
2. An experienced company representative will be the only person to conduct orientations. Each person being oriented will be given an opportunity and encouraged to ask questions or review a specific topic in more detail throughout the process.
3. Orientations will be used only as a tool to help persons gain a timely understanding of important safety-related information and will not be used under any circumstance as a substitute for required training, demonstration, or instruction.

4. Mandatory training requirements must be verified, or training scheduled, prior to the employee conducting relevant work.

5. All orientations will be documented on the Company Orientation Form by the company representative and the employee being trained.

**Toolbox Talks**

A toolbox talk will be conducted at least weekly, and more often if significant changes to worksite conditions or work processes occur.

**RESPONSIBILITIES**

**Toolbox Talks**

The crew foreman of each operational worksite will ensure a toolbox talk is conducted on a weekly basis and documented on the Toolbox Talk Form.

**Monthly Site Health & Safety Meetings**

The employer(s) will meet with employees once a month to discuss health and safety related topics. These meetings will be documented on the Monthly Site Health & Safety Meeting form.

The employer has the following three basic responsibilities when implementing and maintaining meetings:

- Hold regular monthly meetings with workers for discussion of health and safety matters
- Ensure meetings deal with corrections of unsafe conditions and practices and the maintenance of cooperative interest in the health and safety of the workforce
- Maintain a record of the meetings and the matters discussed. This does not mean that formal minutes have to be kept. It is sufficient that a record is kept of when meetings were held, who attended, and the general nature of what was discussed. The record should mention any specific concerns raised by persons attending, and it must be available for inspection by prevention officers.

**Manager Safety Meetings**

1. Management will meet annually to discuss the following health and safety topics:
   - incident trends
   - injury management results / steps needed to improve
   - health and safety activities
   - determining necessary course of action
- inspection reports
- incident investigation reports
- Health and Safety Worker Representative Meeting Minutes

2. Management meetings will be documented on the *Manager Safety Meeting* form.

**Crew Safety Meetings**

1. Crew foremen should meet with their workers once a month to discuss health and safety topics.
2. This meeting can be started with a toolbox talk. Once complete, hold the safety meeting.
3. Open the floor for discussion of any safety concerns the crew might have. Find a way of resolving any issue before moving onto the next issue.
4. Record the main points discussed and how the issues were resolved.
5. End the meeting by setting the date / time / topic of next meeting.

These meetings are to be documented on the *Crew Safety Meeting* form.

**Forms Reference**
Company Orientation – located below and on GoCanvas
Toolbox Talk – located below and on GoCanvas
Monthly Site Health & Safety Meeting – located below and on GoCanvas
Manager Safety Meeting – located below and on GoCanvas
Crew Safety Meeting – located below and on GoCanvas
Company Orientation Form

<table>
<thead>
<tr>
<th>Employee Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date hired</td>
<td>Date of Orientation</td>
</tr>
<tr>
<td>Person providing orientation</td>
<td></td>
</tr>
<tr>
<td>Company Name</td>
<td></td>
</tr>
</tbody>
</table>

☐ Download GoCanvas App  ☐ Download OHS Regulations App

1. Crew foreman Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainer Initials</td>
<td>Worker Initials</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
</tr>
</tbody>
</table>

2. Review worker’s rights and responsibilities

1. Management is committed to providing a safe and healthy work environment, in recognition of the right of employees to work in a safe and healthy environment.
2. Management will provide the necessary resources to maintain a health and safety program.
3. Employees will not carry out or cause to be carried out any work they have reasonable cause to believe would create an undue hazard to the health and safety of themselves or anyone else at the worksite.
4. An employee who refuses unsafe work will not be subject to any form of discriminatory action. (OH&S Regulation 3.12 & 3.13)
5. An employee who refuses to carry out a work activity will immediately report the circumstances of the unsafe condition to his or her crew foreman.
6. Crew foremen will:
   - Ensure the health and safety or all workers under their direct supervision
   - Be knowledgeable about the relevant sections of the Workers Compensation Act and the OHS Regulation for the work being supervised
7. Workers will take reasonable care to protect their health and safety and the health and safety of others who may be affected by their act or omissions.
8. In addition to (7), workers will:
   - Know and follow all health and safety requirements
   - Ask for training before beginning any task if they do not know how to do it safely
   - Work safely and encourage their co-workers to do the same
   - Correct any unsafe conditions or immediately report them to their crew foreman
   - Take the initiative and make suggestions to improve health and safety
9. Postings: GoCanvas – Safety Board Layout

| Trainer Initials | Worker Initials |

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### 3. Workplace health and safety rules

Employees may go through the progressive disciplinary process up to and including immediate termination for breaking any of the following rules:
- Follow client / site safety rules
- Follow safety-related responsibilities
- Report all accidents/incidents/near misses
- Report to work fit for duty
- Limit cell phone use to designated times
- Complete vehicle walk-around prior to moving
- Practice daily hygiene and clean work clothes

<table>
<thead>
<tr>
<th>Trainer Initials</th>
<th>Worker Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments:

### 4. Known hazards and how to deal with them

- Falls > 10 ft.
- Hot work
- Mobile equipment
- Energized equipment
- Handheld tools
- Working alone /isolation
- Inclement weather
- Other:
- Other:

<table>
<thead>
<tr>
<th>Trainer Initials</th>
<th>Worker Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments:

### 5. Safe Job Procedures for carrying out tasks

- Demonstrate specific tasks and safe job procedures

<table>
<thead>
<tr>
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6. **Personal Protective Equipment (PPE)**

- What to use
- When to use it
- Where to find it
- Basic:
- Specialized:

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7. **Preventive Maintenance**

1. The crew foreman will ensure any tools or company vehicles deemed unsafe for operation are assessed to determine if it is practicable to repair or maintain them.
2. If the tool or vehicle is beyond reasonable repair, it will be rendered permanently inoperable and disposed of as soon as practicable.

**Tagging Procedure**

1. If tools or equipment are found defective, they must be tagged 'out of service', stored in a location away from regular work activities and reported to the crew foreman.
2. All repair tags used to identify damaged equipment as unsafe for operation will be:
   - Easily recognizable
   - Securely fastened
   - Constructed of material appropriate to worksite conditions
3. All repair tags should record the following information:
   - Date
   - Problem
   - Who tagged it

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</table>
8. Inspections
- The role of the worksite inspection is not solely to meet a legislated requirement. An effective inspection process allows the company to integrate other health and safety program objectives including the following:
  - Identify hazards,
  - Set standards and related procedures,
  - Measure performance against established standards,
  - Evaluate health and safety performance,
  - Correct deficiencies and commend success.
- Work Site Inspection
- Fall Plan
- Equipment / tools inspection

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Comments:

9. First Aid
- First aid attendant name and contact information
- How to report injuries

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Comments:

10. Emergency Procedures
- Locations of emergency exits and meeting points
- Locations of fire extinguishers / fire alarms
- How to use fire extinguishers
- What to do in an emergency situation
- Review Emergency Response Plan

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Comments:
12. Violence, Bullying & Harassment

- Violence and Assault: All employees are entitled to work in an environment free of violence. The company will take reasonable measures to ensure that no employee is exposed to the risk of violence or assault during their employment by enforcing a “zero tolerance” policy. Violators will be subject to disciplinary action.
- If involved in or witness an incident:
  - Remove yourself from the situation or do what is safely possible to ensure a victim’s safety.
  - Do not try to resolve the incident yourself or interfere with violent individuals.
  - Call 911 if necessary.
  - Make a formal report / statement to crew foreman. If the crew foreman is the problem the worker should contact the next level in management.
- Bullying & Harassment: if you are bullied at work, speak to someone about how you might deal with the problem informally.
  - If you feel safe doing so, tell the bully that the behavior is unwelcome and unwanted.
  - Keep a factual journal or diary of daily events.
  - Do not retaliate. It can make you look like a bully.
  - If your crew foreman is the bully, talk with your crew foreman’s manager or employer.
  - If the informal approach fails, you should bring the matter to attention of management as a formal written complaint. We will investigate and take action.

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13. Hazardous materials and WHMIS

- What hazardous materials are in the workplace
- Purpose and significance of hazard information on product labels
- Location, purpose and significance of material safety data sheets (SDSs)
• How to handle, use, store and dispose of hazardous materials safely
• Procedures for an emergency involving hazardous materials, including cleanup of spills

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<th>Trainer Initials</th>
<th>Worker Initials</th>
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<td>Comments:</td>
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14. Investigations

• All workers onsite will immediately report to the crew foreman any time an incident occurs and the appointed first aid attendant any time an injury occurs.
• All investigations (accidents, incidents, near misses) will be completed by the crew foreman, employer and the health & safety representative and documented on the Accident Investigation form.
• Witnesses to near misses or accidents will record findings on the Witness Statement.
• What to do when injured at work:
  o Report injury immediately to your employer.
  o See your physician.
  o Report injury to WorkSafeBC, Form 6A.

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<th>Trainer Initials</th>
<th>Worker Initials</th>
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<td>Comments:</td>
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</table>

15. Worker Health and Safety Representative

• Contact Information:
• Duties and Functions:
  o Identify situations that may be unsafe for workers and advise on effective systems for responding to those situations.
  o Consider and expeditiously deal with complaints or concerns relating to health and safety.
  o Consult with workers and the employer on issues related to health and safety.
  o Make recommendations for the improvement of the health and safety or workers.
  o Make recommendations on educational programs.
  o Advise on programs and procedures in accordance with legislated requirements.
  o Advise on proposed changes to the workplace or the work processes that may affect the health and safety or workers.
  o Participate inspections, investigations, and inquiries as provided by OHS Regulation.

<table>
<thead>
<tr>
<th>Trainer Initials</th>
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<td>Comments:</td>
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</table>
Complete this section to show that training requirements have been verified or a training plan has been put into place.

### Training Verification

<table>
<thead>
<tr>
<th>Training</th>
<th>Required</th>
<th>Proof or Training</th>
<th>Date of Training</th>
<th>If training is needed but has not been provided, explain when it will be provided.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Yes / No</td>
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### Orientation Quiz

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>1. Is management committed to providing a safe and healthy work environment?</td>
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<tr>
<td>2. Can an employee get laid off if he or she refuses unsafe work?</td>
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<tr>
<td>3. Can an employee be terminated for intentional misuse of or tampering with company property?</td>
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<td>4. Could failure to bring or wear necessary PPE while at the worksite result in disciplinary action?</td>
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<tr>
<td>5. Is a new employee allowed to enter a worksite without receiving a Company Orientation?</td>
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</table>

I fully understand what has been presented to me and give my personal commitment to actively participate and comply with all relevant regulations, policies, procedures, and instructions while I am onsite or representing the company.
### Toolbox Talk Form

**Work Site:**

**Date:**

**Step 1: Safe Work Practice (SWP) / Safe Job Procedure (SJP) Review:** Choose at least one relevant SWP/SJP from the Safety Program and review during the toolbox talk. SWP or SJP Reviewed: __________________________

**Step 2: Critical Tasks** *(record ALL critical tasks being done today)*

1. **Critical Task** — Any work-related activity that has the potential to cause death or major injury to a worker or that has been listed on any of the hazard assessment forms.
2. **SWP or SJP or company policy** — Record the name of the existing SWP or SJP that is related to the critical task. If neither is in place, then the executive admin or employer MUST create one before work begins.

<table>
<thead>
<tr>
<th>Critical Tasks (i.e. working at heights)</th>
<th>SWP or SJP or company policy</th>
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<tbody>
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</table>

**Step 3: Employee Feedback**

*Ensure that all employees are given a chance to ask questions and provide feedback. Record topics brought up.*

<table>
<thead>
<tr>
<th>Topics</th>
<th>Results</th>
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<tbody>
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**Step 4: Attendance**

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<thead>
<tr>
<th>Print Name</th>
<th>Signature</th>
<th>Print Name</th>
<th>Signature</th>
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**Step 5: Facilitated by**

<table>
<thead>
<tr>
<th>Name/Position</th>
<th>Signature</th>
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</table>
## Monthly Site Health and Safety Meeting Form

### Meeting Attendance

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
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<tbody>
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### Date

Follow up on previous meeting

Discuss safety items such as equipment conditions or problems

Discuss any Safety Violations and if any action needed

### Inspections
<table>
<thead>
<tr>
<th>Assessments</th>
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<table>
<thead>
<tr>
<th>Personal Protective Equipment</th>
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<table>
<thead>
<tr>
<th>Discuss incidents, accidents, near misses</th>
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<table>
<thead>
<tr>
<th>Investigations</th>
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<table>
<thead>
<tr>
<th>First Aid</th>
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<tbody>
<tr>
<td>Fire Protection</td>
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<tr>
<td>-----------------</td>
</tr>
<tr>
<td><strong>Review / Create Safe Work Practices / Safe Job Procedures</strong></td>
</tr>
<tr>
<td><strong>Items to buy</strong></td>
</tr>
<tr>
<td><strong>Other items discussed</strong></td>
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<tr>
<td><strong>Any concerns or suggestions by members</strong></td>
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</table>
Manager Safety Meeting Form

<table>
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<th>Date</th>
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**Attendance**

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**Review of Last Meeting**

**Unfinished Business**

**Incident Trends**

**Injury Management Results / Steps Needed to Improve**

**Health and Safety Activities**

**Review / Create SWPs/SJPs**

**Determining Necessary Course of Action**

**Inspection Reports**

**Incident Investigation Reports**

**Joint Health and Safety Committee Minutes**

**Next Meeting**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
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Crew Safety Meeting Form

<table>
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<th>Location</th>
<th>Date</th>
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<tr>
<td>Company Name</td>
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**Agenda**

<table>
<thead>
<tr>
<th>Safety / Environment Items</th>
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<tbody>
<tr>
<td>Other topics discussed: inspections, assessments, close calls/near misses, incidents and investigations</td>
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<tr>
<td>Follow up on old business</td>
</tr>
<tr>
<td>New business</td>
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<tr>
<td>Worker Input</td>
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<tr>
<td>Date of next meeting</td>
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**Attendance**

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**Safety / Environment Items**

| Other topics discussed: inspections, assessments, close calls/near misses, incidents and investigations |
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**Follow up on old business**

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<th>Action to be Taken</th>
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<th>Next Meeting</th>
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<td>Date</td>
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<table>
<thead>
<tr>
<th>Foreman Signature</th>
<th>Reviewed by (Management)</th>
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</table>
Element 9) Inspections

**DEFINITION**
“Inspection” – a comprehensive survey of workplaces, personnel, processes, equipment or tools.

**POLICY**
Any person who observes an unsafe condition or act is to report as soon as possible to their crew foreman or the employer. The crew foreman receiving the report must investigate and take necessary corrective actions without delay. Unsafe or harmful conditions found during such inspections must also be remedied without delay. All tools and equipment found defective must be tagged and reported to crew foreman who may dispose of it.

Regularly scheduled inspections of equipment do not alleviate the responsibility of the end user to ensure equipment is free from damage prior to use. Special inspections must be performed when required by malfunction or incident.

All employees onsite will continually monitor their work areas throughout their shift for any suspected hazards. All suspected hazards identified will be handled in accordance with hazard assessment procedure.

**RESPONSIBILITIES**
1. The crew foreman will ensure the local OHS Regulatory Authority is provided access to all operating locations in a timely and considerate manner. No employee will:
   - attempt to hinder, obstruct, or interfere with the local OHS Regulatory Authority
   - knowingly provide false information
   - interfere with any monitoring equipment or devices
2. Management will sign/initial all formal inspection forms and review the results at the next safety meeting.

**PROCEDURE**
**Inspections**

1. A worksite inspection will be completed, by the crew foreman, at minimum per job and for the longer jobs, weekly, with all results being documented on the *Worksite Inspection Form*. Management will review and initial this form when complete.

The role of the worksite inspection is not solely to meet a legislated requirement. An effective inspection process allows the company to integrate other health and safety program objectives including the following:

- Identify hazards,
- Set standards and related procedures,
- Measure performance against established standards,
- Evaluate health and safety performance,
- Correct deficiencies and commend success.
2. An office inspection will be conducted on a monthly basis, by the executive administrator, with all results being documented on the Office Inspection Form.

3. Fall Plans will be completed, before starting each new roof, by the crew foreman, and documented on the Written Site-specific Fall Plan.

Equipment Inspections

1. Operators of company vehicles will conduct an informal pre-use inspection of their vehicles prior to use. A formal inspection must be performed at least once a week, and more often if inspections determine so. This will be documented on the Daily Driver Pre-trip Inspection Checklist.

2. Each piece of tool, equipment and vehicle will have an inspection form for use, that is to be formally documented monthly by crew foreman or designated worker.

3. Machinery, tools, and equipment must be inspected before each use.

Forms Reference

Worksite Inspection – located below and on GoCanvas
Office Inspection – located below and on GoCanvas
Monthly Fire Extinguisher Inspection – located below and on GoCanvas
Ladder Inspection – located below and on GoCanvas
Weekly Driver Pre-Trip Inspection Checklist – located below and on GoCanvas
Trailer Inspection Checklist – located below and on GoCanvas
Hand & Portable Power Tools Inspection Checklist – located below and on GoCanvas
Fall Protection Equipment Inspection – located below and on GoCanvas
Fall Protection (Harness) Inspection – located under Element 6 and on GoCanvas
Scaffold Inspection Checklist – located below and on GoCanvas
Portable Grinding Safety Checklist – located below and on GoCanvas
Air Nailing Equipment Inspection Checklist – located below and on GoCanvas
Cut Saw Inspection – located below and on GoCanvas
Air Compressor Inspection Checklist – located below and on GoCanvas
Chainsaw Safety Inspection Checklist – located below and on GoCanvas
Site-Specific Fall Plan – located below and on GoCanvas
Worksite Inspection Form

**Location:**

**Step 1: Hazard Identification**

**Instructions:** Mark an X for any deficient / hazardous items. Use a ✓ for sufficient / safe items. Mark NA if not inspected.

<table>
<thead>
<tr>
<th>Area/Topic</th>
<th>Description</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>1. Perimeter fall hazards</td>
<td>2. Roof access</td>
</tr>
<tr>
<td></td>
<td>5. Slip / trip hazards</td>
<td>6. Work within 5’ of hot asphalt</td>
</tr>
<tr>
<td></td>
<td>7. Skylight or roof openings</td>
<td>8. Heat stressors</td>
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<tr>
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<td>9. Tools and cords in good condition</td>
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<tr>
<td><strong>Activities</strong></td>
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</tr>
<tr>
<td></td>
<td>10. Lifting heavy items</td>
<td>11. Working with fiberglass insulation (ISO)</td>
</tr>
<tr>
<td></td>
<td>12. Creating vapors/ fumes</td>
<td></td>
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<tr>
<td><strong>Site Conditions</strong></td>
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</tr>
<tr>
<td><strong>Environment</strong></td>
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<td></td>
<td>15. Cold weather</td>
<td>16. Hot weather</td>
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<tr>
<td><strong>Electrical</strong></td>
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<tr>
<td></td>
<td>17. High voltage line within 10’ of work area</td>
<td>18. Low voltage line within 3.3’ of work area</td>
</tr>
<tr>
<td><strong>Emergency Response</strong></td>
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<tr>
<td></td>
<td>19. Site access / egress / First Aid</td>
<td>20. Method of summoning first aid / Kit</td>
</tr>
<tr>
<td><strong>Equipment &amp; Vehicles</strong></td>
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<tr>
<td></td>
<td>21. Inspections current</td>
<td>22. Operators trained</td>
</tr>
<tr>
<td><strong>Fall Protection</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>23. Fall Protection Plan in use</td>
<td>24. Fall Protection Plan Communicated</td>
</tr>
<tr>
<td><strong>Ladders &amp; Scaffolding</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>25. Ladders / scaffolds in good condition</td>
<td>26. Ladder / scaffolds used properly</td>
</tr>
<tr>
<td><strong>Personnel</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>27. Following SWPs and SJPs</td>
<td>28. Trained &amp; certified for their work tasks</td>
</tr>
<tr>
<td><strong>PPE Availability</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>29. Basic PPE available</td>
<td>30. Specialized PPE readily available</td>
</tr>
<tr>
<td><strong>PPE Use/ Inspection</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>31. PPE being used properly</td>
<td>32. PPE inspected as required</td>
</tr>
<tr>
<td><strong>WHMIS/Hazardous Products</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>33. SDS available</td>
<td>34. Hazardous products labelled</td>
</tr>
<tr>
<td><strong>Fire Watch</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>35. Fire Extinguisher Inspections current</td>
<td>36. Cell phone (two way communication device)</td>
</tr>
<tr>
<td><strong>Postings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>37. all items/forms available to workers on the GoCanvas App, and easy to access</td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Step 2: Corrective Action Plan** *(Log all deficient / hazardous items here. Use another page if needed.)*

<table>
<thead>
<tr>
<th>#</th>
<th>Deficiency &amp; Corrective Action</th>
<th>Risk Ranking (L/M/H/E)</th>
<th>By Whom</th>
<th>Date Corrected</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Tools and Equipment in Use**

List any tools/equipment found defective

Corrective action plan and risk rating for deficient tools/equipment
Step 3: Communication (Was this posted on the safety board or discussed in a toolbox talk?)

How was the inspection report communicated to affected workers onsite?

<table>
<thead>
<tr>
<th>Performed By</th>
<th>Name / Position</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crew Foreman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worker Rep</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reviewed By</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Rep</td>
<td></td>
</tr>
</tbody>
</table>
Office Inspection Form

Step 1: Hazard Identification Instructions: Mark an X for any deficient or hazardous items. Use a ✓ for sufficient / safe items. Mark NA if not inspected.

<table>
<thead>
<tr>
<th>Area/Topic</th>
<th>Description</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical</td>
<td>1. Electrical outlets overloaded</td>
<td>2. Exposed wiring</td>
</tr>
<tr>
<td>Ergonomics</td>
<td>5. Thighs parallel to floor</td>
<td>6. Feet lying flat on the floor</td>
</tr>
<tr>
<td></td>
<td>7. Elbows at the same height as keyboard</td>
<td>8. Top of monitor at eye height</td>
</tr>
<tr>
<td>Fire Extinguisher</td>
<td>9. Correct size / type available</td>
<td>10. Fire extinguishers inspected regularly</td>
</tr>
<tr>
<td>First Aid</td>
<td>11. First Aid Attendant designated</td>
<td>12. First aid supplies adequate</td>
</tr>
<tr>
<td>Lifting</td>
<td>13. Proper lifting techniques</td>
<td></td>
</tr>
<tr>
<td>Material Storage</td>
<td>14. Stored in a stable and secure manner</td>
<td>15. Overhead materials hazards (i.e., boxes)</td>
</tr>
<tr>
<td>Office Equipment</td>
<td>16. Free from damage and modifications</td>
<td>17. Being used safety</td>
</tr>
<tr>
<td>WHMIS</td>
<td>20. SDS available</td>
<td>21. Hazardous products labelled</td>
</tr>
<tr>
<td>Postings</td>
<td>22. All items/forms available to workers on the GoCanvas App, and easy to find</td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td>23. Other: _____________________</td>
<td>24. Other: _____________________</td>
</tr>
</tbody>
</table>

Step 2: Corrective Action Plan (Log all deficient / hazardous items here as well as risk rating. Use another page if needed.)

<table>
<thead>
<tr>
<th>#</th>
<th>Deficiency &amp; Corrective Action</th>
<th>Risk Rating (L/M/H/E)</th>
<th>By Whom</th>
<th>Date Corrected</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Step 3: Communication

How was the inspection report communicated to affected workers onsite? - Posted in the office, available to workers if requested
<table>
<thead>
<tr>
<th>Performed By</th>
<th>Name / Position</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor Rep</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worker Rep</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Reviewed By**

Management Rep

---

**UQSafe - Risk Matrix**

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>ALMOST CERTAIN</th>
<th>LIKELY</th>
<th>POSSIBLE</th>
<th>UNLIKELY</th>
<th>RARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>MEDIUM</td>
<td>MEDIUM</td>
<td>MEDIUM</td>
<td>MEDIUM</td>
<td>MEDIUM</td>
</tr>
<tr>
<td>Moderate</td>
<td>LOW</td>
<td>LOW</td>
<td>LOW</td>
<td>LOW</td>
<td>LOW</td>
</tr>
<tr>
<td>Minor</td>
<td>LOW</td>
<td>LOW</td>
<td>LOW</td>
<td>LOW</td>
<td>LOW</td>
</tr>
<tr>
<td>Insignificant</td>
<td>LOW</td>
<td>LOW</td>
<td>LOW</td>
<td>LOW</td>
<td>LOW</td>
</tr>
</tbody>
</table>

**Consequence**

- Near miss event
- No injury or illness
- First Aid injury / illness
- Biological / Chemical Spill
- Moderate injury / illness
- Reversible impairment
- Biological exposure
- Serious injury / illness
- LT1
- Temporary impairment
- Dangerous Incident
- Permanent impairment
- Fatality / fatalities
## Monthly Fire Extinguisher Inspection

<table>
<thead>
<tr>
<th>Date of Inspection</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td></td>
</tr>
<tr>
<td>Inspection done by</td>
<td></td>
</tr>
</tbody>
</table>

- Confirm the extinguisher is visible, unobstructed, and in its designated location
- Verify the locking pin is intact and the tamper seal is unbroken. Examine the extinguisher for obvious physical damage, corrosion, leakage and clogged nozzle
- Confirm the pressure gauge or indicator is in the operable range or position, and lift the fire extinguisher to ensure it is still full
- Make sure the opening instructions on the nameplate are legible and facing outward
- Check the last professional service date on the tag. (A licensed fire extinguisher maintenance contractor must have inspected the extinguisher within the past 12 months.)
- If all the above conditions are met, initial and date the back of the tag.

When an inspection of a fire extinguisher reveals a deficiency in any of the conditions listed above, please notify the crew foreman immediately.

| Signature of Inspector |   |
## Ladder Inspection

<table>
<thead>
<tr>
<th>Description</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are any parts broken, cracked or splintered?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any defects in the side rails, rungs or other parts?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any missing or broken rungs? (loose or moveable by hand)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any makeshift repairs on the ladder?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any worn, damaged or missing feet?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there any worn, damaged or unworkable extension ladder locks, pulleys or other fittings?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the rope on the extension ladders worn, broken or frayed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has the rope been replaced with an inferior to the ladder manufacturer's original rope?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the spreader arms on step ladders bent, worn, broken or otherwise rendered partly or totally ineffective?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the ladder twisted, warped or bowed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the ladder have a CSA classification label that is NOT legible?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Signature of Inspector**

If the answer to any of the above is ‘yes’, the ladder should be tagged, immediately taken out of service and reported to crew foreman.
**Weekly Driver Pre-Trip Inspection Checklist**

<table>
<thead>
<tr>
<th>Inspection Date</th>
<th>Truck Make/Model/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odometer Reading</td>
<td>Inspected by</td>
</tr>
<tr>
<td>Time</td>
<td></td>
</tr>
<tr>
<td>Gas Level</td>
<td></td>
</tr>
</tbody>
</table>

Check all items below. Provide details under “Comments” |

<table>
<thead>
<tr>
<th></th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tires</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proper Inflation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequate tread</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spare inflated</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Leaks (look underneath)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel tanks</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gauges</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dashboard warning light</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lighting System</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headlights</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brake lights</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turn signals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazard lights</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Safety Equipment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Extinguisher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflective triangles / flares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spare bulbs / fuses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency contact info</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cell phone / two-way radio</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other equipment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windshield wipers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fans and defroster</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brake system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mirrors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exhaust system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seatbelts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Check all items below. Provide details under “Comments / Defects”
<table>
<thead>
<tr>
<th>Comments / Defects</th>
</tr>
</thead>
</table>

- Condition of the above vehicle is acceptable
- Defects noted above need not be repaired for safe operation of vehicle

<table>
<thead>
<tr>
<th>Driver’s Signature</th>
<th>Date</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Mechanic’s Signature</th>
<th>Date Repaired</th>
</tr>
</thead>
</table>
# Trailer Inspection Checklist

<table>
<thead>
<tr>
<th>ITEM INSPECTED</th>
<th>OK</th>
<th>REPAIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pin securing ball mount to receiver is intact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hitch coupler is secured</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring bar hinges and safety clips in place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety chains properly attached</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical wiring and plugs in good condition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflectors and required signs in good condition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brake, signal and plate lights work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tires, including wear, air pressure and lug nuts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trailer in overall good condition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Load is secured and weight even</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check visibility in tow vehicle mirrors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Know weight, height and width limits for load</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comments / Defects</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- □ Condition of the trailer is acceptable
- □ Defects noted above need not be repaired for safe operation of vehicle and trailer

<table>
<thead>
<tr>
<th>Date</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Driver’s Signature</td>
<td></td>
</tr>
</tbody>
</table>

- □ Defects noted above have been repaired

<table>
<thead>
<tr>
<th>Mechanic’s Signature</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Repaired</td>
<td></td>
</tr>
</tbody>
</table>
### Hand & Portable Power Tools Inspection

<table>
<thead>
<tr>
<th>Date of Inspection</th>
<th>Inspected by</th>
</tr>
</thead>
</table>

**Before using hand tools inspect for the following:**

- The outside of the tool is free of grease, oil and accumulated foreign matter
- The tool has no visible cracks in jaws or handle
- Blades or bits are not damaged, cracked, etc.
- Handles are not cracked, damaged or loose from heads of hammers, axes, mauls and other similar tools
- Tips of screwdrivers, chisels or other similar tools show no excessive wear
- Gripping surfaces, pliers, wrenches or other similar tools are not worn
- Tools such as chisels and punches do not have mushroomed heads
- Cutting tools such as chisels and axes are sharp
- Tools appear to be in generally good condition

**Before using power tools inspect for the following:**

- Check On/Off switch is functioning properly
- Check air filters, gas levels, spark plug and blade if applicable
- The outside of the tool is free of grease, oil and accumulated foreign matter
- Tool power-source shows no damage (cord, airline, battery, etc.)
- Tool is double insulated and tool housing is not damaged
- If so equipped, electrical cord third prong (ground) is intact
- All shields, guards or attachments required by OSHA or manufacturer are present and secure
- Rotating or moving parts of tool are guarded to prevent physical contact
- Tool is not leaking fluid such as gasoline, oil, etc.
- Tool appears to be in generally good condition
- Proper PPE is available

**List defective tools and why there were found defective**

All tools and equipment found defective must be immediately reported to crew foreman, tagged and taken out of service.

**Signature of Inspector**
## Fall Protection Equipment Inspection Form

<table>
<thead>
<tr>
<th>Date of Inspection</th>
<th>Inspector</th>
</tr>
</thead>
</table>

### Lanyard Inspection

<table>
<thead>
<tr>
<th>1. Hardware</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rust / corrosion</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Deformed / bent</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Burs / cracks</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Weld spots / slag</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Missing rivets</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Springs</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Functionality</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Webbing</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuts / burn/ holes</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Excessive wear</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Excessive UV damage</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Chemical attack</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Writing on the webbing</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Stitching</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Loose</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Broken</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Labels / Tags</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Illegible</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Dates</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

Is equipment in good enough condition to use? Yes / No. If not, please specify below.

<table>
<thead>
<tr>
<th>Defects / Comments</th>
</tr>
</thead>
</table>
# Rope Grab Inspection

<table>
<thead>
<tr>
<th>Date of Inspection</th>
</tr>
</thead>
</table>

## 1. Hardware

<table>
<thead>
<tr>
<th></th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rust / corrosion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deformed / bent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burs / cracks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weld spots / slag</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing rivets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Springs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functionality</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## 2. Webbing

<table>
<thead>
<tr>
<th></th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuts / burn/ holes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excessive wear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excessive UV damage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical attack</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing on the webbing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## 3. Mechanical Components

<table>
<thead>
<tr>
<th></th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locking functionality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All connectors present &amp; functioning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System operates as designed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## 4. Labels / Tags

<table>
<thead>
<tr>
<th></th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illegible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dates</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is equipment in good enough condition to use? Yes / No. If not, please specify below.

<table>
<thead>
<tr>
<th>Defects / Comments</th>
</tr>
</thead>
</table>


## Lifeline Inspection

<table>
<thead>
<tr>
<th>Date of Inspection</th>
<th>Polyester lifeline / kernmantle lifeline / cable lifeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifeline Materials</td>
<td></td>
</tr>
<tr>
<td>Length / diameter</td>
<td></td>
</tr>
</tbody>
</table>

### 1. Labels & Markings

<table>
<thead>
<tr>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Label (Intact & Legible)
- Appropriate ANSI/OSHA/CSA Markings
- Inspections are Current / Up-to-Date

### 2. Hardware

<table>
<thead>
<tr>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Connector (Self-Closing & Locking)
- Hook Gate / Tensioner / Rivets
- Corrosion
- Pitting / Nicks

### 3. Material (Web or cable)

<table>
<thead>
<tr>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Broken / Missing / Loose Stitching
- Termination (Stitch, Splice, or Swage)
- Excessive Wear (Fraying or Broken Strands)
- Cuts / Burns / Holes
- Kinks
- Separation / Bird-Caging

### 4. Shock Pack (If present)

<table>
<thead>
<tr>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Cover / Shrink Tube (Don’t Cut or Remove)
- Damage / Fraying / Broken Stitching
- Impact Indicator (Signs of Deployment)

Is equipment in good enough condition to use? Yes / No. If not, please specify below.

### Defects / Comments

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
Anchorage Connector Inspection

<table>
<thead>
<tr>
<th>Date of Inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Anchor Material</th>
<th>Galvanized steel / zinc-plated steel / stainless steel / aluminum / web / other:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>1. Labels &amp; Markings</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label (Intact &amp; Legible)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate ANSI/OSHA/CSA Markings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspections are Current / Up-to-Date</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Hardware</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signs of Deformity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D-Ring / Connection Points</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hook Gate / Rivets (if applicable)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrosion / Pitting / Nicks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Anchorage Connector</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Termination (Stitch, Splice, or Swage)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deterioration / Corrosion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cuts / Burns / Holes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrity of Welds / Rivets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paint Contamination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stitching / Wire Condition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heat Corrosion / UV Damage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separation / Bird-Caging</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is equipment in good enough condition to use? Yes / No. If not, please specify below.

Notes

<table>
<thead>
<tr>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
## Self-Retracting Lifeline Inspection

<table>
<thead>
<tr>
<th>Date of Inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifeline Material</td>
</tr>
<tr>
<td>Length</td>
</tr>
</tbody>
</table>

1. **Labels & Markings**

<table>
<thead>
<tr>
<th></th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label (Intact &amp; Legible)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate ANSI/OSHA/CSA Markings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspections are Current / Up-to-Date</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. **Shock Pack (If present)**

<table>
<thead>
<tr>
<th></th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover / Shrink Tube (Don’t Cut or Remove)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Damage / Fraying / Broken Stitching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact Indicator (Signs of Deployment)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. **Housing**

<table>
<thead>
<tr>
<th></th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment Point</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuts / Bolts / Rivets / Screws</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence of Damage (Dents/Cracks/Rust)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. **Lifeline (Web or cable)**

<table>
<thead>
<tr>
<th></th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Termination (Stitch, Splice, or Swage)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cuts / Fraying / Broken Stitching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excessive Wear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cable Separating / Bird-Caging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entire Length Retracts Smoothly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test Braking / Locking Function</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. **Connectors**

<table>
<thead>
<tr>
<th></th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector (Self-Closing &amp; Locking)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact Indicator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hook Body / Rivets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrosion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pitting / Nicks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is equipment in good enough condition to use? Yes / No. If not, please specify below.

<table>
<thead>
<tr>
<th>Defects / Comments</th>
</tr>
</thead>
</table>
## Scaffold Inspection Checklist

<table>
<thead>
<tr>
<th>Date of inspection</th>
<th>Inspector</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Scaffold erection coordinated by a competent worker.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2.</td>
<td>Scaffold square, straight and plumb.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3.</td>
<td>All scaffold components present, tight and secure.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4.</td>
<td>No tubes or members over extended and hazardous.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5.</td>
<td>Base plates and screws firmly supported on all legs – mudsills.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6.</td>
<td>Leveling adjustment screws extended less than 0.3 meters and lock nuts tightened.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7.</td>
<td>Tower tied to rigid support horizontally every 1.4 meters and vertically every 4.6 meters.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>9.</td>
<td>Platform planking cleated on underside of each end with wood or angle iron.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>11.</td>
<td>Platform planking maximum span 2.3 meters for heavy duty and 3 meters for light duty.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>12.</td>
<td>Vertical ladder securely fastened in place.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>13.</td>
<td>Safety cage needed around vertical ladder if it is more than 6.5 meters in height.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>14.</td>
<td>125 mm high toe board to be placed on work surfaces from which material may fall: (1.2 meters from permanent surface) or (3 meters from a temporary surface.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>15.</td>
<td>Perimeter hand rail 0.9 meter to 1.07 meters with mid rail around all work platforms.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>16.</td>
<td>Separate rope or hand line in place at all platforms to raise and lower tools or materials.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>17.</td>
<td>Warning devices/signs provided if erected over walkways or roadways (flashing lights, reflective tape streamers or area roped off).</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>18.</td>
<td>Minimum clearance from overhead power lines maintained as per OH&amp;S Regulations.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>19.</td>
<td>Rolling scaffold wheel brakes locked and outriggers extended to maintain maximum height of 3 times the smallest base dimension.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>20.</td>
<td>Separate ladders being used for scaffold access.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>21.</td>
<td>Scaffold constructed and maintained according to certified engineered drawings.</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Comments:

Signature of Inspector:
# Portable Grinding Safety Checklist

<table>
<thead>
<tr>
<th>Inspection Item</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the outer case / body of grinder free of cracks and breaks?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Are all screws and fastenings on the outer case / body in place and tight?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Is the power cord (including plug) free of breaks and/or other damage?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Is the wheel guard securely installed and adjusted to a position that deflects sparks and debris from the abrasive wheel away from the grinder operator?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Is the abrasive wheel in use suitable for the materials being ground (see label)?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Is the abrasive wheel in use rated at the same (or greater) RPM’s as the grinder (see label)?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Is the abrasive wheel in use free of cracks, chips, other damage or deterioration?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Was the abrasive wheel in use ring tested before mounting?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Is the arbor opening (center hole) or bushing hole on the abrasive wheel in use the proper size for grinder?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Does the grinder run smoothly and properly when operated (free of unusual vibration/sounds/excessive heat)?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td>Is the grinder operator provided with and using proper PPE?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

Other Observations:

If equipment is found defective, tag it and report to crew foreman who may dispose of it.
Air Nailing Equipment Inspection

<table>
<thead>
<tr>
<th>Date</th>
<th>Inspector</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Check all alan screws to make sure they are tight</td>
<td></td>
</tr>
<tr>
<td>☐ Add 2 drops of oil to the gun through connector</td>
<td></td>
</tr>
<tr>
<td>☐ Check all guards to ensure they are in place</td>
<td></td>
</tr>
<tr>
<td>☐ Check all coupler for working condition</td>
<td></td>
</tr>
<tr>
<td>☐ Equipment in good enough condition to use? If not, please specify below, under &quot;Defects / Comments&quot;.</td>
<td></td>
</tr>
</tbody>
</table>

**Defects / Comments**

If equipment is found defective, tag it and report to crew foreman who may dispose it.
Cut Saw Inspection

<table>
<thead>
<tr>
<th>Date</th>
<th>Inspector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Check On/Off switch is functioning properly
- Check rip cord for frays
- Check air filter
- Check gas levels
- Check spark plug
- Ensure guards are in place and secure
- Check cutting blades
- Do a check cut – ensuring to cut away from body

If equipment is defective, tag and report to crew foreman who may dispose it.

<table>
<thead>
<tr>
<th>Signature of Inspector</th>
</tr>
</thead>
</table>
### Air Compressor Inspection Checklist

<table>
<thead>
<tr>
<th>Date</th>
<th>Inspector</th>
</tr>
</thead>
</table>

- Check oil levels in motor, top off as required
- Check oil level in oiler, top off as required
- Check all connections and couplers
- Check for cracked or bulging hoses and replace as necessary
- Ensure all gauges are in working order
- Ensure pressure relief valve is working properly
- Ensure electrical cord is in good repair
- Air compressor in good enough condition to use? if not, please specify below.

If equipment is found defective, tag and report to crew foreman who may dispose it.

<table>
<thead>
<tr>
<th>Defects / Comments</th>
</tr>
</thead>
</table>

| Signature of Inspector |
# Chainsaw Safety Inspection Checklist

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Inspection Item</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Are all covers on the chainsaw in place and secured, and all screws and bolts tightened?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Are all fluid reservoirs, caps, hoses or connections (such as for fuel, oil, and chain lube) properly seated and free of leaks?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is the muffler in place and free of damage or deterioration?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is the chain sharp, and free of damage?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is the chain set and maintained at the correct tension?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there adequate chain lube in the reservoirs?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is the tip guard in place on the saw (where equipped)?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is the chain brake functioning (where equipped)?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is the guide bar for the chain free of excessive wear, burrs, warpage, buildup of materials, or other damage?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Do all switches (throttle lock, kill switch) function properly?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is the saw operator provided with and using all required PPE?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Is there adequate space for the operator to maintain a stable stance and avoid falling material?</td>
<td></td>
</tr>
</tbody>
</table>

**Other Observations**

If equipment is found defective, tag, report to crew foreman and remove from service.
Site Specific Fall Plan
Planning plays a key role in protecting workers from fall hazards. The fall protection plan template below is provided to assist in the planning process. Employers should ensure that fall protection plans are:

- Designed and completed to address site-specific conditions
- Compliant with the Occupational Health and Safety Regulation

<table>
<thead>
<tr>
<th>Start Date</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer</td>
<td></td>
</tr>
<tr>
<td>Site Address</td>
<td></td>
</tr>
<tr>
<td>Site description</td>
<td></td>
</tr>
<tr>
<td>Work area</td>
<td></td>
</tr>
<tr>
<td>Tasks</td>
<td></td>
</tr>
</tbody>
</table>

Site Specific Hazards

<table>
<thead>
<tr>
<th>Maximum height (peak) approx. ft</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum height (eaves) approx. ft</td>
<td></td>
</tr>
<tr>
<td>Maximum height (other) approx. ft</td>
<td></td>
</tr>
<tr>
<td>Roof slope(s), if applicable</td>
<td></td>
</tr>
<tr>
<td>Proximity to high voltage power lines (in feet)</td>
<td></td>
</tr>
<tr>
<td>Ground cover / hazards</td>
<td></td>
</tr>
<tr>
<td>Other / Comments</td>
<td></td>
</tr>
</tbody>
</table>

Fall protection definitions

- Fall restraint: a system to prevent a worker from falling from a work position, or from travelling to an unguarded edge from with the worker could fall.
- Fall arrest: a system that will stop a worker's fall before the worker hits the surface below.
- Guardrail: a guard consisting of a top rail 102 cm to 112 cm (40 in. to 44 in.) above the work surface, and an intermediate rail located approximately midway between the underside of the top rail and the top of the toeboard, if one is provided, or the work surface if no toeboard is provided.

Type of fall protection to be used:

- Fall restraint
- Fall arrest
- Temporary guardrail system
### Equipment Inspections

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes / Not Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully body harness</td>
<td></td>
</tr>
<tr>
<td>Vertical lifelines</td>
<td></td>
</tr>
<tr>
<td>Lanyards</td>
<td></td>
</tr>
<tr>
<td>Rope grabs</td>
<td></td>
</tr>
<tr>
<td>Anchors</td>
<td></td>
</tr>
<tr>
<td>Ladders</td>
<td></td>
</tr>
<tr>
<td>Ladder Hoist</td>
<td></td>
</tr>
<tr>
<td>Ladder Jacks</td>
<td></td>
</tr>
<tr>
<td>Planks</td>
<td></td>
</tr>
</tbody>
</table>

All above items have been inspected and are safe to use as per regulations.

- [ ] Yes
- [ ] No

Explain why items have not been inspected:

____________________________________________________________________
_____________________________________________________________________

Prior to accessing the work location

- [ ] First aid attendant / facilities / equipment

Who is the first aid attendant? ________________________________

Hard hats available for all workers: [ ] Yes

Barricades in place: [ ] Yes

CSA safety footwear for ground work: [ ] Yes

Safety eyewear if nail guns to be used: [ ] Yes

Anchors will be secured in engineered trusses where possible at ridge of roof. One worker per anchor. Anchor will be placed avoiding swing range as much as possible.

- [ ] Yes

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Ladder Setup
- Set up on a firm, level base. □ Yes □ Ladders not required
- Set up 4:1 (vertical: horizontal). □ Yes □ Ladders not required
- Extends approx. 1 metre (3 feet) past the edge of roof. □ Yes □ Ladders not required
- Secured / tied off. □ Yes □ Ladders not required

Notes:

Rescue procedures for a fallen worker will be as per Top Notch Roofing procedures, outlined below. □ Yes

A. Elevating Work Platform Rescue: If an elevating work platform (EWP) is available on site and the suspended worker can be reached by the platform, follow the procedure below.

1. Bring EWP to the accident site and use it to reach the suspended worker.
2. Ensure that rescue workers are wearing full-body harnesses attached to appropriate anchors in the EWP.
3. Ensure that the EWP has the load capacity for both the rescuer(s) and the fallen worker. If the fallen worker is not conscious, two rescuers will probably be needed to safely handle the weight of the fallen worker.
4. Position the EWP platform below the worker and disconnect the worker's lanyard when safe to do so. When the worker is safely on the EWP, reattach the lanyard to an appropriate anchor point on the EWP if possible.
5. Lower the worker to a safe location and administer first aid. Treat the worker for suspension trauma and any other injury.
6. Arrange transportation to hospital if required.

B. Ladder Rescue: If an elevating work platform is not available, use ladders to rescue the fallen worker with the procedure outlined below.

1. If the fallen worker is suspended from a lifeline, move the worker (if possible) to an area that rescuers can access safely with a ladder.
2. Set up the appropriate ladder(s) to reach the fallen worker.
3. Rig separate lifelines for rescuers to use while carrying out the rescue from the ladder(s).
4. If the fallen worker is not conscious or cannot reliably help with the rescue, at least two rescuers may be needed.
5. If the fallen worker is suspended directly from a lanyard or a lifeline, securely attach a separate lowering line to the harness.
6. Other rescuers on the ground (or closest work surface) should lower the fallen worker while the rescuer on the ladder guides the fallen worker to the ground (or work surface).
7. Once the fallen worker has been brought to a safe location, administer first aid and treat the person for suspension trauma and any other injury.
8. Arrange transportation to hospital if required.
C. Rescue from Work Area or Floor Below: If the fallen worker is suspended near a work area and can be safely reached from the floor below or the area from which they fell, use the following procedure.

1. Ensure that rescuers are protected against falling.
2. If possible, securely attach a second line to the fallen worker's harness to help rescuers pull the fallen worker to a safe area. You will need at least two strong workers to pull someone up to the level from which they fell.
3. Take up any slack in the retrieving line to avoid slippage.
4. Once the worker has been brought to a safe location, administer first aid and treat the person for suspension trauma and any other injury.
5. Arrange transportation to hospital if required.

By signing, I acknowledge that I have reviewed the fall protection requirements and procedures for this site with my crew foreman and understand my responsibilities, specifically the requirement to use personal fall protection.

Employee Sign off

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Company</th>
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<tbody>
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</table>
Element 10) Investigations and Reporting

DEFINITIONS
1. “Incident” – an accident or other occurrence that resulted in or had the potential for causing an injury or occupational disease.
2. “Near miss” – an event or sequence of events that had the potential to cause serious injury, ill health, or property damage.
3. “Accident” – an event or sequence of events that resulted in any injury, illness, or property damage.

POLICY
All workers employed onsite will immediately report to the crew foreman any time an incident occurs and the appointed first aid attendant any time an injury occurs. Injured employees who leave the worksite without reporting and completed the required documentation will be considered absent from work. They also will not receive pay for any missed time, may be subject to disciplinary action (Rule Encouragement and Enforcement Procedures), and may have a formal objection filed against any claims for compensation benefits.

The safety program includes the maintenance of records and statistics, including reports of inspections and incident investigations, with provision for making this information available to the worker health and safety representative, as applicable and, upon request to the workers at the workplace.

RESPONSIBILITIES
1. All investigations (accidents, incidents, near misses) will be completed by the crew foreman, employer and the health and safety worker representative and documented on the Accident Investigation Form.
2. All completed investigations including near misses, will be reviewed and a follow-up action plan created by management.
3. The crew foreman will discuss all completed investigations and any follow-up action plans will be communicated to affected workers as soon as practicable or at the next Toolbox Talk.
4. Witnesses to near misses or accidents will record findings on the Witness Statement.
5. The injured worker will report their injury by completing a WorkSafeBC form, Worker’s Report of Injury. (Form 6a)
6. The employer will report the workers injury to WorkSafeBC by completing the Employer’s Report of Injury form. (Form 7)
What to do when you’re injured at work

1. Report your injury immediately to your employer. Your employer is responsible for getting you any necessary first aid, and for transporting you to a medical facility if that’s what you need. Be sure to keep in touch with your employer if you have to be off work.

2. See your physician. Your doctor will recommend treatment for your injury and may refer you to other health care practitioners. Be sure to ask about what modified work duties, and activities at home, you can do to help your recovery. And always let your health care provider know that you were injured at work.

3. Report injury to WorkSafeBC. If you’ve missed work, call Teleclaim. Their team will gather your information and answer any questions you may have about making a claim. If you haven’t missed work but sought medical attention, we recommend reporting online. Before you report your injury, please review the information you’ll need to provide.

When you report your injury, Teleclaim will ask you for the following information:

- Contact information for yourself and your employer
- The date of your injury and how it occurred
- Who you reported your injury to (your employer, health care providers)
- What, if any, days or shifts you’ve missed from work
- Information about any additional employers you may have
- Names and phone numbers of your health care providers (doctor, physiotherapist, etc.)
- Your social insurance number
- Your personal health number (from your BC Services card or CareCard)
- If you’ve missed time from work, you’ll also need to tell us your earnings from your most recent paystub and the past 12 months

Employer Reporting

If a person working for you has a work-related injury or disease and gets medical treatment from a doctor or other qualified practitioner, as the employer you must report the incident to WorkSafeBC.

The form to be filled out can be completed online or on paper (Employers Report of Injury (Form 7)). You can submit a report even if you do not have all the details of the incident yet. The following information will be needed to fill out the report:

- Suggestions for transitional work and/or a modified work schedule to support the worker’s safe return to work.
• Contact information for your company and the worker.
• Details of the incident(s) that led to the injury or disease.
• The days (or shifts) missed due to the injury, if any.
• The worker’s work schedule and rate of pay. If the worker has missed time from work due to the injury, WorkSafeBC needs to know the worker’s total earnings over the last 12 weeks.

Not reporting an injury is an offence under the Workers Compensation Act and can result in fines.

As the employer, you must immediately report serious incidents and fatalities to WorkSafeBC by calling the Prevention Information Line. This is in addition to reporting an injury related to a claim.

If the worker is not able to work, it is important for you to stay in touch with him or her. Whenever possible offer alternate work or a modified work schedule to support his or her recovery at work.

**PROCEDURE**

**Immediate notice of certain accidents**

1. The company must immediately notify the Board of the occurrence of any accident that
   • resulted in serious injury to or the death of a worker,
   • involved a major structural failure or collapse of a building, bridge, tower, crane, hoist, temporary construction support system, or excavation,
   • involved the major release of a hazardous substance,
   • was an incident required by regulation to be reported.

**Incidents that must be investigated**

1. The company must immediately undertake an investigation into the cause of any accident or other incident that:
   • Resulted in serious injury to or the death of a worker
   • Involved a major structural failure or collapse of a building, bridge, tower, crane, hoist, temporary construction support system, or excavation
   • Involved the major release of a hazardous substance
   • Resulted in injury to a worker requiring medical treatment, or
   • Did not involve injury to a worker, or involved only minor injury not requiring medical treatment, but had a potential for causing serious injury to a worker.
   • Was an incident required by regulation to be investigated.

2. (1) does not apply in the cause of a vehicle accident occurring on a public street or highway.

**Submitting Investigation reports to WorkSafeBC**

1. Any incident that must be investigated must also:
   • Submit a preliminary investigation report to WorkSafeBC within 48 hours of the incident
   • Determine interim corrective actions as appropriate and prepare a corrective action report
• Complete a full investigation and submit a report to WorkSafeBC within 30 days of the incident
• Determine final corrective actions as appropriate and prepare a final corrective action report

If a fatal accident occurs, the police must be notified immediately.

Reporting Requirements

WorkSafeBC defines a reportable injury as follows:

a) The worker loses consciousness following the injury, or
b) The worker is transported or directed by a first aid attendant or other representative of the employer to a hospital or other place of medical treatment, or is recommended by such person to go to such place, or
c) The injury is one that obviously requires medical treatment, or
d) The worker states that he intends to seek medical treatment, or
e) The worker has received medical treatment for the injury, or
f) The worker is unable or claims that he is unable by reason of the injury to return to his usual job function on any working day subsequent to the day of injury, or
g) The injury or accident resulted or is claimed to have resulted in the breakage of an artificial member, eyeglasses, dentures, or a hearing aid, or
h) The worker or the Board has requested that an employer’s report be sent to the Board.

The obligation of the employer to report the injury to WorkSafeBC commences when a supervisor, first aid attendant, or other representative of the employer first becomes aware of any one of the conditions listed above, or when notification of any such condition is received by mail or telephone at the local or head office of the employer.

Internal Requirements:

1. An incident occurs and the immediate crew foreman is informed by the personnel involved in the incident.
2. Injured workers report to first aid, or if the injuries are serious, the first aid attendant is notified and attends the injured worker.
3. The crew foreman informs management and health and safety representative.
4. Notification of external agencies is done by the designated person.
5. The crew foreman or manager appoints an investigation team who then responds to the scene to conduct an investigation.
Effective Investigation Steps

1. Get an overview of the situation. Find out briefly what happened, and who saw it.
2. Gather physical information. Make a record of conditions at the scene.
3. Interview. Talk with everyone who was in the area at the time of the accident/incident, just before or just after it happened.
4. Check background information. Check for additional information that might be relevant to the equipment, people or conditions involved in the accident/incident.
5. Determine causes. Your investigation needs to identify not only what happened, but also what caused it to happen.
6. Recommend corrections. Determine hazard controls for each of the causes and assign responsibilities.
7. Determine costs. Estimate the costs (direct and indirect) of the accident/incident.
8. Write the investigation report. Complete a formal report.
9. Follow-up. Make sure changes are implemented.

Training Requirements

<table>
<thead>
<tr>
<th>Type</th>
<th>Who</th>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
</table>
| Formal  | Crew Foreman       | Investigations and Reporting | The training session must provide a Course Handout / Student Manual and a written (or practical) documented exam. Topics should include the following:  
  ● determine root cause  
  ● making effective recommendations  
  ● communicating controls |
| OJT     | Managers, Crew Foremen, Workers | Notification of Injury | Types of incidents that must be reported to:  
  ● Employer  
  ● WorkSafeBC |

Forms reference
Accident / Near Miss Investigation – located below and on GoCanvas
Witness statement – located below and on GoCanvas
Workers report of injury (form 6A) – located in crew foreman’s truck (paper copy) and on GoCanvas
Employers Report of Injury (Form 7) – located on GoCanvas and in company office
First Aid Record – located below and on GoCanvas
# Accident / Near Miss Investigation Form

## Injured Employee

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Job Title</th>
<th>Employer</th>
<th>Job Name</th>
<th>City</th>
<th>Province</th>
</tr>
</thead>
</table>

## Investigator Checklist

- First Aid Record
- Form 6A – Worker’s Report of Injury
- Three most recent Toolbox talks
- Photos of the scene of incident
- Witness statements from all witnesses involved
- Employee Company Orientation Form

## Witnesses

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Telephone</th>
<th>Last Name</th>
<th>First Name</th>
<th>Telephone</th>
</tr>
</thead>
</table>

## Accident Cause

- A single occurrence (e.g., a fall from a height or being hit by an object)
- Exposure over time (e.g., working near toxic substances or doing repetitive actions)

## Single Occurrence

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
</table>

## Exposure over Time

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Location</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Is the worker still exposed?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often did the exposure occur?</td>
<td>One time</td>
<td>Daily</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How long did the exposure last?</th>
<th>&lt; 0.5 hr</th>
<th>0.5-2.5 hr</th>
<th>2.5-5 hr</th>
<th>&gt; 5 hr</th>
</tr>
</thead>
</table>
### Injury Details

<table>
<thead>
<tr>
<th>Side of Body injured</th>
<th>□ Right □ Left □ Front □ Back</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Body Part</strong></td>
<td></td>
</tr>
<tr>
<td>1. Head (vision, hearing, speech)</td>
<td>7. Wrist or hand</td>
</tr>
<tr>
<td>2. Neck</td>
<td>8. Hip or thigh</td>
</tr>
<tr>
<td>3. Upper back, chest, abdomen</td>
<td>9. Knee or lower leg</td>
</tr>
<tr>
<td>4. Lower back, lower abdomen</td>
<td>10. Ankle or foot</td>
</tr>
<tr>
<td>5. Shoulder or upper arm</td>
<td>11. Systematic or internal organ</td>
</tr>
<tr>
<td>6. Elbow or forearm</td>
<td>12. Other: ___________________</td>
</tr>
<tr>
<td><strong>Nature of injury</strong></td>
<td></td>
</tr>
<tr>
<td>□ Cut</td>
<td>□ Electrical burn</td>
</tr>
<tr>
<td>□ Scratch</td>
<td>□ Heat Burn</td>
</tr>
<tr>
<td>□ Bruise</td>
<td>□ Chemical Burn</td>
</tr>
<tr>
<td>□ Sprain</td>
<td>□ Strain</td>
</tr>
<tr>
<td>□ Concussion</td>
<td>□ Eye</td>
</tr>
<tr>
<td>□ Dislocation</td>
<td>□ Other: ___________________</td>
</tr>
<tr>
<td>□ Fracture</td>
<td></td>
</tr>
</tbody>
</table>

### Side of Body injured

| □ Right □ Left □ Front □ Back |

<table>
<thead>
<tr>
<th><strong>Body Part</strong></th>
<th>19. Wrist or hand</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Head (vision, hearing, speech)</td>
<td>20. Hip or thigh</td>
</tr>
<tr>
<td>15. Upper back, chest, abdomen</td>
<td>22. Ankle or foot</td>
</tr>
<tr>
<td>16. Lower back, lower abdomen</td>
<td>23. Systematic or internal organ</td>
</tr>
<tr>
<td>17. Shoulder or upper arm</td>
<td>24. Other: _________________</td>
</tr>
<tr>
<td>18. Elbow or forearm</td>
<td></td>
</tr>
</tbody>
</table>

| **Nature of injury** |  |
| □ Cut                | □ Electrical burn |
| □ Scratch            | □ Heat Burn       |
| □ Bruise             | □ Chemical Burn   |
| □ Sprain             | □ Strain          |
| □ Concussion         | □ Eye             |
| □ Dislocation        | □ Other: _________________ |
| □ Fracture           |                   |
### Accident Details

**What was the cause of the accident?**
- □ Struck against
- □ Struck by level
- □ Fall from above
- □ Caught in
- □ Caught under
- □ Contact with chemicals
- □ Repetitive body movement
- □ Fall from same level
- □ Overexertion / strain
- □ Contact with electrical current
- □ Slip
- □ Exposure
- □ Caught between
- □ Other: ___________________

**Body Position**
- □ Pulling
- □ Stopping
- □ Carrying
- □ Pushing
- □ Crouching
- □ Reaching
- □ Twisting
- □ Lifting
- □ Standing
- □ Bending sideways
- □ Bending forward
- □ Other: ___________________

**What was the source of injury (e.g., vehicle, floor, or chemical)?**

**What were the contributing factors to the injury?**

**Equipment / Material**
- □ Defective material or equipment
- □ Wrong material or equipment chosen
- □ Machine or equipment has missing safety components
- □ Toxic products
- □ Equipment not guarded
- □ Other: ___________________

**Area / Environment**
- □ Noise
- □ Heat
- □ Smoke
- □ Gas
- □ Dirty, disorderly
- □ Inadequate lighting
- □ Slippery surface
- □ Uneven surface or slope
- □ Improper ventilation

**Actions**
- □ Unsafe action by an employee
- □ Unsafe action by a customer
- □ Distraction/teasing, willful misconduct
- □ Hazardous personal attire
- □ Pre-existing medical condition
- □ Personal protective equipment not worn
- □ Other

**Work methods or procedures**
- □ Not heeded
- □ Not known
- □ Operating without authority
- □ Hazardous method or procedure
- □ Working at unsafe speed
- □ Other: ___________________
<table>
<thead>
<tr>
<th>Fire, explosion, atmospheric hazard</th>
<th>Safety Policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsafe design or arrangement</td>
<td>Not heeded</td>
</tr>
<tr>
<td>Outside hazardous condition</td>
<td>Not known</td>
</tr>
<tr>
<td>Other: ___________________________</td>
<td>Failure to secure or warn</td>
</tr>
<tr>
<td></td>
<td>Other: ____________</td>
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<table>
<thead>
<tr>
<th>Duties</th>
<th>Use of material or equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inappropriate work methods or</td>
<td>Improper use</td>
</tr>
<tr>
<td>procedures</td>
<td>Did not understand how to use</td>
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<tr>
<td>Unsafe body posture or position</td>
<td>Improperly labeled or identified</td>
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<tr>
<td>Regular duty</td>
<td>Other: __________________________</td>
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<tr>
<td>Repetitive movement</td>
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<td>Other: ___________________________</td>
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</table>

Briefly describe what happened, including the series of events preceding the incident.


Is there reason to believe the worker had a pre-existing condition?  Yes [ ]  No  [ ]
Describe:


Were the worker’s actions at the time of injury for the purpose of work?  Yes [ ]  No  [ ]
Describe:


Were the actions part of the worker’s regular work?  Yes [ ]  No  [ ]
Describe:


Were there any witnesses?  Yes  [ ]  No  [ ]
Please fill out separate witness form for each witness. Forms can be found below and on GoCanvas.
<table>
<thead>
<tr>
<th>Investigators</th>
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<tbody>
<tr>
<td>Crew Foreman Name</td>
</tr>
<tr>
<td>Worker Name</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Investigator Recommended Action Items</th>
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</thead>
<tbody>
<tr>
<td>□ Workplace Inspection</td>
</tr>
<tr>
<td>□ Repair or replacement</td>
</tr>
<tr>
<td>□ Training</td>
</tr>
<tr>
<td>□ Use safer materials</td>
</tr>
<tr>
<td>□ Re-assignment of person</td>
</tr>
<tr>
<td>□ Correction of congestion</td>
</tr>
<tr>
<td>□ Incident under investigation</td>
</tr>
<tr>
<td>□ Other: _________________</td>
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<table>
<thead>
<tr>
<th>Describe:</th>
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<th>Immediate Corrective Action Taken</th>
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<tr>
<th>Health and Safety Worker Rep Recommended Action Items</th>
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<tbody>
<tr>
<td>□ Workplace Inspection</td>
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<tr>
<td>□ Repair or replacement</td>
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<tr>
<td>□ Training</td>
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<tr>
<td>□ Use safer materials</td>
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<tr>
<th>Health and Safety Worker Rep. Follow-up Action Plan</th>
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**Witness Statement**

<table>
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<tr>
<th>Near Miss / Accident Details</th>
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<tbody>
<tr>
<td>Date</td>
</tr>
<tr>
<td>Job Name</td>
</tr>
<tr>
<td>Witness</td>
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<tr>
<td>Last Name</td>
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**Near Miss / Accident Details**

Provide a detailed description of all factors surrounding the incident. Keep the statement chronological and as objective as possible.

Signature

*By signing this statement, I acknowledge that all information is described to the best of my knowledge.*

<table>
<thead>
<tr>
<th>Witness Name</th>
<th>Signature</th>
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**First Aid Record**
This record must be kept by the employer for three (3) years. This form must be kept at the employer’s workplace. DO NOT submit to WorkSafeBC.

<table>
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<tr>
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<tr>
<td>Name</td>
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<td>Occupation</td>
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<td>Date of injury or illness</td>
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<td>Time of injury or illness</td>
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<td>Initial reporting date and time</td>
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<td>Follow-up report date and time</td>
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<td>Initial report sequence number</td>
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<td>Subsequent report sequence number(s)</td>
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**Description of how the injury, exposure, or illness occurred (What happened?)**

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**Description of the nature of the injury, exposure, or illness (What you see – signs and symptoms)**

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**Description of the treatment given (What did you do?)**

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Name of witnesses
1. 
2.

Arrangement made relating to the worker (return to work/medical aid/ambulance/follow-up)

Provided worker handout  □ Yes  □ No
Alternate duty options were discussed  □ Yes  □ No
A form to assist in return to work and follow-up was sent with the worker to medical aid  □ Yes  □ No

First aid attendant’s name (please print)
First aid attendant’s signature
Patient’s signature
Element 11) Emergency Preparedness

DEFINITIONS
1. “Hospital” – a hospital within the meaning of the Hospital Act or a diagnostic and treatment centre where the hospital or centre has:
   • An emergency department or resuscitation area, and
   • A physician on duty or immediately available on call.
2. “Industry type” – assigned a low (L), moderate (M), high (H), in accordance with the OHS Guidelines.
3. “Eye and skin exposure risk levels” – assigned as follows:
   • High (H) = irreversible tissue damage, serious illness resulting from rapid absorption of a toxic substance, or ignition or clothing
   • Moderate (M) = serious irritation, or other reversible harm or illness resulting from absorption of a toxic substance
   • Low (L) = mild irritation
   • N/A = no greater risk than normal living conditions
4. “First aid attendant” – a person who holds a valid first aid certification issued by the Board or by a person recognized by the Board and who is designated as the first aid attendant by the employer.

POLICY
Emergency protocols are to be developed, reviewed, and practiced under a variety of conditions to help keep everyone on site safe in an emergency.

PROCESS/ WORK PRACTICE
1. All fuel/power shut-offs and emergency exits will be clearly marked and kept free of obstructions at all times.
2. Appropriate emergency communication devices will be kept available at each operational worksite as a means of:
   • Alerting site personnel
   • Contacting outside assistance
3. All emergency contact numbers will be kept accurate and made available to all workers during regularly scheduled work hours.
4. The crew foreman will maintain an awareness of the number of employees onsite at all times and will be able to provide an accurate head count in the event of an emergency.
5. The necessary first aid requirements for each operational worksite will be determined in accordance with the established procedure. (First Aid Assessments)
RESPONSIBILITIES

1. The crew foreman will ensure a detailed *Emergency Response Plan* specific to the needs of each regular worksite in operation is created and completed, including but not limited to:
   - Site information
   - Emergency contact information (including directions to the nearest clinic or hospital
   - Key locations (first aid equipment, emergency personnel meeting point, and muster stations)
   - How to call for first aid
   - Fire response
   - Evacuation

2. The crew foreman will ensure that:
   - Annual drills are held to ensure awareness and effectiveness of the emergency response plan. All results will be communicated to workers at the next safety meeting.
   - Appropriate fire extinguishers are installed at key locations on all worksites. For regular worksites, these locations will be marked with a sign in writing or by a picture.
   - Company-owned fire extinguishers are inspected.

3. The employer will ensure that a *First Aid Notice* is available to all workers. This notice covers the authority of the first aid attendant over the treatment of injured workers, and the responsibility of the employer to report injuries.

PROCEDURES

All findings will be documented on the *Emergency Response Plan* and posted on site.

Fire extinguishers will be kept in all company mobile equipment, trucks, and vehicles.

All fire extinguishers will be:

- Class ABC
- Kept in good working condition
- Readily available
- Tagged to indicate an annual inspection by a qualified person or agency
- Stamped to indicate a five-year certification by a qualified person or agency

Fire Extinguisher Inspection

1. These are guidelines for the monthly fire extinguisher inspection (that is to be documented on the *Fire Extinguisher Inspection* form):
   - Confirm the extinguisher is visible, unobstructed, and in its designated location.
   - Verify the locking pin is intact and the tamper seal is unbroken. Examine the extinguisher for obvious physical damage, corrosion, leakage, or clogged nozzle.
   - Confirm the pressure gauge or indicator is in the operable range or position and lift the extinguisher to ensure it is still full.
   - Make sure the operating instructions on the nameplate are legible and facing outward.
• Check the last professional service date on the tag. (A licensed fire extinguisher maintenance constructed must have inspected the extinguisher within the past 12 months.)

2. If all the above conditions are met, initial and date the back of the tag.

3. When an inspection of a fire extinguisher reveals a deficiency in any of the conditions listed above, immediate corrective action should be taken.

**Fire Response**

The following steps will be taken when a fire is noticed:

• Never turn your back on the fire.
• Rescue or remove any persons from the immediate scene.
• Call 911.
• Close all doors and shut off electricity and fuel sources, if safe to do so.
• Attempt to extinguish the fire, if safe to do so.
• If the fire cannot be controlled, invoke the evacuation plan.

**Earthquake**

If indoors:

• DROP to your hands and knees.
• COVER your head and neck with your arms. This position protects you from falling and provides some protection for vital organs. Because moving can put you in danger from the debris in your path, only move if you need to get away from the danger of falling objects. If you can move safely, crawl for additional cover under as sturdy desk or table. If there is low furniture or an interior wall or corner nearby and the path is clear, these may also provide some additional cover.
• Stay away from glass, windows, outside doors and walls, and anything that could fall, such as lighting fixtures or furniture.
• HOLD ON to any sturdy shelter until the shaking stops.
• DO NOT get in a doorway as this does not provide protection from falling or flying objects and you likely will not be able to remain standing.
• Stay inside until the shaking stops and it is safe to go outside. Do not exit a building during the shaking. Research has shown that most injuries occur when people inside buildings attempt to move to a different location inside the building or try to leave.
• DO NOT use the elevators.
• Be aware that the electricity may go out or the sprinkler systems or fire alarms may turn on.

If Outdoors:

• If you can, move away from buildings, streetlights, and utility wires.
• Once in the open, drop, cover, and hold on. STAY THERE until the shaking stops. This might not be possible in a city, so you may need to duck inside a building to avoid falling debris.
If in a Moving Vehicle:

- Stop as quickly and as safely as possible and stay in the vehicle. Avoid stopping near or under buildings, trees, overpasses, and utility wires.
- Proceed cautiously once the earthquake has stopped. Avoid roads, bridges, or ramps that might have been damaged by the earthquake.

**Gas Leak**

- The crew foreman will evaluate the area to ensure that it is safe. All loads to be lowered if possible and equipment and energy sources to be shut down.
- Everybody onsite will proceed directly to the assigned muster station(s) in an orderly fashion and remain there until otherwise directed.
- The first aid attendant will identify and evaluate any injuries.
- If required, contact 911 by sending someone to the nearest phone, or provide immediate transportation to hospital, doctor’s office or home as required.
- At the time of the call, provide the following information:
  - Location of gas leak
  - Nature of any injuries and the number of victims
- Stay on the phone until advised to hang up.
- Send someone to notify management of the emergency.

After the emergency situation:

- Complete an Accident/Near Miss Investigation Report and conduct a thorough investigation.

**Evacuation Procedure**

In case of an emergency that requires evacuation of the site (i.e. fire, gas leak, etc.) the crew foreman should be notified to start an evacuation. If this situation occurs do the following:

- Shut off any equipment or tools in use.
- Leave the site through the closest exit and proceed to the designated muster point.
- Once assembled, the crew foreman will perform a roll call to ensure that all personnel have successfully evacuated the site.
- If an employee is missing from the roll call, emergency response personnel are to be informed immediately.
- Trained first aid attendant will attend to all injured employees while waiting for emergency services.
- A fire/emergency evacuation drill must be conducted each year.

**Fall & Rescue**

If a worker falls and is suspended by a safety harness, implement the emergency response plan by following the steps below.

*Note: It’s important to know your role.*
1. The crew foreman takes control of the situation.
2. The crew foreman notifies worker of emergency. The crew foreman quickly evaluates the situation and identifies any further hazards that could arise.
3. The crew foreman or their designate goes to get help if workers are close by. If no one is close enough, the crew foreman calls for help.
4. See below for onsite rescue options.
5. The crew foreman calls 911 to notify local police, fire, and ambulance if required.
6. The crew foreman (or a worker assigned to the task) isolates the accident zone and its perimeter to limit further exposure.
7. The crew foreman (or a worker assigned to the task) moves all non-affected personnel to a safe zone or directs them to remain where they are.
8. The crew foreman enables radio silence on the jobsite, except for crisis communications from emergency responders. These communications are conducted on a pre-selected "emergency only" radio channel.
9. The crew foreman sends a designated worker to the site gate to meet the response team (police, medical, fire, etc.) and ensure that they have a safe access path to the accident scene.
10. The crew foreman assembles the emergency rescue team at the accident site as quickly as possible to determine the best rescue procedure for the situation.

Rescue Procedures

The following rescue procedures are ordered (A) through (C), with (A) being the preferred method and (C) being the method used when there is no other means of rescue.

A. Elevating Work Platform Rescue—If an elevating work platform (EWP) is available on site and the suspended worker can be reached by the platform, follow the procedure below.

1. Bring the EWP to the accident site and use it to reach the suspended worker.
2. Ensure that rescue workers are wearing full-body harnesses attached to appropriate anchors in the EWP.
3. Ensure that the EWP has the load capacity for both the rescuer(s) and the fallen worker. If the fallen worker is not conscious, two rescuers will probably be needed to safely handle the weight of the fallen worker.
4. Position the EWP platform below the worker and disconnect the worker’s lanyard when it is safe to do so. When the worker is safely on the EWP, reattach the lanyard to an appropriate anchor point on the EWP if possible.
5. Lower the worker to a safe location and administer first aid. Treat the worker for suspension trauma and any other injury.
6. Arrange transportation to hospital if required.
B. Ladder Rescue—If an elevating work platform is not available, use ladders to rescue the fallen worker with the procedure outlined below.

1. If the fallen worker is suspended from a lifeline, move the worker (if possible) to an area that rescuers can access safely with a ladder.
2. Set up the appropriate ladder(s) to reach the fallen worker.
3. Rig separate lifelines for rescuers to use while carrying out the rescue from the ladder(s).
4. If the fallen worker is not conscious or cannot reliably help with the rescue, at least two rescuers may be needed.
5. If the fallen worker is suspended directly from a lanyard or a lifeline, securely attach a separate lowering line to the harness.
6. Other rescuers on the ground (or closest work surface) should lower the fallen worker while the rescuer on the ladder guides the fallen worker to the ground (or work surface).
7. Once the fallen worker has been brought to a safe location, administer first aid and treat the person for suspension trauma and any other injury.
8. Arrange transportation to hospital if required.

C. Rescue from Work Area or Floor Below—If the fallen worker is suspended near a work area and can be safely reached from the floor below or the area from which they fell, use the following procedure.

1. Ensure that rescuers are protected against falling.
2. If possible, securely attach a second line to the fallen worker’s harness to help rescuers pull the fallen worker to a safe area. You will need at least two strong workers to pull someone up to the level from which they fell.
3. Take up any slack in the retrieving line to avoid slippage.
4. Once the worker has been brought to a safe location, administer first aid and treat the person for suspension trauma and any other injury.
5. Arrange transportation to hospital if required.

Post-Rescue Procedure

All non-affected workers should remain in the designated safe gathering zone until the crew foreman notifies them to do otherwise.

The crew foreman, employer and health and safety representative should

- Begin the accident investigation.
- Quarantine all fall-arrest equipment that may have been subjected to fall fatigue effects and/or shock loading for further investigation.
• Secure the area (the OHSA requires that an accident scene not be disturbed where a fatal or critical injury has occurred).
• Determine whether or not the jobsite-specific rescue and evacuation plans were followed as designed.
• Record modifications or additions to the plans that the rescue team deems necessary.
• Record all documented communications with fire, police, and other contractors involved.
• Record all documented statements from employees, witnesses, and others.
• Save all photographs of the incident.

Record all key information such as dates, time, weather, general site conditions, and specific accident locales including sketches of the immediate incident area, complete with measurements if applicable.

**Electrical Exposure**

The danger from an electrical shock depends on the type of current, how high the voltage is, how the current traveled through the body, the person's overall health and how quickly the person is treated.

An electrical shock may cause burns, or it may leave no visible mark on the skin. In either case, an electrical current passing through the body can cause internal damage, cardiac arrest or other injury. Under certain circumstances, even a small amount of electricity can be fatal.

A person who has been injured by contact with electricity should be seen by a doctor.

**Caution**

• Don't touch the injured person if he or she is still in contact with the electrical current.
• Call 911 or your local emergency number if the source of the burn is a high-voltage wire or lightning. Don't get near high-voltage wires until the power is turned off. Overhead power lines usually aren't insulated. Stay at least 20 feet (about 6 meters) away — farther if wires are jumping and sparking.
• Don't move a person with an electrical injury unless he or she is in immediate danger.

**When to seek emergency care**

Call 911 or your local emergency number if the injured person experiences:

• Severe burns
• Confusion
• Difficulty breathing
• Heart rhythm problems (arrhythmias)
• Cardiac arrest
• Muscle pain and contractions
• Seizures
• Loss of consciousness

Take these actions immediately while waiting for medical help

• Turn off the source of electricity, if possible. If not, move the source away from you and the person, using a dry, nonconducting object made of cardboard, plastic or wood.
• Begin CPR if the person shows no signs of circulation, such as breathing, coughing or movement.
• Try to prevent the injured person from becoming chilled.
• Apply a bandage. Cover any burned areas with a sterile gauze bandage, if available, or a clean cloth. Don't use a blanket or towel, because loose fibers can stick to the burns.

Accidents can be prevented with “safety first” in mind. If you or a co-worker come into contact with an overload line, remember:

• If you are alone and don't have a radio, stay in the vehicle until help arrives this is the safest place
• Stay alert and keep other workers away from the area;
• Try to break contact with the lines by moving the vehicle at least 10 m. (32 feet) away;
• Don't try to break contact if the cable or equipment appears to be welded by the line – this could cause the line to whip or snap;
• Do not touch power lines with wood, the wood maybe damp and conduct electricity;
• If a line is on the ground, it could be charging the surrounding area. Stay back 30 feet from the line. As well, if a line is touching a piece of equipment, do not come near to the equipment or touch it. Never assume the breaker is open or the line is dead;
• Do not assume the lines are dead:
  o Transmission lines are on a 30-second breaker delay which reactivates three times;
  o A distribution feed line is two lines, one carrying power into the property and the second line carrying power back. If contact is made with both of these wires it is fatal;
  o Contact the electrical utility to turn off the power.

Fires and Power

In the event of a life-threatening fire, jump clear and try to land as far away as possible (on both feet) without touching the equipment as you land. Do not, under any circumstance step down and allow part of your body to be in contact with the ground while any other part of your body is touching the machine.

Jump with both feet together maintain a balance and hop as far away as possible. (Approximately 10 meters.) Remember – you are still in danger even if you have cleared the vehicle – hop away to minimize the danger of electrical currents in the ground passing through your body. Do not take large steps because it is possible for one foot to be in a high voltage area and the other to be in a lower voltage area. The difference between the two can kill.

Shelter-in-place
Shelter-In-Place is the practice of going or remaining indoors during an outdoor release of a hazardous substance. The aim is to keep the public safe. It has been demonstrated to be the most effective public protection measure during the first few hours of a substance release where the public would be at higher risk outdoors.

**Get Inside, Stay Inside**

1. Go to the nearest building and stay there.
2. Close all outside doors and every door inside the building.
3. Close all windows.
4. Do not use kitchen vents or bathrooms vents.
5. Stay in an inside room away from windows and doors if possible.
6. Reduce or avoid smoking as it contaminates the air.
7. Do not leave the building until told to.
8. Stay tuned to local radio for information.
9. Do not use the telephone, leave the phone lines open for emergency personnel.

**Sealing a Room**

In some types of emergencies, you will need to stop outside air from coming in. If officials tell you to “seal the room,” you need to:

1. Turn off things that move air, like fans and air conditioners,
2. Get yourself and your loved ones inside the room,
3. Bring your emergency supplies if they are clean and easy to get to
4. Block air from entering the room, and
5. Listen to officials for further instructions.

Once officials say the emergency is over, turn on fans and other things that circulate air. Everyone should go outside until the building’s air has been exchanged with the now clean outdoor air.

**Staying Put in Your Vehicle**

In some emergencies it is safer to pull over and stay in your car than to keep driving. If you are very close to home, your workplace, or a public building, go there immediately and go inside. Follow the "shelter-in-place" recommendations for that location. If you can’t get indoors quickly and safely:

1. Pull over to the side of the road.
2. Stop your vehicle in the safest place possible and turn off the engine.
3. If it is warm outside, it is better to stop under a bridge or in a shady spot so you don’t get overheated.
4. Stay where you are until officials say it is safe to get back on the road.
5. Listen to the radio for updates and additional instructions.
6. Modern car radios do not use much battery power, so listening to the radio for an hour or two should not cause your car battery to die.
7. Even after it is safe to get back on the road, keep listening to the radio and follow directions of law enforcement officials.
Bees

The best way to prevent stings is to avoid the insects. Leave the area, if possible. If there is a travelling swarm, they will likely leave within a few days.

Note that insect repellent ("bug spray") does not affect these stinging insects. Avoidance and awareness are the keys to not being stung.

Before working at a site:

1. Take a look around. Check to see if there are any visible signs of activity or a hive or nest. If you see a number of insects flying around, check to see if they are entering/exiting from the same hole or place. If so, it is likely a nest or a source of food.

2. Wear long sleeve shirts, long pants, and closed-toed boots or shoes. If you cannot avoid working near bees or wasps, wear a bee-keepers style hat with netting to cover your head, neck and shoulders. Tape your pant legs to your boots/socks, and your sleeves to your gloves. You may also wish to wear an extra layer of clothing since wasp stings are long enough to reach through one layer of clothing.

3. Power tools such as lawnmowers, weed eaters and chainsaws will aggravate the insects. When using these tools, be aware that the tools may provoke the insects or in some cases, cause the insects to swarm.

If you find you are working near stinging insects, here are some tips.

- Most bees and wasps will not sting unless they are startled or attacked. Do not swat at them or make fast movements. The best option is to let the insects fly away on their own. If you must, walk away slowly, or gently "blow" them away. The only exception is if you have disturbed a nest and hear "wild" buzzing. Protect your face with your hands and run from the area immediately.

- Wear light coloured clothes such as khakis, beige, or blue. Avoid brightly coloured, patterned, or black clothing.

- Tie back long hair to avoid bees or wasps from getting entangled in your hair.

- Be careful when shaking out clothing or towels as the insects could be inside the folds.

- If you find a bee or wasp in your car, stop and leave the windows open. You may also take a thick cloth and cover the insect before it gets frightened. Carefully, let the insect back outside through an open window.

What should you do if you are stung?

Wasps and hornets do not leave their sting in you, and so they can sting repeatedly. Honey bees can sting only once and will leave the sting (and venom sac plus some other parts) stuck in the skin at the sting site.

1. The sting, if present, should be removed right away since the venom can still be injected for up to a minute after the bee detaches from its sting.
2. Try removing the sting by scraping sideways with your fingernail, a credit card or other stiff card. Try not to squeeze the bee venom sac as that action will release more venom. However, you might have to use tweezers if the venom sac breaks off leaving the sting in the skin.
3. Wash the sting site and apply ice to reduce swelling.
4. Contact your doctor if you are stung multiple times or if you begin developing an allergic reaction.

Workers with a history of severe allergic reactions to insect bites or stings should carry an epinephrine autoinjector and wear medical ID jewelry stating their allergy.

Injury Procedures

Bleeding

1. If the injured person is bleeding from an external wound, control the bleeding immediately.
2. Apply direct pressure to the wound with a clean sterile dressing. (Never attempt to remove an impaled object from a wound).
3. Keep the injured person in a comfortable position.
4. Elevate the injured body if possible.

Burns

1. For minor burns, flush area with cool water.
2. Cover the burn area lightly with a clean, sterile loose dressing and call for medical help.
3. For serious burns, cover the injured area with clean, damp dressings, and get medical help.

(Do not apply creams, lotions, or ointments. Do not prick or puncture blisters, and do not pull any clothing that is stuck to the burned areas.)

Breathing

1. If the injured person is not breathing but has a pulse, start artificial respiration immediately.

Cardiopulmonary Resuscitation (CPR)

1. If the victim’s breathing has stopped and you cannot find a pulse start CPR and AR immediately.
2. For adults and children use 30 CPR compressions and two ventilation breaths. You are required to have formal training in the use of these procedures prior to performing CPR.

Shock (Non-Electric): Persons suffering from serious injuries may lapse into shock. Signs of shock include drowsiness, paleness, disorientation, clammy skin, and weak pulse. Immediate medical attention is required:

1. Reassure the injured person that help is coming.
2. Place the injured person in the recovery position if possible.
3. Otherwise, place injured person in a comfortable position that allows for easiest breathing and loosen clothing around neck, waist, and chest.
4. Keep the injured person warm.
5. Watch for signs of breathing trouble.

**Heat Exhaustion:** Occurs when excessive sweating causes a depletion of body fluids and when conditions prevent the evaporation of sweat to cool the body. This critical occurrence may cause the internal organs or the brain to shut down to protect them. All workers should be aware of the symptoms of heat exhaustion. The symptoms of heat exhaustion may include dizziness, fatigue, and slurred speech.
   1. Place the injured person in a cool place with feet and legs elevated.
   2. Loosen tight clothing.
   3. Remove excessive clothing.
   4. Give conscious injured person small sips of water as tolerated.
   5. Place unconscious injured person in recovery position.
   6. Monitor breathing.
   7. Call 911 for transport to medical aid.

**Heatstroke:** Occurs when there is prolonged exposure to a very hot environment with poor ventilation or overexposure to the hot sun. Sweating ceases, temperature rises rapidly and can be fatal unless the body temperature can be lowered to near normal. High body temperatures, fatigue, slurred speech, dizziness and hot dry skin indicate heatstroke. In some cases, an injured person of heat stroke may begin to shiver. The high internal body temperatures may cause the internal organs and the brain to shut down to protect them against the heat.
   1. Place person in cool area.
   2. Remove excessive clothing.
   3. Place person in cool bath or sponge / douse with cool water.
   4. Monitor body temperature closely.
   5. Monitor breathing.
   6. Call 911 for transport to medical aid.

**Poison Inhalation**

Poisoning signs and symptoms can mimic other conditions, such as seizure, alcohol intoxication, stroke and insulin reaction. Signs and symptoms of poisoning may include:

- Burns or redness around the mouth and lips
- Breath that smells like chemicals, such as gasoline or paint thinner
- Vomiting
- Difficulty breathing
- Drowsiness
- Confusion or other altered mental status

1. Call 911 if the person is:
   - Drowsy or unconscious
   - Having difficulty breathing
   - Uncontrollably restless or agitated
- Having seizures
- Known to have taken medications, or any other substance, intentionally or accidentally overdosed

2. Call Poison Control Centre (604-682-5050 or 1-800-567-8911) in the following situations:
   - The person is stable and has no symptoms
   - The person is going to be transported to the local emergency department

3. Be ready to describe the person's symptoms, age, weight, other medications he or she is taking, and any information you have about the poison. Try to determine the amount ingested and how long since the person was exposed to it. If possible, have on hand the pill bottle, medication package or other suspect container so you can refer to its label when speaking with the poison control center.

4. Take the following actions until help arrives:
   - Swallowed poison. Remove anything remaining in the person's mouth. If the suspected poison is a household cleaner or other chemical, read the container's label and follow instructions for accidental poisoning.
   - Poison on the skin. Remove any contaminated clothing using gloves. Rinse the skin for 15 to 20 minutes in a shower or with a hose.
   - Poison in the eye. Gently flush the eye with cool or lukewarm water for at least 15 minutes or until help arrives.
   - Inhaled poison. Get the person into fresh air as soon as possible.

5. If the person vomits, turn his or her head to the side to prevent choking.

6. Begin CPR if the person shows no signs of life, such as moving, breathing or coughing.

7. Call Poison Control Centre for additional instructions.

8. Have somebody gather pill bottles, packages or containers with labels, and any other information about the poison to send along with the ambulance team.

Roles of First Responders:

1. Immediate care of the injured or ill participant

2. Call for emergency medical services:
   - Call 911 OR the local paramedics/EMT
   - Provide the following information:
     - Identify yourself
     - Location
     - Telephone number
     - Number of individuals injured
     - Type of Injury
     - Condition of injured
     - First aid treatment being provided
     - Other information as requested

3. Direct EMT to the location of the injured or ill participant.

4. Limit the area around the injured or ill participant to first aid providers and move other participants and bystanders away from the area.
First Aid

1. Any time the first aid attendant is made aware that a worker or workers have been injured, the attendant will do the following:
   • Promptly provide injured workers with a level of care within the scope of the attendant’s training.
   • Objectively record observed or reported signs and symptoms of injuries and exposures to contaminants.
   • Refer to medical treatment workers with injuries considered by the attendant as being serious or beyond the scope of the attendant’s training.

2. The first aid attendant is responsible, and has full authority, for all first aid treatment of an injured worker until responsibility for treatment is accepted:
   • At a place of medical treatment
   • By an ambulance service
   • By a person with higher or equivalent first aid certification

3. The first aid attendant does not have authority to overrule a worker’s decision to seek medical treatment or the worker’s choice of medical treatment.

Qualifications

1. Each first aid attendant will:
   • Be at least 16 years old
   • Have successfully completed the first aid training course or first aid examination developed or approved by the local OHS Regulatory Authority
   • Have a first aid certificate in good standing at the required level issued by BC or a person recognized by the local OHS Regulatory Authority

2. The first aid attendant on duty will be physically and mentally capable of safely and effectively performing his or her required duties and will have his or her certificate available onsite.

Proof of Certification

1. The attendant’s certificate must be shown to the employer or the employer’s representative before the attendant begins first aid duties.

2. The attendant must have his or her certificate at the workplace and must produce the certificate for inspection at the request of an officer of the Board.

3. A photocopy or other reproduction of a certificate is not acceptable as proof of certification.

Equipment

First aid equipment, supplies, and facilities will be kept clean, dry, ready for use, and readily accessible at all times when employees are onsite.

Transportation

1. The crew foreman will ensure appropriate transportation is arranged for all workers to a medical treatment facility at the employer’s expense.
2. Injured workers will not under any circumstance transport themselves to medical aid from the worksite, even for minor injuries.

**Recording**

Any time first aid is administered, or treatment advice is given to an injured worker, the necessary documentation will be completed by the first aid attendant on the *First Aid Record* form.

**First Aid Assessments**

1. Prior to work beginning at any new site or work area, the crew foreman will ensure the first aid assessment is up to date and includes the following information:
   - Name of workplace
   - Assigned/designated hazard rating
   - Surface travel time to hospital
   - Total number of workers onsite at any given time that may require treatment
   - Any barriers to first aid

2. In addition to (1), a new first aid assessment will be completed annually or whenever a significant change occurs in the employer’s operations. All findings will be recorded clearly on the *First Aid Assessment Worksheet*.

**First Aid Kit Required Contents**

These items must be kept clean and dry and must be ready to take to the scene of an accident. A weatherproof container is recommended for all items except the blankets. Blankets should be readily available to the first aid attendant. Use this form to check your contents. If items are used up or missing, they must be restocked IMMEDIATELY.

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Actual Quantity</th>
<th>Restock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blanket</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 cm x 19 cm wound cleansing towelettes, individually packaged</td>
<td></td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Sterile adhesive dressings, assorted sizes, individually packaged</td>
<td></td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>10 cm x 10 cm sterile gauze dressings, individually packaged</td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>10 cm x 16.5 cm sterile pressure dressings with crepe ties</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>7.5 cm x 4.5 m crepe roller bandages</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>7.5 cm conforming gauze bandages</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2.5 cm x 4.5 m adhesive tape</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Cotton triangular bandages, minimum length of base 1.25 m</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Quick straps (a.k.a. fracture straps or zap straps)</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Windlass style tourniquet</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>14 cm stainless steel bandage scissors or universal scissors</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>11.5 cm stainless steel sliver forceps</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Pocket mask with a one-way valve and oxygen inlet</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Pairs of medical gloves (preferably non-latex)</td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Waterproof waste bag</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>First aid records</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Inspector**

**Date**

328
## Minimal levels of first aid

For a workplace that is a high risk of injury and that is **20 minutes or less** surface travel time away from a hospital, the table below must be used to determine the minimal level of first aid.

<table>
<thead>
<tr>
<th>Item</th>
<th>Column 1 Number of workers per shift</th>
<th>Column 2 Supplies, equipment, and facility</th>
<th>Column 3 Level of first aid certificate for attendant</th>
<th>Column 4 Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>• Personal first aid kit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2-15</td>
<td>• Level 1 first aid kit</td>
<td>Level 1 certificate</td>
<td>Taxi cab Ambulance</td>
</tr>
<tr>
<td>3</td>
<td>16-30</td>
<td>• Level 2 first aid kit</td>
<td>* Level 2 certificate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Dressing station</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>31-300</td>
<td>• Level 2 first aid kit</td>
<td>* Level 2 certificate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• First aid room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>301 or more</td>
<td>• Level 2 first aid kit</td>
<td>* 2 attendants, each with Level 2 certificates</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• First aid room</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For a workplace that is a high risk of injury and that is **more than 20 minutes** surface travel time away from a hospital, the table below must be used to determine the minimal level of first aid.

<table>
<thead>
<tr>
<th>Item</th>
<th>Column 1 Number of workers per shift</th>
<th>Column 2 Supplies, equipment, and facility</th>
<th>Column 3 Level of first aid certificate for attendant</th>
<th>Column 4 Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>• Personal first aid kit</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Level 1 first aid kit</td>
<td>Level 1 certificate</td>
<td>Taxi Cab, Ambulance</td>
</tr>
<tr>
<td>---</td>
<td>----</td>
<td>-------------------------</td>
<td>---------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>2</td>
<td>2-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>6-10</td>
<td>• Level 1 first aid kit</td>
<td>Level 1 certificate</td>
<td>ETV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ETV equipment</td>
<td>with Transportation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Endorsement</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>11-30</td>
<td>• Level 3 first aid kit</td>
<td>Level 3 certificate</td>
<td>ETV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Dressing station</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ETV equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>31-50</td>
<td>• Level 3 first aid kit</td>
<td>Level 3 certificate</td>
<td>ETV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• First aid room</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ETV equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>51-200</td>
<td>• Level 3 first aid kit</td>
<td>Level 3 certificate</td>
<td>Industrial ambulance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• First aid room</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Industrial ambulance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>201 or more</td>
<td>• Level 3 first aid kit</td>
<td>2 attendants, each</td>
<td>Industrial ambulance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• First aid room</td>
<td>with Level 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Industrial ambulance</td>
<td>certificates</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>equipment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Minimal Levels for Eye Wash Stations/Dispensers

**Table: Low Risk**

<table>
<thead>
<tr>
<th>Body Part</th>
<th>Equipment</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eyes</td>
<td>Effective means to flush the eyes</td>
<td>&lt; 30 m. (100 ft.)</td>
</tr>
<tr>
<td>Skin</td>
<td>Emergency flushing equipment, such as non-tempered drench hose</td>
<td>&lt; 30 m. (100 ft.)</td>
</tr>
</tbody>
</table>

* Equipment may be located further away than stated above only if additional regulatory requirements as defined in section 5.88 of the OHS Regulation.

### Training Requirements

<table>
<thead>
<tr>
<th>Type</th>
<th>Who</th>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OJT</td>
<td>All personnel onsite</td>
<td>Evacuation Drill</td>
<td>Conduct a site evacuation drill and document the results.</td>
</tr>
<tr>
<td>OJT</td>
<td>All personnel onsite</td>
<td>Review of emergency, procedures, roles and responsibilities</td>
<td>Review topics in a toolbox talk.</td>
</tr>
<tr>
<td>Formal</td>
<td>First Aid Attendant</td>
<td>Occupational Level 1</td>
<td>In accordance with First Aid Assessment requirement.</td>
</tr>
</tbody>
</table>

### Forms Reference

- Emergency Response Plan – located below and on GoCanvas
- First Aid Assessment – located below and on GoCanvas
- First Aid Notice – located below and on GoCanvas
- WCB Notice to Workers – located below and on GoCanvas
- First Aid Kit Required Contents – located above (page 329) and on GoCanvas
Emergency Response Plan

Site Information

<table>
<thead>
<tr>
<th>Worksite Name</th>
<th>Worksite Address</th>
<th>Crew Foreman</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Emergency Contact Information

<table>
<thead>
<tr>
<th>Ambulance, Police, Fire</th>
<th>Address/Details</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nearest Hospital</th>
<th>Address/Details</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nearest Clinic</th>
<th>Address/Details</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental Agency</th>
<th>Address/Details</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WCB Office</th>
<th>Address/Details</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key Locations

<table>
<thead>
<tr>
<th>Location of first aid equipment/room</th>
<th>Address/Details</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Meeting point for emergency personnel</th>
<th>Address/Details</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evacuation muster point A</th>
<th>Address/Details</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evacuation muster point B</th>
<th>Address/Details</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Communication

1. Call first aid for minor injury.
2. Call first aid for major injury.
3. Site evacuation / gas leak.

Fire Response

1. Never turn your back on the fire.
2. Attempt to extinguish the fire if safe to do so.
3. If the fire cannot be controlled, invoke the evacuation plan.
4. Close all doors and shut off electricity and fuel sources if safe to do so.
5. Evacuate.

Site Evacuation / Gas Leak

1. Whoever notices the emergency situation will alert everyone onsite.
2. All loads to be lowered if possible.
3. Equipment and energy sources to be shut down.
4. Everybody onsite will proceed directly to the assigned muster stations in an orderly fashion.
5. Everybody will remain at their muster station until otherwise directed.
6. The crew foreman will ensure emergency services have been notified.

Earthquake

Indoors

1. Drop, cover, and hold on.
2. Minimize your movements and get to a nearby safe place.
3. Stay there until the shaking has stopped and you are sure exiting is safe.

Outdoors

1. Move away from the buildings, streetlights, and utility wires.
2. Once in the open, drop, cover, and hold on.
3. STAY THERE until the shaking stops.
**In a moving vehicle**

1. Stop as quickly and safely as possible and stay in vehicle.
2. Avoid stopping near or under buildings, trees, overpasses, and utility wires.
3. Proceed cautiously once the earthquake has stopped.
4. Avoid roads, bridges, or ramps that the earthquake may have damaged.

**Electrical Emergency**

1. Don’t touch the injured person if he or she is still in contact with the electrical current.
2. Stay at least 20 feet away – farther if wires are jumping and sparking.
3. Call 911 immediately if the injured person experiences severe burns, confusion, difficulty breathing, heart problems, muscle pain and contractions, seizures, loss of consciousness.
4. Call the power company.
5. While waiting for medical help turn off source of electricity if possible. If not, move the source away from you and the person, using a dry, non-conducting object made of cardboard, plastic or dry wood.
6. The first aid attendant should begin CPR if the person shows no signs of circulations, such as breathing, coughing or movement.
7. Treat the victim for shock. Keep them lying down. If victim is unconscious, lie on them on their side to allow drainage of fluids.
8. Cover them enough to maintain body heat.
9. Do not move victim if you suspect neck or spine injury.
10. Treat burn by immersing in cold water. Cover severe burned areas with a sterile gauze or a clean cloth. Do not use a blanket or towel because loose fibres can stick to the burns.

**In Vehicle**

1. If possible, remain in the vehicle until help arrives.
2. If you must leave your vehicle, avoid making contact with the vehicle and ground at the same time.
3. Shuffle or hop away, keeping both feet in contact with each other until you are at least 100 feet away from the vehicle. If you run, your legs may bridge current from areas of high and low voltage, resulting in electrical shock.

**Electrical Fire**

1. Never use water on electrical fires, equipment or wires.
2. Unplug equipment.
3. If the fire is small, use a dry chemical fire extinguisher.
4. Call 911 as soon as possible.
# First Aid Assessment Worksheet

<table>
<thead>
<tr>
<th>Name of work place</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Hazard rating on Assigned Hazard Rating List</th>
<th>L / M / H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job functions, work processes and tools</td>
<td></td>
</tr>
</tbody>
</table>

| Typical of industry? □ Yes □ No |
|----------------------------------|-----------|
| Types of injuries that can potentially occur | |

| Typical of industry? □ Yes □ No |
|----------------------------------|-----------|

<table>
<thead>
<tr>
<th>Rating adjustment: if hazard rating is adjusted, provide documentation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall workplace hazard rating</td>
</tr>
</tbody>
</table>
| Surface travel time to hospital | □ greater than 20 minutes  
□ 20 minutes or less |
| Total number of workers per shift: ______ (include dispatched workers and workers in lodgings) |
| Barriers to reaching medical treatment |

**Assessment Results (different shifts may require different first aid services)**

<table>
<thead>
<tr>
<th>Supplies / equipment / facilities required</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Number and level of first aid attendants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation needs</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Change in Business Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consulted (health and safety worker representative, others)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Signature</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
First Aid Notice

As required by Part 3 of the Occupational Health and Safety Regulation, employers must keep up-to-date written procedures for providing first aid. The employer must also post the procedures conspicuously in suitable locations throughout the workplace or, if posting is not practicable, the employer must adopt other measures to ensure that the information is effectively communicated to workers. Posting this notice will assist employers in meeting the following two requirements:

1. The authority of the first aid attendant over the treatment of injured workers, and
2. The responsibility of the employer to report injuries

The employer must also develop and post first aid procedures specific to the workplace.

OHSR

3.21 First aid attendant responsibilities

(3) The first aid attendant is responsible, and has full authority, for all first aid treatment of an injured worker until responsibility for treatment is accepted

(a) at a place of medical treatment,
(b) by an ambulance service acceptable to the Board, or
(c) by a person with higher or equivalent first aid certification.

(4) The first aid attendant does not have authority to overrule a worker's decision to seek medical treatment or the worker's choice of medical treatment.

Control of Treatment - WCB Standard OFA1: Certification of Occupational First Aid Attendants states in part:

The attendant is in complete charge of all first aid treatment of an injured worker until the responsibility for treatment is accepted at a place of medical treatment or by a person with a higher or equivalent certification of first aid.

If the attendant may have to provide ongoing treatment, he/she should accompany an injured worker to a hospital or place of medical treatment unless the worker is being transported by the B.C. Ambulance Service or other ambulance service acceptable to the Board.

Responsibility of the employer to report injuries and accidents to WorkSafeBC

- In the case of an injury resulting in time loss and/or medical aid, the employer is responsible for reporting the incident/injury to WorkSafeBC within three business days of the injury's occurrence or within three business days of the employer's representative becoming aware of the injury through the completion of an Employer's Report of Injury or Occupational Exposure (Form 7).

- Under section 172 of the Workers Compensation Act, the employer is responsible for immediately reporting the following to the WorkSafeBC Prevention Information Line (604.276.3100 or toll-free 1.888.621.7233): fatalities and serious injuries; a major structural failure or collapse of a building, bridge, tower, crane, hoist, temporary construction support system, or excavation; a major release of a hazardous substance; a diving incident as defined
by OHS Regulation 24.43; a dangerous incident involving a fire or explosion that had potential for causing serious injury to a worker; or a blasting incident that results in personal injury or injuries.

You can now report an injury online, through Employer's Incident and Injury Report (EIIR). To get started, go to worksafebc.com and select "Report and injury or illness."

**WCB Notice to Workers**

TO PREVENT INJURIES

- Comply with the Occupational Health and Safety Regulation
- Use all safety devices and required personal protective equipment
- Where conditions appear to be dangerous, notify your supervisor or employer, your health and safety committee representative, or the nearest WorkSafeBC office

IF YOU ARE INJURED

- Get first aid immediately — even for slight injuries
- Notify your employer as soon as possible, giving particulars of all injuries sustained and full details of the cause
- If you require medical attention, you may choose your own physician, chiropractor, dentist, naturopathic physician, or podiatrist
- If you intend to change your physician or practitioner while on a claim, advise WorkSafeBC
- HOW TO CLAIM COMPENSATION
- Telling your employer and doctor that you were injured at work will help initiate your claim
- If you lose time from work beyond the day of injury, call WorkSafeBC's Teleclaim centre at 1 888 967-5377 and press 2

FOR ASSISTANCE WITH YOUR CLAIM

- Please call the Claims Call Centre to speak to a client service representative at 604 231-8888, or toll-free at 1 888 967-5377
- More information is available online at WorkSafeBC.com
Element 12) Records and Statistics

POLICY
All program reports, such as inspections, meeting minutes, orientations will be documented on computer files. All other documentation, such as training/education reports, signed policies, disciplinary letters, first aid records, and investigations will be stored in personnel files.

Health and safety summaries are developed on a monthly, quarterly, and yearly basis. Summaries will track: types of injuries, types or incidents, root/underlying causes and will be totalled and put into report format and made available to management and workers. These summaries will be documented on the Stats Summary Report by the health and safety representative.

PURPOSE
Health and safety activity summaries will provide management or the health and safety representative with useful information which helps identify the need for improvement or change to the safety management system.

First Aid Records
According to section 3.19 of the OHS Regulation:

- The employer must maintain at the workplace, in a form acceptable to the Board, a record of all injuries and exposures to contaminants covered by the Regulation that are reported or treated.
- First aid records must be kept for at least three years.
- First aid records are to be kept confidential and may not be disclosed except as permitted by the Regulation or otherwise permitted by law.
- First aid records must be available for inspection by an officer of the Board.
- Workers may request or authorize access to their first aid records for any treatment or report about themselves.
Safety Records

1. Any safety records not mentioned in the following table will be kept in a secure location for five years.
2. The following table provides instructions for how long to retain documentation. In all cases, local OHS legislation and regulations take precedence.

Tracking

1. The company will track statistics on a quarterly basis.
2. The following activities will be tracked:

<table>
<thead>
<tr>
<th>Near-miss investigations</th>
<th>Accident Investigations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspections</td>
<td>First aid incidents (employees only and subcontractors)</td>
</tr>
<tr>
<td>Orientations</td>
<td>Medical aid incidents</td>
</tr>
<tr>
<td>Hazard assessments</td>
<td>Time loss incidents (number of incidents and duration)</td>
</tr>
<tr>
<td>Return to Work</td>
<td>Other:</td>
</tr>
</tbody>
</table>

Statistical Review & Action

1. All tracked data will be reviewed in the following meetings:
   - Health and safety Meetings
   - Management meetings
   - Toolbox talks
2. The company will record any trends from reviewing tracked data and will take corrective action to improve workplace safety.

<table>
<thead>
<tr>
<th>Record</th>
<th>Time Requirement</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee hearing tests</td>
<td>As long as the worker is employed by the employer</td>
<td>kept as long as the worker is employed by the employer</td>
</tr>
<tr>
<td>First aid records</td>
<td>3 years</td>
<td></td>
</tr>
<tr>
<td>Orientation and training records</td>
<td>5 years</td>
<td>Required for all employees</td>
</tr>
<tr>
<td>Equipment and machinery records</td>
<td>5 years</td>
<td>For all inspections and maintenance</td>
</tr>
<tr>
<td>Exposure to harmful substances: symptoms, workplace conditions, and actions</td>
<td>10 years</td>
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</table>

Form Reference
Stats Summary Report
# Stats Summary Report

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<thead>
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<th>Completion Date</th>
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## Postings (posted and up-to-date)

- ☐ Emergency Response Plan
- ☐ FA Assessment
- ☐ Other
- ☐ Other

## Documentation

<table>
<thead>
<tr>
<th>Section</th>
<th>Form</th>
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<tr>
<td>Workplace Hazard Assessment &amp; Control</td>
<td>Pre-Project Hazard Assessment</td>
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<td>Project Hazard Assessment</td>
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<tr>
<td></td>
<td>Safe Work Practices and Safe Job Procedures</td>
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<tr>
<td>Company Rules</td>
<td>Non-Compliance Form</td>
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<td>Training &amp; Communication</td>
<td>Site Orientation</td>
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<tr>
<td></td>
<td>Toolbox Talk</td>
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<td></td>
<td>Monthly Site Health &amp; Safety Meetings</td>
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</tr>
<tr>
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<td>Monthly Worker Rep &amp; Manag. Safety Meeting</td>
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<td>Worksite Inspection Form</td>
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</tr>
<tr>
<td>Inspections</td>
<td>Near Miss Investigation</td>
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<td>Incident Reporting</td>
<td>First Aid Record:</td>
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<tr>
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<td>Cuts</td>
<td>Required</td>
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<tr>
<td></td>
<td>Sprains &amp; strains</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>Foreign body &amp; the eyes</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>Trauma</td>
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</tr>
<tr>
<td></td>
<td>Medical</td>
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<tr>
<td></td>
<td>Accident Investigation</td>
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<td></td>
<td>Lost Time</td>
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## Totals

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<tbody>
<tr>
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</table>
Element 13) Legislation

DEFINITIONS
1. “Workers Compensation Act (WCA)” - The WCA is the key legal document that describes not only the authority for making health and safety laws, but also specific health and safety requirements.
2. “The Occupational Health and Safety Regulation (OHSR)” – The OHSR outlines the general requirements that apply to all workplaces, and specific requirements based on type of hazard and work activities.
3. “Policies” – The WorkSafeBC develops policies that describe how certain sections of WCA and OHSR will be enforced. The requirements created by WorkSafeBC Policy must be adhered to, this applies to both how WorkSafeBC conducts its business including Board Officers, and what employers, supervisors and workers need to do to be in compliance.
4. “Guidelines” – Like WorkSafeBC Policies, the Guidelines are developed internally by WorkSafeBC. Guidelines are intended to provide greater clarity on what is required to comply with certain sections of the WCA and OHSR. Therefore, the Guidelines create conditions that affect safety compliance and must be adhered to for compliance with the WCA and OHSR.
5. “Standards” – The WorkSafeBC WCA, OHSR, Policies and Guidelines also refer to standards. As a result, any standard referenced becomes a legally enforceable regulatory equipment. WorkSafeBC uses both standards that they have developed and the standards of other organizations. WorkSafeBC Standards are available free of charge on their website. Standards published by other organizations such as the CSA, ASME, ANSI, etc. must be purchased from the organization or authorized supplier.

POLICY
The WCB Regulations will be made available to workers by the OHS app that will be installed on everyone’s phone.

PROCEDURE

1. The Right to Refuse

(1) A person must not carry out or cause to be carried out any work process or operate or cause to be operated any tool, appliance or equipment if that person has reasonable cause to believe that to do so would create an undue hazard to the health and safety of any person.

(2) A worker who refuses to carry out a work process or operate a tool, appliance or equipment pursuant to subsection (1) must immediately report the circumstances of the unsafe condition to his or her crew foreman or employer.

(3) A crew foreman or employer receiving a report made under subsection (2) must immediately investigate the matter and
   (a) ensure that any unsafe condition is remedied without delay, or
   (b) if in his or her opinion the report is not valid, must so inform the person who made the report.
(4) If the procedure under subsection (3) does not resolve the matter and the worker continues to refuse to carry out the work process or operate the tool, appliance or equipment, the crew foreman or employer must investigate the matter in the presence of the worker who made the report and in the presence of the executive administrator.

(5) If the investigation under subsection (4) does not resolve the matter and the worker continues to refuse to carry out the work process or operate the tool, appliance or equipment, both the crew foreman, or the employer, and the worker must immediately notify an officer, who must investigate the matter without undue delay and issue whatever orders are deemed necessary.

2. The Right to Know

The employer must provide to the employer's workers the information, instruction, training and supervision necessary to ensure the health and safety of those workers in carrying out their work and to ensure the health and safety of other workers at the workplace (Act 115). In addition, they are given the right to have access to government or employer reports related to the health and safety of employees through the health and safety representative.

3. The Right to Participate

Employees have the right to participate in:
- Identifying and correcting work-related health and safety concerns.
- Health and safety training.
- Health and safety meetings.
Element 14) Worker Health and Safety Representative

ROLES AND RESPONSIBILITIES
Participation by employer or representative of employer and worker representative

1. Assisting the persons carrying out the investigation with gathering information relating to the investigation;

2. Assisting the persons carrying out the investigation with analyzing the information gathered during the investigation;

3. Assisting the persons carrying out the investigation with identifying any corrective actions necessary to prevent recurrence of similar incidents.

PROCEDURE
Selection of Worker Representatives

Worker representatives will be selected from workers who do not exercise managerial functions, in the following order:

- By volunteering.
- If the workers do not make their own selection after being given the opportunity, selection or appointment will be made by the employer in accordance with section 128 of the Workers Compensation Act.

Time from Work

1. The worker representative is entitled to time from regular work activities to:
   - Prepare for and participate in meetings
   - Fulfill their obligations and duties

2. Time off, as described above, is deemed to be time worked for the employer, and the employer will pay the representative for that time.

Educational Leave

1. The worker representative is entitled to annual educational leave totalling 8 hours, or a longer period is prescribed by regulation, for the purposes of attending occupational health and safety training courses.

2. The employer must provide the educational leave under this section without loss of pay or other benefits and must pay for, or reimburse the worker for, the costs of the training course and the reasonable costs of attending the course.

Employer Obligations

1. The employer will provide the worker representative with the equipment, premises, and clerical personnel necessary to carry out its duties and functions.

2. Upon request of the worker representative, the employer will provide all information regarding:
• The identification of known or reasonably foreseeable health or safety hazards to which workers are likely to be exposed
• Health and safety experience and work practices/standards in similar or other industries of which the employer has knowledge
• Orders, penalties, and prosecutions relating to workplace health and safety

Employee Concerns and Suggestions

1. Employees may bring to the attention of the worker representative any health and safety-related concerns or suggestions by directly communicating with a committee representative.
2. If the employee bringing forward the concern or suggestion wishes to remain anonymous, they will clearly indicate their expectations to the worker representative.
3. All legitimate concerns or suggestions received by the committee will be read and discussed at the next meeting and entered into the official meeting minutes.
4. All correspondence relating to each submitted concern or suggestion such as recommendations, corrective action, or control measures will be entered into the official meeting minutes.

RESPONSIBILITIES

1. An employer must ensure that, with respect to each of the employer's worker representative, a written evaluation is conducted annually by
   • The worker representative, or
   • the employer or a person retained by the employer.
2. The evaluation must contain, but is not limited to, the following information:
   • whether or not, throughout the period of time that is the subject of the evaluation,
     o the worker representative met the membership requirements under section 127(a) to (d) of the Workers Compensation Act,
     o worker representatives were selected in accordance with section 128 of the Workers Compensation Act,
     o the worker representative fulfilled each of its duties and functions under section 130 of the Workers Compensation Act,
     o the worker representative met regularly with management as required under section 131 (2) of the Workers Compensation Act,
     o the employer met the requirements under section 133 of the Workers Compensation Act in respect of the written recommendations sent to the employer by the worker representative with a written request for a response from the employer, if any,
     o the worker representative received the time off from work the member was entitled to receive under section 134 of the Workers Compensation Act,
     o the worker representative is entitled to attend annual education leave under section 135 of the Workers Compensation Act,
     o the worker representative prepared reports of its meetings and provided copies to the employer as required under section 137(1) of the Workers Compensation Act,
o the employer met the requirements of posting and keeping posted committee information as set out in section 138 of the Workers Compensation Act, and
o the worker representative received the instruction and training the employer was required to ensure was provided to the member under section 3.27 of this regulation;
• an assessment of the effectiveness of the worker representative’s rules of procedures as established under section 131(1) of the Workers Compensation Act;
• an assessment of the overall effectiveness of the worker representative.

3. The worker representative must
• discuss the evaluation at the meeting immediately following
  o receipt of the evaluation, if the employer or a person retained by the employer conducted the evaluation, or
  o the completion of the evaluation, if members of the joint committee conducted the evaluation, and
• ensure that the evaluation and a summary of the discussion referred to in paragraph (a) are included in the report of that meeting.

**Incident Investigations**

Participation by employer or representative of employer and worker representative:

(a) assisting the persons carrying out the investigation with gathering information relating to the investigation;

(b) assisting the persons carrying out the investigation with analyzing the information gathered during the investigation;

(c) assisting the persons carrying out the investigation with identifying any corrective actions necessary to prevent recurrence of similar incidents.
Minimum training requirements for worker health and safety representatives

1. The employer must ensure that the worker representative who was selected on or after April 3, 2017 to be a member receives, as soon as practicable but no more than 6 months after becoming a member, a total of at least 4 hours of instruction and training.

2. The instruction and training referred to above must include the following topics:
   - the duties and functions of a joint committee under section 130 of the Workers Compensation Act;
   - the rules of procedure of the joint committee as established under or set out in section 131 of the Workers Compensation Act;
   - the requirements respecting investigations under sections 173 to 176 of the Workers Compensation Act;
   - the requirements respecting inspections under sections 3.5, 3.7 and 3.8 of this regulation and how to make regular inspections under section 3.5 of this regulation;
   - the requirements respecting refusal of unsafe work under section 3.12 of this regulation;
   - the requirements respecting the evaluation of joint committees under section 3.26 of this regulation.

3. The employer must ensure that a person who receives instruction and training receives a copy of the person’s training record as soon as practicable after the training is completed.

4. The employer must, with respect to each person who receives instruction and training keep the person’s training record until 2 years from the date the person ceases to be a member of the employer’s joint committee or a worker health and safety representative, as applicable.

The Worker Representative will meet with management monthly to discuss health and safety topics.

Forms Reference
JHSC Agenda
JHSC Meeting Minutes Template
JHSC Recommendations
# Health and Safety Agenda

<table>
<thead>
<tr>
<th>Agenda Items</th>
<th>Allotted Time</th>
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<tbody>
<tr>
<td>Roll call</td>
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<tr>
<td>Create / Review Safe Work Practice or Safe Job Procedure</td>
<td></td>
</tr>
<tr>
<td>Review Minutes of Last Meeting</td>
<td></td>
</tr>
<tr>
<td>Unfinished Business</td>
<td></td>
</tr>
<tr>
<td>Worksite / Office Inspections Review</td>
<td></td>
</tr>
<tr>
<td>Injury Management Results / Steps Needed to Improve</td>
<td></td>
</tr>
<tr>
<td>Incident Investigations Review</td>
<td></td>
</tr>
<tr>
<td>WCB Inspection Reports</td>
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<tr>
<td>New Business</td>
<td></td>
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<tr>
<td>Education</td>
<td></td>
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<tr>
<td>Review Leading and Lagging Indicators</td>
<td></td>
</tr>
<tr>
<td>Recommendations to Employer</td>
<td></td>
</tr>
<tr>
<td>Next Meeting (Date, Time, and Location)</td>
<td></td>
</tr>
<tr>
<td>Adjourn</td>
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</tbody>
</table>
# Health and Safety Meeting Minutes Template

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<thead>
<tr>
<th>Location</th>
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<table>
<thead>
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<th>Roll Call</th>
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<table>
<thead>
<tr>
<th>Items</th>
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<tbody>
<tr>
<td>Create / Review Safe Work Practice or Safe Job Procedure</td>
</tr>
<tr>
<td>Review Minutes of Last Meeting</td>
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<td>Unfinished Business</td>
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<tr>
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<td>Review Leading and Lagging Indicators</td>
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<td>Recommendations to the Employer</td>
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# Health and Safety Recommendations

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<table>
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