

Health & Safety Manual

2022

4th Edition



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Health and Safety Policy

2022

5th Edition

Effective Date:	Jan. 2022		Approved By:	Boris Gopka, Executive Director
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Version	Date	Author	Rationale
1.0	July 12 th , 2019	Olena Vynnychuk	First Draft
2.0	Oct. 31 st , 2019	Olena Vynnychuk	Review
3.0	Jan. 3 rd , 2020	Nataliya Muriy	COR-based
4.0	Jan. 4 th , 2021	Nataliya Muriy	COR-based
5.0	Jan 24 th , 2022	Nataliya Muriy	COR 2020-based

Health and Safety Policy

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. All the members of the management team, including senior management, are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the Occupational Health and Safety Act, Construction Regulation (O. Reg 213/91: CONSTRUCTION PROJECTS), WHMIS 2015, First Aid Regulation 1101, and all the associated regulations and agreements, setting Occupational Health and Safety (OHS) objectives to ensure continuous improvement of our Occupational Health and Safety Management System (OHSMS) and OHS performance, to ensure the prevention of injuries and illnesses.

All members of management, the Health and Safety Representative (HSR), supervisors and all the workers must come together in making health and safety an integral component of our daily activities, providing timely feedback on policy implementation on a weekly basis. Because every employee has the right to work in a safe and healthy environment, everyone on the management team is committed to consulting and cooperating with all the workers in the effort to provide a healthy and safe work environment, striving to eliminate, whenever possible, or control all reasonably foreseeable hazards that may result in accidents/incidents, personal injuries/illnesses, fires, security loss or other property damage by making sure the supervisors do all the required inspections, using the risk matrix as applicable. Management shall monitor their execution and take corrective action when needed, keeping track of the purchase and maintenance of all the required safety equipment, as well as reviewing our OHSMS annually at least.

Supervisors must carry out the corresponding inspections, documenting them using the OneBuilder app, advising the workers of any hazards detected and the controls to be used. They must also make sure that the workers are documenting their pre-use tool and equipment inspections on the OneBuilder app.

Workers must document their pre-use tool and equipment inspections on the OneBuilder app. They must also report any hazards they detect, follow their supervisor's instructions, and work safely.

For further information on the health and safety responsibilities of all the workplace parties, please refer to our Health and Safety program.

Health and safety are key to our success and viability, so let's continue working together towards our common goal – a safe and healthy work environment for all!

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022



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Health and Safety Program

2022

1st Edition

Effective Date:	Jan. 2022		Approved By:	Boris Gopka, Executive Director
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Version	Date	Author	Rationale
1.0	Jan 24 th , 2022	Nataliya Muriy	COR 2020-based

Health and Safety Program

Since all members of the management team at Joint Seal Waterproofing are committed to ensuring a safe and healthy work environment, we have outlined the responsibilities of each of our workplace parties.

Safety – Everyone’s Priority

Managers: All managers are responsible and accountable for ensuring that health and safety requirements are incorporated into all aspects of our business, since all our employees have the right to work in a safe and healthy work environment. Managers will ensure resources are made available for the successful implementation of all required health and safety processes and programs, by monitoring the use of our in-house app for HS inspections mentioned above, as well as tracking the purchase and maintenance of all the required safety equipment. They will also review our Occupational Health and Safety Management System (OHSMS) at least annually to ensure it is up to date.

Supervisors: All supervisors are responsible and accountable for ensuring the execution and enforcement of health and safety requirements/processes, health and safety education programs and training, and written safe work practices and procedures, as applicable in the work areas under their direction.

Supervisors must familiarize all the workers with this policy and make sure it is available for consultation at any time.

Supervisors are responsible for performing tool, equipment, vehicle and jobsite inspections on a daily basis, documenting them through our in-house app. At the end of every workday, a Daily Log must be filled out summarizing the day’s activities, indicating the safety topic covered, listing any actual or potential hazards and controls. Job Hazard Assessments and New Site Orientations must also be done every time a new job begins, and the corresponding documentation filled out.

Supervisors must also make sure that all the workers perform tool and equipment checks on a daily basis, and fill out the corresponding HS formats using our in-house app.

Workers: All the workers are responsible and accountable for safely performing their work in accordance with written requirements/procedures and practices made available to them, reporting any actual or potential hazards, as well as injuries, participating in health and safety education programs and training, and protecting their fellow employees. All employees are expected to follow the safe work practices established by management. On a daily basis, they must perform tool and equipment checks, documenting this task by filling out the corresponding HS formats using our in-house app

Contractors, sub-contractors, external personnel, visitors: All contractors, sub-contractors, agency-supplied personnel, and visitors will be expected to abide by all applicable health and safety

requirements/processes and established workplace rules, as well as provide proof of their own H&S Program.

Health and safety are key to our success and viability, so let's continue working together towards a safe and healthy environment for everyone by complying with all the duties assigned and working safely.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022



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Documentation, Document and Record Control

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Health and Safety Documentation, Document and Record Control

Since all members of the management team at Joint Seal Waterproofing are committed to ensuring a safe and healthy work environment, we have established the need to document HS inspections and keep track of all the pertaining documents and records.

When it comes to HS documentation, the roles and responsibilities of each workplace party are outlined in our Health and Safety Program. To ensure the effectiveness of our OHSMS, we keep electronic records of daily equipment/tool checks, JHAs, Weekly Inspections, and Daily Logs through our inhouse app. We also keep records of New Site Orientations and HS Rep's monthly inspections in the corresponding binders which are reviewed by management on a regular basis. Other records that are kept are receipts from vehicle, equipment and tool maintenance, inspection records of First Aid kits, fire extinguishers and eyewash stations/bottles, as well as the washroom log.

All the documents must be approved by management before their use and must be reviewed, updated, re-approved for use, or withdrawn as applicable any time it is deemed necessary. The changes mentioned must be identified and tracked by indicating document versions at the beginning of each policy statement or program that forms part of this HS Manual. As soon as the documents are updated, the newest version must be available on the bullet board (if applicable) and posted on our website. It is essential that the previous document versions that are no longer applicable are not in use – all such versions must be kept on record on our internal drive while only the latest version should be posted.

When external documents are needed in the planning and operation of our OHSMS, such as the applicable legislation or any related documents, they must be identified and made reference to.

Record retention is essential in demonstrating our compliance with the requirement of maintaining a current and functional OHSMS. For this purpose, all the required documents must be legible and easy to identify. At the same time, however, while careful record-keeping is done, great care must be taken in ensuring that the privacy and confidentiality are protected.

Diligent HS documentation, as well as document and record control are essential in ensuring a functioning OHSMS. We must all do our part in complying with this requirement to make sure we have a healthy and safe work environment for everyone.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022



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Hazard Assessment Policy & Procedure

2022

5th Edition

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Hazard Assessment, Analysis and Control Policy

At Joint Seal Waterproofing, the health and safety of our employees is our number one priority. We continuously strive to protect our employees from injury or occupational diseases. We are making every effort to provide a safe and healthy work environment by keeping current with our HS inspections, documentation, and the purchase of HS equipment, as needed.

Hazard assessment and analysis are at the core of our efforts to maintain a healthy and safe environment for our employees. They are done for each jobsite to ensure the safety of every single employee. Work areas, job types, and tools used are listed below. Controls for each identified hazard must be written down on the Job Hazard Assessment (JHA).

Work area:

Office, warehouse, balconies, garages, elevator pits, hospitals, roofs, stairs, utility rooms, tunnels, maintenance chambers, sidewalks, airport apron surfaces, or any other area where work is being done, as well as when driving to job sites using company vehicles.

Job type:

Crack repair, patching, expansion joint injection, caulking, polyurea membrane application, or any other work assigned.

Tool use:

Circular saws, chain saws, portable grinders, power tools, extension cords, propane torch, chipping guns, caulking guns; actions to take when handling defective tools.

Purpose

The purpose of our Job Hazard Analysis is to identify, control or eliminate current (if any) and potential dangers in a job or task.

Factors

Factors to be considered in assigning a priority for analysis of jobs include the following, based on the degree of risk they represent:

- Accident frequency and severity
- Potential for severe injuries or illnesses
- Newly established jobs
- Modified jobs
- Infrequently performed jobs
- Low-risk jobs
- New workers with less experience

See the procedure below on how we shall implement our hazard assessment to ensure everyone's safety.

Rick Rawlinson

Vice President

Date: January 24th, 2022

Hazard Assessment, Analysis and Control Procedure

Everyone at Joint Seal Waterproofing must do their part in achieving our common goal – a safe and healthy work environment for all. Timely hazard assessment, development of controls and their immediate application are a key element in preventing occupational diseases and incidents/accidents. For this reason, we have developed a hazard assessment procedure, in which responsibilities are established by role. All the competent workplace parties – managers, supervisors, forepersons, and workers – must be involved in the hazard assessment process.

Hazard assessment must be conducted for all company operations (routine and non-routine ones), considering all the applicable legal requirements, associated standards and guidelines, as well as work area design, layout and ergonomics. Human factors that might have an impact on any active jobsite must be considered as well.

Both actual and potential hazards must be reported, and risk assessment must be conducted for all the identified hazards, using a standardised risk rating system, such as the risk matrix listed below, before and after the identification of controls. Hazard and risk assessment must be done before any job begins, when new equipment/tools/materials/substances have been introduced or any processes have changed, or when a change to the Occupational Health and Safety Management System (OHSM) might impact any operations or activities in the workplace. Critical tasks/activities must be identified, based on the risk rating system.

Likelihood	Consequence				
	Minor	Moderate	Significant	Major	Severe
Almost Certain Is expected to occur	Low	Medium	High	Very High	Very High
Likely Will probably occur in most circumstances	Low	Medium	High	Very High	Very High
Possible Could occur at sometime	Low	Medium	Medium	High	Very High
Unlikely Event hasn't occurred but it could in some circumstances	Low	Low	Medium	Medium	High
Rare Exceptional circumstances only	Low	Low	Low	Medium	Medium

Hazard assessments must be reviewed and updated at least annually, or more frequently if needed – after an investigation or if a project phase changes. Hazards originating from outside the workplace that might have an impact on workplace health and safety must also be identified and controls developed based on the established hierarchy.



Responsibilities by role

Managers and supervisors:

Joint Seal Waterproofing managers and supervisors are responsible for conducting and overseeing hazard assessment, to ensure all work is safely planned and executed. These individuals must be competent in identifying hazards and classifying them using the risk matrix, as well as in developing and applying the hierarchy of controls. Among the required competencies are hands-on work experience with all the types of jobs done, the use of tools and equipment, as well as supervisory experience.

Managers:

- Shall approve the hazard assessment, analysis and control procedures and any necessary modifications.
- Review their execution on a weekly basis;
- Ensure that the sub-contactors follow all the safe work practices and safe job procedures established by the company, by reviewing any of the following:
 - Clearance certificates and licenses, where applicable
 - Training records
 - Performance reports and complaints if any
 - Internal feedback
 - Their own HS program

Supervisors:

Shall ensure all the hazard assessment, analysis and control procedures are being carried out properly.

In order to identify all the actual and potential hazards, all supervisors must carry out an inspection of the job site every time a new job begins or if the conditions on an existing jobsite change. They will fill out the following format by using our in-house app: A Job Hazard Assessment, Analysis, and Control (JHA). They are also responsible for carrying out Weekly Inspections, as applicable, tool/equipment/vehicle inspections, and filling out the Daily Log, ensuring that a safety talk was given on site.

All risks must be prioritised before and after identifying adequate controls. A list of identified critical tasks must be developed and updated as needed based on the company-specific risk rating assessment.

All hazard controls must be implemented immediately, as soon as a hazard is identified. All the employees must be made aware by their supervisors of all the controls being implemented as soon as the JHA format is completed, before the work begins.

Employees:

All employees are responsible and accountable for safely performing their work in accordance with the written procedures and practices made available to them, reporting any actual or potential hazards or injuries to their immediate supervisor, participating in health and safety education programs, and protecting their fellow employees. Every worker on the jobsite is responsible for doing tool and equipment inspections before use and documenting them through our in-house app.

Sub-contractors:

All subcontractors hired by Joint Seal Waterproofing are responsible and accountable for safely performing their work in accordance with the company's written procedures and practices made available to them, reporting any actual or potential hazards **2.2 e)** or injuries, and protecting their fellow workers. They must have their own Health and Safety programs in place.

A safe workplace – everyone's responsibility

Job Hazard Assessment, Analysis, and the establishment of Controls must be carried out regularly, as discussed above, to effectively protect all the employees. All hazard controls must be implemented as soon as a hazard is identified. All the employees must be made aware by their supervisors of all the controls being implemented. Ensuring safe and healthy work conditions is everyone's responsibility!

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022

Job Hazard Assessment (JHA)

Complete this form before the start of each task or with any change in conditions.

Job: _____ Date: _____

Review the following with the work crew. List tasks and hazards and identify controls.

High-risk tasks need a Safe Operating Procedure.

Personal Hazards

- clear instruction provided
- able to perform the task
- trained to use equipment/tools
- distractions in the work area
- working alone
- aware of weather conditions
- noise levels
- have all the correct PPE

Activity Hazards

- welding/grinding
- burn/heat sources
- compressed gasses
- energized equipment
- electrical cords condition
- equipment/tools inspected
- lockout procedure in place
- airborne particles

Environmental Hazards

- spill potential
- climatic conditions
- MSDS reviewed
- ventilation required
- heat stress/cold exposure
- other workers in the area
- lighting levels
- housekeeping

Ergonomic Hazards

- working in a tight area
- parts of body in the line of fire
- working above your head
- pinch points identified
- working without being trapped
- repetitive movements

Working at Height Hazards

- barricades, flagging, and signs
- hole coverings in place
- protection from falling items
- powered platforms
- fall arrest
- ladders

Access/Egress Hazards

- scaffold inspected and tagged
- slip/trip potential identified
- required permits in place
- excavations
- confined space
- other

Violence & Harassment Hazards

- internal
- external

Identify and prioritize tasks and hazards, then identify plans to eliminate or control the hazards.

TASK	HAZARD*	CONTROL

*All hazards must have action plans to eliminate or control them. Plans must be in place before starting a task.

Name: _____ Name: _____ Name: _____

Name: _____ Name: _____ Name: _____

Name: _____ Name: _____ Name: _____

Supervisor Signature: _____ Reviewed by: _____



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Controls

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1.0	Jan 24 th , 2022	Nataliya Muriy	COR 2020-based

Controls Policy

At Joint Seal Waterproofing, the health and safety of our employees is our number one priority. We continuously strive to protect our employees from injury or occupational diseases. We are making every effort to provide a safe and healthy work environment by keeping current with our HS inspections, documentation, and the purchase of HS equipment, as needed.

The development of controls for every actual or potential hazard is essential in maintaining a healthy and safe environment for our employees. Controls must be developed based on the risk matrix, taking into consideration the control hierarchy, for every actual or potential hazard present in any of our work areas or types of work, including hazards associated with the use of tools and equipment listed below.

Work area:

Office, balconies, garages, elevator pits, hospitals, roofs, stairs, utility rooms, tunnels, maintenance chambers, sidewalks, airport apron surfaces, or any other area where work is being done, as well as when driving to job sites using company vehicles.

Job type:

Crack repair, patching, expansion joint injection, caulking, polyurea membrane application, or any other work assigned.

Tool use:

Circular saws, chain saws, portable grinders, power tools, extension cords, propane torch, chipping guns, caulking guns; actions to take when handling defective tools.

Procedure

To learn about everyone's role and responsibility in the establishment of controls, please refer to our Controls Procedure below.

Working Safely

To ensure every worker has complete information on how to work in the safest way possible, we have included a Safe Work Practices and a Safe Job Procedures section below.

A safe workplace – everyone's responsibility

All hazard controls must be implemented as soon as a hazard is identified, and all the workers must be informed by their supervisors. Ensuring safe and healthy work conditions is everyone's responsibility!

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022

Controls Procedure

The development of controls for every actual or potential hazard present at any of our work locations is essential in maintaining a healthy and safe environment for our employees. Hazard assessment and analysis must be carried out before beginning work at a new jobsite, as well as continuously throughout the duration of the project, to ensure that all feasible controls have been established in order to maintain a safe and healthy work environment.

Responsibilities

Supervisors are responsible for developing controls based on the hazard assessments done both for the type of jobsite and the kind of work to be carried out, taking into consideration the risk matrix and the hierarchy of controls (elimination, substitution, engineering controls, administrative controls, PPE), identifying the list of critical tasks. When hazard elimination is not possible, the corresponding controls must be implemented immediately.

Workers and management must be involved in the development and review of controls. All the controls established by the supervisors must be approved by management.

Requirements

Any applicable legislation, as well as other requirements such as manufacturer guidelines, must be considered when developing controls, and specific formats (shown below) used for documenting them. All the workers and any other affected workplace parties must be notified about the control measures taken – either during the Job Hazard Assessment briefing or through other means, if deemed necessary. They must be available readily available for consultation.

The developed controls must reflect our activities and be based on the type of jobsite and type of work carried out.

A safe workplace – everyone's responsibility

All hazard controls must be implemented as soon as a hazard is identified, and all the workers must be informed by their supervisors. Everyone must be involved in the development of these controls and work together in implementing them to ensure safe and healthy work conditions.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022

Safe Work Practices

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the *Occupational Health and Safety Act* and all associated regulations and agreements.

As part of our Health and Safety Program, we have prepared a series of documents outlining safe work practices to promote occupational health, identifying and controlling/eliminating hazards. Pertinent documents are available on each type of equipment and potential hazard, as applicable to Joint Seal's jobsites.

Safe work practices

- Occupational health
- Work hazards, including fall protection
- Equipment
- Tools
- Traffic control

For each safe work practice, there is a corresponding safe job procedure, as outlined in Joint Seal's Safe Job Procedures manual.

Responsibilities by role

Managers:

All managers are responsible and accountable for the following, to achieve the successful implementation of all required safe work practices:

- Ensuring resources are made available (this manual is available on our website).
- Ensuring that the practices are understood by workers and any subcontractors working on our sites (new employee orientation, safety talks, written acknowledgement).
- Ensuring that safe work practices are incorporated into all aspects of our business by all employees (review of supervisor checklists and employee observation).
- Participating in health and safety education programs, as well as Safety Meetings.
- Overseeing the development and review of the existing safe work practices.
- Getting employee feedback on areas of opportunity.

Supervisors:

All supervisors are responsible and accountable for the following:

- Ensuring the enforcement of all safe work practices, as applicable in the work areas under their direction.
- Ensuring that safe work practices are incorporated into all aspects of our business by all employees (regular employee observation and checklist documentation – they must fill out the

corresponding inspection formats on the OneBuilder app and ensure the workers are doing their safety checks too).

- Protecting their fellow employees.
- Participating in health and safety education programs.
- Participating in the development and review of the existing safe work practices.

Employees:

All employees are responsible and accountable for the following:

- Safely performing their work in accordance with written safe work practices and safe job procedures.
- Reporting any hazards (existing or potential) or injuries and protecting their fellow employees.
- Participating in health and safety education programs.
- Participating in the development and review of the existing safe work practices.
- Performing daily tool and equipment checks, documenting them on the OneBuilder app.

Contractors, sub-contractors, visitors:

All contractors, agency-supplied personnel and visitors will be expected to abide by all applicable safe work practices and established workplace rules. They must also provide proof of their own Health and Safety Program.

All members of management, the Health and Safety Representative (HSR), and all workers must come together in making health and safety an integral component of our daily activities.

Health and safety are key to our success and viability.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022

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I. Safe Work Practices – Occupational Health

Manual Lifting

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when manually lifting and moving heavy loads. Injuries may occur regardless of the weight of the object or the physical condition of the person doing the lifting if proper precautions are not taken.

Safe practices to follow to when lifting heavy objects/loads:

1. Each worker should be aware of his/her physical limitations as well as the approximate weight of materials.
2. Safe job procedure on manual lifting must be followed (see JSW Safe Job Practices).
3. Be aware of hazardous and unsafe conditions.
4. Power equipment or mechanical lifting devices should be used where practical.

Hazardous Materials

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed any time flammable liquids must be transported and handled.

For detailed information on a specific material, please refer to our MSDs booklet.

Transporting Flammable Liquids

1. Gasoline and other highly flammable liquids shall never be carried in the passenger compartment of a vehicle.
2. Approved containers with a CSA or ULC label must be used for transporting and storing gasoline and other highly flammable liquids.
3. Ensure that the containers are not damaged, and that caps or fittings are properly secured after the containers have been filled.
4. Flammable liquids must be transported in an upright position, secured to prevent overturning.
5. When transporting gasoline or other flammable liquids in a van, the containers shall be placed in the rear of the van, with adequate ventilation. Containers must be removed from the van immediately upon arrival.
6. A 5BC fire extinguisher must be provided to the driver and stored in the driver's compartment when gasoline or other flammable liquids are transported in a van.
7. Gasoline is not to be used as a cleaner.
8. Gasoline engines should be shut off and allowed to cool before refuelling.

Propane

1. Unless designed for horizontal use, propane cylinders must be kept in an upright position.
2. Propane cylinders must be stored in a well-ventilated area away from heat sources, outdoors and above grade.
3. Only approved hoses and fittings must be used to connect a cylinder to tools and equipment.
4. When not in use, propane cylinders and hose-connected devices must not be left in trenches or other low-lying areas. Propane is heavier than air and can settle in dangerous concentrations at

the bottom of trenches, maintenance chambers, vaults, basements, sumps and other below-grade areas.

5. Never look for leaks in a propane cylinder or hose with a flame. Use soapy water.

Workplace Hazardous Material Information System

To ensure the safety of all the employees and to prevent injuries, the company has the Workplace Hazardous Material Information System (WHMIS) program in place.

Employee training/Instruction

All employees will receive WHMIS training as required under current legislation. A record of this training must be maintained.

Material Safety Data Sheets

Responsibility for MSDS is as follows:

Senior management:

- a) Review in conjunction with the supervisor all company supplied material with the objective of obtaining all the MSDs required
- b) Obtain from the supplier any MSDSs which are required
- c) Obtain from subcontractors any MSDSs which are required for material supplied by subcontractors
- d) Cooperate with the owner/general contractor in setting up a general MSDS file for the project
- e) Ensure supervisors have set up and updated MSDS filing system on site
- f) Request any labels that may be required

Supervisors:

- a) Ensure that there is an MSDS for controlled products used on the site and in the site file which is accessible to all workers
- b) Review all company supplied material and obtain all MSDS required
- c) Make available "upon request" MSDS to all company employees
- d) Ensure that proper personal protective equipment is available on site

Hearing Protection

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed any time there is exposure to noise that can potentially cause temporary or permanent hearing loss.

Hearing Loss - Definition

Hearing loss is defined as any reduction in the normal ability to hear. It can be either temporary or permanent.

- Temporary hearing loss: It occurs when hair cells in the inner ear have been bent by vibrations and need time to bounce back. Normal hearing will normally return after a rest period away from all sources of intense or loud noise. The recovery period may be minutes, hours, a day or perhaps even longer.
- Permanent hearing loss: Also referred to as permanent threshold shift (PTS), it can range from slight impairment to nearly total deafness. It is the result of hair cell or nerve destruction within the inner ear. Once nerves are destroyed, they can never be restored or regenerated.

Hearing Loss Factors

Type of noise	Continuous, intermittent, impact, high or low frequency.
Intensity of noise	Level of loudness.
Duration of exposure	Length of time worker subjected to noise: during any given shift.
Employment duration	Years worker subjected to noise.
Type of noise environment	Character of surroundings: enclosed, open, reflective surfaces.
Source distance	Distance of worker from noise source.
Worker's position	Position of worker relative to noise source.
Worker's age	A 20-year-old vs. a 50-year-old.
Individual susceptibility	Sensitivity difference, physical impairments.
Worker's present health	Whether a worker has any detectable losses or ear diseases.
Home and leisure activities	Exposures to noise other than occupational: hunting, earphone music, snowmobiling, etc.

Training

All workers who wear Hearing Protection Devices (HPDs) must be trained to fit, use, and maintain them properly. Workers must be trained to fit HPDs properly, as recommended by the manufacturer. Training should include a demonstration. Workers should then practice using the HPDs under close supervision. Checks are needed to ensure the best possible protection.

Workers should understand the following:

- There is risk of hearing loss increases if HPDs are not worn in noisy environments (eight-hour exposure of 85 dBA).
- Wearing HPDs is required in all situations where noise exposure may damage hearing.
- To be effective, an HPD must not be removed even for short periods.
- A variety of HPDs is available to accommodate differences in ear canal size, jaw size, head size and shape, comfort level, compatibility with other forms of Personal Protective Equipment (PPE), etc.
- HPDs must fit properly to achieve maximum protection.

Choosing the Correct Hearing Protection

CSA Standard Z94.2, Hearing Protectors, identifies classes of hearing protectors as A, B, and C. Class A protectors offer the highest ability to attenuate noise, followed by B and C.

Use Table 1 to identify proper hearing protectors based on noise.

Recommended Class of Hearing Protector

Table 1

MAXIMUM NOISE LEVEL (dBA)	RECOMMENDED CLASS OF HEARING PROTECTOR
Less than 85 dbA	No protection required
Up to 89 dBA	Class C
Up to 95 dBA	Class B
Up to 105 dBA	Class A
Up to 110 dBA	Class A plug + Class A or Class B muff
More than 110 dBA	Class A plug + Class A or Class B muff and limited exposure

Use Table 2 to compare typical construction noise levels with the work you are performing.

NOTE: If more than one activity is being performed near the same location, the noise levels will increase. Chose your protection based on the highest noise levels.

Typical Noise Level Measurements for Construction

Table 2

* EQUIPMENT	NOISE LEVEL (DBA) AT OPERATOR'S POSITION
Cranes	78 – 103
Backhoes	85 – 104
Loaders	77 – 106
Dozers	86 – 106
Scrapers	97 – 112
Trenchers	95 – 99
+ Pile drivers	119 – 125
Compactors	90 – 112
+ Explosive-actuated tools	120 – 140
Grinders	106 – 110
Chainsaws	100 – 115
Concrete saw	97 – 103
Sand blasting nozzle	111 – 117
Jackhammers	100 – 115
Compressors	85 – 104

* Generally, newer equipment is quieter than older equipment. (For noise levels of specific equipment, contact the Construction Safety Association of Ontario.)

+ Pile drivers and explosive-actuated tools generate intermittent or “impulse” sound.

Dust

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when dust is generated.

Safe work practices include two types of preventative measures: ventilation and respiratory protection.

Where does construction dust come from?

Dusts are particles which are usually many times larger than fume particles. Dusts are generated by crushing, grinding, sanding, or cutting and by work, such as demolition.

Preventative Measures

Ventilation:

- Natural dilution ventilation — Working outside in a light breeze, or inside with doors and windows open normally provides sufficient ventilation capable of dispersing airborne contaminants.
- Mechanical dilution ventilation – Fans, such as portable exhaust fans and wall fans, force outside air into and out of the building.
- Local exhaust ventilation – Such systems consist of an exhaust fan, air cleaner, and ducted system dedicated to removing airborne contaminants at the source and exhausting them outdoors.

Respiratory Protection:

- Consult the Respirator Selection Guide in CSAO's *Construction Health and Safety Manual* (M029) for activities that create dust and the appropriate Personal Protective Equipment (PPE).
- Supervisors should be consulted when in doubt about choosing the correct respiratory protection.

Cleaning Solvents and Flammable Liquids

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed any time flammable liquids or toxic solvents are used. Whenever possible, solvents should be non-flammable and non-toxic.

The supervisor must be aware of all solvents/flammables that are used on the job and be sure that all workers who use such materials have been instructed in their proper use and any hazard they pose.

Practices to follow to ensure safety:

1. Use non-flammable solvents for general cleaning.
2. When flammable liquids are used, make sure that no hot work is permitted in the area.
3. Store flammables and solvents in special storage areas.
4. Check toxic hazards of all solvents before use (MSDS).
5. Provide adequate ventilation where all solvents and flammables are being used.
6. Use goggles or face shields to protect the face and eyes from splashes or sprays.
7. Use rubber gloves to protect the hands.
8. Wear protective clothing to prevent contamination of worker's clothes.
9. Use the appropriate respiratory protection when breathing hazards exist.
10. Never leave solvents in open tubs or vats. Return them to storage drums or tanks.
11. Ensure that proper containers are used for transportation, storage, and the field use of solvents/flammables.
12. Where solvents are controlled products, ensure that all employees using or in the vicinity of use or storage are trained in the Workplace Hazardous Materials Information System (WHMIS).
13. Ensure all WHMIS requirements are being met.

II. Safe Work Practices – Hazard

Access and Egress

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when accessing or egressing work sites.

Steps to follow to ensure safety:

1. There must be adequate lighting in areas of access and egress.
2. If material may fall on a worker, overhead protection must be provided.
3. Access to and egress from a work area located above or below ground level shall be by stairs, runway, ramp or ladder.
4. Areas of access and egress must be unobstructed.
5. Areas of access and egress must be kept clear of snow, ice, or other slippery material.
6. Areas of access and egress shall be treated with sand or similar material, when necessary, to ensure a firm footing.
7. Every shaft shall have a means of access and egress by stairway, ladder, or ladderway for its full depth during construction and when it is completed.
8. A cage or car on a hoist used for transporting workers in a shaft shall have the following characteristics:
 - Be designed by a professional engineer and built in accordance with the design drawings;
 - Be at least 1.8 metres high;
 - Be solidly enclosed, except for openings for access and egress;
 - Have a maximum of two openings for access and egress;
 - Have a gate at each opening for access and egress; and
 - Have a protective cover suitable to protect passengers from falling objects.

Electrical Safety

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when working with or near electrical devices, as accidental contact with electrical components can be deadly.

Steps to follow to ensure safety when using new electrical appliances, tools and equipment:

1. Pipes, conduit, reinforcing rods and other conductive materials should not be carried on the shoulder near exposed live electrical equipment or conductors.
2. All electrical tools and appliances will be double insulated or have a three-prong plug-in.
3. All tools and equipment must be serviced and repaired only by qualified and authorized technicians.
4. Ensure the work surface is dry before operating electrical-powered tools and equipment.
5. Tools with damaged cords, grounds and housing units are to be tagged "Out of Service" and sent for repair.
6. Missing or damaged ground plugs of any appliance, tool or piece of equipment must be repaired before use.
7. Damaged extension cords shall be tagged "Out of Service", repaired or replaced as warranted.
8. Always stand to the side of a service box when resetting a breaker.
9. All electrical tools must be C.S.A. approved.
10. Disconnect power tools from power source before making adjustments.
11. Tools with electrical arcing brushes should be removed when the worker feels any tingling during use.

Fire and Fire Extinguishers

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed in case of fire and when operating fire extinguishers.

Since fire can start anywhere, it is essential to know which type of fire extinguisher to use and how to use it. Fire extinguishers must be easily accessible and properly maintained.

Workers must receive training before using such equipment.

Types of Fires

1. **Class A:** Wood, paper, rags, rubbish and other ordinary combustible materials.
 - **Recommended Extinguishers:** Water from a hose, pump-type water can, pressurized extinguisher, or soda acid.
 - **Fighting the Fire:** Soak the fire completely – even the smoking embers.
2. **Class B:** Flammable liquids, oil and grease.
 - **Recommended Extinguishers:** ABC units, dry chemical, foam and carbon dioxide.
 - **Fighting the Fire:** Start at the base of the fire and use a swinging motion from side to side, always keeping the fire in front of you.
3. **Class C:** Electrical equipment.
 - **Recommended extinguishers:** Carbon dioxide and dry chemical (ABC units).
 - **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 materials around the electrical fire are ignited.

Housekeeping

To ensure the safety of all the employees and to prevent injuries, the workplace must be kept clean. All employees, contractors and subcontractors are required to contribute to workplace safety.

Practices to follow to ensure safety:

1. Tripping hazards and slippery conditions must be eliminated. Aisles and access ways must be well-lit, properly ventilated, and kept clear of any obstruction.
2. Keep exterior walkways and stairways free of snow, ice, water and obstacles.
3. Watch for hazards, such as nails, pieces of scrap metal, grease and oil.
4. Clean up spills promptly with proper absorbing materials and agents.
5. Place different types of garbage in appropriate containers.
6. Store all oily rags in appropriate fire-approved steel containers.
7. Materials must be properly stored, stacked or piled away from power lines and to prevent tipping/spilling.
8. Bagged or sacked material should be stacked or piled no more than ten high (or as indicated by the supplier on the packaging), and should be cross piled on skids so that in all cases, no one can be injured because the material falls, rolls, overturns or breaks.
9. Barrels may be stacked upright with platforms/planks between layers and should not be stacked any higher than the mechanical equipment can safely reach.
10. Skids of brick blocks or other such material should be stockpiled in such a manner as to prevent tipping or collapsing.
11. Signs must be posted to warn workers of hazardous areas.

Trenches and Excavation

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed to ensure safe trenching and excavation.

Since soil conditions and stability can vary, different factors must be kept in mind: type of soil, previously disturbed soil, drying of walls and sub-surface weeping.

Factors to consider based on soil type:

Hard Compact

Hard compact is defined as:

- Hard to hand excavate,
- an excavating bucket can leave well defined teeth marks in the soil,
- the soil has been verified as hard compact by a Professional Engineer,
- a soil testing kit indicates that it is hard compact.

Soils Other than Hard Compact

1. Require a 45 degree or greater cutback from the vertical side wall in all soil conditions above 1.2 meters in height.
2. Require the use of shoring, or
3. Require the use of an engineered trench box.

Frozen Soils

Frozen soils cannot be considered hard compact due to the risk of wall failure below the frost line.

Setbacks

Trenches in or near roadways and construction sites are subject to wall movement from vibration. Vehicles and equipment must be kept back from the trench a distance equal to the depth of the trench.

Spoil Piles

1. They must be set back a minimum of 1.0 m from the trench/excavation edge.
2. If placed too close to the trench or excavation edge, they can exert excess downward pressure causing wall failure.
3. Excavated loose material should be scaled back away from the edge of the trench.

For further information, see the appropriate current Occupational Health & Safety Legislation.

Practices to follow to ensure safety:

1. All earth trenches more than 1.2 metres (4 feet) deep that a worker is required to enter, must be shored with timbers or a prefabricated trench box or supported by an approved support system in

accordance with the current *Regulations for Construction Projects*, or be cut with embankment slopes of 1 to 1 (45 degrees).

2. Ladders must be used for getting into or out of a shored trench and be placed so that a worker is protected at all times when using the ladder. It must extend at least 3 feet above the top of the trench.
3. Work must not be performed in a trench unless another worker is working above ground in close proximity to the trench or to the means of accessing it.
4. Buried services, such as gas lines, water lines, sewers and electrical services must be located and marked before excavation starts. Call Ontario One Call to get buried cables, pipes and wires located before beginning any excavation.
5. When timber shoring is used, it must be installed progressively as the trench is being excavated.
6. Excavations which workers are required to enter must be kept reasonably free of water.

Tools, equipment and excavated soil must be kept at least 1 metre (3 feet) from the edge of the excavation or trench.

Welding, Cutting, and Burning

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed any time welding, cutting, and burning are necessary. Such work can create fires and breathing hazards for workers on any job.

Practices to follow to ensure safety:

1. Adequate ventilation must always be supplied, since hazardous fumes can be created during welding, cutting or burning.
2. Where other workers may also be exposed to the hazards created by welding, cutting and burning, they must be alerted to these hazards and protected by the use of “screens”.
3. Never start work without proper authorization. HOT permits are required for working at commercial sites.
4. Fire fighting equipment must be kept on hand before starting.
5. Check the work area for combustible material and possible flammable vapours.
6. A welder should never work alone – a fire or sparks watch should be maintained.
7. Protect cables and hoses from slag or sparks.
8. Never weld or cut lines, drums, tanks, etc. that have been in service without making sure that all have been purged or other necessary precautions are in place.
9. Never enter, weld or cut in a confined space without proper air quality testing and a qualified safety lookout in place.
10. When working overhead, use fire resistant materials (blankets, tarps) to control or contain slag and sparks.
11. Cutting and welding must not be performed where sparks and cutting slag will fall on cylinders.
12. Open all cylinder valves slowly. The wrench used for opening the cylinder valves should remain on the valve spindle.

Grinding

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when grinding. Severe injury may occur if guards and proper personal protective equipment are not used and maintained.

Safe practices to follow to prevent injuries:

1. The tool rest must be at the correct distance from the abrasive wheel, maximum 1/8" or 3 mm.
2. The grindstone must be replaced when adjustment of the rest cannot provide 1/8" or 3 mm clearance.
3. Guards must be in place and fully functional.
4. If the wheel has been abused and ground to an angle or grooved, the wheel must be either refaced with the appropriate surfacing tool or replaced.
5. Goggles and / or a face shield must be used to protect the eyes at all times when grinding.
6. Each time a grinding wheel is replaced, check the maximum approved speed (stamped on the wheel) against the shaft rotation speed of the machine to ensure the safe speed is not exceeded.
7. A grinding wheel must not be operated at speeds exceeding the manufacturer's recommendation.
8. The flanges supporting the grinding wheel should be a maximum of 1/3 the diameter of the wheel and must fit the shaft rotating speed according to the manufacturer's recommendation.
9. Bench grinders are designed for peripheral grinding. No grinding must be done on the side of the wheel.
10. Do not stand directly in front of the grinding wheel when it is first started.
11. CSA-approved hearing protection must be worn.

Chipping

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when chipping concrete. Severe injury may occur if guards and proper personal protective equipment are not used and maintained.

Safe practices to follow to prevent injuries:

1. Exposure to cement dust should be eliminated completely to prevent bronchitis and silicosis by wetting down work areas – when possible – and wearing the corresponding PPE.
2. Concrete surfaces should be wetted, when possible, and local exhaust ventilation installed, to reduce/eliminate dust normally created when chipping with a chipping gun.
3. Appropriate PPE, such as gloves, boots, goggles or HEPA-filter respirators, must be worn.
4. Burns and skin and eye irritation should be prevented by avoiding skin contact and eye contact with cement dust or wet cement.
5. Special HEPA vacuums should be used to clean up dust instead of dry sweeping.

Caulking

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when caulking, even though it is a mild irritant.

Safe practices to follow to prevent injuries:

1. Old caulking should be removed with care because an injury can occur while using a snap-off retractable utility knife.
2. All debris should be vacuumed.
3. Breaks are recommended when caulking during an extended period of time to let hands and wrists rest from being in an awkward position.
4. To prevent getting caulking on skin, neoprene gloves or a popsicle stick can be used to smooth out the caulk joint.

Expansion Joint Injection

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when injecting expansion joints.

Safe practices to follow to prevent injuries:

1. Supply workers with appropriate safety equipment for performing high-pressure injection of polyurethane resins and associated tasks.
2. Supply safety devices, traffic control barriers, drop sheets and other items to protect the site, other contents and other personnel from contact with the contractors' materials or equipment.

III. Safe Work Practices – Fall Protection

Fall Protection

To ensure the safety of all the employees and to prevent injuries, safe practices must be followed when it comes to fall protection, when applicable.

Working from Scaffolds

1. Scaffold platforms must be fully planked.
2. Guardrails consisting of a top rail, mid-rail and toe board are required whenever the working platform is 2.4 metres (8 feet) or more above floor level.
3. Wheels and casters must be locked when personnel are working on the scaffold.
4. If the scaffold is more than 2.4 metres (8 feet) high, it must not be moved with personnel on it unless:
 - a. they wear full body harness with lanyard and shock absorber tied off to an independent fixed support, and
 - b. the floor is firm and level.

Working from Ladders

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

Working Beside Unprotected Openings and Edges

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

Fall Protection Equipment

To ensure the safety of all the employees and to prevent injuries, fall protection equipment must be used when working at heights.

Fall Arrest Protection – Definition

Fall arrest protection consists of a lanyard or lifeline/lanyard set-up; the wearer is allowed some movement at an exposed edge to perform the work. If he/she trips or loses balance, he/she could possibly fall over the edge, so the fall arrest protection must be in place.

Equipment Standards and Set-Up

1. All safety belts, full body harnesses and lanyards must be C.S.A. certified and carry a C.S.A. label.
2. Safety harnesses and belts are to be snug-fitting and worn with all hardware and straps intact and properly fastened.
3. Lanyards are to be 5/8" diameter nylon or equivalent.
4. The D-rings on the safety belts should be centered on the person's back.
5. The lanyard or lifeline/lanyard combination must be secured to a rigid support capable of resisting the peak arrest forces of 1800 lbs minimum for fall arrest protection purposes. Its length should be adjusted so that the wearer will be prevented from falling more than 1.5 meters from where he/she stands.
6. When the lifeline consists of wire rope, or the connecting lanyard consists of nylon webbing, a shock-absorbing lanyard shall be used.

Lifelines and Their Set-Up

All lifelines shall have the following characteristics:

1. Be 16 millimeters (5/8") diameter polypropylene or equivalent.
2. Be used only by one worker at a time.
3. Be free of any cuts, abrasions, other defects and be protected against chaffing.
4. Be long enough to reach the ground or be knotted at the end.
5. Be connected at right angles to the worker's position.
6. Be provided with a rope grab (cam lever) device for lanyard attachment.

Full Body Harnesses, Lanyards, and Shock Absorbers

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

Rope Grabbing Devices

1. To attach the lanyard of a full body harness to a lifeline, a CSA-certified mechanical rope grab (with a CSA label) must be used.

WARNING!

No worker shall be exposed to heights greater than three metres when near an unguarded edge to a floor, roof, platform, opening or on a ladder without first providing travel restraint, fall arrest or guardrail protection.

Any person found doing so shall be subjected to disciplinary action.

Fall protection is also required if a worker may fall into operating machinery, into water or other liquids, into or onto hazardous substances or objects regardless of the minimum three metre ruling.

Guardrails

To ensure the safety of all the employees and to prevent injuries, guardrails should be used to aid in fall protection when there is a danger of a worker falling 3 metres or more, or from a lesser height that might involve an unusual risk or injury.

Safe practices to follow to ensure safe installation and operation:

1. Workers installing or removing guardrails above 3 metres will be tied off to prevent falls.
2. Install guardrails no more than 30 cm from an open edge.
3. Ensure guardrail material is free of damage and defect.
4. Support posts should be no more than 2.4 metres (8 ft) apart and securely anchored.
5. All guardrails must be complete:
 - top rail 1 metre above platform;
 - mid rail halfway between top rail and toe board; and
 - toe board 10 cm high and secured to inner side of posts.
6. Posts and rails must be capable of withstanding a force of at least 200 lbs applied at any point.
7. No work begins in the area until guardrails have been inspected by crew lead.

IV. Safe Work Practices – Equipment

Company Vehicles

All employees who drive Joint Seal Waterproofing vehicles must hold a valid driver's license applicable to the type of vehicle being operated.

To ensure safety, never do the following:

1. Operate a defective vehicle. Report any problems to a mechanic and have it repaired prior to use.
2. Offer rides to anyone other than Joint Seal Waterproofing employees.
3. Allow passengers to ride in the back of a pick-up or any unit that is not equipped with approved seats and restraining devices.
4. Leave the vehicle running and unattended.
5. Smoke inside the vehicle.

To ensure safe operation:

Follow Safe Job Procedures as outlined in the corresponding document (Joint Seal's Safe Job Procedures, 2020 edition).

IMPORTANT:

- Serious violations of the *Highway Traffic Act*, such as careless driving, may result in termination.
- Operators are responsible for any fines that are levied by a peace officer.

Ladders

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed.

Safe practices to follow to ensure safe operation:

1. All portable ladders must be equipped with non-slip bases.
2. Ladders must be set up on a firm level surface. A mud sill must be used if the base of the ladder is on soft, uncompacted or rough soil.
3. Straight ladders will be tied off or otherwise secured to prevent movement. Otherwise, one worker will hold the base of the ladder while it is being used.
4. When a task must be done while standing on an extension ladder, the length of the ladder must be such that the worker stands on a rung no higher than the fourth from the top.
5. When climbing up or down, workers must always face the ladder.
6. Ladders may be set up in passageways, doorways, driveways or other locations where they can be struck or bumped by persons or vehicles, *only* if suitable barricades or other protection has been installed.
7. Ladders must not be erected on boxes, carts, tables, scaffold platforms, elevating work platforms or on vehicles.
8. Straight ladders must be set up at an angle such that the horizontal distance between the top support and the base is not less than one-quarter or greater than one third of the vertical distance between these points.
9. Metal ladders or ladders with wire reinforcing must not be used in the proximity of energized electrical conductors.
10. Wooden ladders must be unpainted or finished with a clear non-conductive wood preservative.
11. All ladders installed between levels must be securely fastened, extend 90 centimetres (3 feet) above the top landing and allow for clear access at top and bottom.
12. Ladders with weakened, broken, bent or missing steps, broken or bent side rails, broken, damaged or missing non-slip bases, or otherwise defective must *not* be used, and must be tagged and removed from the worksite.
13. Ladders must not be used horizontally as scaffold planks, or for any service for which they have not been designed.
14. Workers on a ladder must not straddle the space between the ladder and another object.
15. Three points of contact (two hands and one foot, or two feet and one hand) must always be maintained when climbing up or down a ladder.

Portable Ladders

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when using portable ladders.

Safe practices to follow to ensure safe operation:

1. All portable ladders must be equipped with non-slip bases.
2. When setting up a ladder, the base must be secured and the ladder “walked” into place.
3. The ladder should be set at the proper angle of one foot out at the base for every four feet of height.
4. The ladder must be secured in place, before use.
5. When in position, the ladder should protrude one meter above the intended landing point.
6. Work must not be done from the top two rungs of a ladder.
7. No overreaching is allowed. Workers must climb down and move the ladder over a few feet to a new position.
8. Workers must always face the ladder when using it, ensuring a firm grip by using the three-point contact method (two feet and one hand or one foot and two hands) when moving up or down.
9. The minimum overlap on an extension ladder should be one meter unless otherwise specified by the manufacturer.
10. Metal and wood ladders must be kept away from electrical sources.

Step Ladder

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when using step ladders.

Step ladders must be in good condition and appropriate for the work to be done. Use them only on clean and even surfaces.

Safe practices to follow to ensure safe operation:

1. No work must be done from the top two rungs of a step ladder, counting the top platform as a rung.
2. The step ladder is only to be used in the fully opened position with the spreader bars locked.
3. Tops of step ladders must not be used as support for scaffolds.
4. No overreaching is allowed while working on the ladder. Workers must climb down and move the ladder over.
5. Only construction-grade ladders must be used.

Scaffolding

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when setting up and using scaffolding.

Safe practices to follow to ensure safe operation:

1. The set-up and dismantling of scaffolds must be carried out under the supervision of a competent and experienced worker.
2. Workers setting up and dismantling a scaffold more than 2.4 metres (8 feet) high must be tied off with a full body harness and lanyard equipped with a shock absorber.
3. Scaffolds must be set up with all braces, pins, screw jacks, base plates, and other fittings installed, as required by the manufacturer.
4. Scaffolds must be adequately braced horizontally and vertically.
5. Scaffolds must be equipped with guardrails consisting of a top rail, mid-rail and toe board.
6. Scaffold platforms must be at least 46 centimetres (18 inches) wide, and if they are over 2.4 metres (8 feet) high, they must be planked across their full width.
7. Scaffolds must be tied into a building at vertical intervals not exceeding three times the least lateral dimension, including the dimension of any outrigger stabilizing devices.
8. Where scaffolds cannot be tied into a building, guy lines adequately secured should be used to provide stability.
9. Scaffold frames must be properly pinned together where scaffolds are two frames or more in height, or where they are used as rolling scaffold towers.
10. Scaffolds must be set up, used and maintained in a reasonably plumb condition.
11. Scaffold planks must be securely fastened to prevent them from sliding.
12. Scaffold planks must be installed so that they overhang by at least 15 centimetres (6 inches) but no more than 30 centimetres (12 inches).

Elevating Work Platforms

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when using elevating work platforms.

Safe practices to follow to ensure safe operation:

1. An elevating work platform must be operated by a worker trained in the machine's operation.
2. Daily inspection must be done, in accordance with manufacturer's instructions.
3. All workers on an elevating work platform must wear a harness and lanyard equipped with a shock absorber at all times, and be tied off to the appropriate fixed point.
4. Elevating work platforms are only to be used on working surfaces for which the machine was designed.
5. Elevating work platforms can be used up to but not exceeding the maximum rated working loads. All loads are to be evenly distributed.
6. No overhanging load is to be lifted on an elevating work platform.
7. All equipment must have working alarms and emergency controls.
8. When an elevating work platform is used to lift materials, the materials must be firmly secured to the platform.
9. No type of makeshift platform (boxes, ladders, scaffolds, etc.) can be placed on an elevating work platform to gain access to areas above.
10. Only an extension device from the manufacturer may be used to extend the platform on an elevating work platform.
11. A gap between elevating work platform and other work areas may not be bridged by planks or other materials.
12. Elevating work platforms shall not be used in high wind conditions.
13. Elevating work platforms shall not be used for pulling, pushing and/or dragging materials.
14. Elevating work platforms must be turned off in an enclosed work area when not in use, to prevent the accumulation of exhaust fumes.

V. Safe Work Practices – Tools

Chain Saws

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when using chain saws.

Workers must be trained in proper chain saw use.

Safe practices to follow to ensure safe operation:

1. Proper personal protective equipment is to be worn, as set out by the manufacturer and the Occupational Health & Safety Legislation.
2. Saws must be fuelled in a well-ventilated area and not while running or hot.
3. Refuelling must be done with an approved safety container with approved spout or funnel.
4. The correct methods of starting, holding, carrying, storage and use of the saw – as directed by the manufacturer – must be used.
5. Chain brakes must be checked for proper functioning, to be able to stop the chain when necessary.
6. The chain must be sharp, have the correct tension, and be adequately lubricated.
7. When carrying/transporting a chain saw, the bar guard must be in place, the chain bar must be toward the back, and the motor must be shut off.
8. The chain saw must not be used for cutting above shoulder height.
9. Maintenance must be done according to manufacturer's specifications.
10. Chain saws must comply with CSA Standards Z62.1-03.

Circular Saws

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when using circular saws.

Workers must be trained in proper circular saw use.

Safe practices to follow to ensure safe operation:

1. Approved safety equipment, such as safety glasses or a face shield, must be worn.
2. Where harmful vapours or dust is created, approved respiratory protection must be used.
3. The proper blade, designed for the work to be done, must be selected and used.
4. The power supply must be disconnected before any adjustments to the saw are made, or the blade is changed.
5. Before the saw is set down, the retracting guard must be fully returned to its down position.
6. While sawing, the saw must be held with both hands.
7. Maintenance must be done according to manufacturer's specifications.
8. Ensure all cords are clear of the cutting area before starting to cut.
9. Before cutting, the area must be checked to ensure there are no foreign objects or any other obstruction which could cause the saw to "kick back".
10. When ripping, make sure the stock is held securely in place. A wedge must be used to keep the stock from closing and causing the saw to bind.

Power Tools

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when using power tools. Severe injury may occur if such tools are not used and maintained properly.

Safe practices to follow to prevent injuries:

1. The manual must be read carefully to learn about power tool's applications, limitations and any potential hazards.
2. Unless they are double insulated, tools must be grounded.
3. Power tools must not be used in rain, damp or wet locations, or in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials).
4. Materials or debris that may be ignited by sparks must be removed.
5. Work area must be kept clean and well lit.
6. No loose clothing or jewelry may be worn.
7. Protective hair covering to contain long hair, which may be caught in moving parts, must be worn.
8. Rubber gloves and insulated non-skid footwear outdoors must be worn.
9. Hands must be kept away from moving parts.
10. Safety goggles or glasses with side shields that comply with current safety standards must be worn.
11. Hearing protection must be worn during extended use of a power tool.
12. A dust mask must be worn during dusty operations.
13. Other personal protective equipment must be worn, as required.
14. A fire extinguisher must be kept nearby.

15. All bystanders must be kept at a safe distance from the work area to protect themselves and the operator.
16. Barriers or shields must be provided, as necessary, to protect others in the work area from sparks and debris.
17. Work must be secured with a clamp, vise or other practical means of holding work secure. Both hands must be used to control the tool.
18. Tools or attachments must not be used to do jobs they were not designed for. Tools must not be altered.
19. Non-recommended accessories may be hazardous and shall not be used.
20. A guard or other safety device must not be defeated when installing an accessory or attachment.
21. Guards and other parts must be inspected before use. Misalignment, binding of moving parts, improper mounting, broken parts and any other condition that may affect operation must be checked for.
22. In case of any abnormal noise or vibration, the tool must be turned off immediately and the problem corrected before using the tool further.
23. All adjusting keys and wrenches must be removed from the tool before the power is turned on.
24. Body contact with grounded surfaces, such as pipes, radiators, ranges and refrigerators, must be prevented.
25. When blind or plunge cuts are made, the work area must be checked for hidden wires or pipes.
26. Tools must be held by insulated non-metal grasping surfaces.
27. Ground Fault Circuit Interceptor (GFCI) must be used to reduce shock hazards.
28. A tool should not be forced to perform at a rate other than for what it was designed.
29. Hands must be kept away from all cutting edges and moving parts.

30. A tool must not be carried by its cord or be unplugged by yanking the cord from the outlet. The plug must be used for pulling the cord, to reduce the risk of damage.
31. The cord must be kept away from heat, oil, sharp objects, cutting edges and moving parts.
32. No overreaching is allowed. Proper footing and balance must always be maintained. Extra care must be exercised when using tool on ladders, roofs, scaffolds, etc.
33. Power tools must not be used when a worker is tired, distracted or under the influence of drugs, alcohol or any medication which decreases control.
34. The tool must be unplugged when not in use, before accessories are changed or recommended maintenance is performed.
35. Tools must be maintained properly. Handles must be kept dry, clean and free from oil and grease. Cutting edges must be kept sharp and clean. Instructions for lubricating and changing accessories must be followed.
36. Tool cords and extension cords must be periodically inspected for damage.
37. When power tools are not in use, they must be stored in the proper storage cases. If equipment does not have a proper storage case, it must be stored in an on-site job box with lock or returned to storage crib at the shop.
38. Any damaged tools must be reported immediately to ensure replacement or repair can be done. The damaged tools must be labeled with "DO NOT USE".
39. All labels and nameplates must be maintained.

Propane Torch

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when using propane torches.

Workers applying torch on products can receive serious burns from the torch flame (due to the temperatures reaching over 1093°C).

Safe practices to follow to ensure safe operation:

1. When using a torch, workers must wear additional protective clothing (gloves, eye protection).
2. Torching equipment must be in good working condition, and the cylinder valves must be clean. Fittings, hoses and heads must be checked.
3. Defective equipment must NEVER be used.
4. Soapy water should be used to check connections for leaks.
5. Only a spark lighter or electronic starter must be used for lighting the torch.
6. Propane hose must be protected from damage with the following actions:
 - 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.
7. A torch flame is difficult to see in daylight, so extra care must be taken to keep away from the flame.
8. Other than the operator, all workers should stay at least 1 metre away from the torch.
9. Torch units must be set into support leg position when not in use.
10. To shut off torch, close cylinder valve first, let gas burn out, and then close torch valve.
11. At the end of the day, hoses must be disconnected and stored properly.
12. AN OPERATING TORCH MUST NEVER BE LEFT UNATTENDED.

Portable Grinders

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when using portable grinders. Severe injury may occur if abrasive wheels are not properly stored, used and maintained.

Safe practices to follow to prevent injuries:

1. Grinder operator must be trained in using this tool.
2. Proper guards must be in place.
3. The maximum wheel speed RPM, as indicated on each wheel, must never be exceeded.
4. The speed marked on the wheel must be compared to the speed marked on the grinder.
5. When installing the wheel, it must be checked for cracks and defects. Mounting flanges must be clean, and the mounting blotters must be used. The mounting nut must not be overtightened.
6. Before grinding, the newly mounted wheel must be run at operating speed, to check for vibration.
7. Grinders must not be used near flammable materials.
8. Grinders must not be used for jobs they were not designed for, such as cutting.
9. CSA-approved personal protective equipment must be worn (including eye, face, hand, foot, and hearing protection).

Extension Cords

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when using extension cords.

Safe practices to follow to ensure prevent injuries:

1. All portable extension cords must be of the outdoor type, rated for 300 volts, and have an insulated grounding conductor.
2. All extension cords must be CSA approved and inspected before use.
3. Defective cords must not be used. They must be tagged and removed from the worksite until repaired.
4. Extension cords must be protected during use to prevent damage from sharp edges, movement of materials, and flame cutting.
5. All extension cords used in hazardous areas or in damp locations are to be protected by approved ground fault devices.

Defective Tools

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when handling defective tools.

If a tool is defective in some way, DO NOT USE IT, to avoid injury.

Safe practices to follow to ensure safety:

Issues to be aware of:

- chisels and wedges with mushroomed heads;
- split or cracked handles;
- chipped or broken drill bits;
- wrenches with worn-out jaws;
- incomplete tools (files without handles, etc.);
- broken or inoperative guards;
- insufficient or improper grounding due to damage on double insulated tools;
- no ground wire (on plug) or cords of standard tools;
- the on/off switch not in good working order;
- tool blade is cracked; and
- the wrong grinder wheel is being used, or the guard has been wedged back on a power saw.

To ensure safe use of hand tools, the following must be done:

1. a defective tool must never be used;
2. all tools must be checked prior to use; and
3. all defective tools must be repaired.

To ensure safe use of air, gasoline or electric power tools:

1. tools must be in good condition;
2. tools must not be used if defective in *any* way; and
3. tool operator must be trained and attentive during use.

IMPORTANT!

All defective tools must be removed from the work area and each one marked as

“DEFECTIVE – DO NOT USE.”

VI. Safe Work Practices – Traffic Control

Mobile Equipment

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when using mobile equipment to reduce the risk of personal injury.

Field workers must always be aware of mobile equipment operating in the area.

Safe practices to follow to reduce risk:

1. A florescent traffic vest must always be worn.
2. Any worker near such equipment must be visible to the operator.

The following must NEVER be done:

1. Walking next to, in front of, or behind mobile equipment that is operating.
2. Positioning oneself between the swing radius of articulating machinery and other stationary objects.
3. Assuming an operator can see workers near the equipment.
4. Using the bucket as work platform or as a means of personnel transport.

Traffic Control Signage

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when installing temporary traffic control signage.

Safe practices to follow:

1. Project hazard assessment must be completed or reviewed, and the findings must be communicated to co-workers.
2. Vehicles must be equipped with directional control signage.
3. Vehicles must be inspected before use.
4. Signs, poles, and other traffic control devices must be secured before proceeding to the work site.
5. Appropriate personal protective equipment must be available, in good condition and be used (vest, hardhat, foot protection, etc.).
6. No worker may ride in the back of vehicles.
7. Approved lifting devices and proper lifting techniques must be used.
8. Workers must be aware of pinch points.
9. Work should be done facing traffic flow, whenever possible.

Safe Job Procedures

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the *Occupational Health and Safety Act* and all associated regulations and agreements.

As part of our Health and Safety Program, we have prepared a series of documents outlining safe job procedures to promote occupational health, identifying and controlling/eliminating hazards. Pertinent documents are available on each type of equipment and potential hazard, as applicable to Joint Seal's jobsites.

Safe job procedures

- Occupational health
- Work hazards, including fall protection
- Equipment
- Tools
- Traffic control

For each safe job procedure, there is a corresponding safe work practice, as outlined in Joint Seal's Safe work practices manual.

Responsibilities by role

Managers:

All managers are responsible and accountable for the following, to achieve the successful implementation of all required safe job procedures:

- Ensuring resources are made available (a hard copy at the office and at jobsites).
- Ensuring that the procedures are understood by workers (new employee orientation, safety talks, written acknowledgement).
- Ensuring that safe job procedures are incorporated into all aspects of our business by all employees (review of supervisor checklists and employee observation).
- Participating in health and safety education programs.
- Overseeing the development and review of the existing safe job procedures.

Supervisors:

All supervisors are responsible and accountable for the following:

- Ensuring the enforcement of all safe job procedures, as applicable in the work areas under their direction.
- Ensuring that safe job procedures are incorporated into all aspects of our business by all employees (regular employee observation and checklist documentation).
- Protecting their fellow employees.
- Providing on-the-job training.

- Participating in health and safety education programs and training.
- Participating in the development and review of the existing safe job procedures.

Employees:

All employees are responsible and accountable for the following:

- Safely performing their work in accordance with written safe work practices and safe job procedures.
- Reporting any hazards or injuries and protecting their fellow employees.
- Participating in health and safety education programs.
- Participating in the development and review of the existing safe job procedures.

Contractors, subcontractors, visitors:

All contractors, agency-supplied personnel and visitors will be expected to abide by all applicable safe job procedures and established workplace rules.

All members of management, the Health and Safety Representative (HSR), and all workers must come together in making health and safety an integral component of our daily activities. Health and safety are a key requirement for our success and viability.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022

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I. Safe job procedures – Occupational Health

Manual Lifting

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when manually lifting and moving heavy loads. Injuries may occur regardless of the weight of the object or the physical condition of the person doing the lifting, if proper precautions are not taken.

Safe job procedure to follow to when lifting heavy objects/loads:

1. Test the weight to be lifted. If it is bulky or heavy (more than 50 pounds), get help.
2. Clear the area of obstructions, litter, and tripping hazards.
3. Prepare the area where the object is to be placed.
4. Move close to the load.
5. Place one foot slightly ahead of the other foot, about 10 to 12 inches.
6. Squat down close to the load by bending at the knees.
7. Keep the back straight.
8. Place hands under or around the load, and get a good grip with the palms to keep the load from slipping.
9. Using leg muscles, lift gradually. Do not jerk or twist.
10. Keep the load close to the body.
11. Rotate body position by shifting the feet. Do *not* rotate the back.
12. Set the load down gradually by bending at the knees.
13. Keep a straight back when lowering the load.
14. Be especially careful when lifting in tight spaces and protect fingers at all times.
15. Avoid reaching out.

Hazardous Materials

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed any time flammable liquids must be transported and handled.

Transporting Flammable Liquids

1. Never carry gasoline and other highly flammable liquids in the passenger compartment of a vehicle.
2. Only use approved containers with a CSA or ULC label when you transport and store gasoline and other highly flammable liquids.
3. Ensure that the containers are not damaged, and that caps or fittings are properly secured after the containers have been filled.
4. Always transport flammable liquids in an upright position, secured to prevent overturning.
5. When transporting gasoline or other flammable liquids in a van, place the containers in the rear of the van, with adequate ventilation. Remove them as soon as you arrive at your destination.
6. Store a 5BC fire extinguisher in the driver's compartment when gasoline or other flammable liquids are transported in a van.
7. Never use gasoline as a cleaner.
8. Shut off gasoline engines and allowed them to cool before refuelling.

Propane

1. Keep propane cylinders in an upright position, unless they were designed for horizontal use.
2. Store propane cylinders in a well-ventilated area away from heat sources, outdoors and above grade.
3. Only use approved hoses and fittings to connect a cylinder to tools and equipment.
4. Never leave propane cylinders and hose-connected devices (when not in use) in trenches or other low-lying areas. Propane is heavier than air and can settle in dangerous concentrations at

the bottom of trenches, maintenance chambers, vaults, basements, sumps and other below-grade areas.

5. Never look for leaks in a propane cylinder or hose with a flame. Use soapy water.

Workplace Hazardous Material Information System

To ensure the safety of all the employees and to prevent injuries, the company has the Workplace Hazardous Material Information System (WHMIS) program in place: employees have taken WHMIS 2015 training, all materials are labeled, and SDSs are kept current and made available for consultation.

Employee training/Instruction

All employees will receive WHMIS training as required under current legislation. A record of this training must be maintained.

Material Safety Data Sheets (MSDs)

All employees:

1. Check the corresponding MSD before working with any hazardous materials.

Hearing Protection

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed any time there is exposure to noise that can potentially cause temporary or permanent hearing loss.

Safe job procedure to follow to prevent hearing damage:

1. Receive training on how to use applicable Hearing Protection Devices (HDPs).
2. Follow supervisor's instructions on how to use HDPs, as applicable to the work to be carried out.
3. Always use HDPs when instructed to do so.

Dust

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when dust is generated.

Safe job procedures include two types of preventative measures: ventilation and respiratory protection.

Safe job procedure to follow for protection against dust:

1. Ventilate the jobsite by one of the following means, as outlined in Joint Seal's Safe Work Procedures, 2020 edition:
 - a. Natural dilution ventilation – When working inside, open doors and windows.
 - b. Mechanical dilution ventilation – Use fans, such as portable exhaust fans and wall fans, to force outside air into and out of the building, which will provide ventilation.
 - c. Local exhaust ventilation – Use exhaust fans, air cleaners, and ducted system dedicated to removing airborne contaminants at the source and exhausting them outdoors.
2. Use respiratory protection:
 - a. Consult the Respirator Selection Guide in CSAO's *Construction Health and Safety Manual* (M029) for activities that create dust and the appropriate Personal Protective Equipment (PPE).
 - b. Consult your supervisors when in doubt about choosing the correct respiratory protection.

Cleaning Solvents and Flammable Liquids

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed any time flammable liquids or toxic solvents are used. Whenever possible, solvents should be non-flammable and non-toxic.

The supervisor must be aware of all solvents/flammables that are used on the job and be sure that all workers who use such materials have been instructed in their proper use and any hazard they pose.

Safe job procedure to follow:

1. Use non-flammable solvents for general cleaning.
2. When using flammable liquids, never do any hot work in the area.
3. Store flammables and solvents in special storage areas.
4. Check toxic hazards of all solvents and controlled products before use (MSDS).
5. Provide adequate ventilation where all solvents and flammables are being used.
6. Use goggles or face shields to protect the face and eyes from splashes or sprays.
7. Use rubber gloves to protect the hands.
8. Wear protective clothing to prevent contamination of clothes.
9. Use the appropriate respiratory protection when breathing hazards exist.
10. Never leave solvents in open tubs or vats. Return them to storage drums or tanks.
11. Always use proper containers for transportation, storage and the field use of solvents/flammables.
12. Always follow all WHMIS requirements.

Grinding

To ensure the safety of all the employees and to prevent injuries, safe work practices must be followed when grinding. Severe injury may occur if proper personal protective equipment is not used and maintained.

Safe job procedure to follow to prevent injuries:

1. Check the tool rest for the correct distance from the abrasive wheel, maximum 1/8" or 3 mm.
2. The grindstone must be replaced when adjustment of the rest cannot provide 1/8" or 3 mm clearance.
3. Guards must be in place and fully functional.
4. If the wheel has been abused and ground to an angle or grooved, the wheel must be either refaced with the appropriate surfacing tool or replaced.
5. Goggles or a face shield must be used to protect the eyes at all times when grinding.
6. Each time a grinding wheel is replaced, check the maximum approved speed (stamped on the wheel) against the shaft rotation speed of the machine to ensure the safe speed is not exceeded.
7. A grinding wheel must not be operated at speeds exceeding the manufacturer's recommendation.
8. The flanges supporting the grinding wheel should be a maximum of 1/3 the diameter of the wheel and must fit the shaft rotating speed according to the manufacturer's recommendation.
9. Bench grinders are designed for peripheral grinding. Do not grind on the side of the wheel.
10. Do not stand directly in front of the grinding wheel when it is first started.
11. CSA-approved hearing protection must be worn.

II. Safe job procedures – Hazard

Access and Egress

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when accessing or egressing work sites.

Steps to follow to ensure safety:

1. If a work area is located above or below ground level, always use stairs, runway, ramp or ladder to access it and exit from it. If the space is considered confined, the appropriate measures must be taken and only trained personnel can enter it.
2. Make sure areas of access and egress are unobstructed.
3. Always keep areas of access and egress clear of snow, ice, water or other slippery material.
4. Treat areas of access and egress with sand or similar material, when necessary, to ensure a firm footing.
5. When entering a shaft, use the stairway, ladder, ladderway, cage, or a car on a hoist provided, taking the necessary precautions.

Electrical Safety

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when working with or near electrical devices, as accidental contact with electrical components can be deadly.

Steps to follow to ensure safety when using new electrical appliances, tools and equipment:

1. Send off all electrical appliances, tools and equipment to be serviced and repaired only to qualified and authorized electricians.
2. Ensure the work surface is dry before operating electrical-powered tools and equipment.
3. Tag all the tools with damaged cords, grounds and housing units as “Out of Service” and send them for repair.
4. Send off any missing or damaged ground plugs of any appliance, tool or piece of equipment for repair before attempting to use them.
5. Tag all damaged extension cords as “Out of Service” and send them off to be repaired or replaced, as warranted.
6. Always stand to the side of a service box when resetting a breaker.
7. Only use C.S.A. approved electrical tools.
8. Disconnect power tools from power source before making adjustments.
9. Remove any tool with electrical arcing brushes if you feel any tingling during use.

Fire and Fire Extinguishers

To ensure the safety of all the employees and to prevent injuries, safe job practices must be followed in case of fire and when operating fire extinguishers.

Since fire can start anywhere, it is essential to know which type of fire extinguisher to use and how to use it.

Workers must receive training before using such equipment.

Steps to follow to ensure safety when using fire extinguishers:

1. Check that the pressure indicator is full, and after pulling the pin, a very short burst with the extinguisher as a check to make sure it works - if it does not work, leave immediately.
2. Approach the fire with caution, and make sure there is a clear path to an exit behind you.
3. KEEP well back from the fire.
4. PULL the pin on the fire extinguisher.
5. AIM the extinguisher nozzle at the base of the fire.
6. SQUEEZE the handle.
7. SWEEP from side to side.
8. BE CAREFUL and watch for re-ignition.
9. Leave immediately if the fire is still burning after using one full extinguisher - it is likely the fire is too large for you to fight.

Housekeeping

To ensure the safety of all the employees and to prevent injuries, the workplace must be kept clean. All employees, contractors and subcontractors are required to contribute to workplace safety.

Practices to follow to ensure safety:

1. Eliminate all tripping hazards and slippery conditions. Make sure all aisles and access ways are not obstructed in any way.
2. Keep exterior walkways and stairways free of snow, ice and obstacles.
3. Watch for and eliminate hazards, such as nails, pieces of scrap metal, grease and oil.
4. Clean up spills promptly with proper absorbing materials and agents.
5. Place different types of garbage in appropriate containers.
6. Store all oily rags in appropriate fire-approved steel containers.
7. Store all materials away from power lines and in an appropriate manner to prevent tipping/spilling.
8. Do not stack or pile bagged or sacked material more than ten high, and make sure it is cross piled on skids so that in all cases, no one can be injured because the material falls, rolls, overturns or breaks.
9. Barrels may be stacked upright with platforms/planks between layers and should not be stacked any higher than the mechanical equipment can safely reach.
10. Stockpile skids of brick blocks or other such material in such a manner as to prevent tipping or collapsing.
11. Pay attention to any signs must be posted as a warning of hazardous areas.

Trenches and Excavation

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed to ensure safe trenching and excavation.

Since soil conditions and stability can vary, different factors must be kept in mind: type of soil, previously disturbed soil, drying of walls and sub-surface weeping.

Safe job procedure to follow to ensure safety:

1. Shore all earth trenches more than 1.2 metres (4 feet) deep that any worker is required to enter, with timbers or a pre-fabricated trench box, or support them by an approved support system, in accordance with the current *Regulations for Construction Projects*. You may also cut such trenches with embankment slopes of 1 to 1 (45 degrees).
2. Use ladders for getting into or out of a shored trench. Make sure they are placed in such a way that every worker is protected at all times when using the ladder. The ladder must extend at least three feet above the top of the trench.
3. Do not do any work in a trench unless another worker is working above ground in close proximity to the trench or to the means of accessing it.
4. Locate and mark any buried services, such as gas lines, water lines, sewers and electrical services before doing any excavation.
5. Install timber shoring progressively, as the trench is being excavated.
6. Keep all excavations which workers are required to enter reasonably free of water.

Tools, equipment and excavated soil must be kept at least 1 metre (3 feet) from the edge of the excavation or trench.

Welding, Cutting, and Burning

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed any time welding, cutting, and burning are necessary. Such work can create fires and breathing hazards for workers on any job.

Procedures to follow to ensure safety:

1. Make sure there is adequate ventilation, since hazardous fumes can be created during welding, cutting or burning.
2. Alert fellow workers when they may also be exposed to the hazards created by welding, cutting and burning. They must be protected by the use of “screens”.
3. Never start work without proper authorization. HOT permits are required for working at commercial sites.
4. Keep fire fighting equipment on hand before starting.
5. Check the work area for combustible material and possible flammable vapours.
6. A welder should never work alone – a fire or sparks watch should be maintained.
7. Protect cables and hoses from slag or sparks.
8. Never weld or cut lines, drums, tanks, etc. that have been in service without making sure that all have been purged or other necessary precautions are in place.
9. Never enter, weld or cut in a confined space without proper air quality testing and a qualified safety lookout in place.
10. When working overhead, use fire resistant materials (blankets, tarps) to control or contain slag and sparks.
11. Never do any cutting or welding where sparks and cutting slag will fall on cylinders.
12. Open all cylinder valves slowly. The wrench used for opening the cylinder valves should remain on the valve spindle.

III. Safe job procedures – Fall Protection

Fall Protection

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when it comes to fall protection, when applicable.

Working from Scaffolds

1. Ensure scaffold platforms are fully planked.
2. Make sure guardrails consisting of a top rail, mid-rail and toe board are in place whenever the working platform is 2.4 metres (8 feet) or more above floor level.
3. Lock wheels and casters when personnel are working on the scaffold.
4. If the scaffold is more than 2.4 metres (8 feet) high, it must not be moved with personnel on it unless:
 - a. they wear full body harness with lanyard and shock absorber tied off to an independent fixed support, and
 - b. the floor is firm and level.

Working from Ladders and in Hazardous Areas

2. Always wear a full body harness with lanyard and shock absorber tied off to either an independent fixed support or a lifeline whenever you are:
 - a. 3 metres (10 feet) or more above the floor, or
 - b. above operating machinery, or
 - c. above hazardous substances or objects.

Using Fall Protection Equipment

1. Make sure all safety belts, full body harnesses and lanyards are C.S.A. certified and carry a C.S.A. label.
2. Fit all safety harnesses and belts snugly and wear them with all hardware and straps intact and properly fastened.
3. Use lanyards which are 5/8" diameter nylon or equivalent.
4. Center the D-rings on the safety belts on your back.

5. Secure the lanyard or lifeline/lanyard combination to a rigid support capable of resisting the peak arrest forces of 1800 lbs minimum for fall arrest protection purposes. Adjust its length so that the wearer will be prevented from falling more than 1.5 meters from where he/she stands.
6. When the lifeline consists of wire rope, or the connecting lanyard consists of nylon webbing, use a shock-absorbing lanyard.

Guardrails

To ensure the safety of all the employees and to prevent injuries, guardrails should be used to aid in fall protection when there is a danger of a worker falling 3 metres or more, or from a lesser height that might involve an unusual risk or injury.

Safe procedures to follow to ensure safe installation and operation:

1. Workers installing or removing guardrails above 3 metres will be tied off to prevent falls.
2. Install guardrails no more than 30 cm from an open edge.
3. Ensure guardrail material is free of damage and defect.
4. Place support posts no more than 2.4 metres (8 ft) apart and securely anchor them securely.
5. Make sure all guardrails are complete:
 - top rail 1 metre above platform;
 - mid rail halfway between top rail and toe board; and
 - toe board 10 cm high and secured to inner side of posts.
6. Make sure posts and rails are capable of withstanding a force of at least 200 lbs applied at any point.
7. Do not begin any work in the area until guardrails have been inspected by your supervisor.

Guardrail Removal

When there is a need to remove guardrails, safe job procedures must be followed to ensure safety and prevent injuries.

Safe procedures to follow to ensure safe removal:

1. Remove snow, ice, or water from the area to be cordoned off.
2. Cordon off the area where guardrails will be removed using yellow caution tape.
3. Tie yellow caution tape to the top of the perimeter guardrails, approximately 6 ft. from where guardrails will be removed. Then, tie the tape around the first section of columns inside the building. This taped-off area must extend a minimum of 8 ft. from the edge. If there are no columns, use 4ft.-high rubber cones.
4. Setup warning signs that read "Danger Due to Fall Hazard", outside the cordoned area.
5. Verbally warn workers in the vicinity about the upcoming work.
6. Wear and use travel restraint system at all times when working inside the cordoned area.
7. Site supervisor must pre-select anchor points.
8. Before the lift, ask the crane operator whether or not it is safe to lift the material.
9. Secure area below the hoist operations.
10. Remove guardrails at the perimeter.
11. Handle equipment carefully to prevent it from falling over the edge. Place the removed guardrail sections in a secure location.
12. Before hoisting material, confirm that radio transmission between the crane operator and the signaller are operating properly. If hand signals are used, both parties must be trained in hoisting hand signals.
13. Confirm with crane operator weight of load being lifted and building slab capacity.
14. Stand clear of material while it is being lowered.
15. Move hoisted material into the building. Where possible use mechanical lifting devices. Otherwise, use proper lifting techniques.
16. Replace guardrails immediately after all material is received. Continue to wear travel restraint systems until guardrails are properly secured.
17. Remove tape and sign. Discard tape immediately after dismantling and return danger sign to the storage area.

IV. Safe job procedures – Equipment

Company Vehicles

All employees who drive Joint Seal Waterproofing vehicles must hold a valid driver's license applicable to the type of vehicle being operated.

Steps to follow to ensure safe operation:

1. Check vehicle fluid levels, running gear and electrical components prior to use.
2. Operate at or below posted speed limits and at a speed that is appropriate for road conditions.
3. Back into your parking space at ALL times.
4. Walk around the vehicle prior to reversing.
5. Ensure that all loads are covered and properly secured.
6. Ensure that the vehicle is kept clean.
7. Treat the public in a courteous manner at all times.
8. Always wear your seatbelt when the unit is in motion.

Never do the following:

1. Operate a defective vehicle. Report any problems to a mechanic and have it repaired prior to use.
2. Offer rides to anyone other than Joint Seal Waterproofing employees.
3. Allow passengers to ride in the back of a pick-up or any unit that is not equipped with approved seats and restraining devices.
4. Leave the vehicle running and unattended.
5. Smoke inside the vehicle.

IMPORTANT:

- Serious violations of the *Highway Traffic Act*, such as careless driving, may result in termination.
- Operators are responsible for any fines that are levied by a peace officer.

Ladders

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when using ladders.

Safe practices to follow to ensure safe operation:

1. Set up ladders on a firm level surface. Use a mud sill if the base of the ladder is on soft, uncompacted or rough soil.
2. Tie off or otherwise secure straight ladders to prevent movement. Otherwise, one worker will hold the base of the ladder while it is being used.
3. When a task must be done while standing on an extension ladder, make sure that the ladder is long enough to allow standing on a rung no higher than the fourth from the top.
4. When climbing up or down, always face the ladder.
5. You may set up ladders in passageways, doorways, driveways or other locations where they can be struck or bumped by persons or vehicles, *only* if suitable barricades or other protection has been installed.
6. Do not erect ladders on boxes, carts, tables, scaffold platforms, elevating work platforms or on vehicles.
7. Set up straight ladders at an angle such that the horizontal distance between the top support and the base is not less than one-quarter, or greater than one third of the vertical distance between these points.
8. Never use metal ladders or ladders with wire reinforcing near energized electrical conductors.
9. Only use wooden ladders if they have not been painted or if they have been finished with a clear non-conductive wood preservative.
10. Securely fasten all ladders installed between levels, and make sure they extend 90 centimetres (3 feet) above the top landing and allow for clear access at top and bottom.
11. Never use ladders with weakened, broken, bent or missing steps, broken or bent side rails, broken, damaged or missing non-slip bases, or otherwise defective. Tag all defective ladders and remove them from the worksite.
12. Never use ladders horizontally as scaffold planks, or for any service for which they have not been designed.
13. Do not straddle the space between the ladder and another object while working on a ladder.
14. Always maintain three points of contact (two hands and one foot, or two feet and one hand) when climbing up or down a ladder.

Portable Ladders

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when using portable ladders.

Safe procedure to follow to ensure safe operation:

1. Make sure the ladder has a non-slip base.
2. When setting up a ladder, secure the base and “walk” the ladder into place.
3. Set the ladder at the proper angle of one foot out at the base for every four feet of height.
4. Before using a ladder, make sure it is secured in place.
5. After putting the ladder in position, make sure it protrudes one meter above the intended landing point.
6. Do not work from the top two rungs of a ladder.
7. Do not overreach while on a ladder. Instead, climb down and move the ladder over a few feet to a new position.
8. Always face the ladder when using it. Grip it firmly and use the three-point contact method (two feet and one hand or one foot and two hands) when moving up or down.
9. Make sure there is the minimum overlap of one meter on an extension ladder, unless otherwise specified by the manufacturer.
10. Keep metal and wood ladders away from electrical sources.

Step Ladder

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when using step ladders.

Step ladders must be in good condition and appropriate for the work to be done. Use them only on clean and even surfaces.

Safe practices to follow to ensure safe operation:

1. Never do any work from the top two rungs of a step ladder, counting the top platform as a rung.
2. Only use the step ladder in the fully opened position, with the spreader bars locked.
3. Do not use tops of step ladders as support for scaffolds.
4. Do not overreach while on the ladder. Climb down and move the ladder over.
5. Only use construction-grade ladders.

Scaffolding

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when setting up and using scaffolding.

Safe procedure to follow to ensure safe operation:

1. Carry out the set-up and dismantling of scaffolds under the supervision of a competent and experienced worker.
2. If you are setting up and dismantling a scaffold more than 2.4 metres (8 feet) high, you must be tied off with a full body harness and lanyard equipped with a shock absorber.
3. Set up scaffolds with all braces, pins, screw jacks, base plates, and other fittings installed, as required by the manufacturer.
4. Brace scaffolds adequately, both horizontally and vertically.
5. Make sure scaffolds are equipped with guardrails consisting of a top rail, mid-rail and toe board.
6. Make sure scaffold platforms are at least 46 centimetres (18 inches) wide, and if they are over 2.4 metres (8 feet) high, ensure they are planked across their full width.
7. Tie scaffolds into a building at vertical intervals not exceeding three times the least lateral dimension, including the dimension of any outrigger stabilizing devices.
8. Where scaffolds cannot be tied into a building, use adequately secured guy lines to provide stability.
9. Pin scaffold frames properly together – where scaffolds are two frames or more in height, or where they are used as rolling scaffold towers.
10. Set up, use and maintain scaffolds in a reasonably plumb condition.
11. Securely fasten scaffold planks to prevent them from sliding.
12. Install scaffold planks so that they overhang by at least 15 centimetres (6 inches) but no more than 30 centimetres (12 inches).

Elevating Work Platforms

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when using elevating work platforms.

Safe procedures to follow to ensure safe operation:

1. Operate an elevating work platform only if you have been trained in the machine's operation (have taken the Mobile Elevating Work Platforms course).
2. Do daily inspection, in accordance with manufacturer's instructions.
3. If you are working on an elevating work platform, you must wear a harness and lanyard always equipped with a shock absorber and be tied off to the appropriate fixed point.
4. Use elevating work platforms only on working surfaces for which the machine was designed.
5. Use elevating work platforms up to but not exceeding the maximum rated working loads. Make sure all loads are evenly distributed.
6. Do not lift overhanging loads on an elevating work platform.
7. Make sure all equipment has working alarms and emergency controls.
8. When an elevating work platform is used to lift materials, ensure that the materials are firmly secured to the platform.
9. Do not place any type of makeshift platform (boxes, ladders, scaffolds, etc.) on an elevating work platform to gain access to areas above.
10. Only use an extension device from the manufacturer to extend the platform on an elevating work platform.
11. Do not bridge a gap between elevating work platform and other work areas by planks or other materials.
12. Do not use elevating work platforms in high wind conditions.
13. Do not use elevating work platforms for pulling, pushing and/or dragging materials.
14. Turn off elevating work platforms in an enclosed work area when not in use, to prevent the accumulation of exhaust fumes.

V. Safe job procedures – Tools

Chain Saws

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when using chain saws.

Workers must be trained in proper chain saw use.

Safe practices to follow to ensure safe operation:

1. Wear proper personal protective equipment, as set out by the manufacturer and the Occupational Health & Safety Legislation.
2. Fuel saws in a well-ventilated area and not while running or hot.
3. Do refuelling with an approved safety container with approved spout or funnel.
4. Use the correct methods of starting, holding, carrying, storage and use of the saw, as directed by the manufacture.
5. Ensure that the chain brake is functioning properly, to stop the chain when necessary.
6. Make sure the chain is sharp, has the correct tension, and is adequately lubricated.
7. When carrying/transporting a chain saw, ensure the bar guard is in place, the chain bar is toward the back, and the motor is shut off.
8. Do not use the chain saw for cutting above shoulder height.
9. Do maintenance according to manufacturer's specifications.
10. Use chain saws that comply with CSA Standards Z62.1-03.

Circular Saws

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when using circular saws.

Workers must be trained in proper circular saw use.

Safe procedure to follow to ensure safe operation:

1. Wear approved safety equipment, such as safety glasses or a face shield.
2. Where harmful vapours or dust is created, use approved respiratory protection.
3. Select and use the proper blade, designed for the work to be done.
4. Disconnect the power supply before any adjustments to the saw are made, or the blade is changed.
5. Before setting down the saw, make sure the retracting guard is fully returned to its down position.
6. Hold the saw with both hands while sawing.
7. Do maintenance according to manufacturer's specifications.
8. Ensure all cords are clear of the cutting area before starting to cut.
9. Before cutting, check the area to ensure there are no foreign objects or any other obstruction which could cause the saw to "kick back".
10. When ripping, make sure the stock is held securely in place. Use a wedge to keep the stock from closing and causing the saw to bind.

Power Tools

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when using power tools. Severe injury may occur if such tools are not used and maintained properly.

Safe procedure to follow to prevent injuries:

1. Read the manual carefully to learn your power tool's applications, limitations and any potential hazards.
2. Make sure tools are grounded if they are not double insulated.
3. Do not use power tools in rain, damp or wet locations, or in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials). Ensure all wet areas are dewatered before using the tool.
4. Remove materials or debris that may be ignited by sparks.
5. Keep your work area clean and well lit.
6. Do not wear any loose clothing or jewelry.
7. Wear a protective hair covering to contain long hair, which may be caught in moving parts.
8. Wear rubber gloves and insulated non-skid footwear outdoors.
9. Keep hands away from moving parts.
10. Wear safety goggles or glasses with side shields that comply with current safety standards.
11. Wear hearing protection during extended use of a power tool.
12. Wear a dust mask during dusty operations.
13. Wear other personal protective equipment, as required.
14. Keep a fire extinguisher nearby.

15. Make sure all bystanders are at a safe distance from the work area to protect themselves and the operator.
16. Provide barriers or shields, as necessary, to protect others in the work area from sparks and debris.
17. Secure work with a clamp, vise or other practical means of holding work secure. Use both hands to control the tool.
18. Do not use tools or attachments to do jobs they were not designed for. Do not alter tools.
19. Do not use non-recommended accessories as they may be hazardous.
20. Do not defeat a guard or other safety device when installing an accessory or attachment.
21. Inspect guards and other parts before use. Check for misalignment, binding of moving parts, improper mounting, broken parts and any other condition that may affect operation.
22. In case of any abnormal noise or vibration, turn off the tool immediately and get the problem corrected before using the tool further.
23. Remove all adjusting keys and wrenches from the tool before the power is turned on.
24. Prevent body contact with grounded surfaces, such as pipes, radiators, ranges and refrigerators.
25. When making blind or plunge cuts, check the work area for hidden wires or pipes.
26. Hold your tool by insulated non-metal grasping surfaces.
27. Use a Ground Fault Circuit Interceptor (GFCI) to reduce shock hazards.
28. Do not force a tool to perform at a rate other than for what it was designed.
29. Keep hands away from all cutting edges and moving parts.
30. Never carry a tool by its cord or unplug it by yanking cord from the outlet. Use the plug for pulling the cord, to reduce the risk of damage.

31. Keep the cord away from heat, oil, sharp objects, cutting edges and moving parts.
32. Do not overreach. Always maintain proper footing and balance. Exercise extra care when using tool on ladders, roofs, scaffolds, etc.
33. Do not use a tool when you are tired, distracted or under the influence of drugs, alcohol or any medication which decreases control.
34. Unplug the tool when not in use, before changing accessories or performing recommended maintenance.
35. Maintain tools properly. Keep handles dry, clean and free from oil and grease. Keep cutting edges sharp and clean. Follow instructions for lubricating and changing accessories.
36. Inspect tool cords and extension cords for damage before every use.
37. When power tools are not in use, store them in the proper storage cases. If equipment does not have a proper storage case, store it in an on-site job box with lock, or return it to storage crib at the shop.
38. Report any damaged tools immediately to ensure replacement or repair can be done. Label the damaged tools with "DO NOT USE".
39. Maintain all labels and nameplates.

Propane Torch

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when using propane torches.

Workers applying torch on products can receive serious burns from both the torch flame (due to the temperatures reaching over 1093°C) and the torch itself.

Safe procedure to follow to ensure safe operation:

1. When using a torch, wear additional protective clothing (gloves, eye protection).
2. Torching equipment must be in good working condition, and the cylinder valves must be clean. Check fittings, hoses and heads.
3. DO NOT USE defective equipment.
4. Use soapy water to check connections for leaks.
5. Only use a spark lighter or electronic starter for lighting the torch.
6. Protect propane hose from damage with the following actions:
 - 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.
7. A torch flame is difficult to see in daylight, be aware of and keep away from the flame.
8. If you are not the operator, stay at least 1 metre away from the torch.
9. To shut off torch, close cylinder valve first, let gas burn out, and then close torch valve.
10. At the end of the day, disconnect hoses and store them properly.
11. NEVER LEAVE AN OPERATING TORCH UNATTENDED.

Portable Grinders

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when using portable grinders. Severe injury may occur if abrasive wheels are not properly stored, used and maintained.

Safe procedure to follow to prevent injuries:

1. You must be trained by a competent person on how to use a grinder before attempting use.
2. Make sure proper guards are in place.
3. Never exceed the maximum wheel speed RPM, as indicated on each wheel.
4. Compare the speed marked on the wheel to the speed marked on the grinder.
5. When installing the wheel, check for cracks and defects. Ensure mounting flanges are clean, and the mounting blotters are used. Do not overtighten the mounting nut.
6. Before grinding, run the newly mounted wheel at operating speed, checking for vibration.
7. Never use grinders near flammable materials.
8. Never use grinders for jobs they were not designed for, such as cutting.
9. Wear CSA-approved personal protective equipment must be worn, including eye, face, hand, foot, and hearing protection.

Extension Cords

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when using extension cords.

Safe procedure to follow to ensure prevent injuries:

1. Only use portable extension cords of the outdoor type, and ensure they have been rated for 300 volts and have an insulated grounding conductor.
2. Only use CSA-approved extension cords and inspect them before use.
3. NEVER use defective cords. Tag and remove them from the worksite until repaired.
4. Protect extension cords during use to prevent damage from sharp edges, movement of materials, and flame cutting.
5. Protect all extension cords used in hazardous areas or in damp locations by using approved ground fault devices.

Defective Tools

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when handling defective tools.

If a tool is defective in some way, DO NOT USE IT, to avoid injury.

Issues to be aware of:

- chisels and wedges with mushroomed heads;
- split or cracked handles;
- chipped or broken drill bits;
- wrenches with worn-out jaws;
- incomplete tools (files without handles, etc.);
- broken or inoperative guards;
- insufficient or improper grounding due to damage on double insulated tools;
- no ground wire (on plug) or cords of standard tools;
- the on/off switch not in good working order;
- tool blade is cracked; and
- the wrong grinder wheel is being used, or the guard has been wedged back on a power saw.

Safe procedure to follow:

To ensure safe use of hand tools, always do the following:

1. never use a defective tool;
2. inspect all tools prior to use; and
3. ensure defective tools are repaired.

To ensure safe use of air, gasoline or electric power tools:

1. ensure the tools are in good condition.
2. do not use tools if they are defective in *any* way; and
3. only use such tools if you have been trained and if you are attentive during use.

IMPORTANT!

Remove all defective tools from the work area and mark each one as

“DEFECTIVE – DO NOT USE.”

VI. Safe job procedures – Traffic Control

Mobile Equipment

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when using mobile equipment to reduce the risk of personal injury.

Field workers must always be aware of mobile equipment operating in the area.

Safe procedure to follow to reduce risk:

1. Always wear a high-visibility traffic vest.
2. Ensure that the operator sees you.

NEVER do the following:

1. Walk next to, in front of, or behind mobile equipment that is operating.
2. Position yourself between the swing radius of articulating machinery and other stationary objects.
3. Assume an operator can always see you.
4. Use the bucket as work platform or as a means of personnel transport.

Traffic Control Signage

To ensure the safety of all the employees and to prevent injuries, safe job procedures must be followed when installing temporary traffic control signage.

Safe procedure to follow:

1. Complete or review the project hazard assessment and communicate the findings to co-workers.
2. Make sure vehicles are equipped with directional control signage if on a travelled roadway.
3. Inspect vehicles inspected before use.
4. Secure all signs, poles, and other traffic control devices before proceeding to the work site.
5. Use appropriate personal protective equipment (vest, hardhat, foot protection, etc.) and make sure it is in good condition.
6. Never ride in the back of vehicles.
7. Use approved lifting devices and proper lifting techniques.
8. Be aware of pinch points.
9. Work facing traffic flow, whenever possible.



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Procurement & Contractor Management

2022

1st Edition

Effective Date:	Jan. 2022		Approved By:	Boris Gopka, Executive Director
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Version	Date	Author	Rationale
1.0	Jan 24 th , 2022	Nataliya Muriy	COR 2020-based

Procurement and Contractor Management Policy

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the Occupational Health and Safety Act, and all associated regulations and agreements.

To ensure the safety of all our workers, we have established a procedure for procurement and contractor management, as shown below. Any subcontractors hired by us must comply with the current applicable legislation and our internal requirements as far as Occupational Health and Safety is concerned. They must demonstrate the existence of their own Occupational Health and Safety Management System (OHSMS), valid WSIB clearance certificates and Certificate of Insurance, as well as provide proof of the required training, Job Hazard Assessments and the implementation of controls.

Having a safe and healthy work environment is everyone's responsibility, which includes any person performing work at our jobsites.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022

Procurement and Contractor Management Procedure

To ensure the safety of all our workers, our subcontractors must demonstrate the existence of their own Occupational Health and Safety Management System (OHSMS). To be certain that only those contractors that comply with the current Health and Safety are hired, we have established the following procedure for procurement and contractor management.

Roles and Responsibilities

Management is responsible for choosing subcontractors based on their qualifications and their OHSMS. Any pertinent documentation will be reviewed before the decisions are made. Our service providers must be competent and able to assess any hazards that might be caused by the work they perform at our jobsites that might have an impact on our workers, and establish the corresponding controls. They must also be able to assess and control any hazards arising from our work that might have an impact on their workers.

Management will use the form listed below for the assessment of any new subcontractor before a hiring decision is made.

Supervisors are responsible for providing the necessary orientation for a given jobsite and ensuring that the subcontractors comply with the HS legislation and Joint Seal Waterproofing's safe work practices and safe jobs procedures.

Contractor Requirements

Anyone providing services to us as a subcontractor shall be required to complete hazard assessments, establishing and implementing controls, as outlined in our hazard assessment and controls procedures. A Job Hazard Assessment (JHA) must be done for every new jobsite before the work begins. For jobs that last over one week, a Weekly Inspection must be done regularly to ensure that work conditions have not changed. Should new hazards be identified, the corresponding controls must be established and implemented.

Our contractors must sustain timely communication with all the workplace parties in case there are any changes that could affect the health and safety of any worker, coordinating their own site-specific OHS requirements with those of others.

Careful selection of service providers is essential in helping ensure a safe and healthy work environment. Therefore, this procedure must be followed in order to keep everyone safe.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022



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INTERNATIONAL

Company Rules

2022

4th Edition

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Version	Date	Author	Rationale
1.0	Oct. 31 st , 2019	Olena Vynnychuk	Review
2.0	Jan. 3 rd , 2020	Nataliya Muriy	COR-based
3.0	Jan. 4 th , 2021	Nataliya Muriy	COR-based
4.0	Jan 24 th , 2022	Nataliya Muriy	COR 2020-based

Company Rules Policy

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the Occupational Health and Safety Act and all associated regulations and agreements.

All members of management, supervisors and all workers must follow the rules established by the company to ensure a safe and productive work environment.

Whenever any subcontractors or other service providers are working on our jobsites, they must adhere to all the rules listed below the Company Rules Procedure.

In order to establish clear guidelines for the setting implementing and compliance with the company rules, a Company Rules Procedure is provided below.

Safety – Our Common Goal

We must all work together with the same level of adherence to the current Occupational Health and Safety legislation and company rules to ensure a safe and healthy work environment for everyone.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022

Company Rules Procedure

Safe and Productive Environment – Everyone’s Priority

Managers: All managers are responsible and accountable for setting and implementing all company rules, including standard and site-specific rules, as well as providing them to all the workplace parties. Company rules shall be posted on the company bulletin board and also be available on the company website as part of the Health and Safety Manual. Management must also make certain the rules are explained clearly and understood by workers.

Managers shall oversee the consistent enforcement of rules, made evident by corresponding documentation (checklists based on employee observation), and the application of the appropriate progressive disciplinary action as per the Disciplinary Procedure outlined below.

Supervisors: All supervisors are responsible and accountable for ensuring all the rules are followed. Supervisors must familiarize all the workers with the rules and make sure they understood (explain them to workers and have them sign a corresponding form).

Employees: All employees are responsible and accountable for following all the company rules. If any of the rules are not followed, appropriate disciplinary action will be taken, as outlined below.

Contractors, agency-supplied personnel and visitors: Anyone hired by Joint Seal or present on Joint Seal premises or jobsites is expected to follow company rules.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022

Company Rules

To ensure a safe and productive work environment, all employees at Joint Seal Waterproofing shall abide by the following company rules at the office, in the warehouse, and on all jobsites:

- ◆ Report for work on time.
- ◆ Leaving during work hours or not returning to work after lunch or a break (except in an extreme emergency) – without prior notification to management – is not allowed.
- ◆ Employees must let their supervisor know if they will be absent at least one hour before the employee’s scheduled starting time for the day shift, or 2 hours before the employee’s scheduled starting time for night shift.
- ◆ The hours worked must be recorded on our “OneBuilder” app daily. NOTE: Hours entered after Saturday afternoon will be paid during the following pay period.
- ◆ Cell phone use is restricted to breaks. In case of an emergency, a phone call may be answered, but away from the jobsite. A cell phone may never be used while working on the jobsite.
- ◆ All employees must treat everyone with respect and abide by our Workplace Violence and Harassment policy, and Anti-Discrimination policy (both included in our Health and Safety Manual.
- ◆ All employees must abide by our confidentiality policies.
- ◆ All employees must abide by our Smoking and Substance Abuse Policy (see below): no smoking or substances are allowed on company premises, jobsites or while performing their duties; employees must be fit for work at all times during their shift.
- ◆ Social media may not be used for personal purposes during work hours. Company-sensitive information, including images, shall not be published (for further details, refer to our Social Media Policy below).
- ◆ Sleeping on the job is not allowed.
- ◆ Employees must perform their duties in a diligent and safe manner. Horseplay will NOT be tolerated.
- ◆ Only those employees that hold a valid license may drive company vehicles.
- ◆ Employees must operate all equipment and tools with the corresponding guards and safety devices in place.
- ◆ Personal Protective Equipment (PPE) shall be used at all times, as required.
- ◆ Any work-related injury must be reported to management as soon as possible.

- ◆ Any damage to equipment, supplies, materials, machinery, or buildings must be reported to management as soon as possible.
- ◆ Visiting or loitering in areas other than those to which an employee has been assigned is not permitted.
- ◆ Littering is not permitted. Good housekeeping practices must be maintained (consult our Safe Work Practices manual).
- ◆ No posting, removing, altering, or defacing notices on company bulletin boards may be done without company approval.

Disciplinary Procedure

Disciplinary Actions

Company rules are enforced at all levels by supervisors and management through observation and progressive disciplinary action, when required.

Progressive Discipline

When corrective action is required, management goes through the following steps:

1. Verbal warning
2. Written warning
3. Suspension
4. Termination

IMPORTANT: Some conduct may lead to immediate dismissal (see the corresponding Immediate Termination section below).

Verbal warning

When an employee breaks any of the rules or a performance problem is first identified, supervisors or manager will thoroughly discuss the issue with the employee.

Written warning

If a private informal discussion with the employee has not resulted in corrective action, the supervisor shall meet with the employee to review the problem and issue a written warning.

The supervisor or manager shall:

1. Review the issue.
2. Permit the employee to present his or her views on the issue.
3. Advise the employee that the issue must be resolved.
4. Inform the employee that failure to resolve the issue will result in further disciplinary action, consisting of suspension and – if the issue persists – termination.

Counseling:

Depending on the nature of the problem, management might issue a counseling notice to the employee: the employee will be requested to take external counseling (e.g. in case of substance abuse) and be asked to return to his/her duties once the issue is resolved.

Suspension

An employee may be suspended from work, with corresponding pay deductions, if his/her actions have not been corrected after a verbal and written warnings have been issued.

Termination

An employee may be dismissed if his/her actions have not been corrected after the first three steps of the progressive disciplinary procedure were followed.

Immediate Termination

Some conduct may result in immediate dismissal. The following behaviors may lead to immediate termination:

- Dishonesty (including, but not limited to, theft).
- Insubordination (refusal to perform assigned duties – with the exception of refusing to do work for health and safety reasons – or to follow orders of management).
- Fighting or assault on someone on company premises or any of the jobsites.
- Possession of or bringing onto the company's premises or jobsites dangerous weapons of any kind or other contraband.
- Deliberate destruction of, or damage to, company property or products.
- Possession of, drinking, or being under the influence of alcohol on company premises/jobsites or while on duty.
- Possession, use, or being under the influence of drugs, narcotics, or other intoxicants while on company premises/jobsites or while on duty.
- Harassment (e.g., sexual, age, race, national origin, religion) of other employees, vendors, or customers.

Recordkeeping

Management will fill out a corresponding format and keep it in the employee's file for two years. Both the employee in question and the supervisor applying disciplinary action will sign the acknowledgement.

Smoking and Substance Abuse Policy

Overview

Joint Seal Waterproofing is committed to the health and safety of its employees and has adopted this policy to communicate its expectations and guidelines [Guidelines](#)

surrounding substance use, misuse, and abuse.

Guidelines

Employees under the influence of drugs or alcohol on the job can pose serious health and safety risks to both themselves and their fellow employees. To help ensure a safe and healthy workplace, Joint Seal Waterproofing reserves the right to prohibit certain items and substances from being brought onto or present on company premises.

Definitions

Drug: Any substance which can change or adversely affect the way a person thinks or feels, whether obtained legally or illegally. This could include recreational cannabis, cocaine, opiates, and amphetamines.

Drug paraphernalia: Material or equipment used or intended for use in injecting, ingesting, inhaling, or otherwise introducing a drug, illegal or controlled, into the human body.

Medication: Includes a drug obtained legally, either over the counter, or through a prescription or authorization issued by a medical practitioner.

IMPORTANT: For this policy, medications of concern are those that inhibit a worker's ability to perform their job safely and productively.

Alcohol: Any beverage containing any quantity of alcohol, including, beer, wine, and distilled spirits.

Roles and Responsibilities

Employer will:

- Clearly communicate expectations surrounding alcohol and drug use, misuse, and abuse;
- Maintain a program of employee health and awareness through continuous training;
- Provide a safe work environment; and
- Review and update this policy at least once a year or as needed.

Management will:

- Identify any situations that may cause concern regarding an employee's ability to safely perform their job functions;
- Ensure that any employee who asks for help due to a drug or alcohol dependency is provided with the appropriate support (including accommodation) and is not disciplined for doing so; and
- Maintain confidentiality and employee privacy.

Employees must:

- Abide by the provisions of this policy and be aware of their responsibilities under it;
- Arrive to work fit for duty, and remain so for the duration of their shift;
- Perform work safely in accordance with established safe work practices;
- Avoid the consumption, possession, sale, or distribution of drugs or alcohol on company property and during working hours (even if off company property);
- When off duty, refuse a request to come into work if unfit for duty;
- Report limitations and required modifications as a result of prescription medication;
- Report unfit co-workers to management;
- Seek advice and appropriate treatment, where required;
- Communicate dependency or emerging dependency to management or human resources; and
- Follow the after-care program, where established.

Prohibited Items

The use, possession, sale, manufacture, distribution, dispensation, concealment, receipt, transportation, or being under the influence of any of the following items or substances on company property by employees and all others, is prohibited:

- Illegal drugs, controlled substances, marijuana (even medical cannabis), intoxicants (legal or illegal), "look-alike" substances, designer drugs, counterfeit or synthetic drugs, inhalants, and any other drugs or substances that will, in any way, affect safety, work ability, alertness, coordination, judgment, response, or the safety of others on the job.

- Alcoholic beverages. Consuming them while driving, or driving any vehicle for company business while intoxicated is prohibited. The consumption of alcohol on company time or on company property is prohibited.
- Drug paraphernalia.

Policy Enforcement

Because of the importance of this policy, the company reserves the right, at all times, while on company premises and property and when circumstances warrant, to have company supervisors and/or authorized search and inspection specialists, including scent-trained dogs, conduct searches and inspections of employees, or other persons, and their personal property and effects, to include, but not be limited to, lunch boxes, purses, briefcases, baggage, offices, desks, clothing, and vehicles (including trunks, glove compartments, etc.), for the purpose of determining if such employees or other persons are using, possessing, selling, manufacturing, distributing, dispensing, concealing, receiving, or transporting any of the prohibited items and substances contained in the policy.

All employees are expected to cooperate with any investigation regarding this policy. Failure to cooperate, providing false information, or omitting information may subject any employee to disciplinary action up to and including termination of employment.

Off-the-Job Alcohol and Other Substance Use

Employees who use drugs, alcohol, or chemical substances off-the-job run the risk of jeopardizing the safety of themselves, their family, the public, and the company. Whenever such usage adversely affects public trust in the company or otherwise interferes with the company's ability to carry out its responsibilities, or increases potential liability for the company, the company may be forced to take disciplinary action against the offending employee(s), up to and including termination of employment. Employees who are convicted or plead guilty or *nolo contendere* because of off-the-job activities (drug or alcohol related) may be considered in violation of this policy. In deciding what action to take, the company will consider the nature of the charges and other factors relative to the impact of the employee's conviction or plea on company business.

This policy supersedes any and all other company drug policies.

Social Media Policy

POLICY

This policy provides guidance for employee use of social media – blogs, wikis, microblogs, message boards, chat rooms, electronic newsletters, online forums, social networking sites, and other sites and services that permit users to share information with others in a contemporaneous manner.

PROCEDURES

Personal Use

Personal use of social media is not allowed during work hours.

Professional Use

The following principles apply to professional use of social media on behalf of Joint Seal Waterproofing, as well as personal use of social media when referencing Joint Seal Waterproofing.

- Employees need to know and adhere to this policy.
- Employees should be aware of the effect their actions may have on their images, as well as Joint Seal's image. The information that employees post or publish may be public information for a long time.
- Employees should be aware that the employer may observe content and information made available by employees through social media. Employees should use their best judgment in posting material that is neither inappropriate nor harmful to Joint Seal, its employees, or customers.
- Although not an exclusive list, some specific examples of prohibited social media conduct include posting commentary, content, or images that are defamatory, pornographic, proprietary, harassing, libelous, or that can create a hostile work environment.
- Employees are not to publish, post or release any information that is considered confidential or not public. If there are questions about what is considered confidential, employees should check with the management.
- Social media networks, blogs and other types of online content sometimes generate press and media attention or legal questions. Employees should refer these inquiries to management.
- If employees encounter a situation while using social media that threatens to become antagonistic, employees should disengage from the dialogue in a polite manner and seek the advice of a supervisor.
- Employees should get appropriate permission before referring to or post images of current or former employees, members, vendors or suppliers. Additionally, employees should get appropriate permission to use a third party's copyrights, copyrighted material, trademarks, service marks or other intellectual property.
- Social media use shouldn't interfere with employee's responsibilities at Joint Seal Waterproofing. Company computer systems are to be used for business purposes only. When using the company computer systems, use of social media for business purposes is allowed (ex: Facebook, Twitter, company blogs and LinkedIn), but personal use of social media networks or personal blogging of online content is discouraged and could result in disciplinary action.

- Subject to applicable law, after-hours online activity that violates any Joint Seal Waterproofing's policies may subject an employee to disciplinary action or termination.
- If employees publish content after-hours that involves work or subjects associated with Joint Seal Waterproofing, a disclaimer should be used, such as this: "The postings on this site are my own and may not represent Joint Seal Waterproofing's positions, strategies or opinions."
- It is highly recommended that employees keep Joint Seal Waterproofing's related social media accounts separate from personal accounts, if practical.



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Personal Protective Equipment (PPE)

2022

4th Edition

Effective Date:	Jan. 2022		Approved By:	Boris Gopka, Executive Director
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3.0	Jan. 4 th , 2021	Nataliya Muriy	COR-based
4.0	Jan 24 th , 2022	Nataliya Muriy	COR 2020-based

Personal Protective Equipment Policy

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the *Occupational Health and Safety Act* and all associated regulations and agreements.

As part of our Health and Safety Program, we have established a policy on the mandatory use of Personal Protective Equipment (PPE), as required for each work area and specific job type, as applicable to the company's operations:

Work area:

Office, warehouse, balconies, garages, elevator shafts, hospitals, roofs, stairs, utility rooms, tunnels, maintenance chambers, sidewalks, airport apron surfaces, manholes, basements, mining sites, water treatment plants, as well as when driving to job sites using company vehicles.

Job type:

Chipping, grinding, patching, parging, expansion joint injection, caulking, lining, Polyurea membrane application, blind side installation, and traffic topping installation.

Tool use:

Circular saws, chain saws, portable grinders, floor grinders, power tools, extension cords, propane torch, chipping guns, caulking guns, Graco equipment; actions to take when handling defective tools.

To be used by all!

Personal Protective Equipment must be worn by all our staff – managers, supervisors, and workers – as well as sub-contractors, as required on a given jobsite and for a given job type.

Please consult the procedure below for more details on how PPE is handled.

Ensuring safe and healthy work conditions is everyone's responsibility!

Sincerely,

Rick Rawlinson
VP of Development

Date: January 24th, 2022

Personal Protective Equipment Procedure

As part of our Health and Safety Program, we have established a policy on the mandatory use of Personal Protective Equipment (PPE), as required for each work area and specific job type, as applicable to the company's operations. We have also established this procedure in order to ensure that the PPE is maintained, inspected and used properly.

Roles and Responsibilities

Management

Managers are responsible for ensuring that all the needed PPE is provided to all supervisors and workers, as required by the type of work performed and the type of jobsite.

Supervisors

All supervisors are responsible for selecting the required PPE based on the type of work and the jobsite, as well as training the workers on the proper inspection, fitting, use, and maintenance.

Workers

All workers are responsible for the proper care and use of their PPE, including proper care, inspection, fitting and use. They must also report any missing or damaged PPE, to be given a replacement.

Criteria for PPE Selection

Decision on which PPE is required is made based on the corresponding legislation, potential hazard presented by each work area and job type (hazard assessment is carried out regularly), and the SDSs. See the corresponding section below for examples of PPE and its selection.

PPE Provision and Availability

All the PPE is provided to employees by the company and is made available for each work area and job type, as needed.

Proper PPE Fitting, Care, Use, Inspection, and Maintenance

Joint Seal provides guidelines for the proper fitting, care and use of specialized PPE (see the corresponding section below). Regular inspections and maintenance must be carried out, as per manufacturer's and legislation requirements to ensure that all PPE provides the level of protection it was designed for.

Employee Training

In order to ensure employee safety and to prevent injuries, each employee will be made aware of the hazards associated with each work area and job type, and which PPE is required for protection: onsite and job-specific training will be provided, as required, after a general training on PPE. Employees will be trained on the proper fitting, care, use and maintenance of all the specialized PPE they will need.

Each employee using PPE will know the following upon completion of PPE training:

- When PPE is necessary
- What PPE is necessary and which PPE has been selected for each process the employee operates
- How to properly put on, take off, adjust and wear PPE
- The limitations of the PPE
- How to determine if PPE is no longer effective or is damaged
- How to get replacement PPE
- How to properly care for, maintain, store, and dispose of PPE

After employees have been trained, periodic assessment of the process/equipment will be conducted to ensure that the PPE is adequate, and training is appropriate.

Retraining of employees will be carried out whenever:

- Previous training is no longer applicable due to changes in the work type.
- Previous training is no longer applicable due to changes in the type of PPE required
- Employer observed inadequacies in employees' knowledge or use of assigned PPE

Employers will verify that each employee who is required to use PPE has received and understood the required training by means of written acknowledgement.

PPE Use

The required PPE must be used by anyone who is present on a given jobsite – supervisors, workers, sub-contractors and suppliers.

PPE Inspection

All PPE must be inspected before every use. In case of fall protection PPE and respirators, the corresponding formats on the OneBuilder app must be used: Fall Protection/Harness, Fall Protection/Lanyard, Fall Protection/Lifeline, Fall Protection/Rope Grab; Respirator/Air-purifying element, Respirator/Facepiece, Respirator/Harness straps, Respirator/Inhalation & exhalation valve.

Below are the sections that outline the criteria for PPE selection, types of PPE – head protection, eye protection, hearing protection, respiratory protection, hand and skin protection, foot protection, high-visibility clothing, and fall protection, and which PPE is required at all jobsites, versus specific situations, such as working at heights, in confined spaces, with cement dust, and with spray-on applications.

Sincerely,

Rick Rawlinson
VP of Development

Date: January 24th, 2022

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Criteria for PPE Selection

Types of PPE

EYE AND FACE PROTECTION: Employees must use this protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids, or caustic liquids, chemical gases or vapors, or potentially injurious light radiation.

RESPIRATORY PROTECTION: Employees must use appropriate respirators wherever they are exposed to inhalation hazards that exceed the established exposure limits (exposure to gases, vapors, dusts, mists, fumes or fibers).

HEAD PROTECTION: Hard hats must be worn when working in areas where overhead hazards are present.

FOOT PROTECTION: Employees must wear protective footwear when working in areas where there is a danger of potential foot injuries.

HAND PROTECTION: Appropriate hand protection must be used when employees' hands are exposed to the hazards listed below but not limited to:

- skin absorption of harmful substances;
- severe cuts or lacerations;
- severe abrasions;
- punctures;
- chemical burns;
- thermal burns and harmful temperature extremes.

PPE by Type of Protection

PPE – Head Protection

In accordance with the Construction Projects Regulation (O. Reg. 213/91), all workers must wear hard hats on construction projects.

Purpose

To protect the head against impact and against small flying or falling objects, as well as an electrical contact equal to 20,000 volts phase-to-ground.

Standards

Minimum standards, in accordance with Canadian Standards Association (CSA), are as follows:

- Z94.1-05: Class E, Type 1
- Z94.1-05: Class E, Type 2
- Z94.1-1992: Class E

The type and the class are indicated on the hat label or are sometimes stamped into the shell of the hard hat under the brim.

Type 1 and 2 protect the top of the head. Type 2 also protects against side impact and penetration.

Reversible Hard Hats

Hard hat may be worn facing backwards when:

1. They have a reverse orientation mark
2. If the task requires it (e.g. wearing a face shield)

Fitting

Since each head shape is unique, it is important to find the right fit. There should be a little breathing room between the hard shell and the internal suspension structure, although some models are design to fit the user's shape through sliding mechanisms that allow to adapt tightness at 1/8 inch intervals.

The hard hat should feel secure but not overly tight. If skin abrasions appear, then the hat is not the right fit.

Use and Care

Manufacturer instructions must always be followed.

Follow these guidelines to ensure optimal performance and protection:

- Hard hats must be inspected before every use: shell, suspension, and liner. All cracks, dents, cuts, or gouges must be identified. **IMPORTANT:** Damaged or worn hats and liners must be replaced immediately.
- No longer use a hat that has been struck by an object.
- Hard hats must not be stored in direct sunlight – to avoid premature aging and fragility.
- Every part of the hat should be cleaned with mild soap and water.

- The hat must not be altered in any way – painting, drilling of holes, etc.
- Hats must not be used for storage and transportation.
- No other hat must be worn underneath.
- When working at heights or in windy conditions, a chinstrap must be used.
- Hard hat must not be used beyond their stipulated service life. (Check what it is by contacting the manufacturer or reading the manufacturer's instructions.)
- When visibility is reduced, put retroreflective stickers or tape on a hard hat.

IMPORTANT: Such stickers or tape must be compatible with the surface material, not adversely affect the material, and not interfere with the ability to inspect the hard hat for defects. They should be placed at least 13 mm (1/2 in) above the edge of the brim.

PPE – Eye Protection

Proper eye protection must be selected based on the specific construction hazard in order to help reduce the number and severity of eye injuries.

Types of Hazards

1. Impact
2. Splash
3. Radiation (visible and invisible light rays).

Fitting

To ensure proper eye protection, the PPE used must be fit properly – it should cover the area from the eyebrow to the cheekbone, and across from the nose to the boney area on the outside of the face and eyes. Since individual facial features vary, eye wear should be assigned and fitted for every user, to ensure that the gaps between device edges and the face are minimal.

Eye protection must fit comfortably over the temples and the ears, with the frame remaining as close to the face as possible and with adequate support provided by the bridge of the nose. It should not create any major obstructions in the field of view.

Use and Care

Maintenance is required for any eye and face protection devices. The following recommendations should be adhered to:

- Clean your devices daily, following the manufacturer's instructions.
- Avoid rough handling that can scratch lenses, which will impair vision and can weaken lenses.
- Store your devices in a clean, dry place where they cannot fall or be stepped on. Keep them in a case when they are not being worn.
- Replace scratched, pitted, broken, bent or ill-fitting devices immediately. Damaged devices interfere with vision and do not provide protection.
- Replace damaged parts only with identical parts from the original manufacturer to ensure the same safety rating.
- Do not change or modify the protective device.

Classes of Eye Protectors

There are seven classifications based on the CSA Standard Z94.3-15: Eye and Face Protectors.

Class 1 – Spectacles:

In accordance with the CSA Standard Z94.3-15, Class 1 spectacles must incorporate side protection, either permanently attached or detachable.

Class 2 – Goggles:

Both types of goggles – eyecup goggles and cover goggles – must meet the CAN/CSA Z94.3-15 standard.

1. *Eyecup goggles:* These provide all-round protection by completely covering the eye socket. They have ventilation ports (which prevent fogging by allow air in) and adjustable or elasticized headbands. Some models have an adjustable chain bridge.

2. *Cover goggles*: These are designed to be worn over spectacles. They also have ventilation ports and adjustable or elasticized headbands

While both models keep out large particles, some goggles come with direct ventilation ports that prevent large particles from getting through. Others have indirect ventilation ports that keep out large particles, dust, and liquids.

Class 3 – Welding Helmets:

Such helmets protect the face and eyes against radiation and impact. There are two types of welding helmets:

1. *Stationary plate helmet*: These helmets have a single filter lens plate 51 mm x 108 mm (2 in x 4.25 in) in size, or a 114 mm x 113 mm (4.5 in x 5.25 in) in size. These are more suitable for those who wear spectacles.
2. *Lift-front or flip-up plate helmet*: These helmets have three plates or lenses:
 - a. A filter or shaded plate made of glass or plastic in the flip-up cover;
 - b. A clear thin glass or plastic outer lens to keep it clean;
 - c. A clear, impact-resistant plastic or glass lens mounted in the helmet itself.

There are also special models that include earmuff sound arrestors and air purification systems. For workers that need corrective keep together, special magnifying lens plates that have been manufactured to fixed powers are available.

Class 4 – Welding Hand Shields:

Such hand shields also protect the face and eyes against radiation and impact. There are no lift-front type models.

Since the user continually lifts and lowers the visor, Class 1 spectacles should be worn underneath to offer eye protection when the visor is lifted.

Class 5 – Hoods:

Non-rigid helmets or hoods come equipped with impact-resistant windows (normally made of plastic) and may include an air-supply system – ideal for use in confined spaces. Some have a collapsible construction, which is convenient for carrying and storing.

There are four types of hoods:

- 5A – Hoods with impact-resistant window
- 5B – Hoods for dust, splash, and abrasive materials protection
- 5C – Hoods with radiation protection
- 5D – Hoods for high-heat applications.

Class 6 – Face Shields:

Face shields come with a transparent window or visor to offer impact, splash, heat, or glare protection for the face and eyes. Since the user continually lifts and lowers the visor, Class 1 spectacles should be worn underneath to protect the eyes when the visor is lifted.

Some face shields come with an adjustable spark deflector or brow guard that fits on hard hats. Some have shaded windows which provides glare reduction. IMPORTANT: They should not be used when there is any hazard from UV or infrared radiation because they do not meet the requirements of CSA Z94.3-15 *Eye and Face Protectors* for ultraviolet and total heat.

There are three types of face shields:

6A – Face shields for impact, piercing, splash, head, and glare protection

6B – Face shields for radiation protection. Similar to 6A but with a thicker shield. Also for low heat, splash, glare, and light, non-piercing impact protection

6C – Face shields for high-heat applications and light, non-piercing impact protection only (these normally have wire screen windows).

Class 7 – Respirator Facepieces:

For detailed information, see the PPE – Respiratory Protection section.

There are four types of respirator facepieces:

7A – Respirator facepieces for impact and splash protection

7B – Respirator facepieces for radiation protection

7C – Respirator facepieces with loose-fitting hoods or helmets

7D – Respirator facepieces with loose-fitting hoods or helmets for radiation protection.

PPE – Hearing Protection

Noise Regulation

In accordance with the regulation on noise O. Reg. 381, employers are required to protect workers from overexposure to noise.

If workers are exposed to levels above 85 dBA, engineering and administrative controls must be used to reduce noise at the source or along the path to the worker. If such controls cannot be applied, appropriate PPE must be used – Hearing Protection Devices (HPDs). Proper HPDs must be selected based on the jobsite conditions, and adequate training and instruction on their use and care must be provided to all workers involved.

Noise Exposure Hazards

After prolonged exposure to noise, workers may develop the following problems:

- Noise-induced hearing loss (NIHL)
- Tinnitus (ringing in the ears)
- High blood pressure
- Fatigue

Noise-induced hearing loss

Depending on factors such as noise level and duration of exposure, among others, either temporary or permanent hearing loss may occur. While the body will restore its hearing capacity in case of temporary hearing loss, with permanent hearing loss, such restoration is impossible.

Noise Level Measurement

To better prevent hearing damage, noise levels must be measured to determine whether they are harmful and to implement the necessary controls.

A sound level meter (SLM) is used for making measurements. Sound intensity is measure in decibels (dB), and sound intensity is perceived as loudness.

Noise levels can't be added directly: two noise sources that produce 90 dB each have a combined output of 93 dB, not 180 dB. The combined output of 93 dB is actually a *doubling* of intensity.

Area noise measurement: This measurement is the first step in determining whether further measurements are necessary. It is done in a specific work area.

Personal noise measurement: This measurement determines how much noise a given worker is exposed to during his/her shift. It is done by using a noise dosimeter – a devices that has a microphone which is placed next to a worker's ear.

Hearing Protection Devices (HPDs)

These devices must be used only if other controls – engineering and administrative – are not possible. HPDs act as barriers that reduce the amount of noise that reaches the sensitive inner ear. It is extremely important to consider fit, comfort, and sound reduction when choosing HPDs.

The most common types of HPDs are earplugs and earmuffs. Earplugs diminish noise by plugging the ear canal. Earmuffs cover the external part of the ear.

Earplugs:

The following must be kept in mind when using earplugs:

1. They should conform to the latest issue of CSA Standard Z94.2.
2. They must be fitted snugly in the ear canal. (Seek professional advice if there is severe discomfort initially or mild discomfort for more than a few weeks.)
3. Some ear canals cannot be fitted with plugs because of obstructions, unique shapes, or deformities. (The same individual may have ear canals of entirely different shapes).
4. Reusable earplugs should be washed daily with warm soapy water. They should be kept in a clean container when not in use.
5. If flanges are torn or otherwise damaged, earplugs should be replaced.

Earmuffs:

The following must be kept in mind when using earmuffs:

1. Earmuffs should conform to the latest issue of CSA Standard Z94.2.
2. The cup part of the earmuff should fit snugly over the entire ear and be held firmly in place by a tension band.
3. The cup and band should not be too tight and cause discomfort.
4. Before every use, the cup, cushion, and band should be checked for possible defects – cracks, holes, or leaking seals.
5. The band may require repair or replacement since its tension can be reduced over time.
6. Defective or damaged parts should be repaired or replaced as needed.

PPE – Respiratory Protection

Dusts, gases, fumes, mists, vapours, and bioaerosols all pose a respiratory hazard.

The most preferred method of elimination of such hazards is a careful selection of materials and work practices. When that is not possible, engineering controls (fume exhaust systems and similar) are the next best choice. Respirators are the least preferred method of protection because they do not deal with the hazard at the source, and can be more unreliable due to poor fitting and maintenance. They may also be uncomfortable to wear.

Respiratory Hazards

All the following are typical respiratory hazards on a construction site:

1. Gases are made up of individual molecules of substances, and at room temperature and pressure, they are always in the gaseous state.
Common toxic gases are carbon monoxide from engine exhaust and hydrogen sulphide produced by decaying matter (in sewers and other places).
2. Vapours are formed by the evaporation of liquids. Common vapours are produced by solvents such as xylene, toluene, and mineral spirits used in paints, coatings, and degreasers.
3. Fumes consist of small particles formed by the condensation of materials that have been subjected to high temperatures. Common fumes are welding fume and pitch fume from coal tar used in built-up roofing.
4. Mists are formed by small droplets of liquid suspended in air. They are generated when paint, form oils, and other materials are sprayed.
5. Dusts are made of particles that become airborne when crushing, grinding, sanding, cutting, or demolition are done. There are two types of hazardous dust:
 1. fibrous dust from insulation materials (asbestos, mineral wool, and glass fibre)
 2. non-fibrous silica dust made during sandblasting, concrete cutting, or rock drilling.
6. Bioaerosols consist of airborne particles containing microbes (mould, bacteria, viruses, or pollen). When inhaled, they can cause infectious diseases (tuberculosis, etc.), respiratory infections, or allergic reactions.

Health Effects

Depending on the type of effect they cause, inhalation hazard can be divided into the following types:

1. **Irritants** are substances that irritate the eyes, nose, throat, or lungs. Among them are fibreglass dust, hydrogen chloride gas, ozone, and many solvent vapours. With some materials (cadmium fume) the irritation leads to pulmonary edema. **NOTE: This effect may not be apparent until several hours after exposure has stopped.**
2. **Asphyxiants** cause an inadequate oxygen flow in the body. They can be classified as either *simple asphyxiants* or *chemical asphyxiants*.
 - a. *Simple asphyxiants* are gases or vapours that cause oxygen to be displaced, resulting in an oxygen-deficient atmosphere. Examples include nitrogen used for tank purging tanks (it displaces oxygen, which can lead to unconsciousness and even death for those who enter), and rusting or bacteria digesting sewage that consume oxygen.

- b. *Chemical asphyxiants* do not allow the normal transport or use of oxygen in the body. Two examples are carbon monoxide and hydrogen sulphide.
3. **Central nervous system depressants** are substances that interfere with nerve function, causing symptoms like headache, drowsiness, nausea, and fatigue. Most solvents are such depressants.
 4. **Fibrotic materials** cause *fibrosis* (scarring of lung tissue in the air sacs). Asbestos and silica are examples of such materials.
 5. **Carcinogens** can either cause or promote cancer in diverse body organs. Among such substances are silica, asbestos, and hexavalent chromium.
 6. **Dusts** may only have significant impact if exposure is of high concentration and/ or long duration. Excessive exposure can be adverse in itself or can worsen existing conditions like emphysema, asthma, or bronchitis. Plaster dust, cellulose from some insulation, and limestone dust are some examples of potentially hazardous dusts.
 7. **Biological hazards** include moulds, bacteria, or viruses. When inhaled, they can cause eye, nose and throat irritation, hypersensitivity pneumonitis, or asthma.
 8. **Respiratory sensitizers** are chemicals such as isocyanates in spray foam insulation or certain wood dusts. They can cause asthma when inhaled.

Respiratory Protective Equipment

The two basic types of respiratory protective equipment are air-purifying respirators and supplied-air respirators.

I. Air-purifying respirators: These devices purify air as it goes through them. There are non-powered and powered air-purifying respirators.

Non-powered air-purifying respirators – the air is purified as the wearer breathes in and out, drawing the air through the air-purifying filter, cartridge or cannister.

Powered air-purifying respirators – these include a blower carried by the wearer. It passes contaminated air through an air-purifying component and supplies the purified air to the wearer.

NOTE: These respirators should not be used where oxygen supply is low (less than 19.5%) and where there is a high concentration of contaminants.

Fitting

When fitting a respirator, the following should be considered:

- Position of the mask on the nose
- Room for eye protection
- Room to talk
- Position of mask on face and cheeks

The following criteria shall be used to help determine the adequacy of the respirator fit:

- Chin properly placed;
- Adequate strap tension, not overly tightened;
- Fit across nose bridge;
- Respirator of proper size to span distance from nose to chin;
- Tendency of respirator to slip;
- Self-observation in mirror to evaluate fit and respirator position.

Use and Care

Adhere to the following guidelines to ensure your respirator is kept in optimal conditions:

- Do not clean with solvents.
- Follow the manufacturer's instructions.
- Wash with a mild dish detergent or a combination of detergent and disinfectant. Use a brush and warm water (49-60°C or 120-140°F).
- Rinse with clean water, or rinse once with a disinfectant and once with clean water. The clean water rinse removes excess detergent or disinfectant that can cause skin irritation or dermatitis.
- Dry on a rack or clean surface. Position the respirator so that the facepiece rubber will not "set" crookedly as it dries.
- Store the respirator at the end of each shift to protect it from dust, sunlight, heat, extreme cold, excessive moisture, and chemicals.
- Clean and disinfect respirators after each use, where appropriate.
- Permit only trained and qualified personnel to repair respirators.
- Do not mix parts from different manufacturers.
- Record all repairs and inspections.
- Remove dirt.
- Check for distortion caused by improper storage.

Types of filters used:

1) **Particulate filters** – these filters are made for filtering solid particles such as dusts, fumes, or mists, and are available in different grades.

These filters have three designations: N (**N**ot resistant to oil), R (**R**esistant to oil), and P (**P**oil-**P**roof).

- The N series of filters is suitable for airborne particles like wood dust, when there are no oil-based particles also in the air (useful when removing old lead paint, for instance).
- The P or R series is suitable for operations involving airborne oil particles, such as spraying form oil or putting down hot asphalt.
 - The R series should only be used for an 8-hour single shift when solvent or oil mist is present in the air.
 - The P series should only be used for the duration of time specified by the manufacturer.

2) **Gas/vapour cartridge filters** – these filters are made for absorbing or neutralizing gases and vapours. When these filters become full, they stop being effective. Three common types of filters are organic vapour cartridges, acid gas cartridges, and ammonia cartridges.

- Organic Vapour Cartridges normally contain activated charcoal. They remove vapours like toluene, xylene, and mineral spirits (found in paints, adhesives, and cleaners).
- Acid Gas Cartridges contain materials which absorb acids. They can be used for protection against hydrogen chloride, sulphur dioxide, and chlorine, but in limited concentrations.
- Ammonia Cartridges contain an absorbent which removes only ammonia gases.

3) **Combination particulate/gas/vapour cartridge filters** – these filters remove particulate matter, vapours, and gases from the air. They are used when there is more than one type of hazard is present or may develop.

II. Supplied-air respirators: These devices provide clean breathing air from an uncontaminated source, such as a special compressor located in a clean environment, or cylinders filled with compressed breathing air. Air quality should meet the requirements of CSA Standard Z180.1, *Compressed Breathing Air and Systems*.

The moisture content of supplied air should be limited to prevent fogging, corrosion, and freezing of regulators and valves. This will also prolong the service life of filters which are used for the removal of other contaminants.

The “pressure dew point” (the temperature at which moisture in compressed air will condense out as droplets or “dew”, at a given pressure) is important in relation to moisture and must be kept at least 5°C below the lowest expected temperature of the ambience. Water vapour can be removed from compressed air with a drying system or water-absorbing materials.

Types of Supplied-Air Respirators:

1) Air-line unit

This type of respirator contains compressed breathing air, portable supplied air, or a clean ambient air system. The user receives air into the respirator facepiece through a hose attached to the wearer’s belt. In case of emergency, it can be disconnected quickly.

2) Self-contained breathing apparatus (SCBA)

This type of respirator includes a cylinder of air carried by the wearer. The disadvantages of SCBAs are their bulkiness, weight, and the need for frequent cylinder changes.

3) Multifunctional unit (combination air-line and SCBA).

Such a combination of respirators is needed in confined spaces and other high-risk places that call for reserve protection.

The disadvantages of multifunctional units are the restrained mobility due to the trailing hose and the length of line available, as well as the danger of air-lines getting crimped or snagged on equipment.

Despite their more elevated cost, as compared to air-purifying systems, they provide much greater protection.

Use and Care

Adhere to the following guidelines to ensure your respirator is kept in optimal conditions:

Facepiece

- Disconnect the facepiece from the breathing apparatus. Wash alone in warm (49-60 °C or 120-140 °F) soapy water using a mild dish detergent.
- Rinse the water through the facepiece by placing the palm of the hand over the breathing tube connector on the exhalation-valve body.
- Remove excess water with a paper towel or lint-free cloth.
- Allow to air dry.
- Sanitize according to the manufacturer's instructions.
- Check for tears or cracks in the rubber.
- Check head strap for deterioration.
- Examine lenses for cracks, excessive scratching or other deformities.
- Check rings and clamps securing the lens for bends or bulges in the metal.
- Check the exhalation valve to ensure that it is properly located and that the valve cover is in place.
- Test the exhalation valve. Block the air intake opening and exhale gently. If the exhalation valve is not working properly, a heavy blow-by will be felt at the temples. Inhale and a partial vacuum will be formed.
- Do not mix demand and pressure-demand facepieces and regulators.

Regulator

- Check the regulator, breathing-tube threads, pressure gauge, and bypass and mainline valves for impact damage.
- Store with the cylinder valve completely closed.
- Bleed off air remaining in the regulator after each use, following manufacturer's instructions.

Breathing tube

- Stretch the breathing tube and check for cracks, tears and punctures.
- Check gaskets.
- Check clamps and rings to ensure that they are tight, properly located, not dented and not excessively corroded.
- Wash the breathing tube separately and allow to air dry. If it is permanently attached to the facepiece, allow the breathing tube to dry for several days before using.

High-pressure hose

- Check the hose for cuts, bubbles and abrasions.
- Check the fitting between the high-pressure hose and the regulator for damage.

Audible Alarm

- Check the audible alarm for damage.
- Clean bells or whistles.
- Ensure that the alarm is working. If the alarm does not go off when the pressure reaches 20-25% of service time, the unit is defective. Remove the unit from service.

Backpack

- Inspect the straps of the backpack for excessive wear, broken stitching, and damaged or missing hardware.

Cylinder

- Ensure cylinders are hydrostatically tested as set out in CSA Standard Z94.4-11 (R2016), Selection, Use and Care of Respirators.
- Inspect for cuts or gouges that can cause the unraveling of the composite fibers of the cylinder overwrap.
- Check unwrapped cylinders for impact damage.
- Check for evidence of exposure to heat. Look for discoloured paint or melted gauge lenses.
- Ensure air meets air quality set out in CSA Standard Z180.1-13, Compressed Breathing Air and Systems.

Cleaning the rest of the unit

- Remove backpack, cylinder and regulator assembly.
- Clean with water, or soapy water.
- Wipe the regulator, high-pressure hose, audible alarm, air cylinder, backpack and harness with a damp cloth.
- Dry with a cloth.

Modes of Operation

Respirators can operate in three different modes:

1. **Positive pressure (or pressure-demand) mode:** In this mode, the pressure in the facepiece or hood always remains positive. When there is a slight decrease in positive pressure inside the facepiece, more air is supplied. In case of a leakage, it is directed outside of the facepiece.
2. **Constant-flow mode:** In this mode, air is delivered constantly. Powered air-purifying respirators (PAPRs) use a battery-powered fan to draw air through the filter and then blow it into the facepiece. Even though these provide more comfort than non-powered air-purifying respirators, they should never be used in oxygen-deficient conditions.

These respirators use a simple valve to control the flow of "clean" air from the compressor.

To minimize inward leakage of contaminated air and provide adequate breathing air, minimum flow rates of 170 litres per minute (6 cubic ft/min) for loose-fitting hoods or helmets and 115 litres per minute (4 cubic ft/min) for tight-fitting facepieces must be maintained.

3. **Negative pressure mode:** In this mode, air is delivered only when there is a slight negative pressure created in the facepiece. Contaminated air may leak inward around the facepiece, so these devices are now always appropriate in high-exposure conditions.

Styles of Facepieces

Facepiece style is another determining factor in respirator classification. There is a variety of styles:

1. **Filtering Half-Facepieces:** These devices fit over the mouth and nose, rest on the chin, and are held in place by two straps.
Usually, these are designed for one-time use. However, some more sophisticated versions that have adjustable straps and exhalation valves, may be used more than once, as long as they are not damaged.
2. **Hoods and Helmets:** These devices depend on continuous flow of large volumes of air instead of tight seals, to prevent inward leakage of contaminated air. They can be used with powered air-purifying and supplied-air systems.
3. **Full-Face Mask:** This style of mask covers the face completely. It consists of a moulded rubber or plastic frame and a clear visor, providing greater protection than other face masks. Such masks can be used with air-purifying, powered air-purifying, and supplied-air respirators.
4. **Half-Face Mask:** This style of mask is commonly used as an air-purifying respirator with one or more filters or cartridges attached to the facepiece. The silicone, thermoplastic, or rubber facepiece covers the mouth and nose, cups under the chin, and has two straps that hold it in place. It offers more protection than quarter-face masks because the chin cup provides a more secure fit.

Assigned-Protection Factors

These factors are a measure of the anticipated level of protection provided when a respirator is functioning correctly, and when its user has been trained. The APF is assigned to most respirators and is used in the selection process to determine the maximum use concentration (MUC) for the respirator.

The MUC is the maximum level of an airborne contaminant that an employee will be protected from when wearing a respirator. To determine MUC, multiply the APF of the respirator or class of respirators by the occupational exposure limit (OEL) for that contaminant.

An example: the OEL for chrysotile asbestos in Ontario is 0.1 fibre/cm³ of air. When using a half-mask respirator with N100 filters (APF=10), the MUC is 1 fibre/cm³ (i.e., $10 \text{ (APF)} * 0.1 \text{ (OEL)} = 1 \text{ (MUC)}$). If the concentration of asbestos becomes greater than 1 fibre/cm³ during the course of work, a respirator with a greater APF must be used.

Respirator efficacy: The degree of protection depends on the type of respirator, style of facepiece, and principle of operation. Generally, supplied-air respirators provide better protection than air-purifying respirators; full-face masks do better than half-face masks; and positive-pressure devices protect more than negative-pressure types.

Table 1: Assigned-Protection Factors (APF)

Type of Respirator	Style of Facepiece	Mode	APF
Air-purifying	Filtering facepiece	Negative	10
	Half-facepiece	Negative	10
	Full-facepiece	Negative	50
Powered Air-purifying	Helmet/hood	Continuous	25/1000*
	Loose-fitting facepiece/visor	Continuous	25
	Half-facepiece	Continuous	50
	Full-facepiece	Continuous	1000
Supplied-air or Air-line	Half-facepiece	Continuous	50
	Full-facepiece	Continuous	1000
	Helmet/hood	Continuous	25/1000*
	Loose-fitting facepiece	Continuous	25
	Half-facepiece	Pressure-demand	50
	Full-facepiece	Pressure-demand	1000
Self-Contained Breathing Apparatus (SCBA)	Full facepiece or tight-fitting hood	Pressure-demand	10,000

Source: CSA Z94.4-11

Respirator Selection

In order to select the proper respirator for a particular job, it is necessary to know and understand the following:

1. The characteristics of the contaminant(s)
2. The conditions of anticipated exposure
3. The equipment performance limitations
4. Any applicable legislation

NOTE: Facial hair and deep facial scars can interfere with the seal between respirator and face.

IMPORTANT: Before using or handling a hazardous product, the safety data sheet (SDS) for the type of respiratory protection required must be consulted. Under the Workplace Hazardous Materials Information System (WHMIS), an SDS must be available for every hazardous product.

In case of any doubt about the correct type of protection for a specific material and type of work, the manufacturer of the product, a supplier or manufacturer of respirators, or IHSA must be consulted. When seeking information on the type of respirator for use in specific situations, provide as much of the following information as possible:

- a) Name and form of the material (oil or non-oil). If the form is unknown, consider it an oil.
- b) Type of work to be done (e.g., painting, welding).
- c) Description of worksite conditions (e.g., inside a tank, outdoors).
- d) Exposure concentration, if known (e.g., 150 ppm of toluene).
- e) What will be done with the material (heating, spraying, etc.)
- f) Other materials being used in the vicinity.

The respiratory protection specialist will evaluate this information and compare it with the following additional data:

1. **The occupational exposure limit of the dust, gas, or vapour**, often referred to as the TLV[®] or Threshold Limit Value*. These values are used in conjunction with the assigned-protection factors listed in Table 15-1 to determine the maximum use concentration.
2. **The physical properties of the contaminant:**
 - a. **Vapour Pressure:** The maximum amount of vapour that can be generated under given conditions.
 - b. **Warning Properties:** Do not rely on such properties as irritation, odour, or taste to decide on cartridge/canister change out.
 - c. **Health Effects:** More protection is required when workers are exposed to cancer-causing materials.
 - d. **Filter Performance:** Filters can become overloaded in just a few minutes with some gases and vapours. Therefore, it is essential to know about the filtering material and its performance against specific gases and vapours.
3. **IDLH concentration:** A concentration considered to be Immediately Dangerous to Life or Health (IDLH). IDLH atmospheres can pose an immediate threat to life or health, or have a serious yet delayed impact on health (e.g., radioactive dust exposures). No one must enter such atmospheres without wearing SCBA or SCBA/air-line respirators.

4. **Possibility of skin absorption:** With some chemicals the amount of material that can be absorbed through the skin is of equal or greater concern than the amount of gas or vapour that can be inhaled. For these situations, supplied-air protective suits may be necessary.
5. **Eye irritation:** For contaminants that can cause eye irritation, a full-face mask must be worn, so that the worker can continue seeing well.

Fit Testing and Seal Checks

Upon respirator selection, proper fitting is the next critical step, since one size does NOT fit all. A fit test MUST be conducted before the worker is asked to wear it.

Fit Testing

When to carry out a fit test:

1. Before the initial use of a tight-fitting respirator;
2. When changes occur to a user's physical condition that could affect the fit (weight change, or changes to facial or dental features);
3. When there is a change in the respirator (new make, model, or size);
4. When a respirator user experiences continued significant discomfort during use or difficulty in completing a successful user seal check;
5. When there is a change in PPE use that could affect the respirator (e.g., user now required to wear safety glasses);
6. At least every 2 years, generally.

Types of fit testing:

1. **Qualitative:**

Before carrying out a qualitative fit test, it should be confirmed that the respirator user can taste or smell the test agent being used.

1) **Irritant Smoke Test:** This test determines the fit of P100 particulate filter respirators. A cloud of irritant smoke is created around the wearer. Adjustments are necessary if leakage is detected.

NOTE: Since most such smoke clouds are very irritating to the eyes, nose, and throat, workers should keep their eyes closed during the test and back out of the smoke as soon as they notice any leakage or irritation.

2) **Iso Amyl Acetate (Banana Oil) Test:** The respirator is used with "organic vapour" cartridge filters. The respirator needs adjusting if the wearer smells the solution.

3) **Saccharin Test:** For this test, instead of banana oil, saccharin is used as the test material, and the respirator is equipped with a particulate filter. If the wearer tastes or smells the sweetness of saccharin, the fit needs adjusting.

4) **Bitter Solution Aerosol Test:** The respirator is used with any particulate filter. The wearer puts on a hood or test enclosure over his/her head and shoulders. Bitter solution is then sprayed into the hood or enclosure. It will be easily detected if it leaks through the face seal.

2. Quantitative:

The wearer uses a special respirator that has a probe mounted inside the facepiece. The fit of the respirator can be determined by any of the following:

- 1) comparing the amount of test aerosol outside the respirator to the amount inside the respirator;
- 2) comparing the amount of ambient aerosol outside of the respirator to the amount inside the respirator;
- 3) measuring the amount of pressure leakage from the respirator.

Risks of not conducting fit tests

Negative-pressure respirators: When using such respirators, gaps in the seal will allow contaminated air to enter the breathing zone.

Positive-pressure respirators: When using such respirators, the degree of protection provided to the wearer could be reduced due to significant outward leakage. In addition, "venturi effects" may allow air to escape in one area and draw contaminated air into the facepiece around the escaping air.

User Seal Checks

Every time a tight-fitting respirator is used, the seal must be checked by using the negative-pressure and positive-pressure method.

- 1) **Negative-Pressure Seal Check:** The wearer puts on the respirator and adjusts it to achieve a relatively comfortable fit. The user then blocks the air inlets with the hands or a plastic cover, and inhales gently and holds for five seconds. A properly fitting respirator should collapse slightly and not permit any air into the facepiece. In case of any leakage, the mask should be readjusted, and the test repeated until proper fit is achieved.
- 2) **Positive-Pressure Seal Check** — The wearer puts on the respirator and adjusts it to achieve a relatively comfortable fit. He/she then covers the exhaust port of the respirator and tries to exhale gently. The facepiece should puff away from the wearer, but no leakage should occur.

Respirator Maintenance

Respirators need regular maintenance. Follow these steps to ensure proper maintenance and optimal performance:

- 1) Filter change, by type:
 - a. **Dust/mist/fume filters:** Change these when there is noticeable resistance to normal breathing.
 - b. **Chemical cartridges:** Change these when indicated to do so by the end-of-service-life indicator or in accordance with the change-out schedule.
 - c. **Any filter** should be changed at the interval specified by the manufacturer or when damaged in any way.
- 2) Before using a respirator, inhalation and exhalation valves should be checked.
- 3) Any damaged part – facepiece, straps, filters, valves, or others – should be replaced with "original equipment" parts.
- 4) Facepieces should be washed following the manufacturer's instructions.
- 5) Each respirator should be used only by the worker it has been assigned to.

- 6) If the same respirator must be assigned to more than one worker, it should be disinfected after each use (NOTE: Only acceptable sanitizers/disinfectants must be used).
- 7) All supply hoses, valves, and regulators on supplied-air respirators must be checked, as specified by the manufacturer.
- 8) SCBA units and high-pressure cylinders of compressed breathing air should be used and maintained in accordance with current CSA Standards Z94.4: *Selection, Care and Use of Respirators* and Z180.1: *Compressed Breathing Air and Systems*.
- 9) Compressors and filtration systems used with supplied-air respirators must be maintained following the manufacturers' recommendations.
- 10) The manufacturer should be consulted for information on respirator cartridge change-out.
- 11) Respirators should be stored in a location away from dust, ozone, sun, heat, extreme cold, excessive moisture, vermin, damaging chemicals, oils, and grease. Extra caution should be taken to ensure rubber facepieces are not deformed.

Approvals and Standards

The most commonly referenced standards for respiratory protection in North America are the test criteria used by the National Institute for Occupational Safety and Health (NIOSH), which is a U.S. government agency that tests and approves respiratory protective equipment and publishes a list of approved devices annually.

IHSA recommends that only NIOSH-approved equipment be used for protection against respiratory hazards.

The CSA has issued two standards pertaining to respiratory protection, which should be reviewed by the person who is responsible for the respirator program:

- Z94.4 *Selection, Care and Use of Respirators* offers recommendations on these three aspects.
- Z180.1 *Compressed Breathing Air and Systems* lists the criteria for air purity and delivery systems.

PPE – Hand and Skin Protection

Exposed hands and skin are susceptible to physical, chemical, and radiation hazards. Personal hand/skin protection is often the only practical means of preventing injury.

Physical hazards

Leather gloves are the best protection against physical hazards, such as heat, splinters, or sharp or jagged edges on materials and tools. Cotton gloves or gloves made of other materials may be used for light-duty jobs.

Anti-vibrations gloves must be used in conjunction with power tools with built-in vibration-reducing components when there is danger of vibration (caused by vibrating tools like jackhammers, grinders, riveters, compactors) being transferred from tools and equipment to the worker, which can affect hands and arms.

If the worker is not protected, he/she may develop hand/arm vibration syndrome (HAVS) which causes the following changes in fingers and hands:

- Circulation problems – whitening or bluish discoloration, especially after exposure to cold;
- Sensory problems, such as numbness and tingling;
- Musculoskeletal problems, such as difficulty with fine motor movements.

Successful prevention of this disease requires cooperation between employers and workers.

Employers

- Provide anti-vibration gloves and power tools with built-in vibration-reducing components.
- Ensure proper tool maintenance (higher vibration levels will occur when worn grinding wheels or tool bearings are used).
- Review exposure times and allow rest breaks away from vibrating tools.
- Train workers in prevention techniques.

Workers

- Wear appropriate clothing in cooler weather to maintain core body temperature.
- Wear gloves whenever possible.
- Wear anti-vibration gloves when using power tools and equipment.
- Avoid smoking (it contributes to circulatory problems).
- Report any poorly functioning tools immediately.

Chemical hazards

Corrosive or toxic chemicals present a chemical hazard to skin.

The safety data sheet (SDS) must be reviewed for any hazardous chemicals being used on a jobsite to determine whether gloves are needed and what kind. An SDS must be available on site for every hazardous product.

Table 2 identifies the type of glove that must be worn for protection against chemicals that can cause harm to the skin. This information should be used if the SDS does not specify the type of gloves to be worn.

Table II: Assigned-Protection Factors

Chemical Name	Glove Selection
Acetone	Butyl Rubber
Cellosolve	PVA, PVC, Neoprene
Cellosolve Acetate	PVA, PVC
Cyclohexane	NBR, Viton®
Hexane	Neoprene, NBR, PVA
Methyl Alcohol	Neoprene, Rubber, NBR
Methyl Chloroform	PVA, Viton®
Methyl Chloride	PVA, Viton®
Methyl Ethyl Ketone	Butyl Rubber
Methyl Isobutyl Ketone	Butyl Rubber, PVA
Mineral Spirits	Neoprene
Naphtha	NBR, PVA
Perchloroethylene	NBR, PVA, Viton®
Stoddard Solvent	NBR, PVA, Rubber
Toluene	PVA, Viton®
Turpentine	PVA, NBR
Trichloroethylene	PVA, Viton®
1, 1, 1 Trichloroethane	PVA, Viton®
1, 1, 2 Trichloroethane	PVA, Viton®
Xylene	PVA, Viton®
PVA = Polyvinyl Alcohol PVC = Polyvinyl Chloride NBR = Nitrite Butyl Rubber Viton® = Dupont tradename product	

IMPROTANT: Gloves do not protect against all hazards. Some solvents, degreasers, and other liquids can penetrate and/or dissolve rubber, neoprene, or PVC.

Ultraviolet radiation.

Long-term health risks of UV exposure include skin cancer, melanoma being the most dangerous kind. Melanomas most often appear on the upper back, head, and neck (as well as tips of the ears and lips, which are often unprotected) – areas that are frequently unprotected from exposure to the sun. Since skin cancer appearance is normally delayed between 10 and 30 years, young workers must be fully aware of the risks of long-term unprotected exposure to UV radiation.

Exposure to indirect UV radiation in addition to the harmful effects of the sun’s direct rays, occurs when workers are on or near a surface that reflects sunlight. Such surfaces include concrete, water, unpainted corrugated steel, building glass, and aluminum. UV radiation is also intensified by the hard hat itself, as it reflects the rays.

Some individuals are at a higher risk of developing skin cancer due to the following:

- Fair skin
- Blistering sunburns in childhood and adolescence
- Family history of melanoma

- Many freckles and moles

NOTE: Workers without access to shades or working at heights run a greater risk of developing cancer due to higher exposure rates.

Employers Can Do the Following:

- Provide sunscreen an SPF of 30 or higher.
- Ensure adequate shaded areas for workers on breaks and lunch.
- If possible, rotate workers to shaded areas of the jobsite.
- Educate workers on the hazards of UV radiation.
- Ensure that workers use UV-absorbent safety glasses.

Workers Can Do the Following:

- Apply sunscreen with SPF of 30 or greater to ALL exposed skin areas 20 to 30 minutes before going out in the sun. Reapply it every two hours.
- Use an SPF 30 or higher sunscreen lip balm and reapply every two hours.
- Wear UV-absorbent safety glasses (CSA-approved polycarbonate glasses have this feature).
- Wear clothing that covers as much of the skin as possible, made of tightly woven material.
- Take breaks and have lunch in a shaded area.
- For those that sweat heavily, sunscreen should be reapplied more often. Additional dry clothing should be available, since wet clothes do not block UV rays as efficiently.
- UV protection can be added to the back of the neck by using a fabric neck protector that clips onto the hard hat.
- A wide-brimmed hard hat designed to protect the face and neck from the sun can be worn. To reduce reflective UV rays, a glare guard can be added under the peak of the hard hat.
- Skin should be examined regularly for any unusual changes. The most important warning sign for skin cancer is a spot on the skin that is changing in size, shape, or colour.

NOTE: The majority of skin cancers are preventable.

PPE – Foot Protection

All workers must wear protective footwear – either a safety shoe or safety boot – at all times when on jobsite, in accordance with Section 23 of the Construction Projects regulation (213/91).

Such footwear must have the following characteristics:

- A box toe that is adequate to protect the wearer's toes against injury due to impact, capable of resisting at least 125 joules impact.
- A sole or insole that is adequate to protect the wearer's feet against injury due to puncture, capable of resisting a penetration load of 1.2 kilonewtons when tested with a Deutsche Industrie Norm standard pin.

If used properly, a CSA-certified Grade 1 workboot meets the requirements of this regulation.

Grade 1 Workboots

One of three CSA grades, Grade 1 is the only one allowed in construction due to the highest level protection it offers. A steel toe protects against falling objects, and a steel insole prevents punctures to the bottom of the foot.

Grade 1 boots can be identified by the following markings:

- A green triangular patch with the CSA logo, on the outside of the boot.
- A green label indicating Grade 1 protection, on the inside of the boot.

Grade 1 boots are also available with metatarsal and dielectric protection. A white label with the Greek letter Omega in orange means that the boot protects against electric shock under dry conditions.

Selection and Fit

Grade 1 boots are available in various styles and sole materials for different types of work (Grade 1 rubber boots may be better suited for sewer and watermain or concrete work than leather boots.).

Boots should provide ample "toe room" (toes about 1/2 inch back from the front of steel box toe cap when standing with boots laced).

When fitting boots, heavy work socks must be taken into consideration. If extra sock liners or special arch supports are to be worn in the boots, insert these when fitting boots.

Care and Use

Lacing boots military style allows them to be removed faster. In an emergency, the surface lace points can be cut, quickly releasing the boot.

In cold weather, feet should be kept warm by wearing a pair of light socks covered by a pair of wool socks. Feet should be checked for frostbite from time to time.

To help prevent ankle injuries, high-cut (260 mm or 9 in) or medium-cut (150 mm or 6 in) CSA Grade 1 workboots should be used. The higher cut helps support the ankle and provides protection from cuts or punctures.

Workboots should be cleaned regularly and checked them for damage and wear and tear. When footwear becomes defective or worn out, it will no longer protect the feet properly and must be replaced.

PPE – High-Visibility Protection

The Construction Projects regulation stipulates that any worker who exposed to vehicular traffic on a jobsite must wear a high-visibility garment that covers the upper body. Section 69.1 of O. Reg. 213/91 provides the specifics. The CSA standard for this type of clothing can also be followed.

CSA Z96-15— High-Visibility Safety Apparel specifies how this type of clothing should reflect light, what colours can be used, and how much of it a person needs to wear. Advice on the selection, use, and care of high-visibility safety material is also provided, as well as recommendations for hazard assessments.

Choosing High-Visibility Clothing

There are two main things to consider when choosing to high-visibility clothing: the background material and retroreflective stripes or bands.

1. Background Material

Construction Regulations: According to the construction regulations, background material must be fluorescent blaze or international orange in colour. Fluorescent blaze (safety orange) is used on road signs and hunting gear. International orange has a darker, more reddish tone.

This background material gives workers the best chance to be seen by drivers and equipment during daytime.

Even on a cloudy day or at dusk or dawn, fluorescent colours will appear brighter. Since orange is a complementary colour to blue, it provides the best contrast against the colour of the sky and most other background colours.

CSA Standard: This standard allows some background colours other than orange. They are accepted by the Ministry of Labour (MOL) and considered to be compliant.

2. Retroreflective Stripes or Bands

Such stripes or bands that are required on high-visibility clothing also help increase worker visibility but are more effective at night or in low-light conditions. Retroreflective stripes reflect the light from oncoming headlights back to the driver or operator, ensuring that a worker can be seen in the dark.

In accordance with the regulations, these stripes must be both retroreflective and fluorescent. The front and the back of the garment must have two yellow stripes that are 5 cm wide. The yellow area must be at least 500 cm² on the front and 570 cm² on the back. On the front, the two stripes must be vertical, centred, and approximately 225 mm apart (as measured from the centre of each stripe). On the back, they must be arranged in a diagonal "X" pattern.

For night-time work, additional stripes or bands are required on the arms and legs (fluorescent orange coveralls with retroreflective bands or stripes attached are one option).

Risk Assessment

Engineering and administrative controls that control hazards at the source or along the path (barriers between workers and vehicles) must be the first option, followed by high-visibility clothing.

When PPE is the best option, jobsite-specific risks and hazards must be assessed before choosing the type of high-visibility clothing workers will require. Those who require greater visibility, should wear clothing that is highly visible under those particular work conditions (such as roadwork).

PPE – Fall Protection

Fall protection is required for working at heights and with certain other hazards present, as explained below.

Whenever a task requires fall protection, corresponding CSA approved and up-to-date fall arrest equipment will be provided to each employee: safety harness, lifeline, and lanyard and rope grab.

The fall arrest system must be inspected and maintained after each use to make sure there are no cuts or frayed areas in this equipment. After a fall, all components of the fall arrest system should be discarded.

Training on fall arrest equipment must be provided by a competent instructor. It will include the Basics of Fall Protection program issued by CSAO, which has been approved for use by the Ministry of Labour of Ontario.

Mandatory Fall Protection

All supervisors and workers must become familiar with Section 26 of the *Regulations for Construction Projects* which outlines the circumstances where fall protection is required.

Fall protection is required where a worker is exposed to any of the following hazards:

1. Falling more than 3 metres.
2. Falling more than 1.2 metres, if the work area is used as a path for a wheelbarrow or similar.
3. Falling into operating machinery.
4. Falling into water or another liquid.
5. Falling into or onto a hazardous substance or object.
6. Falling through an opening on a work surface.

Section 26.1 (1) and (2) of the Construction Regulations states that:

26.1 (1) A worker shall be adequately protected by a guardrail system that meets the requirements of subsections 26.3 (2) to (8).

(2) Despite subsection (1) if it is not reasonably possible to install a guardrail system as that subsection requires, a worker shall be adequately protected by at least one of the following methods of fall protection:

1. A travel restraint system that meets the requirements of section 26.4
2. A fall restricting system that meets the requirements of section 26.5
3. A fall arrest system, other than a fall restricting system designed for use in wood pole climbing, that meets the requirements of section 26.6
4. A safety net that meets the requirements of section 26.8

When in doubt about what type of fall protection is required for a particular situation, supervisors must be consulted.

PPE, as required per Work Area and Job Type

All Jobsites

The following personal protection equipment (PPE) is required:

1. Hardhat
2. Goggles (for protection against chips and dust)
3. Face shields (splash protection)
4. Respiratory masks (round masks that cover nose and mouth – to be used when cutting/chipping/sawing, as protection against construction dust)
5. Gloves:
 - a. latex – for any material that can irritate skin;
 - b. compression gloves –for shock absorbing when using chipping guns;
 - c. leather – for handling any splintering material;
 - d. winter gloves – for cold temperatures.
6. Safety boots

Work at Heights and in Confined Spaces

In addition to the abovementioned PPE, a safety harness and lanyard are also required.

Work with Cement Dust

In work areas, such as elevator shafts, garages, hospitals and clinics, stairs, utility rooms, and tunnels – where cement dust is created in an enclosed space, a half-face mask with filters on sides is required.

Spray-On Applications

When chemical products must be applied by spraying, a full-face mask is required.



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Preventative Maintenance Program

2022

3rd Edition

Effective Date:	Jan. 2022		Approved By:	Boris Gopka, Executive Director
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Version	Date	Author	Rationale
1.0	Jan. 3 rd , 2020	Nataliya Muriy	COR-based
2.0	Jan. 4 th , 2021	Nataliya Muriy	COR-based
3.0	Jan 24 th , 2022	Nataliya Muriy	COR 2020-based

Preventative Maintenance Policy

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the *Occupational Health and Safety Act* and all associated regulations and agreements.

As part of our Health and Safety Program, we have established a Preventative Maintenance Program for our facilities (office), tools, equipment, and vehicles. The following are regularly inspected and maintained, in accordance with legislated requirements and/or manufacturer guidelines, as applicable:

Tools: chain saws, circular saws, power tools, propane torch, portable grinders, extension cords.

Equipment: generators, water pumps, injection pots, pressure washer, cement mixer, portable scaffolds, and floor concrete grinders, Graco spray machines.

Vehicles: 2016 Ford E450, 2018 Ram ProMaster 2500, 2014 Nissan NV200, 2012 Nissan Frontier, 2011 GMC Sierra, 2010 GMC Sierra.

Maintenance – Scheduling and Records

We have established a system for scheduling and maintaining records of all maintenance work. The records must demonstrate all the maintenance work that was carried, as per legislated requirements and/or manufacturer guidelines, by clearly outlining the steps taken to correct any issues.

Inspection and maintenance must be performed by a qualified worker (made evident by his/her training credentials or experience).

Defective Tools

In case any tool is found to be defective, please follow the procedure outlined below in the Preventative Maintenance Procedure.

Safety is everyone's responsibility, and timely maintenance is one of the key components to achieving and sustaining this goal.

Sincerely,

Rick Rawlinson
VP of Development

Date: January 24th, 2022

Preventative Maintenance Procedure

To ensure everyone's safety, procedures must be followed when it comes to tool, equipment and vehicle inspection and maintenance.

Roles and Responsibilities

Management

Managers are responsible for ensuring that the tool and equipment inventory is kept up to date, and that the supervisors are making sure vehicles are taken in for regular maintenances and repairs as needed, that equipment and tools receive maintenance or are replaced if necessary.

Supervisors

Supervisors must take vehicles in for regular maintenance and repairs as needed. They must also take equipment and tools in for maintenance or purchase replacement ones if required. Supervisors must also do a vehicle circle check on a daily basis before using the car, and documented by using the corresponding format in the OneBuilder app. They must also inspect any tool or equipment before use and document it by using the OneBuilder app.

Workers

Each worker is responsible for inspecting his or her tools and equipment before use. They must document the inspection by using the OneBuilder app.

Maintenance Scheduling and Record-Keeping Requirements

To ensure that tools and equipment, as well as vehicles are receiving regular maintenance, information on every tool or piece of equipment, and company vehicle – whether owned, leased or rented – must be kept on record as part of our inventory. Maintenance must be scheduled regularly in order to meet the preventative maintenance requirements outlined by the manufacturers and the legislation. Maintenance records must be kept on file – whether physically, electronically, or both, including a record of any corrective actions required. The maintenance schedule must be kept in an Excel file to ensure maintenance is performed on time.

Inspection must be done by qualified workers – they must have the necessary experience and knowledge about each tool and equipment in question. When a tool, a piece of equipment, or a vehicle is deemed not functional, it must be removed from service. Vehicle maintenance must be done by a certified mechanic, while tool and equipment maintenance – at a certified shop.

Defective Tools Procedure

A defective tool must NOT be used at any time.

Tools must be inspected before use and, if found defective, the following procedure must be applied:

Workers:

1. The tool must be marked as “DEFECTIVE – DO NOT USE!” and removed from the work area.
2. Supervisors must be notified about the damaged tool.

Supervisors:

1. Supervisors must receive the damaged tool and arrange for its repair, if applicable.
2. When the repaired tool is returned, supervisors must make sure it is in working condition.

Safety is everyone's responsibility, and timely maintenance is one of the key components to achieving and sustaining this goal.

Sincerely,

Rick Rawlinson
VP of Development

Date: January 24th, 2022

Preventative Maintenance Program – Facilities

At Joint Seal Waterproofing, we have established preventative maintenance plans to prevent deterioration or damage to our facilities, which include the office and the warehouse. Both the exterior and the interior of our facilities are inspected to ensure their optimal working conditions.

Exterior

To ensure that the building where office and warehouse are located is in safe, working conditions, the following will be done on a regular basis:

1. Walking the perimeter to check the condition on walls (looking for cracks) and windows (to make sure none are broken or leaking).
2. Checking the condition of the roof.
3. Checking the condition of the parking lot and cleaning up any trash or debris. Should there be any large pothole or cracks, they must be fixed.
4. Inspection of locks to make sure they lock and unlock easily.
5. Check that all lights are working properly; replace any unfunctional bulbs.

General Building and Interior

Building interior (office and warehouse) is also checked to ensure it is in safe, working conditions. The following are done regularly:

1. Checking the condition of floors, ceilings, and walls.
2. Inspection of locks to make sure they lock and unlock easily.
3. Ensure that all exits are clearly marked.
4. Check that all lights are working properly; replace any unfunctional bulbs.
5. Carry out pest inspections and apply treatments, if needed.
6. Ensure that all passageways are free of obstacles or trash.
7. Test the fire alarm system and sprinkler system.

Building Systems

The following apply for any workspace owned and operated by the employer:

1. Electrical system is checked for any loose wires or fixtures. A licensed electrician is hired to do any necessary repairs.
2. Plumbing is inspected for leaks, water damage, and loose fixtures. A licensed plumber is hired to do any necessary repairs.
3. HVAC system is inspected.
4. Roof inspection – twice a year and after adverse weather.

Preventative Maintenance Program – Tools, Equipment, and Vehicles

To ensure the effectiveness of our preventative maintenance program in reducing the risk of injury, damage, and lost productivity:

- All workers will be trained on the proper use of tools, equipment, and vehicles.
- All tools, equipment, and vehicles will be inspected and maintained, as stipulated by the corresponding regulations and/or manufacturer's requirements.
- Detailed records will be kept to ensure all inspections and maintenance are done on time.

Maintenance Personnel Qualifications

All maintenance must be done by qualified individuals (whether they are company employees or contractors) – they must demonstrate appropriate skills, accreditation and/or certification.

Records

A record-keeping system is part of our preventative maintenance program. It consists of inventories, schedules, and documentation on the work that was done, including the dates and the responsible personnel.

Monitoring

Monitoring is done at two levels: responsible employees and management. Those employees that are responsible for tool, equipment, and vehicle operation and maintenance, must make sure that proper inspection and maintenance are being carried out as stipulated and scheduled. Management must monitor that the entire maintenance program is functioning properly in order to ensure the correct and safe functioning of tools, equipment, and vehicles.

Scheduled Inspections and Maintenance

All tools, equipment, and vehicles must be inspected and maintained in accordance with the corresponding regulations and manufacturer guidelines. An inspection must be done prior to use, and maintenance should be scheduled in accordance with manufacturer guidelines. Records of all inspections and maintenance are to be completed and maintained for review and approval.

All maintenance done on company grounds must be carried out only in approved areas. Any spills and leaks from equipment must be cleaned up promptly.

REMINDER: Always Use Hand and Power Tools Safely

- 1. Select the right tool for the job.*
- 2. Keep tools in good condition.*
- 3. Use tools the correct way.*
- 4. Keep tools in a safe place.*

Tool Maintenance

The following tools undergo regular inspections: chainsaws, circular saws, power tools, propane torches, portable grinders, and extension cords. If the tool is damaged and repair is not the most optimal choice, the tool is replaced.

Chainsaws

To ensure the chainsaws are in optimal conditions, certain preventative maintenance actions should be done on a daily, weekly, or monthly basis.

Daily or Before Every Use

1. Test the throttle trigger.
2. Monitor safety features – chain break and throttle trigger lockout.
3. Keep the air filter clean.
4. Rotate the bar before each use – for more even wear and tear.
5. Check the drive sprocket for wear. Replace if worn out.
6. Inspect the starter and the starter cord; if there is any damage, have it serviced.
7. Tighten any loose parts.

Weekly

1. Check the anti-vibration elements to make sure they are not too soft or torn.
2. Lubricate the clutch drum bearings.
3. Inspect the bar with the chain removed. If there are any burrs, file them.
4. Check the spark plug to ensure it is clean, and the gap is 05 mm.
5. Inspect the starter: clean the flywheel fins and check that the recoil spring is working normally.
6. Clean the cooling fins for optimal heat distribution and cooling.
7. Clean the carburetor, air box, and the screen in the muffler. Replace the muffler, if needed.

Monthly

1. Check the chain brake band (after removing the plastic cover from the bar and the chain).
2. Check the clutch (with the cover still off) – inspect its center, the clutch drum, and the spring.
3. Inspect the fuel filter (replace, if needed) and clean the outer part of the carburetor.
4. Check all the wiring, cables, and plugs for proper connection.
5. Clean the inner part of the fuel tank.

Circular Saws

To ensure the circular saws are in optimal conditions, certain preventative maintenance actions should be done on a regular basis.

1. To make sure the blade does not rust or pit, avoid excessive moisture or humidity.
2. Clean the blade after each use: when materials accumulate on it, more push-through force will be required, which increases heat due to added friction.

3. Avoid overheating by keeping the blade at a proper distance when cutting. If the blade gets overheated, a thermal crack might appear in the carbide, which will cause tip fragments to fly backward.
4. Never use a wire brush when cleaning to avoid damage; use a nylon or a brass brush instead.
5. Never put the blades on steel or cement surface to avoid dulling the blade.
6. Use the correct shipping container to avoid blades rubbing against each other and getting chipped.

Portable Grinders

To ensure the portable grinders are in optimal conditions, inspection and preventative maintenance actions should be done on a regular basis.

Inspection

1. Spindle, wheel flange and lock nut:
 - a. Check that the lock nut is tight, as well as the screws that secure the spindle and wheel flange.
 - b. Check that none of these parts have a crack. If there is one, the wheel could come off during use.
 - c. Check that the spindle or the wheel flange is not deformed. If they were, the wheel would wobble, which would make the motor work harder, decreasing its useful life. It could also cause kickback during cutting.
 - d. Check for smooth movement by spinning the wheel flange around the spindle. There should be no rough movement, and the lock nut should fit tightly and not be stripped.
2. Handles and guards:
 - a. Make sure the handle is tightly attached to the grinder.
 - b. If a handle has padding or insulation, examine it for cracks.
 - c. Make sure the guard is tightly attached to the grinder and is in good condition.
3. Power supplies (both for corded and cordless grinders):
 - a. Check the cord for any cracks, nicks or other damage to make sure that no wires are exposed.
 - b. Check the battery for charge and proper connection to the grinder.
4. Accessories (wheels):
 - a. Check the wheel. If worn out, replace it. A worn-out wheel can damage the grinder and hurt the worker due to kickback.
 - b. Check that the wheel fits easily and is held in place properly by the wheel flange when tightened.
 - c. If there is any suspicion of damage to the wheel, replace it.
 - d. When a problem is found, use identical replacement parts.

Maintenance

Cleaning the grinder after every use, together with timely and regular maintenance, will prolong its useful life.

1. Maintenance on:
 - a. Air vents – remove any debris by blowing them out with compressed dry air (once a week minimum recommended). Make sure the compressed air is used at under 30 psi, with guarding and PPE in place.
 - b. Switch levers – these must be kept clean and free of debris. No pointed objects should ever be put into the openings.
 - c. Liquid wash – the grinder must never be submerged into liquid. Use a cloth dampened with mild soap and water.
2. Preventing kickback will prolong the useful life of a grinder and prevent operator injuries. Do the following to prevent kickback or to at least minimize its effects:
 - a. Hold the grinder firmly. Brace yourself to be able to resist kickback in case it happens.
 - b. Use the secondary handle to better control the grinder. NEVER put your hand near a rotating accessory.
 - c. Stay away from the area to where the tool would kick back to, as much as possible.
 - d. Be extra careful when working on sharp edges or corners, avoiding bouncing and snagging.
 - e. A toothed saw blade or saw chain woodcarving blade should not be attached, as they are more likely to cause kickback.

Chipping guns

To ensure the chipping guns are in optimal conditions, inspection and preventative maintenance actions should be done on a regular basis.

1. Do not press too hard on the tool while working.
2. Choose the correct type of bit based on the material being drilled and the size of the rotary hammer (chipping gun).
3. The end of the bit that goes into the chipping gun must be kept clean to prevent tool holder failure and jamming.
4. To prevent premature wear of the bit holder, grease the bit shank every time bits are changed.
5. Only manufacturer-recommended grease should be used. Weight and viscosity guidelines should be followed.
6. Follow the alerts provided by the tool's LED service lights.

Caulking guns

To ensure the caulking guns are in optimal conditions, inspection and preventative maintenance actions should be done on a regular basis.

1. Keep the gun clean – remove the caulking tube after every use and clean the gun thoroughly, to prevent caulk and dirt buildup. Cleaning should be done with a brush or a wet cloth.

2. Load and unload the gun carefully – make sure to use caulking tubes of proper size and do not force them into the gun.
3. Keep the ratchet lubricated – this will make it easier to pump the caulk and will reduce buildup, making it easier to clean.
4. Store the gun in a cool, dry place – this will prevent damage to the tool.
5. Inspect the gun for damage – look for cracks and broken parts.
6. Remove excess caulk – this should be done before it hardens to make the cleaning easier, and the gun will function properly.
7. Store the caulking tubes correctly – if the tube was not used entirely, seal any gaps on the tube to prevent caulk hardening.

Propane torch

To ensure the propane torches are in optimal conditions and can be used safely, inspection and preventative maintenance actions should be done on a regular basis.

Inspection

Equipment must be inspected and readied before a propane torch is used:

1. Check the expiration date on the cylinder prior to use.
2. Cylinder should be checked for damage.
3. Protective collar should be checked for damage.
4. Foot ring should be checked for rust.
5. Hoses, regulators, valves, gauges, and fittings should be checked for damage, wear, and leakage. Only soapy water may be used when checking for leaks.

If any part of the equipment is damaged or is leaking, repair or replace it before using the torch.

Transportation

Safe practices must be followed when transporting propane cylinders:

1. All cylinders must be secured before being moved. All material in the vehicle's cargo compartment must also be secured so that the cylinders do not get damaged.
2. Propane cylinders must never be transported together with explosives, poisonous gases, poisonous or corrosive liquids, or radioactive materials.
3. Damaged cylinders must NEVER be transported.

Equipment Maintenance

To ensure safe and efficient performance, all equipment must be maintained and inspected regularly.

General requirements for equipment maintenance include:

- Obtaining a copy of the maintenance schedule recommended by the manufacturer.
- Ensuring that maintenance is performed as stipulated.
- Ensuring that the maintenance is done by competent individuals.
- Keeping records of maintenance/service conducted.
- Specifying who is responsible for overseeing equipment maintenance and where the records are kept.
- Setting up a system for removal and tagging of damaged or defective tools and equipment.

The following equipment undergoes regular inspections and maintenance: generators (gasoline powered), water pumps, injection pots, portable pressure washer, small cement mixer, portable scaffolds, and floor concrete grinders. If equipment is damaged and repair is not the most optimal choice, new equipment is purchased.

Generators

To ensure the gasoline-powered generators are in optimal conditions and are safe to use, inspection and preventative maintenance actions should be done on a regular basis. Safe practices must be followed each time such generators are used.

1. Before using a gasoline-powered generator, make sure everything is connected properly.
2. Generators must never be used indoors, even when a door is open.
3. Never “backfeed” power from the generator using a dual male-ended extension cord. Only a transfer switch is a safe alternative to multiple extension cords.
4. Never refill the fuel tank until the engine cools down, since the fuel tank is located on top of the motor. Allow the engine to cool for 15 minutes.
5. The best practice is to use two 5-gallon cans to refill the tank safely. High-quality steel gas cans with a trigger control valve are preferable.
6. Sufficient motor oil and filters must always be available in case of extended use. The first oil change is due after 25 hours; after that, oil needs changing every 50 to 60 hours.
7. Cord length should be limited (to less than 100 feet), even when using heavy-duty, 12-gauge, outdoor-rated extension cord, to prevent premature appliance motor and compressor burnout.
8. Do not let the generator run out of gas, as that will drain the residual magnetic field from the generator coils, and the generator will not start once it is refilled. It will have to be repaired.
9. Use fresh stabilized gas to prevent gum buildup.

Water Pumps

To ensure the submersible water pumps are in optimal conditions and are safe to use, inspection and preventative maintenance actions should be done on a regular basis.

IMPORTANT: Before any maintenance is done, follow the safety procedures on lockout/tagout.

1. Check for any loose or faulty electrical connections within the control panel.
2. Check amperage draw on all phases of the motor (in Amps).
3. Check condition and operation of leakage and bearing sensors (if equipped).
4. Change the oil.
5. Check the pump for worn or loose impeller or propeller.
6. Check impeller wear rings (both rotating & stationary).
7. Adjust clearances, whenever needed, to ensure optimal operation.
8. Check for any unusual noise in the upper and lower bearings.
9. Check if power and control cables have not been damaged.
10. Check that the shaft rotates correctly.

Injection Pots

To ensure the injection pots are in optimal conditions and are safe to use, inspection and preventative maintenance actions should be done on a regular basis.

These pots are made of high-pressure resistant steel plate, with the anti-rust treated surface. There are two kinds of tanks. Upper type tanks are used for regular paint, while lower type tanks – for high viscosity materials. They also come in air-power automatic type and manual type.

IMPROTANT: The maximum pressure must not exceed the allowed scope, as specified in the table below.

Model	Use	Volume	Pressure	Operation Form	Painting Outlet	Material Tank Size	N.W. (kg)	G.W. (kg)
		(L)	Mpa(kgf/cm ²)			(ØmmXmm)		
RT-10AS	Mass	10	0.3(3.0)	Automatic	1/4x1	248x185	18.3	19.9
RT-20AS	Amount	20			1/4x2	292x365	23.7	26.3
RT-40AS	Spary (Stainless)	40	0.09(0.9)		350x395	31.3	34.9	

Portable Pressure Washers

To ensure the pressure washers are in optimal conditions and are safe to use, inspection and preventative maintenance actions should be done on a regular basis.

IMPORTANT: When using electric power washers, all electrical connections must be kept dry and off the ground. Plugs must NEVER be touched with wet hands.

Before Use

Before beginning pressure washing, do the following:

1. Check the water inlet screen. Clean it if dirty or replace it if damaged.
2. If there is an inlet screen in the wand extension, check it for potential clogging. Clean it if dirty or replace it if damaged.
3. Check the spray gun, wand extension, and spray tip. Ensure that all connections are secure, including the one to the high-pressure hose.
4. Test the spray gun trigger and trigger lock. Replace the spray gun if not functioning correctly.
5. Check the high-pressure hose to see if there are cuts, leaks, bulges or other damage. Inspect the hose couplings. If the hose is damaged, follow manufacturer's guide for replacement procedure.
6. Check the detergent siphoning tube for potential clogging. Clean it if dirty. If the detergent system has a filter, it should be checked.
7. The hose needs to be flushed out before being connected.

After Use

After pressure washing, do the following:

1. To rinse detergent from the pressure washer, remove the detergent siphoning tube from the detergent supply and set the spray to low pressure. Run water through the system for one or two minutes.
2. To relieve pressure, turn off the pressure washer and the water supply. Unplug the machine from the electrical outlet. Drain it until the water stops flowing, making sure to point the spray gun away.
3. Engage the trigger lock, allowing the pressure washer to cool down.
4. Drain water from the hose, spray gun, wand extension and high-pressure hose, after disconnecting them.
5. To remove any remaining water from the pump, turn the machine on until the water exits the pump and then turn it off immediately.
6. Remove any debris.

Other Maintenance

Pressure washer manual should be checked for other maintenance procedures, including the following:

1. Clearing clogs in the spray tip or adjustable nozzle.
2. Lubricating the connections for the hose, spray gun and wand extension.
3. Replacing O-rings in the water-inlet, high-pressure hose and spray-gun connections.
4. Cleaning debris from the cooling vents.
5. Inspecting the muffler and spark arrestor (if any).

Long-Term Pressure Washer Storage

If the pressure washer will be stored at colder temperatures or for periods longer than a month, the following should be kept in mind:

1. Follow the same maintenance steps as after any use.
2. Store the machine in a dry area, protected against extreme temperatures.

3. Use a pump lubricant/antifreeze, which helps prevent damage from mineral deposits in addition to lubricating seals and pistons, as well as protecting the machine against freezing.
4. Pressure washers should be protected with a cover that holds in no moisture.

Cement Mixers

To ensure the cement mixers are in optimal conditions and are safe to use, inspection and preventative maintenance actions should be done on a regular basis.

Following these steps will ensure proper performance:

1. Mixes must be cleaned after every use. Use a water hose to wash away cement before there is any concrete buildup.
2. If concrete does build up, use a pressure washer to remove it. If that fails, chip off the buildup.
3. Keep the motor clean by using an air compressor to blow out cement and any other dust particles.
4. Grease the mixer parts and pulley to prevent damage from friction and extend the lifespan of the concrete mixer.

Portable scaffolds

To ensure safe operation, maintenance and inspection procedures must be followed before and during scaffold use.

Before Installation

The location where scaffolding is to be placed is to be checked for the following:

1. ground conditions
2. overhead electrical wires
3. obstructions
4. variation in surface elevation
5. tie-back locations and methods
6. potential wind-loading conditions

Loads and Requirements

Before installing a platform, always consider the intended load. To reduce the impact of point loading, all workers, including those erecting the scaffolding, should always try to distribute loads uniformly on the scaffold.

Double planking on decks may be needed where pallets of masonry materials must be supported. Such pallets should be placed over the frame supports whenever possible.

IMPORTANT: Regularly inspect the support planks for damage and/or deterioration.

Housekeeping

Since scaffold decks are usually narrow, tools and materials used should be organized. No debris or waste materials should be allowed to collect on the platform, since they create a trip hazard.

Inspection

1. Inspection frequency:
 - a. Before every use
 - b. After a period of inactivity of two days or more
 - c. After severe weather

2. Issues to look for:
 - a. damage to frames
 - b. braces and other structural components
 - c. damage to hooks on manufactured platforms
 - d. splits, knots and dry rot in planks
 - e. scaffolding that has been in place for a long time

Floor concrete grinders

To ensure safe operation of a floor concrete grinder, maintenance and inspection procedures must be followed.

1. Disconnect the grinder from the power source before doing any maintenance.
2. Always work on a flat and level surface.
3. Grease bearings after every 50 hours of use.
4. Do a visual inspection before each use. Make sure all fasteners are tight and secure, metal has no cracks, and electrical wiring is not damaged. Check bearings and make sure proper guards are in place and secure.
5. Inspect belts before each use, checking for their tension. In case of using new equipment, re-tension belts after the first few hours of use. Replace any damaged, stretched or excessively worn belts (Proper belt tension is essential in ensuring efficient transmission of the engine/motor power to the grinding disc.).
6. Before each use, check the grinding discs to ensure they are tight (they become loose with use).
7. Before each use, check Neoprene bushing; replace if worn out.

Vehicle Maintenance

To ensure safe and efficient performance, all vehicles must be maintained by a licensed mechanic and inspected regularly.

Preventive Maintenance for Vehicles

Title:	Preventive Maintenance for Company Vehicles	Date of Issue:
Approved by:		Review/Revise Date:
Location:		
<ol style="list-style-type: none"> 1. All company vehicles must be on the master preventive maintenance inventory list. 2. The vehicles will be maintained in accordance with the preventive maintenance program outlined in the owner's manual. 3. Preventive maintenance will be conducted every 5,000 to 10,000 kms, depending on oil type used. 4. The standards outlined in the manufacturer's preventive maintenance program will be followed. The maintenance chart in the booklet will be used for recording all maintenance. 5. All maintenance will be conducted at the local licensed mechanic shop. 6. It is the responsibility of management to review the company's preventive maintenance program on an annual basis, to ensure continuous improvements. 7. Recommendations that are discovered as a result of the annual review or throughout the year will be documented and submitted to management. 8. Management will follow up on the corrective actions on a pre-determined time frame (to be determined on a case by case basis) to ensure that the corrective actions have been completed. 		
Filing System		
The maintenance department will establish a filing system to maintain the maintenance records.		
Records		
Maintenance Recording Form Maintenance Schedule Matrix		
Approval signature:	[signature]	
Document to be posted?	[Yes/No]	
Distribution to:	[distribution]	

Maintenance Schedule Matrix

Vehicle license number	Year/Model	Next Service Date	Who does maintenance



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Training and Communications

2022

4th Edition

Effective Date:	Jan. 2022		Approved By:	Boris Gopka, Executive Director
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Version	Date	Author	Rationale
1.0	Oct. 31 st , 2019	Olena Vynnychuk	Review
2.0	Jan. 3 rd , 2020	Nataliya Muriy	COR-based
3.0	Jan. 4 th , 2021	Nataliya Muriy	COR-based
4.0	Jan 24 th , 2022	Nataliya Muriy	COR 2020-based

Training and Communications Policy

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the *Occupational Health and Safety Act*, and all associated regulations and agreements.

As part of our Health and Safety Program, we have established a policy on orientation, training and communication. Every employee at Joint Seal must undergo orientation and training as applicable to their duties. Communication must be maintained at all times among all workplace parties: management, supervision, workers, and subcontractors. Timely communication with our customers is also key to our success.

Orientation

There is an established orientation program for new employees which covers company rules and procedures, employee rights and duties, as well as health and safety concerns (see the corresponding section below) and has been standardized for company-wide use.

SECTION REMOVED!!

All new employees will be given orientation by their supervisor on company rules and procedures, employee rights and duties, as well as health and safety and other applicable policies. Each employee shall sign an acknowledgement at the end of the orientation session.

Training

To ensure the competency of each employee, they will be given training by their supervisor before starting a specific job type: crack repair, patching, caulking, and expansion joint injection. Site supervisor verifies each employee has been trained in the corresponding job types, before work on a new site begins.

Office employees, supervisors and management are trained on their respective duties. Upon completion, employees sign the acknowledgement of having received and understood the training. Employees are observed by supervisors to further ensure they are applying the training received.

New Employees

All new employees of Joint Seal Waterproofing will read and review our Health and Safety Policy with their supervisor. Upon completion, the worker will sign the acknowledgement of acceptance and understanding of his/her obligations and responsibilities.

The supervisor will complete the *New Worker Orientation Checklist* with the employee before they start working on site. The completed checklist will be submitted to management to be kept on file at the head office.

All Employees

The supervisor will complete the Job Hazard Assessment before starting each new job, using the OneBuilder app to document it. Upon completion, the supervisor shall review the checklist items with all the employees that will be working on a given site.

Sub-contractors

Subcontractor orientation will require the completion of a Job Hazard Assessment (JHA) for each trade prior to the start of work. Joint Seal supervisor will review and accept or modify the proposed JHA, as required. Sub-contractor supervisor will be trained on jobsite-specific particulars and will then review the information with their workers, with a copy of the final PSA signed off and kept on site.

At least once per year, management will review the orientation policy and procedures, training materials, and communication procedures.

Sincerely,

Rick Rawlinson
VP of Development

Date: January 24th, 2022

Training Procedure

As part of our Health and Safety Program, we have established a procedure on orientation and training. Every employee at Joint Seal must undergo orientation and training as applicable to their duties.

Roles and Responsibilities

Office Administrator

In order to ensure training and orientation are done on a regular basis and in a timely manner, the company office administrator shall keep records of the training completed and the training to be assigned by using a word document or an excel spreadsheet. The office administrator shall assign the necessary courses through the HRDownloads platform or make arrangements for workers to take courses such as First Aid or Working at Heights from an external institution.

The administrator shall also keep all the certificates obtained as electronic files contained within the employee files. These certificates are proof of employee learning – upon completion of each course, each participant must take an exam and achieve a minimal score of 80% in order to obtain the certificate. For hands-on training, the supervisors shall observe the worker until they determine the worker is following the repair procedures correctly and safely.

Supervisors

All supervisors are responsible for providing the practical hands-on training as required based on the type of work that must be carried out. This training must be completed before the worker shall perform a new task.

Please refer to the Training Section below for the type of training provided. Supervisors must be competent in crack repair, patching, caulking, and expansion joint injection in order to train the workers. They must also take any training assigned.

Workers

All the workers must take any training assigned, whether the hands-on training or courses available through the HRDownloads platform, or by attending courses at external institutions.

Orientation Program

Orientation is mandatory for every worker, including new and young workers, returning workers, or when there is a change of role. It must be completed when workers are new to the company and when they are to begin working at a new jobsite.

New Employee

All new employees will be given orientation by their supervisor on company rules and procedures, employee rights and duties, as well as health and safety and other applicable policies. Each employee shall sign an acknowledgement at the end of the orientation session.

New Jobsite

Each time work is to commence at a new jobsite, all employees involved – whether new or existing – will receive orientation on jobsite particulars once the Job Hazard Assessment (JHA) is completed. The names of those present on the jobsite during this orientation shall be recorded on the JHA format on the OneBuilder app.

Training

To determine what Occupational Health and Safety (OHS) training is required, the following must be kept in mind:

- i. A training needs analysis shall be conducted.
- ii. Legislation and any other training requirements shall be reviewed.
- iii. Different levels of responsibility, abilities, language skills and literacy shall be kept in mind. For example, a Spanish version of the courses available through the HRDownloads shall be recorded in video format, or an interpreter shall be provided for hands-on training and for courses taken at external institutions.
- iv. Orientation shall also be provided on the company's Occupational Health and Safety Management System (OHSMS) – to include its purpose, roles, responsibilities and rights, importance of conformity, as well as the consequences of not adhering to the OHSMS (as outlined in the Progressive Disciplinary Policy contained within the Company Rules section of this manual).

Every worker must receive the following training: 4-Step Occupational Health and Safety Awareness for Workers (MOL), WHMIS 2015, Violence and Harassment Awareness, AODA, Right to Refuse Unsafe Work, Using a Fire Extinguisher. Some of the workers shall also be sent for First Aid training. Working at Heights, Confined Spaces, and Mobile Elevating Work Platforms training will be provided to those whose work directly requires it.

Every supervisor must receive the following training: 5-Step Occupational Health and Safety Awareness for Supervisors (MOL), WHMIS 2015, Violence and Harassment Awareness, AODA, Right to Refuse Unsafe Work, Using a Fire Extinguisher, First Aid, Working at Heights, Workplace Inspections, and Incident Investigation training. Confined Spaces training is to be taken by those who will supervise such projects.

On-site Training for Workers

All field workers, including supervisors must be competent in the following repair methods: crack repair, patching, caulking, expansion joint injection, ledge beam waterproofing, and waterproofing membrane application.

On-site workers will be trained by their supervisor before beginning each job type: crack repair, patching, caulking, expansion joint injection, and waterproofing membrane installation. The supervisor shall explain and demonstrate how each type of work is done – step-by-step; he/she will then closely supervise the trainees as they attempt to carry out the same procedure.

Employees will go through a checklist for each job type and sign the acknowledgement of having been trained on each specific job type.

Crack repair

To repair a cracked concrete surface, the following procedure is applied:

1. Cracks are opened to prep the area for repair:
 - a. Grinder – for small think cracks.
 - b. Chipping gun – for large deep cracks.
 - c. Circular saw – for long cracks.
2. Adhesive is applied with a brush.
3. The crack is patched with the Polyforce Polymer Cement.
4. Waterproofing Polyforce Plus Primer is applied over the area.

Patching

To patch a concrete surface, the following procedure is applied:

1. Delaminated concrete is removed with a chipping gun.
2. Adhesive is applied with a brush.
3. Patching is done:
 - a. Prepare the patching mix (for ceilings, use the parging mix and Cement All at 50:50. For walls and floors, use the parging mix and Cement All at 75:25.):
 - i. First add some water in the container.
 - ii. Add the parging mix and the Cement All.
 - iii. Stir the mix with a trowel or a mixer.
 - iv. Continue adding water and mixing until you achieve a dough-like consistency.
 - b. Apply the patch – patch thickness will depend on the depth, length and width of the area to be covered. For thin patches, polymer cement is used.

Patching with polymer cement

A mix of polymer cement and Cement All is used for patching in cold weather to prevent new concrete from cracking, and for thin patch applications, as both fast-drying materials. The proportion used to make the mix is Polymer cement and Cement All at 3:1.

Follow the same procedure as for making the patching mix.

4. Parging is done only when necessary (when the client requests that the patching be blended in with the rest of the concrete surfaces, as is often the case on balcony surfaces):
 - a. Prepare the parging mix (same procedure as the patching mix).
 - b. Apply the mix with a trowel.
 - c. Apply the finish with a polyethylene trowel.
5. Primer and paint (if needed/requested) is applied with a brush.

Caulking

Caulking is used to seal joints or seams against leakage in a variety of structures. One of the typical applications is caulking done around the window frames.

To apply new caulking, the following procedure is applied:

1. Remove old caulking with a snap-off retractable utility knife, scarping the surfaces adjacent to the seam.
2. Vacuum up the debris and the open joint/seam.
3. Set the width of the joint by putting tape around both edges, pressing down firmly along the edge of the tape to ensure a tight seal:
 - a. The width of the caulk joint will be controlled.
 - b. The surrounding surfaces will not be smeared.
4. Apply new caulking:
 - a. Apply the caulk at a 45-degree angle between horizontal and perpendicular.
 - b. Draw the tip of the caulk tube along the length of the joint while slowly squeezing the handle of the caulk gun. The speed should be slow yet consistent to ensure good end results.
5. Smooth the joint:
 - a. If smoothing the caulk with fingers, wet your finger and a corner of a cloth rag with alcohol. Otherwise, use a popsicle stick.
 - b. Smooth the caulk joint, working from one end to another, while applying steady pressure.
 - c. Remove excess caulk from finger with the dampened rag and re-wet your finger.
 - d. Continue smoothing the joint until finished.
6. Remove the tape. Do it slowly, pulling it away at an angle, not toward the joint.

Expansion joint injection

To waterproof an expansion joint, the following steps are taken:

Floor expansion joints

1. Prepare the caulking gun:
 - a. Place the PolyFlex cartridge in the caulking gun.
 - b. Place the nozzle (that will mix the two components of PolyFlex).
2. Inject the material into the joint until the whole joint is filled.

Wall expansion joints

1. Put duct tape from wall level to the height of about two feet.
2. Prepare the caulking gun:
 - a. Place the PolyFlex cartridge in the caulking gun.
 - b. Place the nozzle (that will mix the two components of PolyFlex).

3. Inject the material into the joint until it reaches the end of the tape.
4. Place a new piece of tape over the next two feet, making sure it overlaps the previous piece by about two inches. Continue injecting and placing more tape until the entire joint is filled, all the way to the ceiling.

Ceiling expansion joints

1. The joint is cleaned.
2. Backer rod is inserted.
3. Liquid material is injected behind the backer rod.

NOTE: Special care must be taken – work must be done on a secure firm platform, a face shield must be used in addition to safety glasses, and workers must take regular breaks because this work is done in an unnatural position which causes tension.

Ledge Beam Waterproofing

To waterproof a ledge beam, it is necessary to injection the expansion joint located on top of it.

The following procedure is applied:

1. Drill an injection port with a ½ inch concrete bit. Stop drilling when you reach the expansion joint:
 - a. If it is full of water, the liquid will come out.
 - b. Otherwise, you will feel a push and hear a difference in the drilling sound.
2. Cut out an 18-inch-long piece of polyethylene tubing (with a 3/8 inch inside diameter and ½ outside diameter) and paint 10 inches of it with Polyforce Adhesive.
3. Place this tubing inside the injection port, leaving about 8 inches of it hanging over.
4. Paint approximately 3 inches around the protruding tube with Polyforce Adhesive.
5. Reinforce the entry port with a Cement All and black cement mixture (in a half liter cup, add half a cup of Cement All and 1/8 of black cement, and add enough water for a dough-like consistency). Let it dry for about 20 minutes or use a propane torch for faster drying. Once the reinforcement is dry, the expansion joint is ready for injection.
6. Place a 3/8 inch copper coupling inside the protruding tube on one side and the injection pot tube on the other, to join the two.
7. Use clamps to ensure the coupling stays in place, firmly joining the two tubes.
8. Prepare the material for injection:
 - a. If using PolyFlex, take half a liter of each of the PolyFlex two components and place them into a round bucket. If using polyurethane, take the hardener and the base (1:10 proportion) and place them into a round bucket.
 - b. Mix the two components.
 - c. Insert the bucket into the injection pot.
9. Tighten the lid on the injection pot.
10. Connect the air hose to the injection pot and the compressor.
11. Turn on the compressor and the valve on the pot to start the injection.

Waterproofing Membrane Application

To install a waterproofing membrane, this procedure must be followed:

1. Prepare the surface by grinding or sandblasting.
2. Repair any cracks.
3. Apply patches, as needed.
4. Coat the entire surface with primer.

5. Install the waterproofing membrane – roll-on or spray-on.
6. Apply a topcoat – broadcast with aggregate for a non-slip surface.

Office Workers

Health and Safety

At least one office staff member must be trained in First Aid, 4-Step Occupational Health and Safety Awareness for Workers (MOL), WHMIS 2015, Violence and Harassment Awareness, AODA, Right to Refuse Unsafe Work, Using a Fire Extinguisher.

Supervisors

Health and Safety

Every supervisor must receive the following training: 5-Step Occupational Health and Safety Awareness for Supervisors (MOL), WHMIS 2015, Violence and Harassment Awareness, AODA, Right to Refuse Unsafe Work, Using a Fire Extinguisher, First Aid, Working at Heights, Workplace Inspections, and Incident Investigation training. Confined Spaces training is to be taken by those who will supervise such projects.

Managers

Health and Safety

At least one of the managers must receive the following training: 5-Step Occupational Health and Safety Awareness for Supervisors (MOL), WHMIS 2015, Violence and Harassment Awareness, AODA, Right to Refuse Unsafe Work, Using a Fire Extinguisher, First Aid, Working at Heights, Workplace Inspections, and Incident Investigation training. Confined Spaces training is to be taken by those who will supervise such projects.

Communication Procedure

As part of our Health and Safety Program, to ensure everyone's safety, we have established a communication procedure. Communication must be maintained at all times among all workplace parties: management, supervision, workers, and subcontractors. Timely communication with our customers is also key to our success.

Roles and Responsibilities

Management

Senior management must hold company-wide Occupational Health and Safety (OHS) meetings on an annual basis, or more frequently if needed, ensuring that all the workers have an opportunity to participate providing their input. Managers must also ensure timely communication with customers.

Management will receive, document, and respond to internal and external OHS communication, as needed.

Supervisors

Every supervisor must maintain direct communication with workers – whether in person or over the phone – reporting any concerns or suggestions to management. They must make sure that all communication with workers is delivered in an easy-to-understand way, considering worker abilities, literacy levels and language skills.

Supervisors must help with client communication, as needed.

One of the supervisors shall be in charge of delivering weekly Safety Talks, while each supervisors must provide safety reminders to their crews on a daily basis. The Weekly Safety Talk format must be filled out by the supervisor in charge, and all the workers present must sign it.

Workers

Every worker must maintain direct communication with their immediate supervisor, immediately reporting any hazard or any health and safety concern, as well as providing other types of input, such as suggestions for improving processes.

Record Keeping

The following communication records must be kept: annual Safety Meeting Minutes, and Weekly Safety Talk formats that include the topic covered, the date, and worker signatures.



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Workplace Inspections

2022

4th Edition

Effective Date:	Jan. 2022		Approved By:	Boris Gopka, Executive Director
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Version	Date	Author	Rationale
1.0	Oct. 31 st , 2019	Olena Vynnychuk	Review
2.0	Jan. 3 rd , 2020	Nataliya Muriy	COR-based
3.0	Jan. 4 th , 2021	Nataliya Muriy	COR-based
4.0	Jan 24 th , 2022	Nataliya Muriy	COR 2020-based

Workplace Inspections Policy

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the *Occupational Health and Safety Act* and all associated regulations and agreements.

As part of our Health and Safety Program, we have established a Workplace Inspection Procedure for our facilities: office and jobsites. The following tools, equipment and vehicles must be inspected before each use – inspection forms must be filled out, following the checklists (all the inspection forms and checklists are provided in the corresponding sections below):

Tools: chain saws, circular saws, power tools, propane torch, portable grinders, extension cords.

Equipment: generators, water pumps, injection pots, pressure washer, cement mixer, portable scaffolds, floor concrete grinders, and Graco machines.

Vehicles: 2016 Ford E450, 2018 Ram ProMaster 2500, 2014 Nissan NV200, 2012 Nissan Frontier, 2011 GMC Sierra, 2010 GMC Sierra.

Ensuring that our facilities, tools, equipment, and vehicles are in optimal conditions will allow us to achieve our common goal – a healthy and safe environment for all.

Safety for all – our common goal!

Safety is everyone's responsibility, and timely workplace, tool, equipment, and vehicle inspections is one of the key components to achieving and sustaining this goal.

Sincerely,

Rick Rawlinson
VP of Development

Date: January 24th, 2022

Workplace Inspections Procedure

To ensure that all the necessary inspections are carried out in a timely manner, all workplace parties – management, supervisors, and workers – must do their part.

Roles and Responsibilities

Management

Managers shall check the inspections records on a regular basis to ensure compliance.

Supervisors

Supervisors must carry out office and jobsite inspections, with the purpose of identifying and recording hazards, preventing potential non-conformities, and determining which corrective actions might be needed. Corrective actions to be taken must be recorded on the same Job Hazard Assessment or Weekly Inspection format used for inspection documentation on OneBuilder. Please refer to the Inspections section below to determine which of the two formats is needed.

Supervisors shall also inspect their equipment, tools, and vehicles before using them for the first time on a given day, in accordance with current legislation and manufacturer requirements. All the findings are to be recorded in the corresponding formats on the OneBuilder app and communicated to senior management. Should a tool or a piece of equipment be found defective, the corresponding procedure – see the “Defective Tools or Equipment” section below – must be followed.

Workers

Workers will also participate in inspections by checking their own equipment and tools before using them for the first time on a given day, in accordance with current legislation and manufacturer requirements. They must document their inspection using the corresponding formats on the OneBuilder app. They must report any hazards they detect, as well as any defective tools and equipment to their direct supervisor.

Should a tool or a piece of equipment be found defective, the corresponding procedure – see the “Defective Tools or Equipment” section below – must be followed.

Inspections

The office must be inspected on a monthly basis, while each jobsite should be inspected before the work commences (use the Job Hazard Assessment format) and on a weekly basis (use the Weekly Inspection format) should the work continue for more than a week. Circle check should be performed on company vehicles, and tools and equipment must be inspected before they are used for the first time on a given day.

The corresponding forms must be filled out by using the OneBuilder app. All the inspection forms must be filled out completely, in accordance with the current legislation.

Defective Tools or Equipment

If a tool or a piece of equipment is found to be defective, it must not be used and must be labeled as “Defective – Do Not Use”, as outlined in the document on Preventative Maintenance.

Definition

Hazard – any source of potential damage, harm or adverse health effects on something or someone under certain conditions at work (Canadian Centre for Occupational Health and Safety, 2011).

Risk – chance or probability that a person will be harmed or experience an adverse health effect if exposed to a hazard. It may also apply to situations with property or equipment loss (Canadian Centre for Occupational Health and Safety, 2011).

Guidelines

Prior to conducting a Workplace Health and Safety Inspection, the following materials shall be gathered:

- Equipment and power tools inventory
- Manufacturer's safety manuals
- Workplace Inspection Checklist
- Previous Inspection Reports
- Ensure recommendations were implemented

Workplace Hazards

When conducting a workplace inspection, the inspector may encounter some, or all of the following hazards:

- Safety Hazards (i.e., inadequate machine guards, unsafe workplace conditions, unsafe work practices)
- Biological Hazards (i.e., viruses, bacteria, fungi, parasites)
- Chemical Hazards (i.e., liquid, vapours, fumes, dust, gas)
- Ergonomic Hazards (i.e., repetitive and forceful movements, temperature extremes, improperly designed workstations)
- Physical Hazards (i.e., noise, vibration, energy, water, electricity, radiation, pressure)

Workplace Inspection Principles

The Canadian Centre for Occupational Health and Safety states that when a workplace inspection is being conducted, the following principles shall be adhered to (Canadian Centre for Occupational Health and Safety, 2011):

- Draw attention to the presence of any immediate danger -- other items can be outlined on the final report.
- Shut down and "lock out" any hazardous items that cannot be brought to a safe operating standard until repaired.
- Do NOT operate equipment – instead, ask the operator for a demonstration. If the operator of any piece of equipment does not know what dangers may be present, this is cause for concern. Never ignore any item because of the lack of knowledge to make an accurate judgement of safety. Find out the missing information.
- An inspection must be thorough: look up, down, around and inside.

- Clearly describe each hazard and its exact location in notes draft, making records immediately. In case the inspection is interrupted, record what has and has not been examined.
- Ask questions without disrupting work activities, unless absolutely necessary, as such interruptions may interfere with efficient assessment of the job function and may also create a potentially hazardous situation.
- Discuss with workers, "Can any problem, hazard or accident generate from this situation when looking at the equipment, the process or the environment?" Determine what corrections or controls are appropriate.
- Do not try to detect all hazards simply by relying on your senses or by looking at them during the inspection: equipment may have to be monitored to measure the levels of exposure to chemicals, noise, radiation or biological agents.
- If it not possible to clearly describe or sketch a particular situation, take a photograph.

Final Inspection Report

If there are any unfinished items on the previous report, record them onto the next report to ensure they are first on the list to be inspected (see a sample report form below).

Safety for All

Safety is everyone's responsibility, and regular inspections are one of the key components to achieving and sustaining this goal.

Sincerely,

Rick Rawlinson
VP of Development

Date: January 24th, 2022

Workplace Inspection Report

A Workplace Inspection Report will contain the following information:

Workplace Inspection Report

Inspection Location:					Inspection Date:		
Department/ Area Inspected:					Inspection Time:		
Observations				For Future Follow-Up			
Item & Location	Hazard(s) Observed	Repeat Item	Recommended Action	Responsible Person	Action Taken	Date	
		Yes/No					

Tool Inspection

Chainsaws

Inspection Item: Chainsaw	Yes	No	N/A	Comments
Are all covers on the chainsaw in place and secured, and all screws and bolts tightened?				
Are all fluid reservoirs, caps, hoses or connections (such as for fuel, oil, and chain lube) properly seated and free of leaks?				
Is the muffler in place and free of damage or deterioration?				
Is the chain sharp, and free of damage?				
Is the chain set and maintained at the correct tension, per manufacturer's recommendations?				
Is there adequate chain lube in the reservoir?				
Is the tip guard in place on the saw (if equipped)?				
Is the chain brake functioning (if equipped)?				
Is the guide bar for the chain free of excessive wear, burrs, warpage, build-up of materials, or other damage?				
Do all switches (throttle lock, kill switch) function properly?				
Is the saw operator provided with and using all required personal protective equipment?				
Is there adequate space for the operator to maintain a stable stance and avoid falling material?				
Other observations:				
SIGNATURE:			DATE:	

Circular Saws

Inspection Item: Circular Saws	Yes	No	N/A	Comments
Does the retracting lower blade guard work freely?				
Is the lower guard spring operating properly?				
Is the blade sharp enough?				
Is the blade rotating properly?				
Is the blade depth set properly (the lowest tooth not extending more than 0.3 cm (1/8") beneath the surface being cut)?				
Is the motor free from dust and chips?				
Other observations:				
SIGNATURE:			DATE:	

Portable Grinders

Inspection Item	Yes	No	N/A	Comments
Is the outer case / body of the grinder free of cracks and breaks?				
Are all screws and fastenings on the outer case / body in place and tight?				
Is the power cord (including plug) free of breaks and/or other damage?				
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?				
Is the abrasive wheel in use suitable for the materials being ground (see label)?				
Is the abrasive wheel in use rated at the same (or greater) RPM's as the grinder (see label)?				
Is the abrasive wheel in use free of cracks, chips, other damage or deterioration?				
Was the abrasive wheel in use ring tested before mounting?				
Is the arbor opening (center hole) or bushing hole on the abrasive wheel in use the proper size for the grinder?				
Does the grinder run smoothly and properly when operated (free of unusual vibration/sounds/excessive heat)?				
Is the grinder operator provided with and using proper personal protective equipment?				
Other observations:				
SIGNATURE:				DATE:

Chipping Guns

Inspection Item: Chipping Guns	Yes	No	N/A	Comments
Is the chord in good condition (not frayed)?				
Are the prongs bent or broken?				
Has the bit been lubricated?				
Has the handle been tightened?				
Other observations:				
SIGNATURE:			DATE:	

Caulking Guns

Inspection Item: Injection Pot	Yes	No	N/A	Comments
Is the pot clean inside?				
Are the nuts and bolts clean?				
Can the nuts be tightened without effort?				
Is the conduit clean?				
Are the clamps in proper position?				
Other observations:				
SIGNATURE:			DATE:	

Propane Torch

		Yes	No
Trolley	Good condition		
Cylinders			
Secured	Upright & chained		
Gas Type	Appropriate for task		
Labelling	Correctly labelled with name of gases		
Valves	Clean; uncontaminated; no PTFE		
Regulators			
Body Front & Pressure Adjustment Screw	Undamaged; Standard Marked BS EN ISO 2503		
	Labelled showing correct for gas in use; manufacturer's name visible		
	Inlet & outlet pressure appropriate		
	Fixed to body & operates freely		
Bullnose & Outlet Connection (N/A if regulator already fitted)	Undamaged; uncontaminated; unmodified; no PTFE		
	90° to body		
Pressure Relief Valve (where fitted)	In place; unmodified		
Gauges	In place; correct type		
	Undamaged; unmodified; no PTFE		
	Needles start at zero; positioned at correct side of stop; unbent		
	Backs in place		
Flashback Arrestors			
Body	Undamaged; standard marked ISO 5175; EN 730 -1		
Connections	Clean; uncontaminated; no PTFE		
Pressure Rating	Legible; suitable for cylinder		
Replacement Interval	Where date stamped under 5 years or manufacturer's recommendation		
Reset Button (if any)	Not tied down, restricted, modified or damaged		
Hoses			
Hose <i>Note: Taping together hoses may hide damage & may present a fire hazard & therefore not recommended by PGS</i>	Correct colour code		
	Standard marked ISO 3821 or EN 559		
	Undamaged		
	Appropriate connections		
	Uncoiled from cylinders when in use		
Fittings	Appropriate thread; clean; uncontaminated		
Non return/ Hose Check Valves	Fitted to each hose		
Torch			
Torch Valves	Operate freely to full extent & remain attached to torch; undamaged		

Inlet Filters & Connections	Clean; uncontaminated		
Handle	No excessive play		
Body	Undamaged; clean		
	No discolouration		
Pipework	Straight; undamaged		
Nozzle Seat	Undamaged; uncontaminated; no PTFE		
	Threads in good condition		
	Round in shape, not oval		
Nozzle & Nut	Correct type from nozzle data; undamaged; uncontaminated		
SIGNATURE:	DATE:		

Equipment Inspection

Generators

Inspection Item: Generator	Yes	No	Comments
Is the gas tank lid closed properly?			
Is the oil level sufficient?			
Is the hose in good condition?			
Are there any leaks?			
Are the outlets in good condition?			
SIGNATURE:			DATE:

Water Pumps

Since the pump is completely sealed, visually inspect the condition of its cables: ensure they are not frayed or torn.

Injection Pots

Inspection Item: Injection Pot	Yes	No	N/A	Comments
Is the pot clean inside?				
Are the nuts and bolts clean?				
Can the nuts be tightened without effort?				
Is the conduit clean?				
Are the clamps in proper position?				
Other observations:				
SIGNATURE:			DATE:	

Portable Pressure Washers

Since the pressure washer is completely sealed, visually inspect the condition of its cable and hose: ensure they are not frayed or torn, and that the hose is not leaking.

Cement Mixers

Inspection Item: Cement Mixer	Yes	No	Comments
Are any parts broken or missing?			
Is proper guarding in place?			
Is the electrical power cord in good condition?			
Is there a Ground Fault Circuit Interrupter protection for use outdoors?			
SIGNATURE:			DATE:

Portable Scaffolds

Inspection Item: Portable Scaffolds	Yes	No	Comments
Are scaffold components, planking/decking in good condition? Planks graded for scaffold?			
Are all scaffold components in place and without defects?			
Are Mud Sills properly placed and adequately sized when required?			
Are screw jacks being used to level and plumb scaffold when required?			
Are base plates and/or screw jacks in firm contact with mudsills and frame?			
Is scaffold level and plumb?			
Are scaffold legs braced, with braces properly attached?			
Is guard railing in place on all open sides and ends?			
Are clamps secured in place?			
Is scaffold secured to structure to prevent movement?			
Are brackets, tube and clamp, and accessories properly placed with wedges tightened?			
Has the area around scaffold has been secured/roped off?			
Do planks have minimum 12" overlap and extend 6" beyond supports?			
Are toe boards properly installed when required?			
Is there proper access to get on and off the scaffold? Is a ladder secured in place?			
Has the scaffold control tag been signed and approved for use?			
If inspection reveals scaffold is unsafe to use, has "Do Not Use" tag been placed at all access points?			
SIGNATURE:			DATE:

Floor Concrete Grinders

Inspection Item: Floor Concrete Grinders (General Requirements)	Yes	No	Comments
Do grinding wheels fit freely on the spindle?			
Is forcing the grinding wheel on the spindle prohibited?			
Are all wheels closely inspected and sound tested by the user (ring test) to make sure they have not been damaged before being mounted?			

Note: Good wheels should produce crisp ringing type sounds. If wheel has a dead thud type sound, then discard wheel.			
Is the RPM or SFM rating of the grinder compatible with the RPM OR SFM rating of the wheel? Note: RPM or SFM rating of the grinder should not exceed that of the wheel or blotter.			
Is the spindle nut properly tightened to hold the wheel in place? Note: Spindle nuts should only be hand tightened to prevent over-torquing of the nut which can result in wheel failure.			
Are all contact surfaces of the wheel, blotters, and flanges flat and free of foreign material?			
When a bushing is used in the wheel hole, is it positioned so it does not exceed the width of the wheel nor make contact with the flange?			
Floor Grinders			
Are all floor grinders equipped with functional spark guards and work rests?			
Does the clearance between the wheel and work rest exceed 1/8 of an inch?			
Does the safety guard cover the spindle end, nut, and flange projections?			
Are work rests provided that are rigidly supported and readily adjustable?			
Are work rests kept adjusted closely to the wheel with a maximum opening of 1/8 inch to prevent the work from being jammed between the wheel and the rest?			
Portable and Other Abrasive Wheels			
Do all machines with abrasive wheels greater than 2 inches in diameter have safety guards? Note: Some abrasive wheels may be equipped with flanges			
Is the maximum exposure angle on all grinding wheels 180 degrees or less?			
When in use, is the guard on right angle head or vertical portable grinders located between the operator and the wheel?			
Is the guard on right angle head or vertical portable grinders adjusted so that pieces of a broken wheel will be deflected away from the operator?			
Is the top half of the wheel on other grinders always enclosed?			
Guards (General Requirements)			
Are the guard and its fastenings strong enough to retain fragments of the wheel in case of breakage?			
Are guards mounted to maintain proper alignment with the wheel?			
Are tongue guards at the top of the floor stand grinders adjusted to the decreasing diameter of the wheel so that the gap is never more than ¼ of an inch?			
SIGNATURE:			DATE:

Vehicle Inspection

Always perform a circle check before driving your vehicle.

Circle Check

Start at the front (driver's side) and walk towards the back, checking all the following items. For any items answered as "No", indicate in the details section what the problem is and inform your supervisor immediately before using the vehicle.

Area	Condition	Yes	No	Details
Outside of the Vehicle	Are the windshield wipers in good condition?			
	Are all windows clean, clear, crack-free, and unobstructed?			
	Are mirrors secured to the vehicle and crack-free?			
Wheels and Tires	Are the wheel lugs and nuts tight?			
	Is the tire pressure correct for the tire and weather?			
	Is the tread wear within the acceptable level?			
	Are the tires free of punctures?			
Under the Hood	Are all the fluid levels at the appropriate level?			
	Is the wiring in good condition (e.g., no exposed wires, cracks, kinks, etc.)?			
	Are all the belts and hoses in good condition? No fluid leaking from the hoses?			
Inside the Vehicle	Does the parking brake hold against light acceleration?			
	Do the brakes hold and stop the vehicle smoothly?			
	Does the clutch and gearshift shift smoothly?			
	Does the steering wheel move smoothly?			
	Do headlights, warning lights, horn, turn signal all work?			
	Do the lights/gauges on the dash control panel work?			
	Are there any strange noises from any moving parts?			



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Investigations and Reporting

2022

4th Edition

Effective Date:	Jan. 2022		Approved By:	Boris Gopka, Executive Director
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Version	Date	Author	Rationale
1.0	Oct. 31 st , 2019	Olena Vynnychuk	Review
2.0	Jan. 3 rd , 2020	Nataliya Muriy	COR-based
3.0	Jan. 4 th , 2021	Nataliya Muriy	COR-based
4.0	Jan 24 th , 2022	Nataliya Muriy	COR 2020-based

Investigations and Reporting Policy

At Joint Seal Waterproofing, we regard our employees as the most asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the *Occupational Health and Safety Act* and all associated regulations and agreements.

As part of our Health and Safety Program, we have established an Investigations and Reporting Policy and Procedures. Any incident, accident or near miss must be reported and investigated immediately to determine its cause, and preventative/corrective action must be taken to prevent recurrences. Employees, supervisors, senior management, and the executive director each have their role in this process.

Types of incidents/accidents to be fully investigated:

1. Accidents that result in injuries requiring medical aid,
2. Accidents that cause property damage or interrupt operation with potential loss,
3. Incidents that have the potential to result in (1) or (2) above, and
4. All incidents that, by regulation, must be reported to MOL, WSIB or other regulatory agencies.

Safety for All

Because safety is everyone's responsibility, all incidents/accidents, as well as near misses, must be reported immediately. Due investigation must take place, and corrective action must be planned and implemented to prevent recurrence.

Sincerely,

Rick Rawlinson
VP of Development

Date: January 24th, 2022

Investigations and Reporting Procedure

Joint Seal Waterproofing requires employees at all levels to get involved in and collaborate in accident/incident investigation.

The person conducting the investigation – supervisor and the Health and Safety Representative – must be trained in the workplace incident investigation procedures and be familiar with the requirements outlined in our policy and procedure.

Any employee present at the incident/accident scene must take immediate action to mitigate any possible additional consequences of the incident/accident.

Detailed investigation shall be carried out to determine the root causes of the incident or accident and thus make any Occupational Health and Safety (OHS) deficiencies evident in order to determine and implement corrective actions. The formats available below must be used.

The results of the investigation, as well as the Corrective Action Plan must be communicated to all workplace parties and records of the incident investigation and reporting must be kept in the corresponding file. A process for determining the effectiveness of the corrective actions taken must be established.

Roles and Responsibilities

Workers

Workers must report all incidents/accidents, as well as near misses verbally to their immediate supervisor. In case of witnessing an incident or accident, the worker must provide their accurate testimony of the events when required.

Supervisors

Medical Attention:

Should medical assistance be required, the supervisor in charge shall call 911 if it is an emergency, or arrange for the worker to be taken to a doctor. The treating practitioner must complete the Functional Abilities Form. The supervisor should contact the injured worker as frequently as deemed necessary based on the nature of the injury, or at least once a week.

Investigation:

Then the supervisor who is trained in investigation procedures will do the initial investigation, together with the Health and Safety Representative (HSR) with whom the supervisor must share all the information. The Supervisor and the Health and Safety Representative must investigate all accidents and incidents that involve workers. This includes completing the Accident Investigation Report, taking statements from witnesses and collecting any other pertinent information and ensuring the injured worker has received the necessary medical assistance.

Reporting:

If we are not the Constructor, report the accident to the Constructor through their Safety Coordinator or Project Manager.

Corrective Action Implementation

Supervisors will ensure the preventative/corrective actions are implemented as soon as possible: they will check that they are in place and will sign the corresponding documentation. Such action plans will be posted on the bulletin board and placed in the corresponding employee file.

Health and Safety Representative

The HSR must conduct the incident/accident investigation together with the supervisor and submit the corresponding report promptly to management by using the Accident Investigation Form, to ensure timely submission to the WSIB in case there was an injury. It will be made available to all employees as well: it will be posted on the bulletin board and placed in the corresponding employee file.

Management

Management shall ensure that any injured employee is attended to, damaged property is repaired or replaced, the accident is reported to WSIB in a timely manner, and the corrective action plan is implemented. They will also ensure that all the records are being kept on file.

Submission to WSIB

In case a worker was injured, management shall ensure timely report submission to WSIB:

- If the injury immediate health care, the report must be done on the same day.
- If the worker returns to modified work without seeking health care, the accident must be reported with seven business days.

Investigation and CAP

Management shall determine the need for and, if necessary, carry out detailed investigations. They shall also determine causes and contributing factors, and recommend corrective action. This analysis will be used to reduce or eliminate the risk of recurrence.

Management will verify that all incident/accident reports and action plans, as well as inspection reports, are part of proactive reporting, prioritizing incidents and other input for an efficient preventative action process.

Management will measure the effectiveness of preventative and corrective actions taken by verifying if there have been any recurrences of near misses, incidents or accidents, reviewing and analyzing the trends.

Definitions

An **Accident** is defined as an unplanned event that causes harm to people or damage to property. Accidents are categorized as one of the following:

- **Lost Time Injury** (LTI) refers to any injury that prevents a worker from coming to work on the day following the day of the injury.
- **Medical Aid** refers to any injury not severe enough to warrant more than the day of injury off, but where medical treatment by a doctor is given.
- **First Aid** refers only to injuries that can be treated on the job without any days lost.

- An **Incident** is defined as property damage but with no injury to workers.
- A **Near Miss** is a situation in which no injury or damage occurred but might have if conditions had been slightly different.
- **Occupational Illness** is defined as a condition resulting from a worker's exposure to chemical, biological or physical agents in the workplace to the extent that the health of the worker is impaired.
- **Critical Injury** is defined as an injury of a serious nature that:
 - a) Places life in jeopardy;
 - b) Produces unconsciousness;
 - c) Results in substantial loss of blood;
 - d) Involves the fracture of a leg or arm but not a finger or toe;
 - e) Involves the amputation of a leg, arm, hand or foot but not a finger or toe;
 - f) Consists of burns to a major portion of the body; or
 - g) Causes the loss of sight to an eye.

Procedure:

1. The employee reports a work-related accident.
2. Administer first aid, as required.
3. Arrange for transportation for injured employee to medical treatment, if required.
4. Ensure Return to Work package accompanies worker.
5. Eliminate the hazard if possible, or guard the accident scene if worker is critically injured.
6. Investigate the cause of the accident and report findings in the Accident/Incident Report form by filling out *all* fields.
7. Keep a copy of the form on file.
8. Report all accidents/incidents as follows:
 - Lost Time Injuries
 - Medical Aid
 - First Aid
 - Incidents and Near Misses

Incident Report

Format to be used for reporting the type of occurrence. Corrective Action Form must also be filled out.

In case of an accident, please fill out the corresponding formats below: Accident Investigation Form, Witness Statement form, Accident Investigation Review, and Corrective Action form.

Incident Report

Name (Affected individual)	Date
Time	Site/location of event (Address)
Names of other persons involved	Name and phone number (person filling out report)

Incident type

___ Injury – First Aid

___ Injury – Medical/Emergency treatment

___ Property damage

___ Equipment failure

___ Theft

Signature (person filling out report) _____

Accident Investigation Form

Accident Investigation Form

Date of investigation		Investigator	
Date of injury		Injured worker	
Project location		Project Supervisor	
M.O.L. notified?	No <input type="checkbox"/>	Yes <input type="checkbox"/>	Joint H & S Committee in place? No <input type="checkbox"/> Yes <input type="checkbox"/>
Injured worker's address:			
Nature of injury reported (injured body part):			
Factors that led up to accident:			
Project Safety Representative:			
Comments:			
Names and addresses of witnesses and their comments (please use back for additional comments):			
Recommendations for corrective measures:			
Corrective measures taken?	N/A <input type="checkbox"/>	Yes <input type="checkbox"/>	To follow up on (Date) <input type="checkbox"/>

Investigator Signature

Executive Director

Accident Investigation Reviews

Accident Investigation Report Reviews

Health & Safety Representative

Name: _____ Signature: _____ Date: _____

Senior Management

Name: _____ Signature: _____ Date: _____

Executive Director

Name: _____ Signature: _____ Date: _____

Corrective Action Form

Corrective Action Form

Date of injury/incident: _____ Date: _____

Person reporting: _____

Corrective action taken (as indicated on the Accident/Investigation Form):

Recommendations:	
Date assigned:	
Responsibility assigned to:	
Details of what has to be done:	
Who has completed it?	
When was it completed?	

Signature (person reporting): _____



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Emergency Preparedness

2022

4th Edition

Effective Date:	Jan. 2022		Approved By:	Boris Gopka, Executive Director
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Emergency Preparedness Policy

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the *Occupational Health and Safety Act* and all associated regulations and agreements.

As part of our Health and Safety Program, we have established an Emergency Preparedness Program and Emergency Response Plan in order to ensure the safety of our employees at our office and on the jobsites.

Everyone must work together to provide and maintain a healthy and safe work environment that meets or exceeds all legislated requirements and industry standards. We strive to control or eliminate all reasonably foreseeable hazards that may result in an emergency.

We must all support our Emergency Response Plan (ERP) to ensure that the necessary resources are made available in an emergency situation. This includes everyone within our scope: sub-contractors, clients, emergency services, and neighbors.

Please refer to the procedure below to learn more about everyone's responsibilities, the resources required and available, and the testing of our ERP, among others.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022

Emergency Preparedness Procedure

To ensure that our Emergency Response Plan (ERP) is indeed functional and remains up-to-date, we have established the following procedure which outlines everyone's role and responsibilities, the resources required and available, the testing of our ERP, the period review of our procedure, and some other elements.

Roles and Responsibilities

Management

All managers are responsible and accountable for ensuring that emergency response procedures are followed at all times, that the ERP is tested at least every six months and reviewed periodically to ensure it remains up-to-date. Managers will ensure resources are made available for the successful implementation of all such procedures.

Supervisors

All supervisors are responsible and accountable for providing training on emergency response procedures, as well as ensuring their execution and enforcement within the locations under their direction. Supervisors will provide training to all employees on all the emergency preparedness and response procedures as outlined below in this document.

Workers

All employees are responsible and accountable for being familiar with the emergency response procedures and following them precisely should an emergency occur. Employees are expected to follow all emergency handling practices established by management.

Subcontractors

All contractors, agency-supplied personnel and visitors will be expected to abide by all applicable emergency response procedures and established workplace rules.

Potential Emergency Situations

Even though all possible emergency situations are outlined in the section on "Response to Specific Scenarios", the two potential emergency situations most likely to occur at our building or on the jobsites are the following: fire and chemical spills. Please refer to our Emergency Response Plan (ERP) below for specific instructions on how to handle these situations. Every possible effort must be made to prevent injury and occupational illness that might result from an emergency situation, or at least minimize the risk.

Requirements for Emergency Response

Resources Required

The ERP must be designed based on the input from all relevant interested parties, and resources needed to implement the response plan must be identified. All the emergency equipment must be in place, marked properly, and undergo regular maintenance and inspection.

Fire Extinguishers

Fire extinguishers are available in the building, in the company vehicles and inside the Safety Boxes which are to be left at the jobsite. They must be inspected on a monthly basis and taken in for basic service yearly.

First Aid Requirements

First Aid kits and eyewash stations or bottles (as appropriate) must be available on the company

premises, in the company vehicles and on each active jobsite. There must be qualified First Aiders available on every shift, as dictated by the regulations, and injured workers must be transported to a medical facility immediately.

In case of an emergency, call 9-1-1 and wait for the ambulance to arrive. Otherwise, if a worker needs to see a physician, the on-site supervisor will drive them to a clinic.

First Aid kits and equipment must be inspected on a monthly basis to ensure all the necessary items are available.

Emergency Communication System

In an emergency, there is a communication system in place, outlined in the Organization's Capabilities Assessment section.

Any relevant information must be communicated to anyone at our building or on our jobsites: workers, visitors, contractors, emergency response services, and government authorities.

Training Required

Everyone must be trained in emergency response, as applicable to their role in the company, in accordance with the Emergency Response Plan outlined in the section that follows. Some of the workers must also be trained in First Aid to make sure there are enough First Aiders available on every shift.

Testing and Corrective Action

Our Emergency Response Procedure and Plan must be tested on a regular basis to ensure its efficiency – there shall be an Emergency Response meeting every month during which everyone will be reminded about our ERP and advised on any changes, and a fire drill shall be held at least every six months. The corresponding formats – Monthly Emergency Response Meeting and Fire Drill Attendance – must be filled out (the formats are available in the Appendix A).

Should any deficiencies be identified, corrective action must be taken to ensure their elimination.

Emergency Response Plan Review

Our ERP together with all the emergency procedures must be reviewed at least annually or more often if needed to ensure their effectiveness.

Safety – Everyone's Responsibility

Safety is everyone's responsibility, and proper emergency preparedness and emergency response plan are some of the key components to achieving and sustaining this goal.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022

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Emergency Response Plan

	Document Name: Emergency Response Plan		
	Document Reference: PLAN_01		Relating documents: COSHH Sheets, Site Drainage Plan
Creation date:	Nov. 16 th , 2021	Author:	Nataliya Muriy
Approved by:	Rick Rawlinson		
Revision date:	March 10 th , 2021	Revision #:	1
Person responsible:	Nataliya Muriy		
Location of document:	OneDrive		
Signed:			
Name and address of company/location of site:			
Joint Seal Waterproofing 10 Plastics Ave. Toronto, ON M8Z 4B7			
Overview of the activities on site:			
Office administration, storage. 8 – 9 a.m. – 12 people. 9 a.m. – 5 p.m. – 4 people. 5 – 6 p.m. – 12 people.			
Description of surrounding environment:			
Residential / commercial.			
Roles and Responsibilities			
<i>EOC</i>			
Will sound the alarm for everyone to gather at a convening point and help coordinate the evacuation in case of fire.			
<i>Management & supervisors</i>			
Will help coordinate the evacuation in case of fire or supervise chemical clean-up.			
<i>Workers</i>			
Will follow the instructions, evacuating the building if needed, or clean up spilled chemicals.			
<i>Anyone trained in using a fire extinguisher</i>			
In case of fire, any individual trained in fire extinguisher use will attempt to extinguish the fire if possible. Otherwise, everyone will evacuate the building and call 9-1-1.			

NOTE: First Aid kits and equipment must be inspected on a monthly basis to ensure all the necessary items are available.

Objectives of plan:

- To define circumstance when this plan should be activated (see Identification of incidents/risks below)
- To detail actions that need to be taken in the event of an incident occurring
- To develop staff evacuation procedures (see Site Plan of evacuation route and meeting points)
- To train staff in the use of emergency response equipment
- To communicate the plan to relevant staff

Identification of incidents/risks:

The organisation has assessed the potential risks/incidents that could occur. These incidents could be (but are not limited to):

- Fire or explosion (premises or vehicle)
- Oil or chemical spillage to land or surface water drains
- Discharge of chemicals, oils or food slurry to foul sewer (without a water discharge consent)
- Pollution of water arising from flooding of premises or land
- Pollution of land and/or water due to waste

External contacts

Contact	Office hours	Out of hours
Emergency services 911	24/7	
Local police 416-808-2200	24/7	
Local hospital (Queensway Health Centre) 416-259-6671	24/7	
Environmental regulator hotline 3-1-1	24/7	
Environmental regulator local contact (Toronto Environmental Alliance) 416-596-0660	M-F 9 a.m. – 9 p.m.	
Local water company Toronto Water 416-392-7000	M-F 8:30 a.m. – 4:30p.m.	
Electricity company Toronto Hydro (Rexdale) 416-542-3100	M-F 8 a.m. - 8p.m.	
Gas company Enbridge 1-866-763-5427	24/7 for emergencies	

Waste management contractor - WM 416-423-5555	M-F 4:30a.m. – 5 p.m.	
Internal contacts: Nominate an Emergency Operations Coordinator (EOC) The EOC is the person who serves as the main contact person for the company in an emergency. They make decisions, following the steps described in this emergency response plan. In the event of an emergency occurring within or affecting the worksite, the primary contact will serve as the EOC. If the primary contact is unable to fulfil the EOC duties, the secondary contact will take on this role.		
Primary contact		
Name: Rick Rawlinson	Position:	VP of Development
Tel: (647) 479-4069	Alternate tel:	(647) 724-4180
Secondary contact		
Name: Igor Kim	Position	Managing Partner
Tel: (647) 479-4069	Alternate tel:	(647) 971-5315

Chemicals and waste inventory

List all chemicals, hazardous products and waste that you store on site together with maximum quantities. Mark these locations on Site Plan.

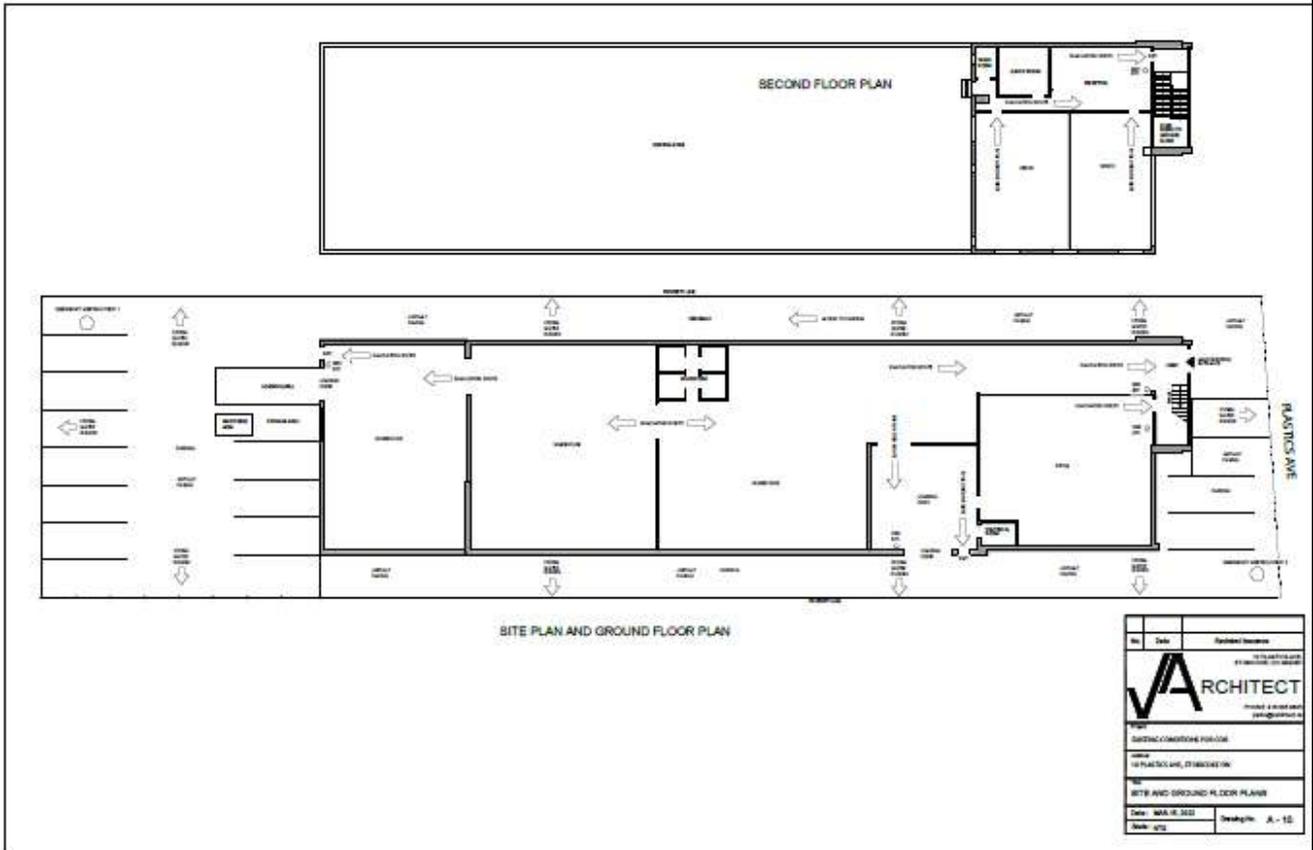
Product name/waste	Maximum quantity stored	SDS available
B&M Silica Sand	10 bags	YES
Cement All Concrete Mix	5 bags	YES
Rapid Set Concrete Mix	5 bags	YES
Sakrete Parging Mix	10 bags	YES
Labsurface LabFast Lo	10 gallons	YES
SSS Joint Seal	50 gallons	YES
SSS Joint Seal Flex	50 gallons	YES
SSS WBE-2 primer	50 gallons	YES
SSS Slow Roofing	50 gallons	YES
Labsurface crack filler epoxy	6 gallons	YES
Polyforce patch adhesive	5 litres	YES

Pollution Prevention Equipment Inventory

Type	Location	Amount	Staff contact (i.e. trained individual)
Fire extinguishers	First floor: showroom entrance, hallway, loading dock door entrance, back door. Second floor: front entrance.	5	Geoff Devries
Spill kits	N/A		
Absorbents	N/A		
Pipe blockers	N/A		
First Aid kit	Office upstairs, showroom	2	Erika Huayamave

Site plan

Here is the site plan for our building at 10 Plastics Ave., Toronto, ON M8Z 4B7.



Emergency response plan of action

Chemical Spillage

In the event of the discovery of a spillage of hazardous liquids e.g. diesel, petrol, chemicals, fuel/engine oil, etc. the following action will be taken:

1. Isolate the source of the spillage if possible.
2. Wear suitable P.P.E. protection if appropriate.
3. Do not hose the spillage down or use any detergents.
4. Try to contain the spillage by placing absorbent materials such as granules, pads, sand, earth and booms around the edge of the spillage, in order to prevent it spreading.
5. Place rubber mats or proprietary flexible drain covers over gullies, in order to prevent spilt contaminants entering drainage system.
6. Continue to apply absorbent products until liquid is absorbed and contained.
7. Inform your immediate superior and the appropriate external contact.

Remember: all waste products from a spill needs to be treated as hazardous waste and disposed of appropriately.

Emergency response plan of action

Fire

In the event of fire, the following action will be taken:

1. Notify everyone about the emergency – use fire alarms / horns.
2. Evacuate the building and gather at one of the convening points.
3. If it is possible to contain the fire, have anyone trained in fire extinguisher use attempt extinguishing the fire.
4. Call 9-1-1 if the fire cannot be contained.

NOTE: Fire alarms and fire protection system will be updated once the building is fully renovated, to adhere to the applicable Building Fire Code.

Communications

We will communicate our emergency plans to employees in the following way:

A copy will be posted on the bulletin board, and it will be available as part of the Health and Safety Manual on the website.

At monthly meetings, the EOC will remind staff of this emergency response plan. Evacuation drills will take place at least every 6 months, as co-ordinated by the EOC.

In the event of a disaster, we will communicate with employees in the following way:

The EOC will sound the fire alarm for all staff onsite. For all staff off-site, they will be contacted by phone using the emergency contact details below.

Employee emergency contact information

Employee name:	Cell number:	Alternate contact person and number:
Arias, Maria	(647) 444-2637	Alexander Arias (647) 613-7896
Cabrera, Ezequiel	+52 1 993 290 1380	Patricio Cabrera +52 1 993 231 6675
Cruz, Adolfo	(437) 971-9697	Victoria Vargas (647) 470-8672
Devries, Geoff	(647) 825-5924	Martin DeVries (416) 234-5924
Gkaragkounis, Alexandros	(647) 895-5484	Jim Vogiatzis (416) 824-5485
Gopka, Boris	(416) 578-4824	Olga Sorokina (416) 276-7109
Gopka, Valeriy	(416) 731-7976	Boris Gopka (416) 578-4824
Gordon, Oleg	(647) 740-6404	Julia Malev (647) 741-6404
Grougiannis, Michael	(416) 400-3242	Evangelia Theodoropoulou (437)235-2182
Hernandez, Juan	(639) 540-0220	Claudia (519) 277-0732
Huayamave, Erika	(647) 290-1693	Miguel Noboa (416) 272-9056
Jardinez, Eric	(416) 875-8194	Yeni Mora (437) 983-7532
Kan, Aleksandr	(905) 466-6883	Julia (289) 300-0819
Kevlich, Valeriy	(647) 248-7574	Maria Kevlich (647) 248-7730
Kim, Igor	(647) 971-5315	Sania Kim (647) 778-1437
Licon, Leslie	(437) 972-2875	Victoria Vargas (647) 470-8672
Macias, Antonio	+593 98 166 4393	Yolanda Mateus (416) 428-6250
Mora, Alondra	(437) 974-1718	Diego Gutierrez Portugal (437) 388-1194
Mukangu, Erick	(437) 216-7824	Corneil Mukangu (647) 700-6445
Nikoloulis, Petros	(416) 990-7744	Gina Cornacchia (416) 720-4254
Nikoloulis, Sandra	(416) 540-8923	Gina Cornacchia (416) 720-4254
Ramirez, Alberto	(437) 218-7873	Diana Flores (437) 774- 1882
Ramirez, Marco	(647) 383-6976	Randy Arias (647) 325-7896
Rawlinson, Rick	(647) 724-4180	Rosemary Rawlinson (647) 896-6360
Rios, Isby	+52 1 669 122 2312	Diego Gutierrez Portugal (437) 388-1194
Tourko, Pavlo	(416) 805-8635	Marta Tourko (416) 887-8182
Vargas, Alejandro	(647) 619-3506	Roxana Zetino (647) 334-8464

END

Types of Emergency

Natural Disasters

- Natural disasters include the following: earthquakes, volcanic eruptions, hurricanes, severe thunderstorms and winter storms, floods.
- Technological emergencies include the following: power outages, fires, explosions, hazardous chemical releases.

Technological Emergencies

- Technological emergencies include the following: power outages, fires, explosions, hazardous chemical releases.

Human Activity Emergencies

- Human activity emergencies include the following: medical emergencies, motor vehicle accidents, workplace violence, bomb threats.

Off-site Emergencies

- Off-site workplace emergencies may occur in any of the following scenarios:
 - While traveling by air, rail, or car
 - During field work
 - At a client's site
 - At a meeting or conference

The Identification Process

On-site

- Carry out site inspections.
- Review reports of past incidents that have affected own organization or similar ones.
- Ask every employee to identify as many potential emergencies as possible.
- Make a schedule of meetings and communicate it to all staff members.

Surrounding Areas

- Identify potential emergencies at the following places:
 - nearby premises and adjacent buildings
 - nearby companies that deal with hazardous materials/processes
 - nearby services/utilities
 - natural features posing potential threats
 - disruptions posing a potential risk during an emergency

Risk Assessment & Prioritization

Probability

- Probability refers to the likelihood of an emergency occurring. It must be assessed for preventative purposes.

Consequences

- Severity of the consequences must be assessed, with the term *severity* referring to the potential degree of loss.

Calculation

- Both probability and consequences are assigned a numerical value, and then a risk rating is calculated. These results are then arranged in order of the risk they represent in order to prioritize emergency response.

Organization's Capability Assessment

People

- Before any emergency event, it is vital to identify individuals who can provide the following:
 - technical expertise
 - knowledge of equipment operation
 - emergency action knowledge
 - medical aid
 - site security
 - communication and media relations
 - procurement of outside resources
 - continuation of business operations and customer service

People

Equipment, tools, and supplies

- Any type of equipment and tools needed for a particular job must be safe to operate and come furnished with appropriate documentation. The necessary supplies must be made available in order to promote emergency prevention.

- Equipment includes:
 - Trucks and other vehicles
 - Material handling equipment (e.g. forklifts and dollies)
 - Emergency power generators and fuel
 - Lifting and hoisting equipment
 - Firefighting equipment
 - Breathing apparatus and respirators
 - First-aid equipment
 - Spill response equipment and waste containers

- Tools include:
 - Power tools (charged)
 - Ladders
 - Flashlights and other lights
 - Shovels and vacuums

- Supplies include:
 - First-aid kits
 - Batteries (various sizes)
 - Blankets
 - Tape (various types)
 - Writing pads and pencils
 - Rope and wire
 - Emergency food supplies
 - Work gloves (various types)
 - Weather-resistant clothing

*Communication
Systems*

- Both internal and external communication is of utter importance in an emergency.
- Any combination of the following networks and devices must be made available for proper emergency response:
 - public telephone networks
 - internal telephone systems
 - cell phones
 - public address (PA) systems
 - two-way radios
 - computer networks
 - bullhorns and portable devices

Documentation

- The following documents must be made available:
 - site and building plans
 - safety information
 - emergency contact lists

Procedures

Training

- Emergency Response training will be provided for all employees.
-

Issue Resolution

Items arising for management to address will be:

- Reported to management in writing.

Functions

Prevention

- Encourage communication amongst employees and management regarding emergency situations prevention.
 - Promote best practices in health and safety management, as well as emergency prevention.
 - Identify trends that will proactively address emerging health and safety issues.
 -
-

Investigation of Critical Injuries or Fatalities

Director must be advised immediately of critical injuries and fatalities. The worker members must designate one or more worker members to investigate these cases. The designated worker may inspect the place where the accident occurred and any machine, device, etc. and report his findings to the Health & Safety Representative, as well as a MOL director.

The Health & Safety Representative must:

- Ensure prescribed requirements of the [OHSA \(S. 51 & 52\)](#) and [Industrial Regulations \(S. 5 & 6\)](#) are carried out as required.
 - Review all incidents and investigate if deemed warranted by the management.
 - Review all incident/investigation reports.
-

Workplace Refusal / Bilateral Work Stoppage

Workers have a duty to participate in work refusal and work stoppage situations.

- In a work refusal, the Health & Safety Representative works with the worker who is refusing and the supervisors of that worker to try to come up with a solution that is safe.
- In a bilateral work stoppage situation, if two designated certified members – one management and one worker – decide a 'dangerous circumstance' exists, work can be stopped.

Emergency Procedures

Emergency Procedures	
<p>1</p> 	<p>STAY CALM</p> <p>DO NOT PANIC. Your behaviour can influence others, so staying calm will help the emergency response.</p>
<p>2</p> 	<p>TAKE COMMAND</p> <p>Call—or delegate someone to call— emergency services (911) immediately and explain the situation. Assign someone to meet and direct the ambulance to the location.</p>
<p>3</p> 	<p>ASSESS THE SITUATION</p> <p>Use extreme caution when approaching the scene to avoid being injured yourself. Try to determine what happened and what the emergency is. Try to eliminate or control the cause of the emergency to prevent further danger to the injured worker, to others, or to the property. Give first aid as soon as possible.</p>
<p>4</p> 	<p>PROVIDE PROTECTION</p> <p>Safeguard the area to protect others from being injured and prevent further losses. You may be called upon to help divert traffic, suppress a fire, prevent objects from falling, or shut down equipment or utilities.</p>
<p>5</p> 	<p>PRESERVE THE SCENE</p> <p>Do not disturb anything except to save a life, relieve suffering, or prevent immediate or further losses. Barricade, rope off, or post a guard at the scene to make sure that nothing is moved until the authorities have completed their investigation.</p>

6



FOLLOW PROCEDURES

Follow the procedures outlined in your company's emergency response plan. Ensure that senior management is informed. They can contact the proper authorities, notify relatives, and begin the procedures for reporting and investigating the incident.

Response to specific scenarios

Overview

Depending on the nature of the emergency, different procedures are set in place.

- The appropriate response depends on the available internal and external resources (such as Fire Department).
- Small fires can be put out with portable fire extinguishers. The type of extinguisher to use depends on the type of fire; their use is shown on the following chart:

Caution: Do not use a fire extinguisher unless you have received training in its proper use.

CLASS OF FIRE	TYPE OF FIRE	APPROVED FIRE EXTINGUISHER
 ORDINARY	 Wood, paper, cloth	Type A; Type A-B
 FLAMMABLE	 Gasoline, paints, oils, grease	Type A-B; Type B-C; Type A-B-C
 ELECTRICAL	 Electrical, wiring, fuse box	Type B-C; Type A-B-C
 COMBUSTIBLES METALS	 Metals	Bucket of Sand

- Use a fire extinguisher only if ALL of the following apply:
 - the building is being evacuated and the fire alarm is activated
 - the fire department (911) is being called
 - the fire is small, contained and not spreading beyond its starting point
 - the exit is clear, so you can exit safely
 - you can avoid smoke inhalation
 - a proper extinguisher is readily available
 - you know how to use the extinguisher

If any of these conditions do not apply, do NOT use the fire extinguisher. Call for help and leave the area immediately.

Fire response guidelines:

When the alarm is activated, ensure the following:

- all employees follow evacuation procedures
- the supervisor initiates the response plan
- no team member will be exposed to unreasonable risk
- a buddy system is used if response team members remain at risk for any reason

- assessing the situation and meeting the fire department, rescue and first aid take priority over fire suppression
- the possibility of an explosion must always be avoided

- Environmental, safety, and health hazards due to spills of hazardous materials must be minimized.

IMPORTANT: Only properly trained personnel should be allowed to clean up spills of hazardous chemicals. If trained personnel are not available, outside resources must be used.

▪ **Small spills:**

- EVACUATE the area.
- REPORT the spill to personnel trained in toxic spill clean-up procedures.
- ELIMINATE the source of the spill by closing valves, turning over leaking containers, etc.
- PREVENT the spill from entering any sanitary or storm water drainage system.
- CLEAN up spill using equipment and principles addressed in training.
- CLEAN all equipment and floors.
- LABEL all waste and dispose of it properly.

▪ **Large spills:**

- EVACUATE employees to a safe area.
- PROVIDE first aid/medical help to exposed employees.
- BLOCK storm sewer(s).
- SHUT DOWN general ventilation systems if the spill occurs indoors.
- REPORT the spill to person(s) trained in spill management.
- CONTAIN the extent of the spill. Containment is always the first priority, unless there are injuries.
- IMPLEMENT spill control measures as established by your organization.

▪ **Safety measures in case of a spill:**

- COVER your mouth and nose with a damp cloth.
- TURN OFF heating, air conditioning and fans.
- STAY as far from the emergency site as possible.
- KEEP your body fully covered.
- PREPARE for possible evacuation.
- CLOSE all exterior and interior doors and windows.
- DO NOT EAT or DRINK anything uncovered.

▪ **Evacuation**

- If the spill is a threat to safety, evacuate the immediate area.
- If the spill is large and a threat to building occupants, order the evacuation of the building.
- If it is judged that a site safety hazard exists, consider declaring a full site evacuation of all non-essential personnel.

▪ **Notification**

- Notify all agencies, such as the Environment Authority, Labour Authority, Police, Medical Officer, etc. The authority involved depends on the specific circumstances of the emergency.

▪ **Transportation of dangerous goods reporting**

- Spills involving dangerous goods must be reported to the Police.

- In cases of serious injury or illness, prompt medical attention often makes the difference between life and death.

- **Procedures:**

- PROVIDE first aid.
- SECURE professional medical attention as quickly as possible.

- **First-aid person**

A first-aid person must:

- have current first-aid qualifications
- provide emergency assistance
- direct others to assist
- arrange transportation
- arrange medical intervention

- **Reports**

A team member should be assigned responsibility for the completion of appropriate reports, such as internal company reports, and reports required by the Compensation Board, Ministry of Labour, etc.

- **Critical injury or fatality**

- NOTIFY immediately:
 - senior management
 - regulatory authority
 - legal resources
- PRESERVE the accident scene and all evidence.
- ENSURE that you have adequate equipment and supplies required by health and safety regulations. These include:
 - first-aid supplies adequate to handle the potential event, not necessarily just what the law requires;
 - adequate number and location of deluge showers; and
 - adequate number and location of eyewash fountains.

Responding to Storms

- A state of readiness must be maintained to respond in case of a storm to ensure everyone's safety, as well as the security of the facility.
- The following are the Canadian Red Cross recommendations:
 - ASSEMBLE a disaster supplies kit
 - MAINTAIN a three-day supply of the following basic items:
 - water
 - battery-operated radio
 - food
 - batteries
 - manual can opener
 - first aid kit
 - flashlight
 - cell phone

Tornado / High Winds

- If a tornado watch is issued by the weather service:
 - ASSIGN personnel from the Emergency Response Team to monitor the weather and report on threatening conditions according to the established procedures.
 - REMOVE or SECURE loose materials and articles from the area if possible.
 - If a tornado warning is issued by the weather service:
 - SEEK shelter/safety in the following areas:
 - a basement, underground excavation, or lower floor of interior hallway or corridor (preferably a steel-framed or reinforced concrete building)
 - if no basement is available, seek shelter under a sturdy workbench or heavy furniture (i.e., table or desk)
 - in open country, move away from the tornado path at a right angle
 - if there is no time to escape, lie flat in the nearest depression (i.e., ditch or ravine)
 - AVOID the following:
 - top floors of buildings
 - areas with glass windows or doors
 - auditoriums, gymnasiums, cafeterias or other areas with large, free-span roofs
 - automobiles
 - KEEP the following items with you:
 - flashlight;
 - radio; and
 - portable or cellular telephone.
- LISTEN for radio reports.

- Since such storms can be accompanied by violent winds, extremely cold weather, heavy snow, freezing rain, ice storms, white-outs, and electric power failures, follow these recommendations:
 - KEEP adequate supply of food in case it is not safe to go out or businesses are closed.
 - WATCH for severe weather warnings in your area.
 - REMAIN indoors during severe weather conditions.
 - DRESS warmly if you must go out.
 - KEEP a winter storm kit in your vehicle. Typical winter kit supplies include:
 - shovel
 - sand
 - tow-chain
 - flashlight
 - warning light or flares
 - extra clothing
 - warm blankets and footwear
 - emergency food
 - matches
 - maps
 - candle (in a deep can)
 - de-icing material for fuel line and windshield
 - DRIVE with caution and, if necessary, turn back or seek shelter.
 - REMAIN on main roads and keep enough gasoline in your gas tank for the trip.

- If you are stuck on the road, do the following:
 - STAY inside your vehicle.
 - AVOID overexertion and exposure to cold. Shoveling snow in bitter cold can kill you.
 - ALLOW some fresh air in the vehicle.
 - ENSURE that exhaust fumes do not enter the vehicle.
 - EXERCISE your limbs, hands and feet vigorously and do not fall asleep.
 - SIGNAL passing traffic for help.

- After the storm is over, do the following:
 - PROVIDE help to trapped workers only if you are trained to do so. Otherwise call for emergency help following your company guidelines.
 - STAY away from fallen, loose or dangling electrical wires. Report such conditions to the electric supply company.
 - AVOID going in areas where there are dangling tree limbs, building structures weakened by the storm, and weakened bridges.
 - DRIVE only when absolutely necessary. Keep the roads clear for emergency vehicles and rescue workers.

*Floods /
Torrential Rains*

- When a warning is issued, these steps must be followed:
 - DECIDE if closing operations is appropriate.
 - CHECK nearby storm drains to ensure they are clear of debris.
 - REMOVE all movable equipment and supplies to a second floor or other elevated areas.
 - CHECK outside areas for equipment and materials that could be damaged by floodwaters or heavy rain accumulation.
 - CHECK and SECURE storage tanks.
 - SEAL securely all hatches and manholes.
 - CLOSE all valves.
 - SECURE to wooden pallets materials that cannot be moved easily.
 - UNPLUG electrical equipment and appliances.
 - FILL jugs with clean water in case water supplies become contaminated.
 - PLACE sandbags in and around all outside doors and thresholds.
 - EVACUATE quickly when you are advised to do so. AVOID downed power lines.
 - LEAVE low lying areas immediately.
 - LEAVE the car and seek higher ground immediately if driving in a low-lying area or if your car stalls in rapidly rising water.
 - STAY away from storm drains and irrigation ditches.
 - DO NOT DRINK tap water.
 - DO NOT DRIVE through or around police/construction barricades.
 - DO NOT DRIVE through flood water.

Power Failure

Power failure is common due to extreme weather. Should it happen, these recommendations must be followed:

- NEVER use a generator indoors or in a garage. Exhaust fumes contain carbon monoxide which can be deadly if inhaled.
- USE portable generators outdoors only, in a dry, ventilated area away from attached garages or air intakes to the building.
- PLUG individual appliances into the generator using heavy-duty outdoor-rated cords with a wire gauge adequate for the appliance load.
- ENSURE the batteries in smoke alarms and carbon monoxide alarms are in good working condition.
- DO NOT USE wet electrical appliances.
- DO NOT TURN ON damaged electrical appliances.
- DO NOT PUT candles on or near anything that will burn. NEVER leave burning candles unattended.
- NEVER use charcoal indoors, because burning charcoal gives off carbon monoxide.

Sabotage

Sabotage can result in fires, spills, and equipment failure. To prevent such situations from occurring, these recommendations must be followed:

- All critical equipment should have:
 - restricted access
 - locked operating devices
 - tamper or intrusion alarms

- Access to your facility by vendors, contractors and other visitors, including employees from other sites, should be controlled. Responsibility for security, issuing of keys or pass cards, and others, must be assigned.

- Specific individuals should be given the responsibility to secure all doors, gates, etc., at the end of a shift. The names of those responsible should be posted.

- Facility access control should ensure that:
 - all visitors are logged in and out
 - visitors wear an ID badge
 - an authorized employee escorts visitors throughout the entire visit
 - contractors, vendors, truck drivers, etc., are to be restricted to work area only and must be supervised by an authorized employee

- Other important considerations:
 - Appropriate managers should be informed immediately of any employee termination.
 - All keys and pass cards must be returned on termination of employment.
 - All employees must report any suspected acts of sabotage to their supervisor.
 - Since the results of an act of sabotage can be the same as those resulting from accidental events, use appropriate response procedures.

Emergency Response Plan Administration

Document Review Process

All emergency response plans are reviewed on an annual basis, in accordance with regulatory requirements or as significant changes in regulation or key personnel requires.

Management is responsible for the plan(s) pertinent to their operations and must ensuring that any changes required are communicated to all parties. These changes will be included in the regular revision or as regulated.

The Corporate Emergency Response Plan will be reviewed by management and approved by the Executive Director.

In addition to the annual review, changes may arise from training sessions, exercises, regulatory changes or requirements, after real incidents or as needed. Change requests will be analyzed and included in the upcoming revision when applicable or appropriate. If critical changes are required, a mid-year update may be issued.

Controlled copies of site-specific ERP are distributed together with the Corporate Emergency Response Plan. Documents will be distributed per the Distribution List in each site-specific ERP.

If applicable, the following revision table can be used to communicate any changes required of any Joint Seal Waterproofing’s emergency response plans (corporate and site-specific) to all employees:

Table of Revisions		
Date	Revision Highlights	Requested By

APPENDIX A - Formats

Emergency Response Planning Checklist

Company: Joint Seal Waterproofing	Date:
Completed by:	Site: 10 Plastics Ave., Toronto, ON M8Z 4B7
Program Administration: Rick Rawlinson	

	In Progress	Date Completed
Develop an Emergency Response Standard.	<input type="checkbox"/>	
Develop a Site Emergency Plan.	<input type="checkbox"/>	
<ul style="list-style-type: none"> Identify emergency access routes. 	<input type="checkbox"/>	
<ul style="list-style-type: none"> Indicate location of first aid stations/boxes and fire extinguishers. 	<input type="checkbox"/>	
<ul style="list-style-type: none"> Ensure specialized PPE equipment is on site. (Indicate location.) 	<input type="checkbox"/>	
<ul style="list-style-type: none"> Ensure sufficient medical aid supplies are available on site (splints, stretchers, etc.) and indicate location. 	<input type="checkbox"/>	
<ul style="list-style-type: none"> Locate other firefighting equipment (standpipes, Siamese connections, and hydrants). 	<input type="checkbox"/>	
<ul style="list-style-type: none"> Locate main power supply to the project. 	<input type="checkbox"/>	
<ul style="list-style-type: none"> Identify the location of emergency phones. (Post emergency list.) 	<input type="checkbox"/>	
<ul style="list-style-type: none"> Identify nearest hospital or medical Centre. 	<input type="checkbox"/>	
<ul style="list-style-type: none"> Identify worker evacuation route(s) and assembly area(s). 	<input type="checkbox"/>	
<ul style="list-style-type: none"> Locate garbage dumpsters and recycling bins. 	<input type="checkbox"/>	
<ul style="list-style-type: none"> Complete Hazard Identification and Risk Assessment Form. 	<input type="checkbox"/>	
<ul style="list-style-type: none"> Develop Emergency Response procedures for items identified in your hazard assessment. 	<input type="checkbox"/>	
<ul style="list-style-type: none"> Include requirements for written notices. (What's required? When? Completed by whom? Who does it go 	<input type="checkbox"/>	

to?) See legal obligations.		
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Page 1 of 2

Emergency Response Planning Checklist (continued)

	In Progress	Date Completed
<ul style="list-style-type: none">• Designate a contact person to call necessary emergency services and MOL, MECC, etc.	<input type="checkbox"/>	
<ul style="list-style-type: none">• Make provisions for cordoning off the accident scene to protect workers.	<input type="checkbox"/>	
<ul style="list-style-type: none">• Ensure someone on the ER team documents where the injured worker has been taken (hospital, medical centre, etc.).	<input type="checkbox"/>	
<ul style="list-style-type: none">• Set out method of communicating the plan.	<input type="checkbox"/>	

Emergency Numbers - ELIMINATED

Emergency Preparedness Training – ELIMINATED



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Statistics and Records

2022

4th Edition

Effective Date:	Jan. 2022		Approved By:	Boris Gopka, Executive Director
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Version	Date	Author	Rationale
1.0	Oct. 31 st , 2019	Olena Vynnychuk	Review
2.0	Jan. 3 rd , 2020	Nataliya Muriy	COR-based
3.0	Jan. 4 th , 2021	Nataliya Muriy	COR-based
4.0	Jan 24 th , 2022	Nataliya Muriy	COR 2020-based

Statistics and Records Policy

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the *Occupational Health and Safety Act* and all associated regulations and agreements.

As part of our Health and Safety Program, we have established a procedure to organize, monitor and measure our Health and Safety performance through rigorous statistics and records keeping. Monthly and yearly injury and safety summaries shall be produced, as well as monthly and yearly statistical data reports to facilitate the analysis of our company's health and safety trends. Year-to-year comparisons must be carried out to help assess the efficiency of our Health and Safety Program and the improvements (if any) that have been suggested. These documents must be made available for consultation at the head office.

Analysis and Corrective Action Plans (CAPs)

Annual statistics must be analyzed by senior management to identify any deficiencies of our Health and Safety Program, as well as needs or trends (e.g. need for more training, tools/equipment repair or replacement). Our management must also analyze first aid treatment records to identify trends and create corresponding CAPs. Every action plan will be communicated by means of memos to be posted on the company bullet board and through toolbox talks given by immediate supervisors.

A CAP will also be created once our company is audited by COR and if areas of improvement are identified.

Safety is everyone's responsibility, and regular inspections are one of the key components to achieving and sustaining this goal.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022

Statistics and Records Procedure

To ensure we can provide a safe and healthy work environment for everyone, it is essential to keep records and analyse the statistics in order to measure the efficacy of our Occupational Health and Safety Management System (OHSMS).

OHS performance must be measured at least annually based on qualitative and quantitative data gathered. Leading and lagging performance indicators must be identified, and statistical analysis must be carried out in order to identify our health and safety trends to establish the corresponding Corrective Action Plans (CAPs).

The following records must be kept, and statistics analysed: the number of the hours worked, First Aid treatments, as well as any near-misses, incidents, and accidents. See below for examples of form that can be used.

Yearly comparisons of OHS performance must be done, comparing the current performance with the past, and the results are to be recorded and communicated to all the workplace parties.

Records Review and Statistical Analysis

Guidelines

To assess the effectiveness of our Health & Safety Program, we review reports, records, and summaries. Analysis of these documents will help us to create and implement a corrective action plan, if needed, in order to continue preventing accidents and injuries.

In addition to Hazard Assessment, Analysis and Control procedures already in place, it is Joint Seal's policy to carry out annual reviews of the following performance measures:

- Hazard reports¹
- Accident investigations
- Lost time injury² reports
- Health & Safety Representative's report

To facilitate the review of data from these sources, there is an established system to document, maintain and keep records on all injuries, accidents, and incidents that occur on all projects.

Roles and Responsibilities

Worker: Each worker is responsible for reporting all accidents, incidents, first aid occurrences, lost time injuries and equipment damage to their immediate supervisor.

Supervisor: Each supervisor is responsible for the following:

- Recording all accidents, incidents, first aid occurrences, lost time injuries, equipment damage, and MOL reports.
- Keep record of all relevant health and safety information at the office.

¹ Refers to any hazard assessment performed by an outside resource.

² Refers to an injury where the direct result keeps an employee off work for more than one full day.

- Coordinate first aid response, accident investigation or other follow-up procedures after an accident.

Senior Management: Members of Senior management are responsible for the following:

1. Maintaining records of orientation, project inspections, safety audits, MOL reports and follow-up actions.
2. Monitor injury frequency rates.
3. Compile an annual report on all health and safety activities and occurrences on a project.
4. Ensure follow-up is performed for all action items.
5. Ensure appropriate actions are taken following review of quarterly project safety data report.

Records Review and Statistical Analysis Procedures

1. All project safety data is registered and recorded at each jobsite by using the Health and Safety formats available on the OneBuilder app, with appropriate responses initiated immediately (accident investigation, etc.)
2. All project safety data is made available to management. It will be used for statistical analysis in monthly and yearly reports.
3. All other project safety data is presented and reviewed using charts and graphs in annual reports that assess the following:

Project Safety Data	Statistical Focus Examples
Project inspections	Number performed, issue involved, hazards identified
Accident investigations	Number performed, recommendations, by occupation
Lost Time injuries	Frequency, injury type, body part involved, by occupation
Health & Safety Representative	Issues identified and follow-up

4. Appropriate action is taken by senior management and supervisors, in response to trends, first-time and repeated injuries, as well as commonly identified hazards.

Applicable Legislation

Occupational Health and Safety Act, Sections 25-28.

Health and Safety Trends

Title:		Date of Issue:	
Approved by:		Review/Revise Date:	
Location:			
<p>Senior Management will review Joint Seal's health and safety trends on an annual basis, to understand the patterns and take corrective action, if necessary.</p> <p>The Health and Safety Representative will prepare the trends review.</p> <p>The following documentation will be reviewed when developing the Safety Trends Review:</p> <ul style="list-style-type: none"> ▪ Injury/illness causes ▪ Workplace inspections ▪ Injury/Incident investigations ▪ Hazard Reports ▪ Work Refusal reports ▪ Health and Safety recommendations from the Health and Safety Representative ▪ WSIB injury/illness summary <p>The Health and Safety Representative will create the summary of all injuries and near misses, and review patterns of occurrence. The report will take into consideration the following patterns: by shift; by injury type; by time of day; and by type of equipment.</p> <p>Suggested categories for the Trends Review are:</p> <ul style="list-style-type: none"> ▪ the number of work accident fatalities, ▪ the number of lost workdays, ▪ the number of non-fatal cases that required medical aid without lost workdays, ▪ the incidence of occupational illnesses, <p>Reminder: When conducting your annual review, you must review hazard reports and health and safety trends. Consider requesting an OHS section 12 report from the WSIB. If a section 12 report is received, it must be posted for all employees to see. Another option could be to chart the trends on a graph.</p>			
Approval Signature:		Document to be posted:	Yes – Annual trends report will be posted on the Health & Safety board for 14 days after review.
Distribution to:			

Trends Review Process

The annual review will be completed using the following process:

1. Health and Safety Representative will collect the data required to develop the Trends report.
2. Health and Safety Representative will review the data and develop the Trends report for management review.
3. Submit the Trends reports to management by January 31st of each year.
4. Management will review the Trends report at the February management meeting and make reply in writing to the Health and Safety Representative regarding any corrective action to be taken.
5. Health and Safety Representative will monitor the completion of the corrective action.

Report contents:

- table of contents
- summary
- recommendations for management review
- tables representing the data

Records

All Trends Reports will be kept on file at the office.

Trends Review (Hazards)

Year reviewed:

Data reviewed (from – to):

- Injury/illness causes
- Workplace inspections
- Injury/incident investigations
- Hazard reports
- Work refusal reports
- Health and safety recommendations from the Health and Safety Representative
- WSIB injury/illness summary

Results of review

In _____ [Year] the areas that have had the largest occurrences of injuries and near misses are, in order of highest to lowest:

1. Area 1 _____

- a. Issue 1 _____
- b. Issue 2 _____
- c. Issue 3 _____

2. Area 2 _____

- a. Issue 1 _____
- b. Issue 2 _____
- c. Issue 3 _____

3. Area 3 _____

- a. Issue 1 _____
- b. Issue 2 _____
- c. Issue 3 _____

Health and Safety Trends for the last 3 years, including types of injuries, are found on the next page.

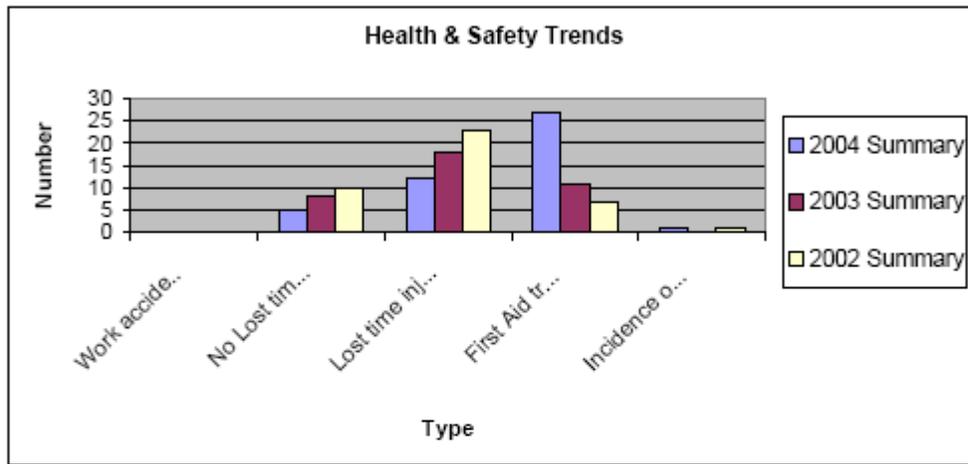
Trends Review (Injuries)

A similar report may be produced, if required by senior management.

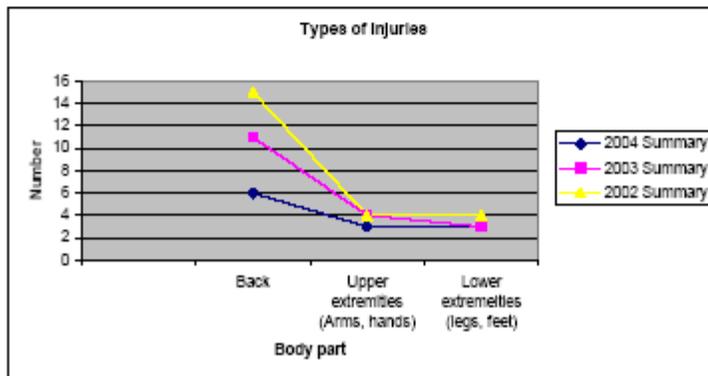
SAMPLE – Trends Review (Injuries)

Health and Safety Trends

Number of	2004 Summary	2003 Summary	2002 Summary
Work accident fatalities	0	0	0
No Lost time injuries(NLTI)	5	8	10
Lost time injuries (LTI)	12	18	23
First Aid treatment only	27	11	7
Incidence of Occupational illnesses	1	0	1



Type of Injuries(for LTI only)	2004 Summary	2003 Summary	2002 Summary
Back	6	11	15
Upper extremities (Arms, hands)	3	4	4
Lower extremities (legs, feet)	3	3	4



Monthly and Yearly Formats

All the formats are available separately in the corresponding folder under JSW Statistics and Records.



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Legislation

2022

4th Edition

Effective Date:	Jan. 2022		Approved By:	Boris Gopka, Executive Director
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Version	Date	Author	Rationale
1.0	Oct. 31 st , 2019	Olena Vynnychuk	Review
2.0	Jan. 3 rd , 2020	Nataliya Muriy	COR-based
3.0	Jan. 4 th , 2021	Nataliya Muriy	COR-based
4.0	Jan 24 th , 2022	Nataliya Muriy	COR 2020-based

Legislation Policy

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the *Occupational Health and Safety Act (OHS)*, the *Ontario Regulation 213/91 (Construction Regulation)*, *Regulation 1101 (First Aid Requirements)*, the *WHMIS 2015* regulation, and all associated regulations and agreements.

Applicable regulation is considered during our work planning process to ensure that all the work is carried out in a safe manner, and that our workers are competent and protected at all times. To make sure everyone is well-informed about the pertaining legislation, copies of the Act, the Construction Regulation, the First Aid Requirements, and the WHMIS 2015 regulation are available both at the office and in each company vehicle.

Any new supervisor must complete the MOL 5-Step Health and Safety Awareness for Supervisors course and to be fully aware of their rights and responsibilities, as outlined in the OHS, and must regularly remind their crews about worker rights and responsibilities. Workers must complete the MOL 4-Step Health and Safety Awareness for Workers course to learn about their rights and responsibilities first-hand, to be able to work safely. Other courses are required as well, as outlined in the Training and Communication section of this manual.

To ensure that everyone is aware of the pertaining legislation and how we can all contribute to having a safe and healthy work environment at the office and on jobsites, the relevant posters must be displayed on the company bulletin board, and the same information must be available in the supervisor's binder in each company vehicle.

Safety is everyone's responsibility, and abiding by the *Occupational Health and Safety Act*, the *Ontario Regulation 213/91*, *Regulation 1101*, the *WHMIS 2015*, and any other applicable legislation is one of the key components to achieving and sustaining this goal.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022

Legislation Procedure

Since the core of our business is concrete repairs and waterproofing, the following legislation is applicable to us: *Occupational Health and Safety Act (OHSA)*, the *Ontario Regulation 213/91* (Construction Regulation), *Regulation 1101* (First Aid Requirements), the *WHMIS 2015* regulation, and all associated regulations and agreements.

All workplace parties (employer, supervisors, and workers) must fulfill their responsibilities as defined by their role under the OHSA – please see the corresponding section below. Any documentation related to legislation, regulations, and any standards or other requirements must remain up to date and all the relevant legislation must be posted in a visible place at the office and be available in the supervisor binders in company vehicles so that the workers can consult it at any time.

To ensure everyone is in compliance with the applicable legislation, the supervisors shall observe their workers on a daily basis and report the summary of the day's activities using the Daily Log format available on the OneBuilder app. This format allows to report the safety talk topic, the equipment/materials/PPE required, any issues, and additional notes, as needed.

Management shall regularly evaluate the compliance with legislation by using the format available at the end of this section of the HS Manual, and retain these records.

Roles and responsibilities

Employer

An employer has a range of legal duties, including the duty to ensure that equipment, materials, and protective devices as prescribed, are provided, are maintained in good condition, that prescribed measures and procedures are carried out in the workplace [subsection 25(1)], and the obligation to:

- instruct, inform and supervise workers to protect their health and safety [clause 25(2)(a)]
- assist in a medical emergency by providing any information, including confidential business information, to a qualified medical practitioner and other prescribed persons for the purpose of diagnosis or treatment [clause 25(2)(b)]
- appoint competent persons as supervisors [clause 25(2)(c)]. "Competent person" is a defined term under the OHSA as a person who:
 - is qualified because of knowledge, training and experience to organize the work and its performance,
 - is familiar with the Act and the regulations that apply to the work, and
 - has knowledge of any potential or actual danger to health or safety in the workplace
- inform a worker, or a person in authority over a worker, about any hazard in the work and train that worker in the handling, storage, use, disposal and transport of any equipment, substances, tools, material, etc. [clause 25(2)(d)]
- help joint health and safety committees (JHSCs) and health and safety representatives to carry out their functions [clause 25(2)(e)]
- not employ or permit persons under the prescribed age for the employer's workplace, to be in or near the workplace [clauses 25(2)(f) and (g)]
- take every precaution reasonable in the circumstances for the protection of a worker [clause 25(2)(h)]

- post a copy of the OHS Act in the workplace, as well as explanatory material prepared by the Ministry of Labour, Training and Skills Development that outlines the rights, responsibilities and duties of workers in both English and in the majority language in the workplace [clause 25(2)(i)]
- in workplaces in which **more than five workers** are regularly employed, prepare a written occupational health and safety policy, review that policy at least once a year and set up and maintain a program to implement it [clause 25(2)(j)].
- post a copy of the occupational health and safety policy in the workplace, where workers will be most likely to see it [clause 25 (2)(k)]
- provide the JHSC or the health and safety representative with the results of any occupational health and safety report that the employer has. If the report is in writing, the employer must also provide a copy of the parts of the report that relate to occupational health and safety [clause 25(2)(l)]
- advise workers of the results of such a report. If the report is in writing, the employer must, on request, make available to workers copies of those portions that concern occupational health and safety [clause 25(2)(m)]
- notify a Director of the MLTSD if a JHSC (or a health and safety representative) has identified potential structural inadequacies of a building, structure, or any part thereof, or any other part of a workplace, whether temporary or permanent, as a source of danger or hazard to workers [clause 25(2)(n)] (Note: this clause does not apply to an employer that owns the workplace [section 25(5)])

Also note that a related duty under section 25(1) of the OHS Act requires employers to ensure that every part of the physical structure of the workplace, whether it is temporary or permanent, complies with load requirements prescribed in the applicable Building Code provisions, any prescribed standards or sound engineering practice where Building Code provisions or prescribed standards do not apply [clause 25(1)(e)].

Employers may appoint themselves as supervisors if they meet all three qualifications of a competent person. [subsection 25(3)].

Supervisor

A supervisor is a person appointed by the employer who has charge of a workplace or authority over a worker [subsection 1 (1)].

Workers are often asked to act as supervisors in the absence of persons hired in that capacity, particularly those identified by such terms as senior, charge, or lead hands. Despite the term used, it is very important to understand that if a worker or lead hand has been given "charge of a workplace or authority over a worker" this person has met the definition of a supervisor within the meaning of the OHS Act and assumes the legal responsibilities of a supervisor under the Act.

The *Occupational Health and Safety Act* (OHS Act) sets out certain specific duties for workplace supervisors. A supervisor must:

- ensure that a worker works in the manner and with the protective devices, measures and procedures required by the OHS Act and the regulations [clause 27(1)(a)]

- ensure that any equipment, protective device or clothing required by the employer is used or worn by the worker [clause 27(1)(b)]
- advise a worker of any potential or actual health or safety dangers known by the supervisor [clause 27(2)(a)]
- if prescribed, provide a worker with written instructions about the measures and procedures to be taken for the worker's protection [clause 27(2)(b)], and
- take every precaution reasonable in the circumstances for the protection of workers [clause 27(2)(c)].

Worker

Workers play a key role in health and safety at the workplace. Workers have various duties under the OHSA. Under the OHSA, a worker must:

- work in compliance with the Act and regulations [clause 28(1)(a)]
- use or wear any equipment, protective devices or clothing required by the employer [clause 28(1)(b)]
- report to the employer or supervisor any known missing or defective equipment or protective device that may endanger the worker or another worker [clause 28(1)(c)]
- report any hazard or contravention of the Act or regulations to the employer or supervisor [clause 28(1)(d)]
- not remove or make ineffective any protective device required by the employer or by the regulations other than in circumstances specified below [clause 28(2)(a)]. The only circumstance in which a worker may remove a protective device is where an adequate temporary protective device is provided in its place. Once there is no longer a need to remove the required protective device or to make it ineffective, it must be replaced immediately.
- not use or operate any equipment or work in a way that may endanger any worker [clause 28(2)(b)], and
- not engage in any prank, contest, feat of strength, unnecessary running or rough and boisterous conduct [clause 28(2)(c)]. Racing powered hand trucks in a warehouse or seeing who can pick up the most boxes are examples of unlawful conduct.

Rights

All employees have a range of right, from being treated and compensated fairly at work to being trained on how to work safely. Their rights are protected by the Employment Standards Act (ESA), the Pay Equity Act (PEA), the Occupational Health and Safety Act (OHSA) and the Labour Relations Act (LRA).

Rights under the ESA

1. Getting paid

You should get a regular pay day and an accompanying wage statement (“pay stub”) that is clear. It’s a good idea to keep a record of the hours that you work. Most employees are entitled to be paid at least the regular [minimum wage](#).

2. Overtime

Most employees must be paid [overtime pay](#) after 44 hours of work each week. The overtime rate must be at least 1½ times the regular rate of pay.

3. **Public holidays**

Ontario has nine public holidays every year.

- New Year's Day
- Good Friday
- Canada Day
- Thanksgiving Day
- Boxing Day (December 26)
- Family Day
- Victoria Day
- Labour Day
- Christmas Day

Most employees are entitled to take these days off work and be paid public holiday pay. Alternatively, they can agree in writing to work on the holiday and they will be paid:

- public holiday pay plus premium pay for the hours worked on the public holiday, or
- their regular rate for hours worked on the holiday, plus they will receive another day off (called a “substitute” holiday) with public holiday pay.

4. **Vacation time and pay**

Most employees earn at least two weeks of vacation after every 12 months. You are entitled to be paid at least four per cent of your total wages earned as [vacation pay](#). Any vacation pay not already paid is owed to you when your employment ends.

5. **Temporary help agency work**

[Temporary help agency employees](#) generally have the same rights as other employees under the ESA.

6. **Deductions from wages**

Only [three types of deductions](#) can be made from your wages: statutory (e.g., taxes), court-ordered and those authorized by you in writing.

Some employers require you to pay for your uniform. Deductions from your wages to pay for a uniform may be made only if you agree in writing to have a specified amount deducted. If a customer leaves without paying, or your error costs your employer money, that amount can't be deducted from your wages.

7. **Special rules**

Some jobs have special standards or exemptions. See our [Special Rule Tool](#) to learn more.

8. **The Employment Standards poster**

Your employer should have the [Employment Standards poster](#) displayed where you can read about some of your ESA rights.

9. **When a job ends**

In most cases, after working continuously for three months, you must receive advance notice in writing and/or [termination](#) pay if your employer ends your employment. The amount of notice and termination pay depends on how long you have been employed in the job.

Rights under the Pay Equity Act

The right to equal pay for work of equal value

In Ontario, both men and women have the right to receive equal pay for doing work that may be very different in nature, but is of equal value. That right is protected by the Pay Equity Act (PEA).

The PEA requires employers to ensure employees in female job classes (jobs done mostly by women) are paid as much as workers in male job classes (jobs done mostly by men) when they are found to be comparable in value to the organization based on skill, effort, responsibility and working conditions.

The PEA covers male and female employees in female job classes of all public sector employers and of private sector employers with 10 or more employees in Ontario.

Employers are required to provide you with information about pay equity in your workplace. If you are represented by a union, your bargaining agent may be able to provide you with pay equity information.

Employers cannot fire or punish you for asking about pay equity or exercising your right to pay equity.

For more information or if you think that your employer has not achieved pay equity, please contact the Pay Equity Office at pecinfo.pecinfo@ontario.ca.

The right to equal pay for equal work

The Employment Standards Act also has provisions that ensure women and men receive equal pay for performing substantially the same job. That means work that requires the same skill, effort, responsibility, and is done under similar working conditions in the same establishment. Exceptions include: higher pay based on seniority, merit, a piecework system, etc.

Rights under the LRA

Under Ontario's Labour relations Act, you have the right to join a trade union and participate in legal union activities.

It's against the law for an employer to fire you or discriminate against you for:

- joining a union
- your past association with a bargaining agent, and
- exercising any other rights under the LRA.

It's also against the law for a union or employer to intimidate or coerce you to join or not join a union.

Rights under the OHS Act

The Occupational Health and Safety Act (OHS Act) sets out the rights and duties of workers, supervisors and employers in keeping workplaces safe and healthy in provincially regulated workplaces.

Your basics rights under the OHSA

The right to know

You have the right to know about hazards in your workplace and to be trained how to protect yourself from harm. As of July 1, 2014, [the law](#) requires employers to make sure that all of their workers and supervisors have completed basic [health and safety awareness training](#). This training outlines workers', supervisors' and employers' rights, roles and responsibilities in keeping workplaces safe and healthy. This basic training for all workers and supervisors is in addition to other more detailed training required by law that depends on your workplace.

The right to refuse

You have the right to refuse unsafe work, including situations where you believe you're in danger of workplace violence. Your employer cannot fire or discipline you for refusing unsafe work or for asking them to address a health and safety issue. Your employer can't penalize you for following workplace health and safety laws and for obeying a Ministry of Labour inspector's order. This would be an unlawful reprisal.

Report hazards and any violations of workplace health and safety law right away to your supervisor or employer. If you can't get [health and safety](#) problems fixed at work, call the Ministry of Labour Health and Safety Contact Centre toll-free at 1-877-202-0008. You don't have to give your name. Services may be offered in various languages, in addition to English and French.

The right to participate

You also have the right to help identify and resolve workplace health and safety concerns. There are many ways you can do this, such as asking questions, raising concerns and giving positive feedback. One of the most effective ways you can get involved is to join the health and safety committee at your workplace.



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Violence and Harassment Policy

4th Edition

Effective Date:	Jan. 2022		Approved By:	Boris Gopka, Executive Director
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Violence and Harassment Policy

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the *Occupational Health and Safety Act* and all associated regulations and agreements.

As part of our Health and Safety Program, we have established a Violence and Harassment Policy and Program. Joint Seal Waterproofing is committed to the prevention of workplace violence and are ultimately responsible for employee health and safety. Our management recognizes that all employees have the right to work in a violence and harassment free environment and will take whatever steps are reasonable to ensure these rights are upheld. We are also committed to providing a work environment in which everyone is treated with respect and dignity.

Workplace violence or harassment, internal or external, will not be tolerated. Everyone must be dedicated to preventing workplace violence and harassment. Supervisors and employees are expected to uphold this policy and will be held accountable.

Definitions

Workplace harassment, including sexual harassment, means engaging in a course of vexatious comment or conduct against an employee in a workplace. A comment or conduct that is known, or ought reasonably to be known, to be unwelcome. Harassment may also relate to a form of discrimination as set out in the Ontario Human Rights Code.

Workplace violence is defined as the exercise of physical force by a person against an employee, in the workplace, that causes or could cause physical injury to the employee. This also includes attempts of violence and statements or behaviours that could be interpreted as a threat of violence.

Intent

This policy is not intended to limit or constrain the reasonable exercise of management functions in the workplace such as changes in work assignments, scheduling, job assessment and evaluation, workplace inspections, implementation of dress code or disciplinary action.

We will ensure this policy, and the supporting program, are implemented and maintained and that all employees and supervisors have the appropriate information and instruction to protect them from violence and harassment. Supervisors are responsible for ensuring that measures and procedures are followed and that employees have the information they need to protect themselves.

Roles and Responsibilities

Duties of employer, supervisor, employee, and Health and Safety Representative, as applicable to the Violence and Harassment prevention, are outlined in our Violence and Harassment Program (a separate document).

Incident Reporting

Employees are encouraged to raise any concerns and to report any incidents of workplace violence or

harassment to their supervisor. If the supervisor is involved in the incident, it should be reported to the Health & safety Representative. Incidents can be reported verbally or in writing by completing the Violence & Harassment Reporting Form. There will be no reprisal for an employee making a genuine complaint. However, if it is determined that a false accusation has been made in bad faith, appropriate measures will be taken.

Any employee who observes, or is a victim of workplace violence, should immediately go to a safe location and report it to their manager or supervisor. Witnesses to workplace violence should ensure their own safety and report it to their supervisor. We will take every precaution reasonable to protect the safety of the complainant(s) during the investigation. If the investigation reveals the existence of any hazard to employee(s), we will advise the potentially affected employees(s) and take every precaution reasonable in the circumstances to protect them.

Incident Investigation

Management will investigate and deal with all concerns, complaints or incidents of workplace harassment in a fair, respectful and timely manner while respecting employees' privacy as much as possible. Information provided about an incident or about a complaint will not be disclosed except as necessary to protect employees, to investigate the complaint or incident, to take corrective action or as otherwise required by law.

Nothing in this policy prevents or discourages an employee from filing an application with the appropriate Human Rights Tribunal within one year of the last alleged incident. An employee also retains the right to exercise any other legal avenues that may be available.

If an employee needs further assistance, he or she may contact the joint Health and Safety Representative, or the Human Rights Legal Support Centre.

Continuous Protection

To ensure that our employees are working in a safe environment free from violence and any type of harassment, this policy is to be reviewed by senior management at least annually, and records of such reviews shall be retained. A copy of this policy is posted on our company bulletin board and is made available, together with the Violence and Harassment Program, as part of our Health and Safety Manual.

A violence and harassment risk assessment and reassessment must be at least annually or as often as is necessary to ensure that the related policy and program continue to protect workers, with specific controls to be identified, as pertinent. Our program also outlines what measures must be applied and which procedures must be followed in case immediate assistance is required, including procedures on reporting and investigation. The program is also reviewed annually to ensure its efficacy.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022



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Violence and Harassment Program

4th Edition

Effective Date:	Jan. 2022		Approved By:	Boris Gopka, Executive Director
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Violence and Harassment Program

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the *Occupational Health and Safety Act* and all associated regulations and agreements.

As part of our Health and Safety Program, we have established a Violence and Harassment Policy and Program. Joint Seal Waterproofing is committed to the prevention of workplace violence and is ultimately responsible for employee health and safety. Our management recognizes that all employees have the right to work in a violence and harassment free environment and will take whatever steps are reasonable to ensure these rights are upheld. We are also committed to providing a work environment in which everyone is treated with respect and dignity.

Workplace violence or harassment, internal or external, will not be tolerated. Everyone must be dedicated to preventing workplace violence and harassment. Supervisors and employees are expected to uphold this policy and will be held accountable.

Definitions

Workplace harassment, including sexual harassment, means engaging in a course of vexatious comment or conduct against an employee in a workplace. A comment or conduct that is known, or ought reasonably to be known, to be unwelcome. Harassment may also relate to a form of discrimination as set out in the Ontario Human Rights Code.

Workplace violence is defined as the exercise of physical force by a person against an employee, in the workplace, that causes or could cause physical injury to the employee. This also includes attempts of violence and statements or behaviors that could be interpreted as a threat of violence.

Roles and Responsibilities

Duties of employer, supervisor, employee, and Health and Safety Representative, as applicable to the Violence and Harassment prevention, are outlined below.

Employer

Policy and program: The employer shall prepare a policy and program with respect to workplace violence and harassment, and review them as often as is necessary, but at least annually. The program must be maintained to ensure proper policy implementation.

The employer shall provide workers with information and instruction that is appropriate for the worker on the contents of the policy and program with respect to workplace violence and harassment – it will be available on the company's bullet board and on the website, as part of the Health and Safety Manual.

Risk assessment: The employer shall assess the risks of workplace violence that may arise from the nature of the workplace, the type of work or the conditions of work.

The employer shall advise the H&S Rep of the results of the assessment, and provide a copy if the assessment is in writing.

Domestic violence: If the employer becomes aware, or ought reasonably to be aware, that domestic violence that would likely expose a worker to physical injury may occur in the workplace, the employer shall take every precaution reasonable in the circumstances for the protection of the worker.

Investigation: To protect a worker from workplace harassment, an employer shall ensure that:

(a) an investigation is conducted into incidents and complaints of workplace harassment that is appropriate in the circumstances;

(b) the worker who has allegedly experienced workplace harassment and the alleged harasser, if he or she is a worker of the employer, are informed in writing of the results of the investigation and of any corrective action that has been taken or that will be taken as a result of the investigation;

All applicable duties: Any of the duties outlined in section 25 of OHSA, as appropriate, also apply to workplace violence.

Supervisor

Policy and program: Supervisors shall advise workers on risks of workplace violence from a person with a history of violent behaviour if:

(a) the worker can be expected to encounter that person in the course of his or her work; and

(b) the risk of workplace violence is likely to expose the worker to physical injury

All applicable duties: Any of the duties outlined in section 27 of OHSA, as appropriate, also apply to workplace violence.

Worker

Reporting: Workers must report any instances of violence and harassment to their immediate supervisors.

All applicable duties: Any of the duties outlined in section 28 of OHSA, as appropriate, also apply to workplace violence.

H&S Rep

Work refusal: Handling work refusals is the same for workplace violence and harassment as it is for any other workplace hazard.

Risk recognition: H&S Rep should also be able to recognize risks of workplace violence in the course of carrying out their regular functions such as inspecting workplaces.

Risk Assessment and Controls

Risk Assessment

Joint Seal Waterproofing will conduct a risk assessment of the work environment annually or as required, to identify potential risks that could impact the organization and the health and safety of employees and will institute measures to eliminate or control any identified risks (including potential external risks) to employee safety.

The following factors will be considered during the assessment:

- Past incidents of violence;

- Violence that is known to occur in similar workplaces;
- The circumstances in which work takes place, including the type of work and conditions of work; The interactions that occur in the course of performing work; and
- The physical location and layout of the workplace.

The risk assessment may include reviews of records, security reports, employee incident reports, staff perception surveys, health and safety inspection reports, first aid records, or other related records. Areas that will be considered and may contribute to risk of violence include but are not limited to contact with the public, exchange of money, receiving doors, and working alone or at night.

The company will provide the employees at the workplace with a written copy of the assessment and advise of the results.

Control Measures

If any risks of violence and harassment have been identified, the following measures will be implemented to eliminate or reduce such risks:

- A study of the circumstances in which work takes place, including the type of work and conditions of work to determine potential risks of violence and harassment of any kind;
- A study of the interactions that occur in the course of performing work to determine potential risks of violence and harassment of any kind;
- A study of the physical location and layout of the workplace to determine potential risks of violence and harassment of any kind;
- A binder containing notifications of individuals who have been restricted from company property, kept at reception;
- A procedure to alert the reception and other relevant staff of any new notifications.

Where it is determined that violence or harassment has occurred, control measures will be implemented to eliminate or control the risk of violence or harassment to a worker as a result of the investigation. These control measures will be determined on a case-by-case basis, depending on the situation investigated. Any control measure enacted will be communicated to the complainant and respondent, as well as any other employees the measure effects.

Disciplinary Measures

Any disciplinary action will be determined by the management and will be proportional to the seriousness of the behaviour or action involved in the incident.

If it is determined by the company that an employee has been involved in an incident of violence or harassment towards another employee, immediate progressive disciplinary action will be taken, up to and including immediate dismissal.

Requesting Assistance

If a violent or threatening situation is imminent or occurring, the following measures should be taken:

- Place an immediate call to emergency services using “911”

Incident Investigation and Reporting

Incident Reporting

An employee who believes they have been subject to violence or harassment should submit a complaint to management. The complaint should be made as soon as possible following the incident and must include the following information:

- The date and time of the incident;
- The name of any persons involved in the incident;
- The name of any persons who witnessed the incident; and A thorough description of what occurred.

An employee who believes they have been subject to harassment may also choose to confront the harasser without filing a formal complaint. They can confront the harasser directly or through writing, detailing the unwelcome behaviour and requesting it to stop.

If the alleged harasser is the employee’s manager, or in a position of power, the complainant can file a complaint with the Ministry of Labour.

Incident Investigation

Once a complaint has been received, Joint Seal Waterproofing will complete a thorough investigation. The organization will ensure that, where practicable, the investigation is completed within 90 days of the complaint being filed.

The investigation will include:

- Informing the respondent of the complaint;
- Interviewing the complainant and any persons involved in the incident;
- Identifying and interviewing any witnesses; and
- Obtaining statements from all parties involved.

All of the above information will be documented and used to determine whether an incident of violence or harassment occurred. If necessary, Joint Seal Waterproofing may employ outside assistance or request the use of legal counsel. The worker safety and health representative will not be involved in investigations and will not be provided with any identifying information of the parties involved.

A copy of the complaint, detailing the complainant's allegations will be provided to the respondent, who will be invited to reply in writing to the complainant's allegations. The reply will be made known to the complainant before the case proceeds.

The company will take all measures to prevent any disclosure of the incident and the identities of the parties involved, unless the disclosure is necessary for the investigation, for taking corrective action or required by law.

Results of Investigation

Upon completion of the investigation, Joint Seal Waterproofing will provide both the complainant and respondent a written summary of the findings of the investigation and any corrective action that has been or will be taken as a result of the investigation. This written notification will be provided within 3 business days of the investigation being completed but will not include the full investigation report.

Providing Victim Support

Response Procedures

To ensure that the victim receives all the necessary support, the following procedure has been established:

- Using the incident investigation form, the manager or supervisor documents all reports of workplace violence/harassment, hazards and measures taken to address them.
- If the resolution of the incident is beyond the authority of a manager or supervisor, she/he must make the CEO or equivalent aware of the report. The CEO or equivalent involves other managers or supervisors in the investigation as appropriate (e.g., when the incident involves clients or employees under another manager's or supervisor's area of responsibility).
- Management reviews all incident reports, monitors trends and makes recommendations to the CEO or equivalent for prevention and enhancements to the workplace violence and harassment prevention program.
- These findings are shared with the H&S Rep, who is consulted about any revision to the violence and harassment prevention and training program.
- The CEO or equivalent reviews reports of workplace violence/harassment and ensures that actions are taken.

The managers or supervisors who investigate the reported incident warn all staff who might be affected about dangerous situations. They also tell the reporting employee about the outcome of the investigation to help minimize the chance of similar incidents.

If a violent incident results in a critical injury to a worker, the H&S Representative or worker-designate investigates the incident or injury (Section 9(31) OHS) and reports to the MOL.

Recommendations to Victims

The company will provide appropriate assistance to any employee who is a victim of violence or

harassment. Joint Seal Waterproofing recommends that a worker who has been harmed as a result of an incident of violence at the workplace is advised to consult the worker's health care provider for treatment or referral for post-incident counselling, if appropriate.

Record Keeping

Joint Seal Waterproofing will ensure that appropriate records of complaints and investigations relating to incidents of violence and workplace harassment are kept, including:

- A copy of the complaint or details about the incident;
- Any records related to the investigation, including notes;
- A copy of the investigation report (if applicable);
- A summary of the investigation results, including the reports provided to the complainant and respondent; and
- A copy of any corrective action taken to address the complaint or incident.

Confidentiality

Joint Seal Waterproofing will not disclose the name of a complainant or a respondent or the circumstances related to the complaint to any person except where disclosure is necessary to investigate the complaint or take corrective action with respect to the complaint, or required by law. The company will only disclose the minimum amount of personal information or details necessary for these purposes.

All records of harassment, and subsequent investigations, are considered confidential and will not be disclosed to anyone except to the extent required by law. The company will do everything reasonably possible to protect the privacy of any individuals involved and to ensure that complainants and respondents are treated fairly and respectfully.

Program Review

In accordance with the Occupational Health and Safety Act, this policy will be posted in a conspicuous place in the workplace and reviewed annually.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022



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Management Review & Management of Change

3rd Edition

Effective Date:	Jan. 2022		Approved By:	Boris Gopka, Executive Director
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Management Review Policy

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the *Occupational Health and Safety Act*, and all associated regulations and agreements.

As part of our Health and Safety Program, we have established this Management Review Policy and its accompanying procedure to ensure that Joint Seal Waterproofing senior management reviews Company Health and Safety policies, procedures and programs on an annual basis, or more often if needed, to ensure compliance with applicable regulations and/or address any changes to the work environment.

Guidelines

With the Health and Safety Program in place, Joint Seal Waterproofing management team shall review it annually – or more frequently, if needed – to verify current applicability. Reviews will include an examination of hazard controls currently in place and safe work procedures in use by reviewing the Health and Safety formats filled out by supervisors and workers on the OneBuilder app and performing site visits. Any additional assessments shall be done as deemed necessary to ensure that working conditions remain safe at all times. Reviews will be conducted in accordance with the following guidelines:

1. Annual Review

Joint Seal Waterproofing will conduct an annual review of organizational health and safety policies to ensure that they remain up-to-date and appropriate. Joint Seal Waterproofing will review the previous hazard assessments and reassess the current Occupational Health and Safety Management System (OHSMS) each year to ensure that the working conditions remain safe, and that workers understand and apply the safe work procedures set out previously. By performing annual reviews, the organization gains insight into potential issues, and can proactively address workplace safety concerns.

2. Introduction of a New Task or Process

In the event that a new task or process is introduced to the work environment, Joint Seal Waterproofing will review and revise the process of hazard identification, analysis, assessment and the creation of safe work procedures to ensure that this task is completed in a safe manner at all times and does not negatively affect the safety of associated operations.

3. Tasks or Procedures are Modified

Where a change occurs that alters the established safe work procedures (e.g. when a new type of equipment is acquired or there is a change of materials), the process of review must be followed to ensure that the work is safe, and that procedures are adjusted accordingly.

4. New Hazard Controls are Implemented

Where new hazard controls are implemented, Joint Seal Waterproofing will ensure that the work is reviewed and assessed. This measure is intended to ensure that the form of control is working to eliminate and/or control the hazard as intended, and has not created a new hazard.

Regular OHSMS Review – Key to a Safe Workplace

Performing yearly reviews, at a minimum, is essential in ensuring that our current OHSMS is working properly. Year-to-year comparisons must be done in order to determine if the Corrective Action Plans (CAPs) have been implemented and whether further action is required.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022

Management Review Procedure

The entire Occupational Health and Safety Management System (OHSMS) shall be reviewed by senior management during the month of December, every year, or more often if needed, as described in the policy above, to ensure its applicability and efficiency.

Roles and Responsibilities *Senior Management*

On a yearly basis as a minimum, senior management shall review all the elements of our OHSMS to determine its effectiveness. They will determine the Corrective Action Plan for continuous improvement and set the Health and Safety Objectives for the new year.

Senior management is responsible for evaluating the effectiveness of all the elements of our OHSMS by reviewing each element of the company's health and safety manual, health and safety formats recorded on the OneBuilder app, as well as any pertinent documentation done on paper formats, and performing site visits, to determine the objectives to ensure continuous improvement, and establishing an action plan to make sure those objectives are achieved. Records of these actions shall be kept with the version of the manual being reviewed.

Supervisors

Each supervisor is responsible for keeping all the health and safety records current, performing all the inspections on time – jobsite, tool, equipment, and vehicle – and making the documentation available to management. They are also responsible for making sure the workers are carrying out the tool and equipment inspections, as stipulated in the Hazard Assessment policy and procedure, and documenting them before every use.

Workers

Each worker must inspect their tools and equipment before using them on their shift and record their findings by using the OneBuilder app.

Elements to review

The following elements our OHSMS shall be reviewed by management:

- Internal records: inspections, hazard assessments, incident reports, statistical reports, etc.
- Follow-up actions from previous management reviews.
- Changing circumstances, including developments in legal and other requirements related to OH&S (changes in business conditions, organizational structures, materials and services, legal and other requirements)
- Key performance indicators: make sure they have been developed, measured and analyzed to determine the overall OH&S performance. Comparison from previous statistics should be reviewed, and any future steps necessary to prevent reoccurrence should be implemented.
- Objectives: OH&S objectives review must be done to determine whether they have been met.
- Opportunities for improvement: these must be identified, and changes – if any – must be made to the OH&S management system.

- Changes: If needed, changes to the OH&S policy and objectives must be made.
- Results of any internal audits performed.

Action Plan

An action plan must be developed based on the findings resulting from the review.

Communication

The results of the review and the Action Plan must be communicated to the employees: they will be posted on the company's bulletin board and will be available in a corresponding binder.

Management of Change Policy

At Joint Seal Waterproofing, we regard our employees as the most valuable asset in our organization. We are committed and accountable for providing a safe and healthy work environment through a proactive occupational health and safety program, in compliance with the *Occupational Health and Safety Act*, and all associated regulations and agreements.

Definition

Management of Change (MOC) refers to the practice of ensuring that health and environmental risks, as well as safety are controlled any time there are changes in our facilities, documentation, personnel, or operations.

As part of our Health and Safety Program, we have established this Management of Change Policy and its accompanying procedure to ensure that any new workplace hazards that might be caused by changes in the work processes or materials used are identified immediately and controls are set up to continue providing a safe and healthy work environment for everyone.

To identify all the changes, all the workplace parties – management, supervisors, and workers – must be in continuous communication, to ensure that all the necessary controls are established in a timely manner.

Please refer to the procedure below for details on how the management of change shall be handled.

Efficient MOC – Key to a Safe Workplace

Timely and efficient Management of Change is essential in ensuring that our current OHSMS is helping us maintain a safe and healthy work environment. Let us all come together and ensure we communicate all the changes at our workplace in order to identify any new hazards and establish the necessary controls.

Sincerely,

Rick Rawlinson
Vice President

Date: January 24th, 2022

Management of Change Procedure

To ensure Management of Change is handled efficiently, we have established the following procedure. The participation of all workplace parties is essential in communicating all the changes at the workplace in a timely manner to ensure that the existing controls are evaluated and modified, if needed, to ensure our workplace environment remains safe and healthy.

Roles and responsibilities

Management

Members of management shall encourage continuous communication among all the workplace parties to help identify when significant changes to work processes, or equipment used make it necessary to adapt control measures. Management shall monitor legal requirements and developments in the OHS knowledge or technology to identify any changes and adapt the workplace processes to ensure our work environment remains safe and healthy. Management shall also communicate the introduction of any new products, processes, or services to the other workplace parties, and help in the development of any required controls.

Supervisors

Every supervisor shall report to management on any changes that need to be made to work processes, tools, equipment, or materials to be used, so that they can work together with management on establishing new controls or modifying the existing ones. They shall also encourage the workers on their crews to promptly report any changes that need to be made in order to work safely and efficiently.

Workers

Every worker shall provide input on any modification to the existing work processes that they deem necessary in order to maintain a healthy and safe work environment.

Hazard Assessment and Controls Development

Once changes are identified, hazard assessment must be carried out to identify whether there are any new hazards. Should that be the case, new controls must be established, or the existing ones modified to ensure the work environment remains safe and healthy for everyone.

Acknowledgement and Agreement

I, _____, acknowledge that I have been given an overview of the contents of Joint Seal Waterproofing Health and Safety manual and am aware that I can consult it at any time on the company's website. Further, I agree to adhere to the policies and procedures contained herein and will work safely.

If there are employees working under my direction, I will ensure they adhere to this policy.

I understand that if I violate the rules/procedures outlined in this policy, I may face disciplinary action, up to and including termination of employment.

Yo, _____, reconozco que se me ha proporcionado una descripción general del contenido del manual de Salud y Seguridad de Joint Seal Waterproofing, y soy consciente de que puedo consultarlo en cualquier momento en el sitio web de la empresa. Además, acepto adherirme a las políticas y procedimientos contenidos en este documento y trabajaré de manera segura.

Si hay empleados trabajando bajo mi dirección, me aseguraré de que se adhieran a estas políticas.

Entiendo que si violo las reglas/procedimientos descritos en este manual, puedo enfrentar una acción disciplinaria, que puede incluir la terminación del empleo.

Name / Nombre: _____

Signature/ Firma: _____

Date / Fecha: _____

Witness / Testigo: _____