



# SAFETY MANUAL

*'Ensuring we ALL get home safely'*

Printed Manual # 6

## Document Control

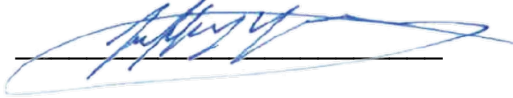
### Acknowledgement

This Manual has been issued to: NexGen Mechanical Inc.

I acknowledge receipt of Printed Manual #: 6

I confirm that:

- ✓ I have read and understand the requirements in this Manual;
- ✓ I will at all times comply with the requirements in this Manual;
- ✓ I will do my best to ensure that my co-workers and contractors comply with the requirements in this Manual.

Signed: 

Date: May 20, 2026

Please return completed form to NexGen Mechanical Safety Department.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

**Record of Changes**

| Date          | Change Description                               | Approved By:   |
|---------------|--------------------------------------------------|----------------|
| May 2021      | Initial Publication                              | Jeff Young     |
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All manual updates are communicated to workers in the next General Safety Meeting; any significant changes are additionally communicated via email.

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## Section 1 MANAGEMENT INVOLVEMENT

### 1.1 Safety Policy

NexGen Mechanical is committed to the health and safety of all employees, contractors, clients, and the public. All employees of NexGen Mechanical are responsible for ensuring that the safety program is continually updated, improved, and maintained (including an annual review by Senior Management). Employees at every level are responsible and accountable for our overall safety initiatives. We take responsibility in upholding this commitment by:

- Complying with applicable safety laws, government regulations, industry standards, and our own policies. Exercising sound judgment and common sense when undertaking any work related tasks.
- Working with our employees to promote a healthy and safe work environment. Including ensuring the physical, psychological, and social well-being of our employees is protected and maintained.
- Making safety considerations an integral part of our planning process.
- Remaining sensitive to the concerns of the public.
- Identifying and mitigating the adverse impacts of our operations on the environment in keeping with good environmental and business practices.
- Responding to safety emergencies in a prompt and efficient manner.
- Committing sufficient resources to ensure that its employees are fully informed of their responsibilities and are trained in safety while performing their duties. NexGen Mechanical has a commitment to work in a spirit of consultation & cooperation with the workers.
- Taking an active approach to understanding any potential health, safety or environmental issues that may pertain to work undertaken as an employee or contractor of NexGen Mechanical.

All NexGen Mechanical employees and contractors are responsible for obeying all safety rules, following recommended safe work procedures, wearing and using personal protective equipment when required, participating in safety training programs and informing supervisors of any unsafe work conditions. Do not participate in any activities you deem unsafe; you have the right to refuse unsafe work. You are not expected to sacrifice the safety or well-being of personnel for expediency or any other reason.

Management, employees, and contractors are all committed to meeting this policy, now and in the future. Our ultimate goal is to have an accident free environment and protection from accidental loss.

  
\_\_\_\_\_  
President - Jeff Young

**May 15, 2026**  
Date

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## **1.2 Company Profile**

Established in Saskatoon in 2010, NexGen Mechanical specializes in all facets of commercial heating, cooling, plumbing, sheet metal, and ventilation services. Our goal is to become a long term business partner with our customers by providing deep industry knowledge and strong technical skills paralleled with superior customer service.

NexGen Mechanical is a fully licensed and bonded mechanical contractor providing services in Saskatoon, Prince Albert, and surrounding areas. Our priority is customer satisfaction and every effort is made to ensure that our customers receive the quickest response to their needs in the most economical method possible.

Our goal is to always strive to meet the best practices of the HVAC/R and plumbing industry. With new technologies and industry building codes constantly emerging and changing, we not only provide our customers with quality products and services but also sound advice you can count on.

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### **1.3 Responsibilities**

The President has the ultimate responsibility for the health, safety and environmental management system. The President will ensure adequate support, resources, programs and systems are in place to safely perform company activities. The President recognizes that all workers have the right to work in a safe and healthy workplace.

The President is responsible to:

- Provide the economic and physical resources to implement and operate the health, safety and environmental management system
- Establish annual health, safety and environmental objectives.
- Identify to senior members of management their specific HSE responsibilities.
- Communicate with senior government, client and employee association officials to foster an environment complementary to the promotion of the health, safety and environmental management system.
- Participate in major accident investigations that result in fatal or permanently disabling injuries and all major loss incidents.
- Review and evaluate remedial actions of all fatal, permanent or temporary disabling and medical aid injuries and serious or major losses.
- Endorse the Health, Safety and Environmental Policy Statement.
- Participate in formal safety functions at the worksite level.

#### **1.3.1 Company Managers**

NexGen Mechanical management will actively promote the health and safety of employees and contractors by ensuring that all personnel at worksites are adequately trained and prepared. NexGen Mechanical will make workers aware of their responsibilities and ensure that all relevant regulations are followed.

The Managers are responsible to:

- Administer all phases of the health, safety and environmental management system at the site and ensure all supervisors and workers understand and are accountable for compliance with performance standards.
- Review all accident reports regardless of severity, including all near-misses, injury and other losses. Ensures corrective action is taken to prevent recurrence of same or similar incidents.
- Review the results of the previous year's audits (if applicable) to initiate improvement and set a strategic direction.
- Enforce all phases of the established health, safety and environmental management system.

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- Ensure adequate and suitable safety equipment is supplied. Review all requests and needs for additional safety equipment.
- Demonstrate ownership, leadership and active participation in all phases of the health, safety and environmental management system.
- Set and demand high health, safety and environmental management system standards for all employees.

### **1.3.2 Company Supervisors**

NexGen Mechanical supervisors have day to day contact with the workers, the main safety goal of supervisors / foreman is to show, by means of example, safe work practices and habits.

The Supervisors are responsible to:

- Establish with all employees an understanding of their responsibilities and specific duties.
- Assist in the completion of all accident reports regardless of severity, including all near-misses, injury and other losses. Ensures corrective action is taken to prevent recurrence of same or similar incidents.
- Review and evaluate individual safety performance; provide guidance and facilitate training, where needed, to improve performance.
- Enforce all phases of the established health, safety and environmental management system. Be an example.
- Ensure adequate and suitable safety equipment is supplied, and is properly used, cared for and maintained.
- Conduct pre-job hazard identification surveys prior to the commencement of work.
- Demonstrate ownership, leadership and active participation in all phases of the health, safety and environmental management system.

NexGen Mechanical will supervise its own subcontractors. Subcontractors working for NexGen Mechanical must meet the same safety standards as NexGen Mechanical personnel. Before using any subcontractor the NexGen Mechanical site supervisor must ascertain that the subcontractor meets the NexGen Mechanical contractor pre-qualification requirements.

### **1.3.3 Company Employees**

At NexGen Mechanical we take care to maintain a professional and proper work environment. In regards to behaviour, the following principles should be followed:

- Employees are expected to be polite and courteous, and to co-operate with all other employees and contractors.
- Employees must behave in a manner that ensures the safety of yourself and your fellow employees.

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- Ensure that fellow workers are also practicing safe work practices; discuss this with the worker or alternatively, report individuals you feel are endangering the health and safety of themselves or their fellow workers.
- Call for assistance when needed, rather than attempting to do a hazardous job under-equipped or alone.
- Report any identified hazards or hazardous conditions to a Manager or Supervisor.
- Report any Accidents/Incidents that occur while working at NexGen Mechanical to Management.
- Become thoroughly familiar with the safety program and its requirements.
- Actively participate in safety program development (ongoing evaluation) and maintenance.
- Follow safety standards and safe work procedures set out by NexGen Mechanical and regulatory requirements.
- Refuse to perform work when unsafe conditions exist (as defined in provincial occupational health and safety legislation), and refuse to perform work that you are not competent to perform.
- Immediately report to supervisors all accidents, incidents, injuries, and illnesses.
- Use required Personal Protective and Safety Equipment.
- Check tools and equipment, including personal protective and safety equipment for hazards before using them.
- Identify and report any safety hazards and unsafe work conditions or inadequately equipped or trained personnel to management immediately.
- Approach management about any issues relevant to the safety program that you feel would improve the health or safety of NexGen Mechanical employees, contractors, or the environment.

NexGen Mechanical personnel must not enter on to a client site without first notifying them that we are entering that site. When this cannot be done (ie. Remote sites, away from local operators), NexGen Mechanical Personnel must notify the office of their location. If NexGen Mechanical personnel are going to enter an active site or facility the clients' Safe Work Permit must be filled out and permission to enter the site must be obtained.

#### **1.3.4 NexGen Mechanical Contractor Responsibilities**

*The definition of a contractor is a person who, or a partnership or group of people that, pursuant to one or more contracts, directs the activities of one or more employers or self-employed people involved in work at a place of employment. A subcontractor is the employer or self-employed person hired to work under contract.*

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If an outside company or self-employed person is hired on a contract and you direct their activities, then you become a 'contractor' under health and safety legislation. The following will need to be done:

- Set up a system of shared responsibilities and determine 'who is responsible for what' in relation to the health and safety of **all** workers in the workplace;
- Control any health and safety hazards—over which you, as the contractor have complete and direct control—that could affect the subcontractor (keep in mind that the subcontractor is responsible for controlling hazards within the subcontractor's direct and complete control);
- Co-operate with subcontractors to control health and safety hazards that are not within the direct and complete control of the contractor;
- Co-ordinate the health and safety programs of two or more subcontractors working at the place of employment;
- Provide subcontractors and their occupational health committees with any relevant information available to the contractor that could affect their health and safety, or anyone else's health and safety;
- Ensure subcontractors understand who is responsible for health and safety activities that affect them;
- Monitor subcontractors to ensure they comply with workplace health and safety requirements, and taking action to correct any non-compliance.

### **1.3.5 Visitors**

All visitors must report to a supervisor immediately upon entering a location. Visitors include Regulatory Authorities, Landowners, any other person who is not essential to the operations and has not been orientated to the site. Visitors are never allowed to walk around unescorted, and must follow the instructions of the site supervisor or person escort. All visitors must wear the proper Personal Protective Equipment.

## **1.4 Work Site Health and Safety Committee or Representative**

A work site health and safety committee is a communications link between workers and management. Its purpose is to promote awareness and interest within the company of health and safety at the work site. NexGen Mechanical Committee member's work together to identify and help solve health and safety concerns in the workplace. Our health and safety committee is designed to improve the health and safety culture of the workplace and eliminate hazards and reduce incidents associated with work processes.

Every employer and worker in the province has a moral and legal responsibility to maintain a safe and healthy work site. Committee members need the strong

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support of company management since they are the ones who make things happen. Health and safety must be managed just like production, quality, and maintenance.

The purpose of the joint health and safety committee is to:

- Inspect the work site for hazards.
- Respond to health and safety concerns brought to it by workers.
- Helps find solutions to difficult health and safety concerns — problems that can only be solved through co-operative efforts.
- Analyses the causes of incidents to prevent recurrence.
- May assist in the development of realistic safety policies and safe work procedures.
- May help with new employee orientation to identify potential health and safety hazards.
- Promotes health and safety awareness throughout the work force.

### **Committee Members**

NexGen Mechanical has selected persons for the committee to ensure that there is a sufficient number of members representing workers on the committee to equitably represent groups of workers who have substantially different occupational health and safety concerns.

### **Committee Membership**

NexGen Mechanical committee members must hold office until a successor is designated, and may be re-designated for a second or subsequent term. A quorum consists of one half of the members of a committee where representatives of both employers and workers are present and at least one half of the members present represent workers. Any business of a committee that is transacted where a quorum is not present is not a valid meeting of the committee.

### **Co-Chairs to the Committee**

At the first meeting of committee members of the committee representing workers shall elect a worker co-chairperson from among their number and the employer or contractor shall appoint an employer or contractor co-chairperson from the members of the committee representing the employer or contractor.

### **Frequency of Meetings**

The health and safety committee at NexGen Mechanical shall hold its first meeting within two weeks after being established, hold three subsequent meetings at intervals not exceeding one month and after that, hold regular meetings at intervals not exceeding three months.

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**Meeting Minutes**

The NexGen Mechanical committee must record minutes of each meeting in a format provided by the division and keep the minutes on file with the committee and post a copy of the minutes at a location that is readily accessible to workers at the place of employment until all concerns recorded in the minutes are resolved.

**Training**

All committee members must be trained on what is expected of them. All of the representatives and co-chairpersons receive training respecting the duties and functions of their job and the committee.

**Imminent Dangers**

A representative may call a special meeting with and employer to deal with urgent concerns, imminent dangers to health or safety or investigations of accidents or dangerous occurrences.

**The Benefits of a Successful Health and Safety Committee**

- **Injuries decrease**

Time lost due to injuries is reduced. Associated costs such as overtime, retraining, and wages paid to other workers who stopped work or assisted after incidents are often avoided.

- **Occupational diseases prevented**

The acute effects of harmful chemicals — headache, dizziness, nausea, disorientation, poisoning, and skin problems — may be prevented. Long term or chronic effects such as cancer, lung disease, or nerve damage may also be prevented if appropriate measures are taken to protect workers.

- **Morale of the work force improves**

The committee draws attention to needs and improvements in health and safety. It provides each worker with a communication channel to ensure their concerns receive attention. Workers can see the results and know that the employer is genuinely interested in eliminating hazards. The work site becomes a safer, cleaner, more orderly, and more agreeable place to work.

- **Damage decreases**

There is generally little difference between the causes of an incident that damages material or equipment and the incident that damages a worker's body — both have costly consequences. WCB costs will rise.

- **Production stoppages are reduced**

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Consider how much downtime is the result of equipment failure or poor work habits. Such stoppages could be reduced through the work of a successful health and safety committee on a regular basis.

- **Waste of material decreases**

Waste is often the result of poor work procedures that can be brought under control by an increased awareness of health and safety.

### **Attitudes of a Good Committee Member**

- **Always be ready to listen to the concerns of other workers**

Just looking cannot identify many hazards. You need to be told about them by other workers. So always be ready to discuss their concerns and encourage their participation in all aspects of safety.

- **Be sure you use safe work practices yourself, and obey all safety rules**

It is by your example, and that of supervisors, that people will believe good work habits are important.

- **Do not let anything pass that is unsafe**

If you choose to overlook any health and safety concern, you and the safety program will lose credibility. Always take action. If you cannot expect an immediate answer from workers or a supervisor, tell the co-chair. If you are the co-chair, take the concern to the manager. If you cannot see it being resolved that way, be sure to bring it up at the next committee meeting.

- **Do not give up on any concern that is unresolved**

However long and difficult the answer, make sure it is found. Sometimes, when the concern is not a health and safety matter, the answer is “no action needed”. But where it involves poor work habits or procedures, make sure the crew is given an opportunity to get together and discuss the proper way of working. If the concern is difficult to identify or solve, make sure that efforts are continued until all facts have been obtained. Then try out ideas until a successful answer is found.

- **Do not become involved in matters that are not health and safety concerns**

Sometimes a concern is expressed about labour-management matters, or social events. Without being offensive, let the person know that you cannot take responsibility for matters that do not involve risks to health or likelihood of injury. Concerns like overtime schedules, parking privileges, and who pays for safety shoes are not safety problems. They are management or labour-management matters.

- **Do not exceed your authority**

Remember your responsibility is to identify concerns, and to enquire how and when they will be resolved. You are not there to order corrective action, you are there to recommend it. You are not there to take the blame for things that go

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uncorrected, or for incidents that may result. If you are to have any authority to interfere, such as shutting down an unsafe job, you must wait until the manager grants that authority and notifies the entire workforce of the powers you have been told to exercise on his behalf.

- **Do not interfere with equipment controls**

It is right to pick up tools or garbage that cause tripping or slipping hazards, but it is wrong to push switches, move hoists, or disconnect power tools that you think should not have been left the way you found them. Serious accidents can result from stopping, starting, or moving equipment. No matter whether you are a worker member of the committee, or the manager himself, do not operate or interfere with other people's equipment. Find out who is in charge and tell them what is wrong. If the equipment is extremely dangerous, leave someone to keep watch while you find the offending operator. The only time you should touch the controls of somebody else's equipment is a last-ditch attempt to avert a serious incident.

- **Get help in situations you don't understand**

Whenever a problem is beyond your understanding or confidence in handling, seek the help of other committee members or the co-chair. If further help is necessary, contact the Workplace Health and Safety Contact Centre.

- **Incident prevention**

Because most incidents are caused by defects in attitudes and equipment, a big part of your job will be finding ways to remove these defects. But changing people's attitudes is a difficult matter. These are special techniques you will need to use when dealing with the causes of unsafe behavior or poor work attitudes

## **Conduct of Meetings**

Co-chairs should ensure that:

- All committee members receives an agenda of the meeting;
- The best possible room is made available, interruptions should be avoided;
- That all committee members are made aware that there is a meeting planned;
- Provide copies of the previous meeting's minutes and all incident reports should be provided for each member wherever practical;
- The minutes should be taken on a standard form. The meeting minutes need to include:
  - Attendants;
  - Meeting date;
  - Topics discussed and the discussion notes;
  - How the issues were resolved, and who is responsible for the corrective action;
  - The completed action plan and includes target dates and name of the person responsible for the corrective action;
- Review of previous business;

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- New safety concerns that were discussed and the problems/concerns that should be resolved.

## **1.5 Workers 3 Rights**

### *Right to Know:*

The right to know means that as a worker, you have the right to be informed by NexGen Mechanical of known or likely hazards in the workplace, and to be provided with the information, instructions, education, training, and supervision necessary to protect your health and safety. This information should be provided before the work begins.

For example, information can be in the form of product labels, safety data sheets, safe work procedures, or codes of practice. Instructions can be verbal or in writing, and be provided by a supervisor, another employee at the workplace, or external providers. Training can be workplace specific, delivered by someone in the workplace, on-line, or be provided by outside agencies as long as it meets the needs of the employer and worker for your workplace.

### *Right to Participate:*

This right allows workers to have input on the steps taken by NexGen Mechanical to ensure health and safety.

Workers can provide input on what would make the workplace safe by:

- participating as a member of the health and safety committee (if the workplace requires one).
- being a health and safety representative for the workplace when given the opportunity.
- reporting any concerns whenever you encounter a health and safety matter that could cause harm to your health and safety or the health and safety of your co-workers.
- making suggestions to the committee or NexGen Mechanical on how to make your workplace safer.

### *Right to Refuse:*

The right to refuse is normally used when the first two rights fail to ensure your health and safety. Exercising this right is serious and should not be done lightly or as a routine method of solving workplace problems. However, workers should not be afraid to exercise their right to refuse when they believe that the work will endanger their health or safety, or that of others.

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## **1.6 Health and Safety Performance Evaluation**

The Safety Manual will be reviewed on an annual basis at a minimum. Specific policies and procedures currently in the Health and Safety Program can and will be reviewed if requested by any employee or government/legislative agency. Employees are encouraged to become actively involved in the review of the Program at any point.

Any minor changes in the program will be communicated during a safety meeting. These will be changed in print annually.

If the changes are encompassing and/or change the way a task is performed they will be changed in writing and introduced immediately or prior to the onset of the task.

After the Review or Audit is complete, NexGen Mechanical will have a meeting to discuss the results with the employees. It is important for everyone within the organization to know where our strengths are and what we will be working on over the next year.

A rolling action plan will be kept with any improvement opportunities found during the Audit / Review.

## **1.7 Safety Recognition**

NexGen Mechanical will work diligently to recognize personnel who exhibit outstanding safety performance on the job. To ensure that no worker is overlooked, NexGen Mechanical requests the assistance of all employees, sub-contractors and clients to notify the management either verbally or by written notice of a worker's accomplishment.

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## Section 2 HAZARD IDENTIFICATION AND CONTROL

### 2.1 Hazard Assessment

The fundamental principle of a Health and Safety Program is to reduce injury and disease to employees. One of the most important aspects of a health and safety program is hazard assessment. Hazard identification is crucial in the workplace.

NexGen Mechanical believes the best method of preventing injury or loss is by knowing what the potential hazards are. This is done in two ways:

- The first is a review of all common workplace and field tasks and hazards. This is completed annually for all critical tasks and is completed with all affected workers. The forms used to complete the **Critical Task Analysis** process include: **Job Inventory, Tasks List, Job Hazard Analysis / Procedure (JHA), and On The Job (OTJ) Training Record.**
- The second is at the work site level to identify existing or potential hazards. This **Job Site Hazard Assessment and Control Measures** must be done before work begins at the work site and prior to the construction of a new work site. It must be repeated at reasonably practicable intervals to prevent the development of unsafe and unhealthy working conditions, when a new work process is introduced, or when a work process or operation changes.

To be sure that all hazards are identified:

- Ensure the following 4 categories are assessed for each step:
  - Physical (e.g. radiological, working at heights, lifting heavy loads, extreme temperatures, violence, ergonomics, etc.)
  - Chemical (e.g. fumes, vapours, gases, waste products, etc.)
  - Biological (e.g. bodily fluids, viruses, bacteria, moulds, etc.)
  - Psychological (e.g. harassment and bullying, stress, fatigue, etc.)
- Look at all aspects of the work,
- Include non-routine activities such as maintenance, repair, or cleaning,
- Look at accident / incident / near-miss records,
- Include people who work "off-site" either at home, on other job sites, drivers, teleworkers, with clients, etc.,
- Look at the way the work is organized or "done" (include experience and age of people doing the work, systems being used, etc.),
- Look at foreseeable unusual conditions (for example: possible impact on hazard control procedures that may be unavailable in an emergency situation, power outage, etc.),
- Examine risks to visitors or the public,

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- Include an assessment of groups that may have a different level of risk such as young or inexperienced workers, persons with disabilities, or new or expectant mothers.

A hazard at the workplace is any condition that has the potential to cause injury, illness or a loss. A hazard assessment conducted in the workplace is one of the most effective ways of ensuring a safe work environment. It is simply a careful look at what could harm workers or cause environmental damage at a workplace.

The benefits of conducting this written hazard assessment may include:

- Creating awareness of hazards and risks,
- Reducing the number and severity of incidents;
- Identifying the need for worker training;
- Identifying inadequate or missing procedures;
- Identifying the need for equipment maintenance;
- Reducing production losses and property damage;
- Increasing worker involvement in health and safety issues;
- Identifying who may be at risk (employees, subcontractors, cleaners, visitors, contractors, the public, etc.);
- Determining if existing control measures are adequate or if more should be done;
- Preventing injuries or illnesses when done at the design or planning stage; and,
- Prioritizing hazards and control measures.

The effectiveness of the hazard prevention program is evaluated, and, if necessary, revised:

- at least every three years;
- whenever there is a change in conditions in respect of the hazards; and
- whenever new hazard information in respect of a hazard in the work place becomes available.
- when operations work related processes or equipment are modified.
- when site specific hazard inspections/investigations identify a previously unrecognized hazard.

### **2.1.1 Hazard Identification**

During this process, individuals are able to identify potential hazards while evaluating equipment, machinery, work areas and activities. Once all potential hazards have been identified, they must be systematically prioritized with any imminent danger to workers being rectified prior to work commencing. Some examples of work site hazards include, but are not limited to:

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- Slipping and tripping hazards;
- Fire from flammable substances;
- Oxygen deficient atmosphere;
- Harmful substances;
- Moving parts on machinery;
- Working at heights;
- Trenches/excavations;
- Pressure systems;
- Vehicles and equipment;
- Energized equipment (i.e., electricity, stored energy);
- Fumes;
- Lifting and handling loads;
- Poor lighting;
- Chemical storage/handling;
- Noise exposure;
- Repetitive work; and
- Workplace violence.

Three commonly used methods to identify hazards are:

1. Physical inspections, both informal and planned;
2. Critical Analysis which includes breaking down workers actions into individual tasks, and identifying hazards involved with each task; and
3. Incident/accident investigation findings.

### **2.1.2 Assessing Hazards**

Once these hazards have been identified, individuals are better able to assess the potential risks and harm that could occur by the identified hazards. In assessing hazards it can be determined if adequate precautions have been taken and if more needs to be done (process changes need to be made).

All Employees must report any unsafe or harmful conditions including a list of potentially harmful substances found during the inspections if they cannot be fixed immediately.

At this stage hazards must be eliminated, isolated, or minimized. It may not always be practical to eliminate or isolate a hazard. In such cases these hazards must be minimized to an acceptable level through the development of Safe Work Practices, special training and personal protective equipment. Hazards that are identified at the worksite must be addressed immediately and mitigated.

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### **2.1.3 Controlling the Hazard**

If possible, all hazards must be eliminated. If the hazard cannot be eliminated then Engineering, Administrative and/or PPE controls must be put in place. Engineering controls are incorporated into the process itself, sometimes as part of the equipment. Substitution or isolation are both engineered methods. Administrative controls are used to minimize the exposure to a hazard by worker training and worker rotation. If the engineering or administrative controls do not achieve enough of a control then NexGen Mechanical must ensure workers affected by the hazard use the appropriate PPE. A combination of engineering, administrative and PPE controls may be the best method to achieve a greater level of worker safety.

#### *Engineering Controls*

Engineering controls should be used first, if possible; they provide the highest degree of control because they eliminate or control the hazard at its source. The use of engineering controls includes:

*Elimination:* Completely removing a hazardous job, tool, process, machine, or substance;

*Substitution:* Substituting or replacing one substance or process with another that would not pose a potential hazard;

*Redesign:* Hazards can often be "engineered out" through redesign of the work site, work processes, and jobs;

*Isolation:* Hazards can often be isolated through containment or enclosure;

*Automation:* Some processes can be automated or mechanized;

*Barriers:* Some hazards can be blocked or barricaded. The further the barrier keeps the hazard away from the workers, the more effective it is;

*Absorption:* Engineering controls that would absorb the hazard such as baffles that block or absorb noise; and

*Dilution:* Some hazards can be diluted or dissipated.

#### *Administrative Controls*

If engineering controls are not feasible or practical, then administrative controls are the next approach to controlling the hazard. The uses of administrative controls include, but are not limited to:

- Planning and communication;
- Safe Work Practices;

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- Clients Safe Work Permits;
- Work/rest schedules limiting exposure to the hazard;
- Limiting hours of work;
- Scheduling hazardous work during times when exposure to workers is minimized;
- Monitors and alarm systems;
- Training;
- Safety meetings; and
- Posters and bulletins.

#### *Personal Protective Equipment*

Personal protective equipment (PPE) must always be used as a last resort in controlling hazards. PPE is less effective as a control as it does not eliminate the hazard. The PPE must be properly maintained and worn by workers.

#### **2.1.4 Training**

Workers must understand the process to identify, reduce, and eliminate hazards within the workplace. This training will be on the job with workers with more experience leading to point out the more common hazards (using the OTJ training Form). NexGen Mechanical will provide health and safety education to each employee and address the following:

- How to properly fill out paperwork to ensure everyone is aware of the hazards and severity;
- When to stop work based on a severe hazard;
- The proper use and care of PPE;
- The hazard prevention program implemented to prevent hazards applicable to the employee, including the hazard identification and assessment methodology and the preventive measures taken by NexGen Mechanical;
- The nature of the work place and the hazards associated with it;
- The employee's duty to report; and
- An overview of the OHS Act and hazard prevention throughout the regulations.

#### **2.1.5 Critical Task Analysis**

NexGen Mechanical will, in consultation with and with the participation of the policy committee, or, if there is no policy committee, the work place committee or the health and safety representative assess workplace hazards. Critical Task Analysis is completed once and reviewed and updated annually (at a minimum).

At NexGen Mechanical there is a formal process in place to identify potential hazards. Hazards are identified by the use of the **Critical Task Analysis** Process using the forms **Job Inventory, Tasks List, Job Hazard Analysis / Procedure,**

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and **On The Job (OTJ) Training Record**. The Job Inventory identifies each position within the company and the Tasks List defines all of the tasks by position. The Tasks List (risk assessment) identifies things, situations, processes that may cause harm to property or people. After identification of the tasks (risks) has occurred, a **Job Hazard Analysis / Procedure** is completed addressing the frequency, probability, and severity of the risk, as well as what measures should be in place to effectively prevent or control the harm from happening. This process allows the hazard or reduces the level of its risk by adding precautions or control measures.

These formal hazard assessments must be created, reviewed, and revised at the following times:

- When new operations, equipment, materials, or products are introduced;
- When operations or equipment are modified; and,
- Annually.

NexGen Mechanical has developed, implemented and continues to monitor a program for the prevention of hazards in the work place. This program is appropriate to the size of our work place and addresses the hazards we have. Our **Critical Task Analysis** program includes the following components:

- an implementation plan;
- a hazard identification and assessment methodology;
- hazard identification and assessment;
- preventive measures;
- employee education; and
- a program evaluation.

All hazards in the work place have been identified and assessed taking into account:

- the nature of the hazard;
- the employees' level of exposure to the hazard;
- the frequency and duration of employees' exposure to the hazard;
- the effects, real or perceived, of the exposure on the health and safety of employees;
- the preventive measures in place to address the hazard;
- any other relevant information.

The benefits of conducting a **Critical Task Analysis** are that previously undetected hazards may be identified, job knowledge and health and safety awareness of those participating will be increased, communication between workers and supervisors is improved, and acceptance of safe work procedures is promoted.

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We have created a list of tasks that we perform; some of those tasks have been assessed as critical. A task may become critical based on frequency, severity, or probability. This list will be updated as new tasks are introduced. All tasks listed as critical will have a corresponding JHA completed with input of workers. The hazard identification process is used for routine and non-routine activities as well as new processes, changes in operation, products or services.

### 2.1.6 Hazard Priority Ranking

When a JHA is started at NexGen Mechanical the hazards must first be identified, then classified or prioritized based on severity associated with the task or item.

The first ranking estimates the **severity** of the problem if the potential accident/incident were to occur:

1. Negligible/Ok (e.g. minor injury, requiring first aid or less)
2. Minor (e.g. non-serious injury, illness, or damage)
3. Serious (e.g. severe injury, serious illness, property and equipment damage)
4. Imminent Danger (e.g. causing death, widespread occupational illness, loss of facilities)

The second ranking estimates the **probability** (think in terms of risk assessment) of the accident/incident occurring:

1. Extremely remote – unlikely to occur
2. Remote – could occur at some point
3. Reasonably probable – likely to occur eventually
4. Probable – Likely to occur immediately or soon

\*\*\*See the chart

| PROBABILITY                                                                                                                                                                                                                                  | POTENTIAL SEVERITY |           |             |                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------|-------------|---------------------|
|                                                                                                                                                                                                                                              | 1 - Negligible     | 2 - Minor | 3 - Serious | 4 - Imminent Danger |
| 1 - Extremely Remote                                                                                                                                                                                                                         | 1                  | 2         | 3           | 4                   |
| 2 - Remote                                                                                                                                                                                                                                   | 2                  | 4         | 6           | 8                   |
| 3 - Reasonably Probable                                                                                                                                                                                                                      | 3                  | 6         | 9           | 12                  |
| 4 - Probable                                                                                                                                                                                                                                 | 4                  | 8         | 12          | 16                  |
| Ranking Values:                                                                                                                                                                                                                              |                    |           |             |                     |
| 1 to 2 - Low Risk - No further action required                                                                                                                                                                                               |                    |           |             |                     |
| 3 to 6 - Medium Risk - Risk controls must be in place and review potential for risk reduction if or when available                                                                                                                           |                    |           |             |                     |
| 8 to 16 - High Risk - Immediate action should be taken if an action plan is feasible to reduce risk to a level as low as practicable. Risk controls and JHAs (Procedures) are required along with worker awareness, training and competency. |                    |           |             |                     |

The frequency component must be also noted on the JHA, different training will be required based on if the task will be completed daily, monthly, or annually.

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This manual contains safe work practices and JHA's that all employees must refer to. Any tasks that may arise that are deemed to have hazards will be evaluated and rated prior to a safe work practice or JHA being compiled.

### **2.1.7 Daily Hazard Assessment**

All affected workers, sub-contractors, visitors, and clients on site must participate in the daily hazard assessment, documented on the **Job Site Hazard Assessment and Control Measures** form; this must be completed prior to starting all work and if someone arrives late they must be informed and signed onto the form. This can be done with team involvement, or singly if the job is to be done by one employee. All daily hazard assessments must include (in writing) documentation of workers names, date, hazards, controls, and priority. The priority of the hazard is rated as High, Medium, or Low, based on the impact the hazard could have. The daily hazard assessment allows for the opportunity to identify hazards which either have not been identified during a pre-job formal assessment, or hazards which arise or can arise when doing the work. Controls identified during the hazard assessment must be put into place before anyone starts work. Each control or action must have a person listed to ensure the control is put in place and stays in place.

If the work is deemed too hazardous it must be stopped immediately until proper controls can be put in place. The daily hazard assessment must be repeated if the workers change site locations or if hazards change.

### **2.1.8 Hazard Reporting – Hazard Report Form**

Once the Hazard Assessment has been completed, it must be updated regularly and as hazards change. All workers (including subcontractors) must report any unsafe or harmful conditions including a list of potentially harmful acts and substances found during the inspections if they cannot be fixed immediately (this is put on the Hazard Report Form). If a hazard is noticed during the shift employees can report these hazards verbally to other Employees, but they must follow that verbal report with a written report once it is practical to do so. If the hazard is severe, work must be stopped and the hazards reassessed. Reports of hazards submitted to NexGen Mechanical must always be written.

A hazard report must include the following:

- Description of the *hazard* and its location;
- Time and date first noticed;
- The risk it presents;
- Control measures needed; and
- Interim actions taken, if any.

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All hazards reported will be immediately investigated and controlled. A worker will be assigned to correct the hazard and a specific time or date will be given for completion.

NexGen Mechanical must receive all written reports within 24 hours or sooner if immediate action is necessary.

Hazards that are identified at the worksite must be addressed immediately and mitigated. The supervisor must ensure that the hazard has been controlled to an acceptable level prior to the commencement or restart of the task. The written **Hazard Report** must indicate the hazard and all controls in place to mitigate the hazard; the person responsible to ensure the hazard stays mitigated must be specified.

### **2.1.9 Emergency Control of a Hazard**

In the event of an emergency (dangerous to the safety or health of workers) only those workers competent in correcting the condition, and the minimum number of workers necessary to correct the condition may be exposed to the hazard. Every reasonable effort must be made to control the hazard while the condition is being corrected.

### **2.1.10 Communication to Affected Workers, Bystanders and Visitors**

NexGen Mechanical will appoint a representative at every worksite to control access to individuals and ensure that workers affected by the hazards identified in a hazard assessment report are informed of the hazards and the methods used to control or eliminate the hazards.

### **Review Process**

All hazard assessments are reviewed periodically while on-site, then again by a supervisor; they are also reviewed when changes occur to the operation, and when results from a job site hazard assessment, inspections, and investigations warrant it. At NexGen Mechanical all hazard assessments are reviewed to ensure that a new hazard has not been created from the corrective measures put into place to prevent impact from another hazard.

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## 2.2 Inspections and Monitoring Worksites

Inspections are a formal method of identifying items that have the potential to cause harm or damage. Inspections must be performed by competent workers. Any unsafe or harmful conditions including a list of potentially harmful substances found during these inspections should be if possible, fixed immediately; or reported and told to all workers and any future employees sent to the site. The person receiving the report must review the reported unsafe condition or act and must ensure that any necessary corrective action is taken without delay. The information collected at a work site inspection, must be reported on your Hazard Assessment form and communicated to everyone who comes onto your location.

NexGen Mechanical will maintain the following schedule of inspections (all inspections will be performed by the most senior person onsite):

- Office – Monthly
- Shop/yard – Monthly
- Worksite Inspections - prior to the commencement of each job and weekly thereafter
- Vehicle Inspections – Pre-Use (visual) and Weekly (documented)
- Equipment/Tools – Pre-Use
- PPE – Pre-Use

### Responsibilities

The manager is responsible for the overall operation of the inspection program (including monitoring the inspection process).

Supervisors are responsible for conducting formal inspections on job sites that they control (such as office, shop, or work-sites) and for involving workers in such inspections. Responsibilities also include conducting ongoing informal inspections of areas where their crews are working.

Workers are responsible for participating and contributing to the Inspection Program.

  
President - Jeff Young

**May 15, 2026**  
Date

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

### **2.2.1 Overview of Inspections**

Every work site contains hazards that must be identified and controlled to ensure worker safety. Regular inspections of the workplace and of work processes and procedures at the workplace are conducted to identify any risk to the safety or health of any person at the workplace. If a risk is identified, NexGen Mechanical will correct any unsafe condition as soon as is reasonably practicable and, in the interim, take immediate steps to protect the safety and health of any person who may be at risk.

NexGen Mechanical requires members of the committee or a representative, where one exists, to inspect the place of employment at reasonable intervals determined by the committee or the representative and NexGen Mechanical.

Workers are required to complete the inspections; they must be reviewed regularly by managers/supervisors to ensure accuracy, timely completion of action items, and completeness of the inspection. Every inspection must be signed by the managers/supervisors once reviewed. All action items are to be placed on the rolling action plan ensuring the following is completed: Person Responsible, Priority, Required / Actual Date of Completion. Management is required to review the action plan to ensure controls are put in place in a timely manner.

#### **Work Site Inspections**

Work site inspections must be made at the first visit to any new jobsite in order to prevent the development of unsafe working conditions. Only by maintaining a constant frequency of inspections can hazards be identified and controlled before they become problems. Worksite inspections will be completed prior to the commencement of each job and weekly thereafter. This will allow NexGen Mechanical to make improvements to equipment, work procedures, training, and work site conditions, as necessary. The most senior person on site (the supervisor) will complete this inspection.

Work site inspections will focus on:

- Physical layout and conditions of the work site including location, terrain, season, and weather;
- Hazards associated with the materials handled;
- Condition of process equipment and tools;
- Condition of safety and personal protective equipment;
- Work practices and behaviour of people at the work site;
- Conformance and compliance issues;
- Level and quality of supervision provided to workers;
- Slipping, tripping and falling hazards;
- Safety devices and monitoring systems;
- Lighting;

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- Storage of hazardous products;
- Faulty or missing emergency response equipment;
- Improper or missing warning hazard notification signs;
- Faulty machinery, cables, tie-downs, etc.;
- Housekeeping activities;
- Inadequate or missing safety and personal protective equipment;
- Firefighting capability;
- Flammable, corrosive, or explosive materials, etc.

### **Vehicle Inspections**

#### *Non- Commercial Vehicle*

All non-commercial vehicles and employee owned vehicles must be inspected, using the Vehicle Inspection sheet, on a weekly basis by the driver. All Annual Inspections and Maintenance work will be completed by a Qualified Technician.

### **Personal Protective Equipment Inspections**

All Personal Protective Equipment must be inspected before use. A documented monthly inspection will be performed by the wearer. All specialized PPE will be inspected by a qualified technician before use and at a frequency acceptable to the manufacturer.

### **Equipment Inspections**

All equipment must be inspected at a frequency acceptable to the manufacturer. Daily inspections will be completed by the person using the equipment (assisted by supervisor if not yet qualified); all complete inspections will be performed by a qualified technician.

### **Emergency and Fire Equipment Inspections**

All Emergency and Fire Equipment Inspections must be inspected at a frequency acceptable to the manufacturer. A monthly inspection will be completed by the Safety Coordinator during the Office Inspection. An annual inspection will be outsourced and completed by a trained, competent technician.

### **Material Inspections**

All materials used are to be inspected prior to use. If a purchased material does not meet specifications it must be returned or not used (never try to repair a manufacturers' defect). Ensure that materials are correct for the job and meet the specifications of the job and Client; and that you are trained to work with the materials provided.

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### **Office /Shop Inspections**

The Safety Coordinator will complete a full office and shop inspection the first week of every month. A review of the previous month's issues should be completed prior to the inspection. Any deficiencies must be corrected within the next month (serious issues should be dealt with immediately), and documented on next month's inspection sheet.

### **2.2.2 Inspection Reports**

Inspection reports will identify hazards and recommend appropriate control measures such as:

- Performing maintenance on equipment and vehicles;
- Marking hazards with signs, flags, lights, alarms, or barricades;
- Providing additional personal protective or other safety equipment to workers; and
- Informing workers of the hazards.

Wherever possible, hazards will be eliminated. If this is not possible, other control measures will be used such as developing specific operational procedures and/or wearing appropriate PPE.

### **2.2.3 Follow-Up Action**

Deficiencies that have been noted in any inspection must be followed up by the Safety Coordinator. Any serious (high potential to cause injury) deficiencies must be repaired immediately.

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## **2.3 Preventative Maintenance**

It is critical to ensure that tools, equipment, personal protective equipment, vehicles, etc. are maintained to prevent costly downtime and ensure ongoing safety.

The maintenance program is designed to reduce overall operating costs associated with vehicles or equipment that is out-of-service. The maintenance program provides for continuous and regular inspections, maintenance and repair. The active maintenance schedule at NexGen Mechanical does not take precedence over any repairs or service prior to the service date.

Any equipment used during normal work operations should be maintained in safe running condition. If any equipment is obviously faulty (H<sub>2</sub>S meter failed bump test, equipment will not turn on, etc.) they must be taken out of service immediately. All equipment must be kept maintained and be safe to perform its intended task, adequate strength for its purpose and free from obvious defects.

This Preventative Maintenance Program will be maintained and include:

- Adherence to applicable legislation, standards, and manufacturers' specifications,
- Using the services of appropriately qualified personnel, and
- Scheduling and documentation of all maintenance work.

  
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President - Jeff Young

**May 15, 2026**  
Date

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An inventory of all machinery/ equipment used at NexGen Mechanical has been established and is kept current. When new machinery or equipment is acquired, it must be added to the inventory.

Workers are trained to inspect all tools, machinery, or equipment they are required to use. Only workers trained in the proper maintenance may complete the maintenance work, other workers will only tag out the faulty equipment.

#### ***Defective Equipment***

Defects observed in machinery or equipment must be reported to a supervisor. All defective equipment at NexGen Mechanical must immediately be removed to protect the health and safety of any worker who may be at risk until the defect is corrected by a competent person, this must be done as soon as is reasonably practicable. NexGen Mechanical is responsible for ensuring that all defective equipment is removed from the worksite.

A NexGen Mechanical worker who knows or has reason to believe that equipment under the workers control is not in a safe condition will immediately report the condition of the equipment to NexGen Mechanical, and repair the equipment if the worker is authorized and competent to do so.

#### **Safety Equipment**

H<sub>2</sub>S meters and 4 head monitors must be calibrated at an accredited facility every 6 months. Bump testing will be performed prior to each job; records of each bump test will be kept in the box with each monitor. Please ensure you submit documentation to the safety coordinator each time a unit you are in possession of is calibrated. Record the location of the bump test, date and any concerns.

Any required maintenance will be performed before the monitor is worn.

#### **Tools and Equipment**

Ensure all tools are not worn or show signs of excessive wear. Any equipment used during normal work operations should be maintained in safe running condition. Tag out all faulty equipment.

#### **Rented/Third Party Equipment**

Ensure regular inspections and/or calibrations have been made on any rented or third party equipment. Please submit these records to the Safety Coordinator.

#### **Vehicle Maintenance**

The benefits of a vehicle maintenance program include:

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- *Reduced Maintenance Costs* -- Minor adjustments and repairs made during regularly scheduled service checks help prevent unnecessary and costly repairs.
- *Minimize Downtime* -- Preventive maintenance reduces interruptions to production caused by breakdowns.
- *Accident Prevention* -- Proper vehicle maintenance can reduce accidents caused by faulty brakes, tires, steering, and other major components.
- *Improve Driver Morale* -- When vehicles are kept in top condition drivers are more likely to handle the equipment with care.
- *Customer Relations* -- Clean, well maintained vehicles enhance the company image as a safety minded entity.

The following will be used as a guide:

|                             |                                                                                                                                                                                                                                                                                                                               |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Airfilter</b>            | Check it periodically. Replace it when it becomes dirty or as part of a tune -up.                                                                                                                                                                                                                                             |
| <b>Battery</b>              | Extreme caution should be taken while handling a battery since it can produce explosive gases. It is advisable not to smoke, create a spark or light a match near a battery. Always wear protective glasses and gloves.                                                                                                       |
| <b>Belts</b>                | Inspect belts and hoses. Replace glazed, worn or frayed belts. Replace bulging, rotten or brittle belts and tighten clamps. If a belt looks bad, or feels too soft or too hard, it should be replaced.                                                                                                                        |
| <b>Brake Fluid</b>          | Check the brake fluid monthly. First wipe dirt from the brake master cylinder reservoir lid. Pry off the retainer clip and remove the lid or unscrew the plastic lid, depending on which type your vehicle has. If you need fluid, add the improved type and check for possible leaks throughout the system. Do not overfill. |
| <b>Engine Oil</b>           | Check the oil after every fill up. Remove the dipstick, wipe it clean. Insert it fully and remove it again. If it is low, add oil. To maintain peak performance, the oil should be changed per manufacturers guidelines, whichever comes first. Replace the oil filter with every oil change.                                 |
| <b>Exhaust</b>              | Look underneath for loose or broken exhaust clamps and supports. Check for holes in muffler or pipes. Replace the rusted or damaged parts.                                                                                                                                                                                    |
| <b>Hoses</b>                | Inspect the hoses periodically. If a hose looks bad, or feels too soft or too hard, it should be replaced.                                                                                                                                                                                                                    |
| <b>Lights</b>               | Make sure that all your lights are clean and working, including the brake lights, turn signals and emergency flashers. Keep spare bulbs and fuses in your vehicle.                                                                                                                                                            |
| <b>Power Steering Fluid</b> | If the level is down, add fluid and inspect the pump and hoses for leaks.                                                                                                                                                                                                                                                     |
| <b>Shock Absorbers</b>      | Look for signs of oil seepage on shock absorbers.                                                                                                                                                                                                                                                                             |
| <b>Tires</b>                | Keep tires inflated to recommended pressure. Check for cuts, bulges and excessive tread wear. Uneven wear indicates tires are misaligned or out of balance.                                                                                                                                                                   |

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- Transmission Fluid** Check transmission fluid monthly with engine warm and running, and the parking brake on. Shift to drive, then to park. Remove dipstick, wipe dry, insert it and remove it again. Add the approved type fluid, if needed. Never overfill.
- Washer Fluid** Keep the windshield washer fluid reservoir full. Use some of it to clean off the wiper blades.
- Wiper Blades** Inspect the windscreen wiper blades whenever you clean your windshield. Do not wait until the rubber is worn or brittle to replace them. They should be replaced if worn or smearing occurs.

All work must be approved by management.

### **Qualifications**

Workers performing maintenance work will have the skills, accreditation or certification necessary. Copies of their certification must be delivered to the Safety Coordinator before they begin work.

### **Record Keeping**

Up-to-date records are an essential part of any maintenance program. Preventative maintenance performed on machinery or equipment must be documented and retained for the life of the machinery or equipment. Copies of all records are to be kept at the head office.

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### **Section 3 RULES AND WORK PROCEDURES**

#### **3.1 Safety Rules**

The following company rules have been adopted by NexGen Mechanical and will be enforced for all workers.

1. No employee is expected to work in an unsafe manner or to perform an unsafe act. As well, no employee is expected to perform work that will result in harm to the environment.
2. No employee will engage in any improper activity or behavior at a workplace that might create or constitute a hazard to him or her or to any other person. Workers, supervisors, and subcontractors will be disciplined for participating in improper activity or behaviors.
3. Workers will never be subject to force labour tactics including being coerced to work by using violence or intimidation or by accumulating debt, taking passports, etc. Any worker who feels coerced can report directly to the president and if no action is taken to OHS.
4. All work will be carried out in accordance with appropriate safe work practices and procedures.
5. Workers are not allowed to wear loose jewellery while working on site if there is a chance that it may get caught in equipment.
6. Any accident/incident and near misses must be reported to the Owner/Manager of NexGen Mechanical immediately. First Aid treatment is to be obtained promptly for any injury.
7. Only tools that are in good repair, with guards and safety devices in place, will be used. Do not use equipment and tools that show significant wear. All equipment will be inspected prior to each use.
8. Employees must operate only the equipment that they are authorized and qualified to use.
9. Smoking is permitted only in designated areas.
10. Employees must operate all vehicles in accordance with site rules & highway regulations.
11. All employees must work within the limits of all applicable government acts, codes, and regulations such as Occupational Health & Safety, Worker's Compensation Board, and Fire Codes.
12. Appropriate personal protective equipment (PPE) must be worn as required.
13. Respect others! It is imperative that we give the respect we would like to receive. Employees will not use offensive language, politically-incorrect jokes, name calling, etc. Allow others to give opinions, past experiences, and advice to help solve any problems that may arise.

  
President - Jeff Young**May 15, 2026**

Date

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**Definition of Improper Activity or Behavior**

The attempted or actual exercise by a worker towards another worker using physical force to cause injury, and including any threatening statement or behavior which gives the worker reasonable cause to believe he or she is at risk of injury. Horseplay, practical jokes, unnecessary running or jumping or similar conduct will not be tolerated in the workplace. The following will also be considered inappropriate and may result in discipline and/or dismissal:

***Absence***

The following will not be tolerated:

1. absences without legitimate excuse,
2. chronic or repeated absenteeism, and;
3. repeated tardiness, without legitimate excuse.

***Appearance***

Appropriate appearance includes maintaining appropriate personal appearance, good hygiene, and clean clothing. This includes wearing the appropriate personal protective equipment.

***Conduct***

The following will not be tolerated:

1. discourtesy toward others (e.g., failure to work harmoniously with fellow employees or serve the public with courtesy),
2. gambling while on duty,
3. swearing and inappropriate language;
4. hindering or limiting normal operations or interfering with another employee's work,
5. illegal conduct, conduct unbecoming to an employee, or conduct damaging to the public relations,
6. incompetency, neglect of duty, or unsatisfactory performance of assigned job duties,
7. insubordination (i.e., failure or refusal to comply with a supervisors instructions, unless the instructions are illegal or endangering,)
8. threatening or committing acts of intimidation or violence,
9. refusal to obey the normal or emergency instructions of law enforcement officials or other proper authorities,
10. smoking in unauthorized areas,
11. sleeping on duty, and,
12. unlawful or unauthorized use, carrying, or possession of firearms, explosives, or other potentially dangerous weapons on property.

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### *Property*

The following will not be tolerated:

1. carelessness, inattention to duty, or purposeful acts resulting in injury to property or person(s),
2. failure to maintain prescribed records,
3. concealing, falsifying, altering, misusing, or removing records, including electronic data records,
4. theft of property,
5. unauthorized use of vehicles or failure to possess a valid and current driver's license, if required as a job qualification and/or condition of employment,
6. direct or indirect use or misuse of property officially approved activities (including, but not limited to, employees, facilities, mail service, supplies, equipment, and computing and communication resources, including computers, networks, electronic mail services, electronic information sources, voice mail, telephone services, and other communication resources), and,
7. Misappropriation of property or the property of others.

### *Rules and Regulations*

The following will not be tolerated:

1. failure to follow prescribed rules and regulations, or violation of the policy and procedure,
2. discrimination on the basis of race, sex, age, religion, national origin, sexual orientation, citizenship, disability,
3. violation of safety rules or common safety practices,
4. taking an adverse personal action against an employee in retaliation for disclosing alleged wrongful conduct to a public body, and,
5. falsification of résumé or application materials or omission of material factual information.

### *Substance Abuse*

The following will not be tolerated:

1. consuming alcoholic beverages or being under the influence of alcoholic beverages while on duty,
2. unlawfully manufacturing, selling, possessing, distributing, dispensing, using, or purchasing a controlled substance,
3. unlawfully conspiring, negotiating, or arranging to purchase, sell, possess, distribute, dispense, or use a controlled substance, and,
4. being under the influence of a controlled substance not authorized by a physician.

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### **3.2 Relevant Legislative Documents**

At NexGen Mechanical we do not expect our workers to have memorized all legislation word for word that may affect the day-to-day work processes, but we do expect that you are familiar with any that apply to the work you perform and know where to look for more information. Safety legislation is designed to protect workers, the public, and the environment. Compliance with the appropriate legislation is necessary to prevent fines, stop work orders, legal action, injury/illness and death.

A copy of the Occupational Health and Safety Act, Codes and Regulations are located in the office and are available for viewing during regular office hours. Also available are any standards or codes of practices adopted in the regulations that address work practices or procedures and that apply to the place of employment or to any work done. A bulletin board is also used to post information on health and safety related information.

The following list of legislation that affects NexGen Mechanical to ensure compliance may include, but is not limited to:

- Saskatchewan Labour Code
- Saskatchewan Workers Compensation Legislation
- Saskatchewan Environment Legislation
- Saskatchewan Occupational Health and Safety Act and Regulation
- Workplace Hazardous Materials Information System (WHMIS) Act
- Boiler and Pressure Vessel Acts
- Canadian Electrical Code
- Provincial Transportation Act

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### **3.3 Safe Work Practices**

Safe Work Practices (SWP) have been developed for general knowledge on a topic. SWP's are generally written methods outlining how to perform a task with minimum risk to people, equipment, materials, environment, and processes. These are located in the Safe Work Practices section.

Further information regarding a breakdown of tasks and hazards are located in the Job Hazard Analysis (JHA) / Safe Work Procedures section.

### **3.4 Job Hazard Analysis (JHA) / Safe Work Procedures**

Job Hazard Analysis (JHA) / Safe Work Procedures have been developed with the input of involved workers. They are the steps that need to be followed; they also include associated hazards and controls. Further general information is located in the Safe Work Practice (SWP) section.

These will be created for all tasks designated as critical and will be performed with affected workers. JHA's will be completed on an ongoing basis and reviewed prior to the tasks being performed. They are located in the Job Hazard Analysis (JHA) / Safe Work Procedures section at the end of the manual.

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## Section 4 TRAINING

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### 4.1 Employee Training Requirements and Records

At NexGen Mechanical we believe that a well-trained team of workers will result in a safer workplace. Workers must have basic safety courses to satisfy the requirements of the law and our Clients. NexGen Mechanical may supplement required or desired training programs, please consult your supervisor for more information.

NexGen Mechanical will ensure that a worker is trained in all matters that are necessary to protect their health and safety when the worker begins work at a place of employment or is moved from one work activity or worksite to another that differs with respect to hazards, facilities or procedures. All NexGen Mechanical workers must have the proper combination of experience, knowledge, and education to perform the work required.

All training documents are kept on file and this is verified prior to each worker being sent to do a new task.

  
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President - Jeff Young

**May 15, 2026**  
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NexGen Mechanical has an organizational chart and training matrix to address minimum training standards for all workers (roles). This matrix will address both education and work experience. Workers must demonstrate they meet the qualifications of their job before hire/placement/move into a new role.

#### **4.1.1 Orientation**

All Employees will receive a Safety Orientation on their first day of employment and after a job transfer. This orientation will cover administrative concerns, safety policies and training, and Field Job Preparations. The workers immediate supervisor will conduct the orientation and sign off on the orientation upon completion.

All new workers have a chance to hear about the company, its values, and its requirements. During orientation NexGen Mechanical will assess the workers current training and create a plan to ensure that all workers become trained to do the work they were hired to do.

##### *Training at NexGen Mechanical includes:*

- Procedures in the event of a fire or other emergency;
- The location of first aid facilities;
- Identification of prohibited or restricted areas;
- Health and safety responsibilities, including those specified by legislation;
- Reporting requirements for injuries, illnesses and substandard conditions;
- Standards for personal protective equipment;
- Duties of management and employees for imminently dangerous working conditions;
- Existing and potential workplace hazards and the methods to be used to identify, assess and control them;
- Precautions to be taken for the protection of the worker from physical, chemical or biological hazards;
- Workers' Rights (right to refuse, right to know, right to participate);
- WHMIS;
- Procedures, plans, policies and programs that are essential to the job they will perform;
- Any other information that is necessary to ensure the health and safety of the worker while the worker is at work.

Workers are encouraged to ask questions throughout the orientation, and whenever necessary thereafter.

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A Follow-Up Orientation will be performed approximately 6-8 weeks after the first orientation. Workers often develop questions within the first month or two; this follow-up orientation allows a designated time to discuss those questions.

#### **4.1.2 Formal Training**

All Employees will receive any required training specific to their employment roles. NexGen Mechanical will document any existing training obtained by employees and a photocopy will be obtained including licence to operate any equipment (including a drivers licence) required by the job. Training will be documented on our Training Records Form; Workers will be given 3-months and 1-month notifications of any upcoming expiry dates.

##### *Field Workers*

Field Workers will receive training for their specific needs. The training may include, but is not limited to:

- First Aid and CPR
- WHMIS
- H<sub>2</sub>S Alive
- Fall Protection
- Confined Space
- Lock Out Procedures
- Driver's Education
- CSO Training
- Incipient Fire Fighting
- Personal Protective Equipment and Respiratory Protective Equipment
- Leadership in Safety Excellence
- Other

##### *Administrative Staff*

Administrative Staff will receive training for their specific needs. The training may include, but is not limited to:

- First Aid and CPR Certification
- Emergency Evacuation Procedures
- Fire Extinguisher

#### **4.1.3 Supervisor Training**

Supervisors have the added responsibility to ensure all workers they are supervising stay safe. Supervisors must have copies of all applicable legislation that applies to them and their workers in regards to Safety, Quality, Environment, etc.

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NexGen Mechanical realizes the need to ensure our supervisors and managers have the knowledge to lead when it comes to Safety, as well as production. Supervisors are required to take Leadership in Safety Excellence or an equivalent course. Supervisors will have the skills required to assess all workers abilities who work with them. Only workers who are competent (based on Job Observations performed by a competent Supervisor) will become Supervisors.

The following topics are reviewed with all Supervisors and Managers:

- skills of an effective manager
- legislative responsibility and compliance
- safety policy and roles
- Due Diligence
- rules and regulations
- all applicable policies, practices and procedures
- how to properly fill out forms
- incident/accident investigation
- completing formal and ongoing Hazard Assessments
- performing job observations
- assessing alertness (fatigue, drug and alcohol)
- dealing with Right to Refuse situations
- training new workers
- effective safety meetings
- how to properly complete inspections (vehicle, worksite, shop, tool, etc.)
- importance of follow up of hazard identifications and inspections
- importance of documenting all disciplinary action

#### **4.1.4 On the Job Training**

A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. Work that may endanger a worker must be completed by a worker who is competent to do the work, or by a worker who is working under the direct supervision of a worker who is competent to do the work. All workers including new or transferred workers must be trained in procedures until they are competent. NexGen Mechanical has a mentoring program whereby all new “green” workers must shadow and assist a competent worker until it is determined through on the job training, observation of ability, and experience that the worker is competent. The lead hand or supervisor will verify competence prior to allowing the worker to perform the task unsupervised. An experienced new worker must also follow our mentorship program. It is your responsibility to refuse to perform work that you are not competent to perform.

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The training process at NexGen Mechanical is hands on. The instructors or supervisors must demonstrate tasks before asking a new worker or student to perform the task while training. Workers must in turn demonstrate the knowledge before being deemed competent.

Certain tasks at NexGen Mechanical have been placed on the Hazardous Job Inventory. Workers are only allowed to perform those Hazardous Jobs once they are deemed competent by a supervisor. The on the job training form must be filled out and the worker deemed competent prior to a worker performing a task that has been classed as a Hazardous Job without direct supervision.

#### **4.1.5 On-Going Job Observations**

Workers may be subject to On-Going Job Observations. These observations may be formal or informal. The purpose of these Observations is to promote open communication and productive feedback. Complacency must also be noted during this observation. We try to battle complacency by completing hazard assessments, inspections, safety meetings, etc. Workers tend to be unaware or uncaring of hazards after they have successfully worked around them without injury.

#### **4.1.6 Site Specific Orientation and Training**

Whenever a worker, contractor, client, inspector, landowner, regulator, etc. is going to visit an active worksite they must be given an orientation. This orientation must include:

- A briefing of the work that is occurring on the site,
- Review the Clients ERP, including contact list for emergencies,
- An overview of the hazard assessment, and
- Personal Protective Equipment Requirements (A person who is not equipped with the proper PPE will NOT be allowed on site).

Workers must attend all safety meeting and tool box talks while at Client sites.

If the work being performed may have a significant risk the visitor must be asked to return at another time.

#### **4.1.7 Training Records**

All of the training listed above (orientations, formal training, observation records, etc.) will be documented and kept in the Safety Office. A digital record is also kept and reviewed monthly; workers will be given 3-months and 1-month notifications of any upcoming expiry dates. Refresher Training for all formal training will be required prior to the expiry date. If experience is required to verify qualifications this will be documented by:

- contacting prior work references,
- job observations, and

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- keeping track of on the job training at NexGen Mechanical.

The Safety Coordinator is responsible for entering all training completed and experience onto the matrix (spreadsheet) and reviewing the workers training requirements to ensure that they are qualified. All Safety Training records will be kept for a minimum of 5 years from the date of the training.

***It is your responsibility to refuse to perform work that you are not trained in and competent to perform.***

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## Section 5 COMMUNICATIONS

### 5.1 Safety Meeting Policy

Workers need to know what is expected of them. At NexGen Mechanical we want to ensure that all of our workers will return home safely at the end of each job. This expectation is communicated to all workers.

Good communications between the management of NexGen Mechanical and its employees is essential to safe operations. Safety meetings provide the opportunity to inform, train, and assist employees in doing their work safely. They also allow workers, supervisors, and contractors to discuss and solve safety issues in a proactive manner.

While on site all NexGen Mechanical workers are required to participate in any safety meeting held by the client that may affect your work tasks.

All Health, Safety and Environmental (HSE) meetings are reviewed and critiqued by managers/supervisors.

Types of meetings and frequency:

| TYPE OF MEETING        | ATTENDEES                                                       | FREQUENCY                       |
|------------------------|-----------------------------------------------------------------|---------------------------------|
| General Safety Meeting | All available workers and supervisors, including the president. | Monthly                         |
| Pre-Job Meeting        | All workers, subcontractors, and the clients (if available).    | Prior to the start of a new job |
| Toolbox Safety Meeting | Everyone on site, each day.                                     | Daily on job sites              |

  
President - Jeff Young

**May 15, 2026**  
Date

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**5.1.1 General Safety Meeting**

General safety meetings should include the President and all available company personnel; these are held monthly. Meeting discussions will include, but are not limited to discussions including:

- Filling in forms properly and submitting them on time.
- Safety measures needed for work to proceed safely.
  - Standard work procedures.
  - Safety Rules.
  - Drug and Alcohol Policy.
  - Company policies.
- Recent incidents/accidents that have occurred at NexGen Mechanical and in the industry, to discover and discuss how similar accidents can be prevented in the future.
- Training programs.
- Emergency procedures.
- Safety issues raised by personnel.

The agenda will be prepared in advance of the General Meeting and posted in high traffic areas and/or emailed to participants.

It is the responsibility of the safety-meeting chairman to ensure that all attendees have been notified of the time and place of the meeting. It is the responsibility of all workers to attend and participate in these meetings. Should an employee be unavailable to attend a meeting, he/she must inform the meeting chairman. If possible, the meeting chairman can decide to reschedule the meeting to accommodate the maximum number of employees.

Meeting minutes will be taken during the meeting and distributed to all attendees and those who were unable to attend. The minutes will document all topics discussed and actions warranted. An Action Plan to follow up on any safety issues will be created and be assigned with a deadline.

In addition to General Safety Meetings all new NexGen Mechanical employees or contractors will be provided with a copy of this safety manual and receive a safety orientation. The minutes of the last General Meeting will be discussed during orientation.

Management encourages any suggestions about any issues that can improve the health and safety of the employees or the environment.

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**5.1.2 Pre-Job Meeting**

Prior to the commencement of a new job a Pre-Job Meeting will be held. This meeting often encompasses more than just safety issues. Everyone involved in the job should be included including workers, contractors, clients, and other companies working nearby. The following items may be discussed during a pre-job meeting:

- All hazards from the hazard assessment.
- Methods to communicate throughout the job, including tool box meetings, on-going communication, and completion of new hazard assessment as hazards change, etc.
- Emergency Procedures including a list of trained rescuers and first aid personnel, transportation plan, alarm, location of nearest medical facility, etc.
- A list of tasks to be performed by all contractors and trades on site. Allow the opportunity to address conflicting tasks.
- Approximate schedule of work.
- Work Procedures.
- Location of emergency facilities including first aid kits, fire extinguishers, eye wash stations.
- Review of written notice indicating:
  - The supervisors name;
  - The location of the emergency facilities provided by the contractor for the use of the employers workers or self-employed persons;
  - The means to contact the committee representative.

**5.1.3 Tool Box Meetings**

Tool Box Meetings are held daily with all workers on site. These meetings allow the opportunity to discuss the work to be performed during the day, any safety concerns, and who will be on site. The Hazard Assessment is often updated, if needed during this meeting.

*Safety must be a concern for all employees and subcontractors. Every opportunity should be utilized to discuss and provide feed-back on safety issues, whether it's done in a formal or non-formal manner.*

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### Section 6 INCIDENT & ACCIDENT REPORTING AND INVESTIGATION

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#### 6.1 Incident Reporting

**Incident:** An undesired event that, under slightly different circumstances, could have resulted in personal harm, property damage, or loss (also referred to as near misses).

**Accident:** An undesired event that results in physical harm to a person or damage to property.

**Work Refusal:** Any time a worker refuses to carry out any work they reasonably think will put themselves, or others, in danger.

##### 6.1.1 Purpose

Work Refusal, Incident and Accident reporting is very useful because it:

- Collects information you can use to calculate statistics and other information for tracking accident trends.
- Helps identify training need; problems with work procedures; and needs for personal protective, safety, and emergency equipment.
- Collects information necessary for completing investigation and insurance reports and complying with regulatory requirements.
- Identifies weaknesses in the safety management program.

##### 6.1.2 Prevention

It is the goal of NexGen Mechanical to have an Incident or Accident free workplace. The use of Training, Hazard Assessments, Communication, Personal Protective Equipment, Emergency Planning, and Inspections will reduce the risk.

  
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President - Jeff Young

**May 15, 2026**  
Date

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### 6.1.3 Reporting

Any Accident/Incident involving work refusal, acute injury, illness to personnel, loss of revenue, or damage to company property or personal property must be reported immediately by the employees to NexGen Mechanical Management. Every accident that causes or may cause the death of a worker or that requires a worker to be admitted to a hospital as an in-patient for a period of 24 hours or more must be investigated immediately. Immediate reporting is also required when a worker is aware of a condition that may cause a work-related incident.

The incident must be documented and forwarded to NexGen Mechanical within a reasonable time period (7 days maximum). All work related injuries and illnesses are recorded in the First Aid Record.

Any Near Misses that occur during company time must be reported by documentation to NexGen Mechanical Management.

A written report must be created that includes a description of the accident, any graphics, photographs, or other evidence that may assist in determining the cause or causes of the accident, an explanation of the cause or causes of the accident, the immediate corrective action taken, and any long-term action that will be taken to prevent the occurrence of a similar accident or the reasons for not taking action.

Senior Management will be informed of any incident that is classed above the first aid level or results in greater than \$500 damage to property or environment, including all medical aids and vehicle, environmental, or property damage.

All injuries involving a doctors/hospital visit must be reported to WCB.

### 6.1.4 Saskatchewan

*“Dangerous occurrence”* means any occurrence that does not result in, but could (if the situation was different) cause the death of a worker or will require a worker to be admitted to a hospital as an in-patient for a period of 72 hours or more and includes:

- the structural failure or collapse of:
  - a structure, scaffold, temporary falsework or concrete formwork; or
  - all or any part of an excavated shaft, tunnel, caisson, coffer dam, trench or excavation;
- the failure of a crane or hoist or the overturning of a crane or unit of powered mobile equipment;
- an accidental contact with an energized electrical conductor;
- the bursting of a grinding wheel;
- an uncontrolled spill or escape of a toxic, corrosive or explosive substance;

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- a premature detonation or accidental detonation of explosives;
- the failure of an elevated or suspended platform; and
- the failure of an atmosphere-supplying respirator.

## 6.2 Conducting Investigations

### 6.2.1 Investigation

A worker (Owner/Manager or a Supervisor) who is qualified and competent in investigation techniques must investigate all work refusals, Incidents or Accidents (including first aid, medical treatment, occupational illness, environmental, near miss, property loss, vehicle incident). NexGen Mechanical will provide training on the investigation techniques to be used during an incident investigation (if no qualified investigator is available, NexGen Mechanical will use a third party trained investigator). This worker will be knowledgeable of the type of work involved.

These investigations must be completed immediately so all evidence can be preserved. Once an incident or accident has been investigated, the investigator must make a written report to be placed on file in the office. If the incident or accident still poses a hazard for employees, Management must ensure all employees are immediately informed of the hazard. If the incident, accident, or near miss does not pose a hazard for workers at the current time the Safety Committee, where existing, will discuss these investigations and each member or the supervisor will ensure that all workers are made aware of the situation.

The written incident investigation report will include an explanation of the contributing factors or root causes of the incident that were identified during the investigation.

The person conducting the investigation should proceed with the following steps:

1. Take control of the scene.
2. Ensure that any injured persons are cared for.
3. Ensure that no further injury or damage occurs.
4. Examine equipment/materials involved.
5. Collect and safeguard any physical evidence.
6. Take photographs of the scene.
7. Interview people involved and witnesses and obtain written statements where appropriate.
8. Analyze all available information to determine root cause(s).
9. Look for causes where “the system failed the worker”, not only for those where “the worker failed the system”.
10. Determine what corrective action will prevent recurrence.
11. Complete the report.
12. Provide Management and the Safety Committee with a copy of the report.

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13. Assign corrective actions for further follow up.
14. Management and/or the Safety Committee must ensure all employees are made aware of the situation.

### **6.2.2 Investigation Kit Items**

The person conducting the investigation should proceed with the investigation using the following items:

1. Caution Tape
2. Disposable Camera(s)
3. Flashlight
4. Extra Batteries
5. Incident Investigation Reports
6. WCB Reports
7. Lined Paper / Pens for Witness Statements
8. Ruler
9. Ziploc Baggies
10. Sanitized Containers with Lids

### **6.2.3 Investigation Follow Up with Workers**

After an investigation has been completed the findings will be communicated to all workers either by a Safety Meeting or a hazard alert (email or posted document). The purpose of this follow up is to prevent this type of incident from occurring in the future - learning from past mistakes.

### **6.2.4 Review of Incidents**

An analysis of the investigation findings must be completed once the investigation is complete.

Senior Management must review and sign off on all incident reports. All Corrective Actions from the report must be placed on the rolling action plan ensuring the following is completed: Person Responsible, Priority, Required / Actual Date of Completion. Management is required to review the action plan to ensure controls are put in place in a timely manner.

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### 6.3 Collecting Statistics

Each month statistics are entered on a spreadsheet. The following statistics are collected using ALL workers (both office and field):

- Km Driven
- Vehicle Accidents
- Average Number of Employees
- Work Hours
- Lost Time Injuries
- Lost Work Days
- Restricted /Modified Work Cases
- Medical Aids
- First Aids
- Near Misses

#### **Definitions**

*Employee* - As used in this standard, any person engaged in activities for an employer from whom direct payment for services is received. This includes working owners and officers.

*Exposure or Employee Hours* - The total number of hours worked by all employees, including those in operating, production, maintenance, transportation, clerical, administrative, sales, and other activities.

*Work Environment* - The environment comprised by the physical location, equipment, materials processed or used, and the kinds of operations performed by an employee in the performance of his work, whether on or off an employer's premises.

*First Aid* - Any one time treatment and subsequent observation of minor scratches, cuts, burns, splinters, and so forth, which do not require medical care even though provided by a physician or registered professional personnel.

*Medical Treatment* - Any treatment (other than first aid) administered by a physician or by registered professional personnel under the standing orders of a physician.

*Work-Related Case* - Any occupational injury suffered by an employee that results from a work accident or from an exposure involving a single incident in the work environment. Any occupational illness caused by exposure to environment factors associated with employment.

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**Near Miss** – An unplanned event that did not result in injury, illness, or damage – but had the potential to do so.

**Occupational Injury** - Any injuries, such as a cut, fracture, amputation etc., that results from a work accident or from an exposure involving a single incident in the work environment.

**Occupational Illness** - Any abnormal condition or disorder of any employee, other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment.

**Recordable Case** - Any work-related injury case requiring more than first aid, and all occupational illnesses. Recordable cases include:

- deaths, regardless of the time between the occupational injury or illness and death;
- all occupational illnesses;
- all occupational injuries resulting in any of the following:
  - lost workdays, either days away from work or days of restricted work activity;
  - medical treatment other than first aid;
  - loss of consciousness;
  - restriction of work or motion;
  - temporary or permanent transfer; or
  - termination of injured or ill employee.

**NOTE: Any case that involves lost workdays must be recorded since it always involves one or more of the criteria for recordability.**

### *Lost Workdays*

**Days Away From Work** - Those workdays (consecutive or not) on which the employee would have worked but could not because of occupational injury or illness. The number of lost workdays should not include the day of injury or onset of illness or any days on which the employee would not have worked even though able to work.

**Days of Restricted Work Activity** - Those workdays (consecutive or not) on which, because of the occupational injury or illness, the employee was assigned to another job on a temporary basis, worked at a permanent job less than full time, or worked at a permanently assigned job but could not perform all duties normally connected with it. The number of lost workdays should not include the day of injury or onset of illness or any days on which the employee would not have worked even though able to work.

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*Lost Workday Case* - Any recordable case that results in lost workdays away from work or workdays of restricted activity.

*Days Away From Work* - Any recordable case that results in one or more days away from work as defined in Lost Workdays - Days Away From Work.

*Days of Restricted Work* - Any recordable case that results in one or more days or restricted work as defined in Lost Workdays - Days of Restricted Work.

The following formulas can be used:

$$\text{Injury Frequency} = \frac{\text{no. of lost time injuries} \times 200000}{\text{no. of work hours worked}}$$

$$\text{Injury Severity} = \frac{\text{no. of lost days} \times 200000}{\text{no. of work hours worked}}$$

$$\text{Vehicle Incident Rate} = \frac{\text{vehicle incidents} \times 1,000,000}{\text{Km Driven}}$$

A fatality accounts for 6000 lost work days or 48000 lost work hours.

Every calendar year statistics are reviewed and summarized on the statistics form. Results of the statistics are distributed to all workers.

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## **Section 7    EMERGENCY RESPONSE PROCEDURES**

NexGen Mechanical has consulted with affected (all) workers in establishing this emergency response plan. When required, site-specific plans are developed with the assistance of everyone involved. This plan is re-evaluated annually, along with the rest of this manual to keep the information current. If a significant piece of information has been omitted, it will be posted in the lunchroom until the manual has been updated. This Emergency Response Plan will be updated whenever changes to operations, equipment, and/or personnel occur.

NexGen Mechanical has prepared the following emergency procedures (after consultation with the work place committee or the health and safety representative, if applicable):

- General Emergency
- Evacuation Procedures
- Vehicle Incident Procedure
- Potential or Actual Violence
- Lighting Failure
- Spill Clean Up and Re-Entry
- Natural Disasters: Severe Storms, Tornadoes, Lightning, Hail, etc.
- Overcome with H<sub>2</sub>S
- Hanta Virus
- Bear Awareness
- Rattlesnake Bite
- Frostbite and Freezing
- Fire Prevention Plan
- Fatalities and Severe Injuries

NexGen Mechanical will designate workers and ensure that they are adequately instructed in firefighting procedures applicable to our work.

We are all not trained rescuers. It is always voluntary to take part in emergency rescue procedures. A rescue will only be performed when the safety of the rescuers is assured. If a worker is expected to be part of the "workplace response" to contain a fire or other emergency, then training and instruction is more detailed, and the limits for response is clearly defined taking into account available equipment and training.

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**Responsibilities**

In the office, it is the supervisor's responsibility to become familiar with the Emergency Response Plan, making employees aware of the plan, holding drills and following the procedures set forth in the Emergency Response Plan.

In the field, it is the supervisor's responsibility to become familiar with the Clients Emergency Response Plan, making employees aware of the plan, participating in any drills and follow the procedures set forth in the Clients Emergency Response Plan.

Employees are required to;

- familiarize themselves with emergency response procedures,
- know the location of emergency response equipment,
- know their Muster Points (at the office and on Clients sites),
- immediately evacuate when required and take personal belongings (i.e., keys, coat, etc.) if readily available but must not put themselves or Emergency Responders at risk,
- follow the direction of Emergency Responders;
- participate in evacuation drills or emergency practice sessions.

**Communication**

It is essential that at least one person or vehicle on site be equipped with a cellular phone or radio to be used for communication with management, and also to enable personnel to call for assistance in the case of an emergency. NexGen Mechanical employees will be trained and respond to any alarm by evacuating.

During the initial pre-job and daily meetings workers are made aware of the potential emergencies. The level of emergency and qualifications of the worker determine what each person's role in an emergency is. Our workers have taken part in training including incipient firefighting, H<sub>2</sub>S or unknown contaminant rescue (involving a SCBA), first aid, confined space rescue, etc. It will be determined at the pre-job meeting who is trained and how a rescue will be handled and supervised.

If a person is unqualified (not trained) or not wanting to assist in a rescue they will be told (prior to the commencement of work) that they must leave the site and call for assistance. If all workers are trained in rescue, one member will be in charge of summoning backup assistance.

**How to Conduct a Drill**

Drills will be conducted for all of our potential hazards (a minimum of 1 drill per year). We will alternate the type of drills to include physical (evacuation/rescue)

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and situation drills. A schedule will be prepared so that all potential hazards have had the procedures tested.

Designate one or more people in your organization to coordinate your drill and have them follow the steps below:

### *Before the Drill*

Before any drill, make sure that your employees are aware that you will be having a drill, that they understand what will take place during the drill and that they know the procedure(s) to be followed. You can notify workers just prior to the drill or well in advance to add the element of surprise.

A check of the alarm system regularly will ensure it is operational in the event of a real emergency. Ensure workers know how to use the system. Often a call to the alarm provider will allow the alarm system to be used in a drill (without a false alarm occurring).

Instructions on emergencies should be discussed with workers during orientation and regularly after that.

All emergency equipment including spill clean-up equipment, fire extinguishers, first aid equipment, etc must be inspected and in good condition.

### *During the Drill*

1. Announce the start of the drill by using a public address system or having designated workers alert staff. Have someone time the drill.
2. Employees should act as though it is a real emergency that is occurring. They should move as quickly as possible to the muster point or a safe place (such as inside room for a tornado). Be sure to use stairs to reach the lowest level of a building.
3. Once all employees have evacuated the workers should be counted to ensure all workers are where they are supposed to be.
4. The drill coordinator can announce that the emergency has passed and the drill is over. Employees can then return to work.

### *After the Drill*

The drill coordinator should document any necessary changes in the evacuation procedure including muster point location, number of safe areas or muster points, functionality of alarm system and instructions, communication methods, method of knowing how many workers are present, etc.

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All workers should be briefed on the drill either just after the drill or at the next safety meeting. Workers should give input on the success (or lack of) of the drill.

### Procedures

The following steps must be taken following any **accident**. The order in which they are done can only be determined by the people who witness or arrive at the scene of the accident, and the prevailing conditions.

- Don't Panic
- The person encountering the accident should make a quick evaluation of the scene before disturbing anything or taking further actions.
- Determine if there are any hazards in the area that could harm themselves, other workers or cause further loss.
- Take immediate action to make the area safe.
- Call for assistance.
- Treat injured persons as soon as it can be safely done. Only move the victim if there is an imminent danger, such as fire, electrical hazards, or atmospheric contamination.
- Do not make any unnecessary changes to the scene of the accident. Record any changes that are made for accident investigation.
- Secure the surrounding area until authorities arrive.

NexGen Mechanical provides emergency equipment including cell phone, first aid kits, fire extinguisher, and a field safety kit (including flares and bear spray). This equipment is located in all field vehicles; spare equipment is located in the storage room. The equipment for office is located in the kitchen and a shower is available for decontaminating, if needed.

When in the NexGen Mechanical office, emergency facilities (hospitals, police, and fire services) are nearby and contacted by calling 911. All field projects begin with the determination of where emergency facilities are located and estimated time of response. A transportation plan is developed and communicated to all workers.

Employees involved in any emergency involving any injury or illness, or damage to vehicle or equipment are required to report the incident on our Accident/Incident Report Form.

### Evacuation Procedures

An evacuation may be necessary in the event of a fire, earthquake, or chemical spill. The extent of evacuation may be different for different types of hazards. When an alarm is sounded all workers must leave the area and meet at the designated muster points. Prior to the onset of any job that is not at our facility safe areas must

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be chosen and shown to every worker and subcontractor on site. Accounting for all employees following an evacuation is critical. Confusion in the assembly areas can lead to delays in rescuing anyone trapped in the building, or unnecessary and dangerous search-and-rescue operations. To ensure the fastest, most accurate accounting of people, take a head count after the evacuation.

It is always voluntary to take part in emergency rescue procedures. A rescue will only be performed when the safety of the rescuers is assured.

### *Training*

During orientation and at regular meetings all workers are informed of the location muster (safe) areas and the safest routes to these areas. At least one worker will be assigned the lead role in the rescue and evacuation process; this will be discussed during regular safety meetings.

Only workers who are competent and adequately trained in rescue will be permitted to perform rescues. Training for rescuers includes simulated rescue or evacuation exercises and regular retraining, appropriate to the type of rescue or evacuation being provided. At least one member of a rescue team must be a first aid attendant trained to immobilize an injured worker.

### *Personal Protective Equipment*

A rescue worker must use and wear properly, the appropriate PPE specified in accordance with the training and instruction received. The use of PPE itself must not endanger the worker. Workers performing rescue or evacuation must wear personal protective clothing and equipment appropriate to the hazards likely to be encountered.

All Employees are responsible to maintain, clean, and inspect their own Personal Protective Equipment daily. Qualified workers must inspect ropes and associated equipment visually and physically after each use for rescue, evacuation, or training purposes. In addition, an Employee must not use any Personal Protective Equipment that is in a condition that makes it unable to perform the function for which it is designed.

If a defect is noticed the equipment must be immediately removed from service and replaced with equipment that is in acceptable condition. Personal protective Equipment maintenance records must be kept, including but not limited to:

- the name of manufacturer,
- the type of equipment,
- the date put into service,
- when and for what purpose the equipment has been used,
- the date of the last inspection and name of the inspecting person,

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- any damage suffered, and
- the date and nature of any of maintenance.

### *Communications*

Effective communications must be maintained between the workers engaged in rescue or evacuation and support persons.

Once the requirement for an evacuation is imminent workers must:

- notify other workers, including the first aid attendant, of the nature and location of the emergency,
- evacuate workers safely,
- check and confirm the safe evacuation of all workers,
- notify the fire department or other emergency responders, and
- notify adjacent workplaces or residences which may be affected if the risk of exposure to a substance extends beyond the workplace. Notification of the public must be in conformity with the requirements of other jurisdictions, including provincial and municipal agencies.

### **Vehicle Incident Procedure**

Our goal is to create driver awareness and reduce the potential for vehicular incidents. If an incident should occur:

1. STOP, ensure that everything possible is done for anyone who may be injured.
2. If the accident is of a serious nature, summon the police and in the meantime do not move the vehicle unless it is causing a hazard to other road users.
3. Do not make any admission of guilt or offer payment for the damage.
4. Make every effort to obtain the name and address, of at least one independent witness i.e. someone who was not involved with the accident.
5. Get information from the other driver:
  - Name and address, drivers licence number and province of issue
  - Registration mark of vehicle, make and type
  - Apparent injuries
  - Apparent damage to vehicle or property
  - Name and address of Insurance company including policy number

### **Potential or Actual Violence**

There is a possibility of violence from a landowner, fellow driver, Client, co-worker, or a third party. In case of any threatening situation or concern that a threatening situation is arising, leave the area. Report the situation to the office by phone. A decision will be made whether to report the incident to the police.

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In case of a threat being made, leave the area at once and call 911 and report the incident. Also notify the office as soon as possible.

**Lighting Failure**

To work safely it is important to have the appropriate type and amount of light. Lights that are burnt out or flickering should be changed at the first available time.

Emergency lighting will be provided in places that are normally used during periods of darkness or that do not have an available source of natural light.

Work must only be performed when enough light is available. The work may need to be moved into an area that has more light, additional lighting brought in, or the work may be postponed until natural light can be utilized or additional lighting brought in.

**Spill Clean Up and Re-Entry**

If workers are required to control a release of a hazardous substance, to perform cleanup of a spill, or to carry out testing before re-entry, the following will be provided:

- adequate written safe work procedures,
- appropriate personal protective equipment which is readily available to workers and is adequately maintained, and
- material or equipment necessary for the control and disposal of the hazardous substance.

**Emergency First Aid**

Workers performing first aid must be trained and volunteer to perform first aid. The victim should not be moved if suspected to have neck and/ or spinal injuries. Give support to the head, neck, and spine.

1. Assess the scene.
  - Check for hazards. If danger is present, move the victim to a safer location. If there is no danger in the immediate surroundings, there is no need to move the victim.
2. Check for response.
  - Tap the shoulder and yell "are you ok?"
  - Attract bystanders by calling for help.
3. Do not leave the victim alone.
  - Assess the accident.
  - Check for number of casualties and mechanism of injury.
4. Wear protective gear if possible.
5. Identify yourself as a first aider. Obtain consent before giving out first aid.

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**Natural Disasters: Severe Storms, Tornadoes, Lightning, Hail, etc.**

In the event of a severe storm warning within the surrounding area:

1. Disconnect electrical equipment and appliances not required for emergency use.
2. Do not use the telephone except for an emergency or absolutely essential business.
3. Store drinking water in clean containers.
4. Avoid structures with wide roof spans (e.g. shop, gymnasiums, etc.).
5. Tornado warnings:
  - a. Go to a basement if possible, or an interior hallway.
  - b. Upper floors are unsafe. If there is no time to descend, go to a closet, a small room with strong walls, or an inside upper hallway.
  - c. Do Not remain inside a vehicle. As a last resort, and if no ditch or ravine is nearby, crawl under the vehicle.
  - d. If in open country and time permits, locate suitable shelter. If not, lie in the nearest ditch or ravine. Be alert for flash floods.

**Overcome with H<sub>2</sub>S**

If a worker is overcome with H<sub>2</sub>S, you must not go and rescue him without protecting yourself first by donning a breathing apparatus:

1. **EVACUATE**  
Get to a safe area immediately.  
Move upwind if release is downwind of you.  
Move crosswind if release is upwind of you.  
Move to higher ground if possible.
2. **ALARM**  
Call for help "Man Down", sound bell, horn, whistle or call for help by radio.
3. **ASSESS**  
Do a head count. Consider other hazards.
4. **PROTECT**  
Put on breathing apparatus before attempting rescue.
5. **RESCUE**  
Remove victim to a safe area.
6. **REVIVE**  
Apply CPR if necessary.
7. **MEDICAL AID**

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Arrange transport of casualty to medical aid. Provide information to Emergency Medical Services (EMS).

**Hantavirus**

Hantaviruses are a group of viruses that are carried by many different kinds of wild rodents (mainly wild rats and mice), all over the world. Other small mammals could also be infected, but they are much less likely to spread the virus to other animals or people. The best way to mitigate Hantaviruses is through prevention (sanitation, fixing holes, trapping or killing if you have spotted any rodents).

The disease caused by Hantavirus - Hantavirus Pulmonary Syndrome (HPS)—begins as a flu-like illness. In the early stages, a worker may experience fever, sore muscles, headaches, nausea, vomiting, abdominal pain, and shortness of breath. Usually, people do not get a sore throat, runny nose, or a rash. As the disease progresses, fluid builds up in the lungs, making it difficult to breathe. Severe respiratory failure, resulting in death, can occur within a few days of the early-stage symptoms. Symptoms may appear from 5 to 45 days (the average is between 14 and 30 days) after exposure to the virus.

Infected rodents shed the virus in saliva, urine, and droppings. The virus is usually spread to humans when particles of infected saliva, urine, or feces are inhaled. The virus may be inhaled during direct contact with the rodents or from breathing airborne dust particles generated when rodent excreta are disturbed. People may also become infected if contaminated materials come into contact with broken skin or the membranes lining the eyelids and the eyeball.

Where it is reasonable to expect that workers could be exposed to rodents (or their saliva, urine, or droppings) as part of their normal job duties, NexGen Mechanical must comply with the Occupational Health and Safety Regulation sections on biohazardous materials and develop and implement exposure control plans that eliminate or minimize the specific risks and hazards of hantavirus in their workplaces.

**Bear Awareness***Bear Country*

Many operations are moving into increasingly remote wilderness areas. This territory is prime bear habitat and the frequency of bear encounters is increasing dramatically. To avoid tragic results it is important to have a good understanding of bears and their behaviour.

Bears are wild animals with unpredictable behaviour patterns. All bears are potentially dangerous. When threatened or surprised they will defend themselves,

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their young and their territory. Bears are very strong, surprisingly agile and capable of inflicting serious injury in an attack.

The normal diet of a bear will include roots, berries, grubs and other insects, and the occasional small mammal or fish when it's available. Bears will sometimes feed on carcasses of dead animals or take over kill from other predators. A keen sense of smell directs the bear to food sources, sometimes from great distances. Both species will venture into human environments if there is food readily available. The attached diagram provides descriptive characteristics of both species for identification purposes.

### *Safety Precautions*

Practicing some basic precautions will aid immensely in avoiding encounters with bears. When you are working in a wilderness situation remember the following points:

1. **Work with a team, and be loud:** Whistle, talk, sing or carry a noisemaker such as a bell. Some crews carry compressed air horns about the size of a spray can and blow them at regular intervals to make their presence known. Most bears will leave the area if they are aware of your presence. Stay in open areas as much as possible and remain aware of what is happening around you. Do not wear headphones while listening to music - this will block out any warning noises, even the shouts of your companions.
2. **Observe the wind direction:** Be especially alert if you are traveling into the wind. The bear may not pick up your scent and be forewarned of your presence. If you are working in dense brush or near rushing water the bear may not hear your voices or a small noisemaker.
3. **Avoid dead animals and berry patches:** These are prime food sources for bears. Circling crows or ravens often indicates the presence of a carcass.
4. **Be observant and watch for bear signs:** Fresh tracks, droppings and new diggings are all signs that a bear is in the area. If you see fresh bear signs, leave the area!
5. **Leave your dog at home:** Dogs infuriate bears while posing no threat to them. Your pet may come running back to you for protection with an angry bear in hot pursuit!
6. **Never approach a bear,** especially a cub. The mother is usually close and will attack if she thinks her cub is in any danger.

### *Bear Confrontations*

Even though you follow all these precautions, you may still have an encounter with a bear. While there is no guaranteed method of dealing with a bear confrontation, some of the points that follow have proved useful:

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1. **Leave the area:** if you see the bear from a distance take a wide detour or leave. If you cannot retreat, then wait for the bear to move from your path. Always leave the animal an escape route.
2. **Stay calm:** Acting in a calm and relaxed manner so as not to threaten the bear has proved most successful. Assess your situation and look for possible escape routes or safe trees.
3. **Move slowly:** Slowly back up, and speak to the bear in a soft monotone voice. Screaming or sudden movements may provoke an attack. Never throw anything at a bear and do not try to run away. Bears can run about the same speed as a racehorse and have very fast reflexes.
4. **Monitor the bear for aggressive behaviour:** The bear may snap its jaws and make a "woofing" sound. It may keep its head low and have its ears laid back. If the bear moves towards you consider this an aggressive act. Sometimes a bear will try to bluff its way out of a threatening situation by charging and then veering away at the last second. A bear that rears on its hind legs and waves its nose in the air is trying to identify you. Remain still and speak in low tones. If the bear does not display aggressive behaviour, continue talking to it and back away slowly. Remember - never run!
5. **Look for a tree to climb:** if the bear is behaving aggressively, back slowly towards the tree. Carefully remove your pack or jacket and set it on the ground to distract the bear. Climb as high into the tree as you can. Although adult grizzlies rarely climb trees a large one can easily reach over 4 metres. Stay in the tree until you are sure the bear has left the area, and then leave the area quickly. Be aware that black bears are good climbers and a tree might not afford an escape from them.

### *Bear Attacks*

Most bear attacks occur when a bear is surprised - usually a mother with cubs or a bear protecting its food. There is no guaranteed life-saving method of surviving a bear attack; often things happen so fast that conscious thought is not possible. Each situation is unique. However, there are some general guidelines that have proven to be helpful in past attacks. There are some distinct differences in tactics, depending on the species of bear you are dealing with.

**Grizzly Bear:** playing dead and offering no resistance may be effective. Curl up in ball covering your face, neck and abdomen. Remain still until the bear leaves the area. This method requires a significant amount of courage but has resulted in successfully surviving an attack. Fighting back usually increases the intensity of the attack, although in rare cases it has caused the bear to leave.

**Black Bear:** playing dead does not work. Try to escape to a secure place or climb high into a tree. Remember a black bear may climb the tree after you.

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A last resort is to threaten the bear with any available object. This tactic has worked with some bears. Fighting back also resulted in black bears breaking off attacks.

### *Bear Deterrents*

Recently, a few commercially available bear deterrents have appeared on the market. These use a compound called "cap-secum" as the active agent and come packaged in a compressed gas container about the size of a large spray can. Usually these hang from a holster on your belt and are employed by spraying the charge in the bears face, causing the bear great difficulty in breathing and seeing, allowing the victim time to escape.

Although they may sound promising, it should be noted that chemical bear deterrents are experimental and by no means a proven technology. In reliability tests some brands failed to discharge almost 40% of the time. Interviews with several bear attack victims suggest that even if they had such a canister with them, they doubt whether they would have had time or presence of mind to use them.

Manufacturers claim ranges of up to 5 metres; however bear experts suggest that an 800-pound bear charging at full speed would close that difference in a half of a second. This, they say, probably means that even if the shot was successful your best scenario is still a very painful collision. The worst case, of course, is that this is an aggressive act towards the bear, and if you miss or are only partially successful, you will almost certainly provoke an attack. Bear experts are very concerned that people carrying these deterrents will have a false sense of security and therefore actually increase their risk of a bear confrontation.

At best, deterrents are a last resort. Used at very close range they may end a potentially fatal attack, but are not a substitute for taking the necessary precautions to avoid aggressive encounters with bears. Take care NEVER to spray into the wind, this will just blind you and allow the bear to take charge of the situation.

### *Bear Identification*

#### ***Black Bear (*Ursus americanus Pallas*)***

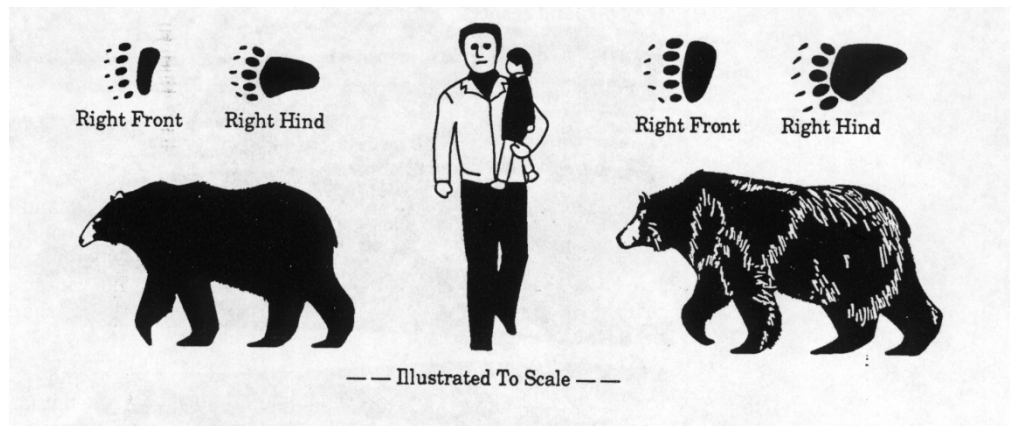
|        |                                                                                                                                      |
|--------|--------------------------------------------------------------------------------------------------------------------------------------|
| Colour | Varies from pure black to cinnamon or blond – most are black with brownish muzzle, often a white patch below throat or across chest. |
| Height | About 90cm at the shoulder.                                                                                                          |
| Length | About 1.5m.                                                                                                                          |

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

|                                |                                                                                                                                                                                                                                      |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight                         | Ranges from 57kg to >270kg – females are generally smaller than males.                                                                                                                                                               |
| Distinguishing Characteristics | Smallest member of the North American bear family. Usually has a straight facial profile with long nostrils. Feet are flat soled with short curved claws. Smaller than a grizzly and has a higher shoulder-rump line. Agile climber. |

**Grizzly Bear (*Ursus arctos horribilis* Ord)**

|                                |                                                                                                                                                                                                                      |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Colour                         | Varies from black to blond – frequently with white tipped fur giving a grizzled appearance.                                                                                                                          |
| Height                         | A little over 1m at the shoulder – reaches 1.8 to 2m when standing on hind legs.                                                                                                                                     |
| Weight                         | Averages about 200kg with some weighing up to 450kg – females are generally smaller than males.                                                                                                                      |
| Distinguishing Characteristics | Prominent humps over the shoulder formed by the muscles of the massive forelegs. Sloping back line. Dished or concave face. Long curved claws. A small grizzly is often hard to distinguish from a large black bear. |



**Rattlesnake Bite**

In the event of an actual or probable bite from a rattlesnake, execute the following first aid measures without delay:

**Snake:** Make sure that the responsible snake or snakes have been appropriately and safely contained, and are out of danger of inflicting any additional bites.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

*Transportation:* Immediately call for transportation. Meet the ambulance half way, only if driver has not been bitten.

Telephone: **911**

*Victim:* Keep the victim calm and reassured. Allow him or her to lie flat and avoid as much movement as possible. If possible, allow the bitten limb to rest at a level lower than the victim's heart. Move the victim into the vehicle if you cannot secure the area. Treat the victim as if they were in shock.

Identify the bite site, looking for fang marks.

Remove any constrictive clothing or jewelry, which otherwise would act as a tourniquet and concentrate the venom and prevent fresh blood from entering the area (which is not desirable).

Mark swelling with lines and times every 10 minutes or so. This will help doctors assess the severity of the bite. You should always seek help immediately after a snake bite. You should also back away from the snake quickly, for some people have been bitten multiple times because they failed to give the snake enough of the space it wants. Try to keep warm and calm. To help with the pain, you can use a compression bandage applied very lightly.

**DO NOT** cut or incise the bite site.

**DO NOT** apply ice to the bite site.

**DO NOT** attempt to suck out the venom with your mouth!!!

Sucking the venom will only cross the venom over to the saliva and rendering things worse for yourself or the person doing this procedure to the victim. Some of the symptoms are: swelling at the bite location, dizziness, nausea, numbness, difficulty in breathing, unconsciousness, and/or convulsions. If you're lucky, you'll have had a "dry" bite, which is when the snake bit you, but did not release any venom. As with any dangerous creatures, the best defence is to try to avoid the rattler all together.

### **Frostbite and Freezing**

During the winter, work may be conducted in very cold temperatures. In these circumstances, one must be aware of any exposed body parts, as these are susceptible to exposure causing freezing of bare skin and/or frostbite.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

The First Aid Treatment for frostbite is to gradually restore heat and blood flow to the affected area(s). Applying an external heat source should only be done by qualified medical personnel. The frozen part should not be thawed unless it can remain in a warm atmosphere. In most cases of serious frostbite, it is safest if the body part remains frozen during transportation. If the frozen limb is thawed and then refrozen again, there is only a minute chance that the limb can be saved.

#### *Treatment of Superficial Frostbite*

- Apply firm, steady pressure with a warm hand. Blow hot breath on the spot, or hold frostbitten fingers motionless in the armpits.
- Do not apply snow, cold water, or direct heat to the affected parts.
- Do not rub or chafe the affected parts.
- Provide the injured person with shelter and general warmth.

#### *Treatment of Deep Frostbite*

- The injured person must be removed immediately by stretcher, if possible, to a medical facility.
- The injured person should be kept dry and protected from the cold to prevent worsening of the injury.
- If an injured person is required to walk on a frostbitten limb, chances of successful treatment are increased if the limb has not been thawed.
- No attempt should be made to thaw a frozen part unless the injured person can remain in a warm atmosphere and early medical aid can be provided.

### **Grass and Forest Fire Prevention**

In the dry heat of summer it does not take much to start a grass fire. These could lead to a destructive wildfire burning both prairie and forested land. Prevention and preparation are the best defense against wildfires. Always ensure that if the work you will be performing may cause an ignition source that you have a fire extinguisher on site and monitor the area carefully.

The main cause of grass fires is the improper disposal of cigarette butts. Always ensure they are disposed of correctly and they are extinguished before disposing them.

Any task that causes sparks (including grinding, welding, etc.) must be carefully monitored around dry vegetation.

Avoid parking cars, trucks or ATV's on dry grass or brush. Areas from the warm under carriages of a recently running vehicle like mufflers, exhaust pipes, transmissions etc. cause an ignition hazard especially after or when travelling through tall grass.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

**Fire Prevention Plan**

A fire hazard area is one where any source of ignition may cause fire or explosion to occur. Signs are posted in conspicuous places at all entrances to fire hazard areas. The signs identify the area as a fire hazard area and prohibit the use of an open flame or other source of ignition in the area. For off-site locations, fire hazard areas should be identified and communicated to employees prior to commencing work activities. While in a fire hazard area workers cannot use any equipment, machinery, or tool of a type that may provide a source of ignition or smoke or use an open flame or other source of ignition.

Prevention of fires is the best method to protect your workers from fire. The following guidelines must be adhered to:

- If the task requires your vehicle to enter a hazardous area ensure that it is equipped with a combustion air intake and exhaust discharge with a flame-arresting device.
- If an event, such as a gas leak or spill of a flammable product occurs all vehicles must be left parked, do not go back into your vehicle for any reason. Re-entering a vehicle may create a static charge that may cause an explosion.
- No smoking or open flames are allowed near areas where vapors may be present or on a well or plant site.
- Care must be taken when working around or with any flammable substance.

Any additional site-specific fire prevention methods will be written on the hazard inspection form. The fire plan must be updated to assess all of the hazards associated with the work being performed.

***Use and Accessibility of Portable Fire Equipment***

Portable Fire Equipment is located in accessible location(s) in the shop, office, and on vehicles. Prior to the commencement of work any localized Portable Fire Equipment must be noted and checked to ensure it has been inspected within the last year. Many facilities have, in addition to the equipment supplied by NexGen Mechanical, sprinkler systems, hoses, additional Portable Fire Equipment, and alarm/shut down systems. All fire-fighting equipment must be maintained in accordance with the instructions of the manufacturer or the instructions of the authority having jurisdiction.

As soon as a fire is discovered:

- Sound the alarm and start to evacuate.
- Call the fire department.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

These are important steps for everyone's safety, even if you feel the fire can be brought under control by using an extinguisher.

If you decide the fire is manageable...

- Test that the extinguisher works before you approach the fire.
- Protect yourself at all times.
- Take care. Speed is essential but it is more important to be cautious.
- Keep your back to the exit at all times and stand 2 to 2.4m (6 to 8 ft.) away from the fire.
- Follow the 4-step P-A-S-S procedure:
  1. Pull the pin (release the lock latch or press the punch lever).
  2. Aim the nozzle at the base of the fire.
  3. Squeeze or press the trigger.
  4. Sweep the extinguisher from side to side.

If the fire does not go out immediately or the extinguisher appears to be getting empty, leave the area at once. Back out with the lever squeezed and the nozzle pointed at your feet. This will help protect you until you are out of the area.

#### *Safe Handling and Storage of Flammable Substances*

NexGen Mechanical ensures that flammable substances that are stored or used at a work area will not be of a sufficient quantity to produce an explosive atmosphere. The following safety issues are ensured:

- A flammable substance is not stored within 30 meters of an underground shaft.
- A flammable substance is not stored in the immediate vicinity of the air intake of a ventilation supply system, an internal combustion engine, or a fired heater or furnace.
- Flammable substances are stored only in containers approved by CSA, NFPA, or ULC Standards.
- Static electricity must be controlled while the contents are being transferred from one metallic or conductive container to another by grounding or bonding.
- Tank Trucks must always be grounded prior to loading any flammable or potentially flammable substance. A few seconds could save your life!

#### *Fire Emergency Response Procedure*

1. Remain calm!
2. Ensure all personnel are accounted for and out of danger.
3. If a minor fire, activate extinguishers. DO NOT jeopardize personnel safety.
4. If a major fire, call nearest fire department or fire control team.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

5. Take reasonable steps to minimize loss of equipment. Disconnect electrical equipment if it is on fire and only if it is safe to do so.
6. Do not break windows.
7. Do not open a hot door (before opening a door, touch it near the top. If it is hot or if smoke is visible, do not open).
8. Do not attempt to save possessions.
9. Meet in the muster area (on site specific Emergency Response Plan), if at a jobsite meet at the designated muster point.
10. Do not return to the affected area until told to by the fire department.
11. If a fire occurred, conduct an investigation and develop an incident report.

### Fatalities and Severe Injuries

**FATALITY** - You are **REQUIRED** to contact your supervisor as soon as possible after calling for ambulance and securing the safety of all others, your supervisor will call:

- **Saskatchewan: WCB Telefile** 1-800-787-9288

If a fatality or severe injury (involving hospitalization) occurs all work must be stopped immediately. Important facts and evidence may be lost if work recommences prior to the completion of an investigation.

### Site Specific Emergency Preparedness & Response Process (EPR)

When required, site-specific plans must be developed with the assistance of everyone involved. This plan is re-evaluated annually, along with the rest of this manual to keep the information current. If a significant piece of information has been omitted, it will be posted in the lunchroom until the manual has been updated. This emergency plan addresses emergency conditions, which may arise from within the workplace and from adjacent workplaces. The plan was developed and implemented in consultation with the joint committee or the worker health and safety representative, where one exists.

All workers and subcontractors must be initially briefed on the general emergency response plan that deals with how to handle most common emergencies that are possible to impact workers including:

- H<sub>2</sub>S exposure
- Weather related hazards including tornado, cold/hot conditions, lightning, hail, natural disasters
- Animal incidents (bears, rattlesnakes, etc.)
- Chemical exposure
- Vehicle accident
- Liquid spills, etc.

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The hazard/risk assessment process at NexGen Mechanical includes the development of a site-specific emergency response and preparedness plan and addresses the risks posed by hazardous substances from accidental release, fire or other such emergency. All site-specific hazards and potential emergencies are listed (general emergencies are reviewed in orientation and general safety meetings) and discussed. This policy is addressing items that are less common and more specific to the location, Client, and type of project. The client knows their facility the best; they should always be involved in pointing out any facility specific potential emergencies. All plan results are discussed with all workers on site (including subcontractors) and reviewed as hazards change.

The emergency preparedness and response plan should be used for routine and non-routine emergencies as well as changes in operation, and products or services may create new emergency situations. These plans are reviewed prior to the commencement of any workday and when conditions warrant.

If the risk assessment shows a need for evacuation or rescue plan, appropriate written procedures must be developed and implemented. This is site specific and one trained-competent worker per shift must be assigned to coordinate their implementation.

All affected workers, visitors, and clients on site must participate in the hazard assessments and emergency preparedness and response process; this process is meant to identify all of the potential emergencies that could affect or be caused at the worksite. All Employees must report any unsafe or harmful conditions including a list of potentially harmful substances found during the inspections if they cannot be fixed immediately. If a hazard is noticed during the shift employees can report these hazards verbally to other Employees, but they must follow that verbal report with a written report once it is practical to do so. If the hazard is severe, work must be stopped and the hazards reassessed. Reports of hazards submitted to NexGen Mechanical must always be written. All workers must understand the requirement to report when a situation may have the potential to become an emergency. Once discussed and assessed the plan is then reviewed with all employees and changed as requirements and processes change. Using the hazard assessment process and the site-specific emergency response plan we feel that more emergencies can be averted.

### **Media Relations**

Any job has the potential to cause an impact that is substantial. If you are involved in an incident that brings the attention of the media do not divulge any of the details of the events. NexGen Mechanical will dispatch a person who is in upper management or a third party expert to deal with the media. We are not trying to cover anything up; we just want to ensure the information is released to the proper

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authorities and family members before it is on the news. Keep in mind that anything that has been said on camera may be used in court.

If the media should arrive before NexGen Mechanical senior management at the scene of the emergency, NexGen Mechanical contractors/employees are authorized to release the following statement:

**“We are currently dealing with the emergency situation to ensure the safety of personnel, property, the public and the environment. A more comprehensive statement will be released as soon as more factual information has been determined”**

DO NOT SPECULATE ON THE CAUSE OF THE EMERGENCY OR PROVIDE THE MEDIA WITH ANY TYPE OF STATEMENT THAT IS “OFF THE RECORD”.

Before admitting the media onto NexGen Mechanical supervised property, the senior NexGen Mechanical representative must ensure that the area is absolutely safe and that admittance will not hamper emergency services or the investigation. The media will always be accompanied while on NexGen Mechanical supervised property.

### **Notification of Next Of Kin**

Under no circumstances should the name of an accident victim or fatality be released without permission of the president of NexGen Mechanical and/or R.C.M.P. It is important that the employee's next-of-kin be notified as soon as possible. The names, addresses and telephone numbers of next-of-kin are included in the employee/contractor's personnel file.

### **Non-Fatal Injury**

The next of kin should be notified in the following manner:

- If the injured person is capable, he/she should make the necessary telephone calls.
- If the injured person is not capable, a NexGen Mechanical supervisor or representative (with permission from a supervisor) should make the following statement.

**“An accident has occurred at \_\_\_\_\_ and your (relationship), (full name) has been injured. He/she has been taken to (hospital) in \_\_\_\_\_ for treatment”**

- The representative will have to exercise discretion when discussing the nature of the injury(s). They should be able to answer questions

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and make arrangements for necessary assistance. Transportation, baby-sitters or other assistance may be required by the next-of-kin.

**Fatal Injury**

This notification should only be made in person. The victim's family clergy, doctor or friend should accompany the notifier. The R.C.M.P. will assist with the notification whenever possible and will ensure that the notification is complete.

Extreme discretion and tact is necessary. The next-of-kin will be in a state of shock and require support and assistance.

**UNDER NO CIRCUMSTANCES IS THE NAME OF THE VICTIM TO BE RELEASED BEFORE THE NEXT-OF-KIN HAVE BEEN NOTIFIED.**

**Post Emergency Summary**

In the event that any uncontrolled event (emergency) was to happen NexGen Mechanical is committed to understanding the root cause(s) of the incident and how the personnel on site including both workers and subcontractors handled the emergency. Any information gathered that might ensure a better response in the future will be shared with everyone involved. This formal review of the Emergency Response Plan must be performed after every emergency.

It is often beneficial to ask everyone involved in the emergency to seek medical attention or talk to his or her peers about the incident.

All ERP records, including records of actual emergency response process and outcomes, must be kept.

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## 7.1 Emergency Contact List

### NexGen Mechanical

**110 – 343 70th Street East**  
Saskatoon, SK S7P 0E1  
Phone: 306 242 7000

**Bay 5 – 390 South Industrial Drive**  
Prince Albert, SK S6V 7L8  
Phone: 306 953 7000

|        |              |            |              |
|--------|--------------|------------|--------------|
| Phone: | Office       | 24 on-call | 306.242.7000 |
|        | Jeff's Cell  |            | 306.370.0660 |
|        | Kelly's Cell |            | 306.290.8804 |

### Emergency Contacts

|                 |     |
|-----------------|-----|
| Ambulance       | 911 |
| Fire Department | 911 |
| Police          | 911 |

### Saskatchewan

|                                |                   |                |
|--------------------------------|-------------------|----------------|
| Poison Centre                  | 24 Hour Emergency | 1-866-454-1212 |
| Environmental Spills/Complaint | 24 Hour Emergency | 1-800-667-7525 |
| Stars Emergency Link Centre    | 24 Hour Emergency | 1-888-888-4567 |
| OHS Inspector                  |                   | 1-800-567-7233 |

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## **Section 8   POLICIES**

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The following Policies have been developed to ensure consistency in our organization. The following policies have been put in place at NexGen Mechanical:

1. Aboriginal Hiring Policy
2. Alcohol and Drug Policy
3. Anti-Fraud/Ethics Policy
4. Behavior Based Safety Program
5. Cellular Phone Use Policy
6. Corporate Social Responsibility Policy
7. Document Control Policy
8. Drinking Water Policy
9. Driving Policy
10. Enforcement and Discipline Policy
11. Environmental Policy
12. Ergonomics Policy
13. Fatigue Management Program
14. Firearms Policy
15. First Aid Policy
16. Fit for Duty
17. Initial Spill Response Policy
18. Journey Management Policy
19. Load Securement Policy
20. Management of Change (MOC) Policy
21. Modified/Return to Work Program
22. New and Young Worker Policy
23. Noise Policy
24. Pandemic Virus/Flu Policy
25. Personal Monitor (Gas Hazard Awareness) Policy
26. Personal Protective Equipment Policy
27. Purchasing Policy
28. Quality Control Policy
29. Respiratory Protection Policy
30. Right to Refuse Dangerous Work Policy
31. Security Policy
32. Social Media Policy
33. Subcontractor Management Policy (SMP)
34. Thermal Exposure Policy
35. Violence & Harassment Prevention in the Workplace Policy
36. Waste Management Policy
37. Working Alone Policy

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## 8.1 Aboriginal Hiring Policy

*"It is not a discriminatory practice for an employer to give preferential treatment to Aboriginal persons in hiring, promotion or other aspects of employment, when the primary purpose of the employer is to serve the needs of Aboriginal people."*

**Government of Canada**

NexGen Mechanical believes that every person has the right of equality of opportunity based upon bona fide qualifications, in respect of employment, employment advancement, or promotion.

NexGen Mechanical recognizes that employment equity is a desirable and fundamental goal in our society. We are committed to the identification and removal of employment barriers and discriminatory practices and striving towards a fair representation of women, Aboriginal peoples, disabled persons and minorities.

NexGen Mechanical understands that to achieve equality in the workplace, no person should be denied employment opportunities for reasons unrelated to ability. Employment equity means more than treating persons equally and may require measures to accommodate differences.

All decisions regarding employment are based upon bona fide requirements and qualifications.

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## **8.2 Alcohol and Drug Policy**

Work places contain many hazards and it is essential that all employees and subcontractors maintain the highest possible state of alertness. It is for this reason an alcohol and drug policy was developed for NexGen Mechanical. NexGen Mechanical promotes the safety and dignity of its employees, the welfare of its employees and their families, protection of the environment, and the best interests of the owner, the upstream petroleum industry, and the public. This written Alcohol and Drug Policy is readily accessible to each individual at NexGen Mechanical. At orientation this policy is discussed and the expectations and enforcement guidelines given to each employee. The Drug and Alcohol program at NexGen Mechanical is successful because the workers are educated about the importance of the policy and the program offers self-help opportunities to employees who request it.

At NexGen Mechanical it is very important that all workers are treated fairly and with respect. NexGen Mechanical follows the Canadian legal framework (e.g., human rights, privacy, occupational health and safety) laws and protects the workers confidentiality.

The following is strictly prohibited while at a NexGen Mechanical and any of our Clients worksites:

- Any usage, possession, transportation, or offering or sale of illicit drugs, illicit drug paraphernalia, or unprescribed drugs for which a prescription is legally required in Canada or any product or device that could tamper with any sample for an alcohol or drug test
- Use, possession, distribution, offering, or sale of alcoholic beverages.
- Presence in the body of marijuana, illicit drugs, unprescribed drugs for which a prescription is legally required in Canada, or their metabolites.
- Having a blood alcohol concentration of .04% or higher. Workers performing A&D Safety-Sensitive work are prohibited from consuming any alcoholic beverages during their working hours, whether on or off company premises. These people are also required to limit their consumption prior to working hours so that there is no alcohol in the body while at work.
- Intentional misuse of prescribed medications, over-the-counter medications or other substances.
- Being unfit for work due to the use or after-effects of alcohol, marijuana, illicit drugs, unprescribed drugs for which a prescription is legally required in Canada or the intentional misuse of medications.
- Being unfit for work due to the effects of the legitimate use of prescription or over-the-counter medications. Workers have the responsibility to manage potential impairment during working hours due to the legitimate

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use of medications in consultation with their personal physician or pharmacist.

There is a zero tolerance policy towards the use of alcohol and drugs at NexGen Mechanical.

### **Commitment and Education**

During orientation NexGen Mechanical explains the alcohol and drug policy to the new employee and will discuss the safety risks associated with the use of alcohol and drugs.

The drug and alcohol policy requires ongoing commitment and attention from all individuals at NexGen Mechanical. Regular meetings with supervisors assigned to implement the policy shows the importance of the implementation of the policy and will ensure that the policy is successful. In our annual safety meeting the following drug and alcohol topics will be covered.

- Safety concerns and safety focus of the policy, including the safety risks associated with the use of alcohol and drugs;
- Key elements of the policy, particularly the alcohol and drug work rule, the alcohol and drug testing procedures, and the circumstances where the policy requires alcohol and drug testing;
- General education and awareness resources;
- Effects on employees that result from alcohol and drug use;
- Behaviours that a person demonstrates when under the influence of alcohol or drugs;
- Role of employee assistance services programs (EAP) and how to access these services;
- Second-chance principles of the policy that focus on treatment and reemployment;
- The company's duty to accommodate employees who fail alcohol or drug tests due to an actual or perceived disability (addiction).

NexGen Mechanical trains supervisors to be able to recognize impairment in the workplace and how to properly deal with an impairment situation.

### **Responsibilities**

All levels of workers - employees, supervisors, owners, and subcontractors must take responsibility for the successful implementation of this alcohol and drug policy.

#### *Owners, Employers and Subcontractors Responsibilities:*

- Provide a safe workplace;

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

- Provide programs that emphasize awareness, education, and training with respect to the use of alcohol and drugs;
- Train and educate supervisors to be able to recognize impairment in the workplace, as well as how to properly deal with an impairment situation. This includes recognizing the signs and symptoms of impairment and the procedures to follow when an employee is suspected of being impaired or having a substance abuse problem.
- Ensure their company alcohol and drug policy supports other performance management systems;
- Ensure effective employee assistance services are available to workers;
- Assist workers in obtaining confidential assessment, counselling, referral, and treatment;
- Actively support and encourage treatment programs and re-employment opportunities where applicable;
- Provide supervisory training and awareness in dealing with the use of alcohol and drugs in the workplace;
- Ensure that all employees understand the existence and content of the company's policy as part of employee orientations to that company.
- Ensure alcohol and drug testing is performed according to the standards set out in the Alcohol and Drug Policy / Canadian Model;
- Identify safety-sensitive positions within their organizations.

*Supervisors Responsibilities:*

- Be knowledgeable about their company alcohol and drug policy and applicable procedures;
- Ensure they understand and comply with their company alcohol and drug policy as part of their responsibility to perform their work-related activities in an effective and safe manner;
- Be knowledgeable about the use of alcohol and drugs and be able to recognize behaviours and other indicators of the use of alcohol and drugs;
- Take action on performance deviations of employees;
- Take action on reported or suspected alcohol or drug use by employees.

*Employees Responsibilities:*

- Take responsibility to ensure safety and the safety of other workers;
- Ensure they understand and comply with this alcohol and drug policy as part of their obligation to perform work activities in a safe manner;
- Use prescription and non-prescription drugs responsibly, be aware of potential side effects and notify their supervisor of any potential unsafe side effects where applicable;

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

- Encourage their peers and co-workers to seek help when there is a breach or potential breach of policy.

**Prohibitions and Testing**

The use of drugs and alcohol will adversely affect the ability of a person to work in a safe manner; it decreases competency to a level that is unacceptable. The NexGen Mechanical drug and alcohol policy addresses the increased risks associated with the use of alcohol and drugs and provides understandable and predictable responses when an employee's conduct jeopardizes the safety of the workplace. Drug and Alcohol testing includes both screening and confirmation tests consistent with recognized industry standards (Canadian Model for Providing a Safe Workplace – A best practice guide from the Construction Owners Association of Alberta and Energy Safety Canada).

All NexGen Mechanical employees will not:

While the employee's ability to safely perform his or her duties is adversely affected because of the use of a prescription or non-prescription drugs:

- Refuse to comply with a request made by a representative of the company;
- Refuse to comply with a request to submit to an alcohol or drug test;
- Tamper with a sample for an alcohol or drug test.

While on company property or at a company worksite use:

- Alcohol, or
- Drugs other than those permitted (prescription-prescribed by a doctor), or
- Any product or device that could tamper with any sample for an alcohol or drug test;

Report to work or work:

- With an alcohol level equal to or in excess of 0.04 grams per 210 liters of breath. If the screening test reveals an alcohol level less than 0.020 grams per 210 liters of breath confirmation testing will not be required. If the screening test is greater than 0.020 grams per 210 liters of breath confirmation testing will be required using an evidential breath alcohol device.
- With a drug level equal to or in excess of the concentrations set out below (for both urine and oral fluids) of the drugs where a medical review officer has verified the results as a positive test result (e.g. no legitimate medical explanation).

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- While the employee's ability to safely perform his or her duties is adversely affected because of the use of alcohol and/or drugs, whether prescription drugs or non-prescription drugs, lawful or unlawful.

| Drugs or classes of drugs | Screening concentration* equal to or in excess of ng/mL | Confirmation concentration* equal to or in excess of ng/mL |
|---------------------------|---------------------------------------------------------|------------------------------------------------------------|
| Marijuana metabolites     | 50                                                      | 15                                                         |
| Cocaine metabolites       | 150                                                     | 100                                                        |
| Opioids                   | --                                                      | --                                                         |
| - Codeine                 | 2000                                                    | 2000                                                       |
| - Morphine                | 2000                                                    | 2000                                                       |
| - Oxycodone               | 100                                                     | 100                                                        |
| - Oxymorphone             | 100                                                     | 100                                                        |
| - Hydrocodone             | 300                                                     | 100                                                        |
| - Hydromorphone           | 300                                                     | 100                                                        |
| 6-Acetylmorphine          | 10                                                      | 10                                                         |
| Phencyclidine (PCP)       | 25                                                      | 25                                                         |
| Amphetamines              | 500                                                     | --                                                         |
| - Amphetamines            | --                                                      | 250                                                        |
| - Methamphetamines        | --                                                      | 250                                                        |
| - MDMA                    | 500                                                     | 250                                                        |
| - MDA                     | --                                                      | 250                                                        |

\* in urine samples

| Drugs or classes of drugs     | Screening concentration** equal to or in excess of ng/mL | Confirmation concentration** equal to or in excess of ng/mL |
|-------------------------------|----------------------------------------------------------|-------------------------------------------------------------|
| Marijuana (THC)               | 4                                                        | 2                                                           |
| Cocaine metabolites           | 20                                                       | --                                                          |
| - Cocaine or Benzoyllecgonine | --                                                       | 8                                                           |
| Opioids                       | 40                                                       | --                                                          |
| - Codeine                     | --                                                       | 40                                                          |
| - Morphine                    | --                                                       | 40                                                          |
| - Oxycodone                   | --                                                       | 40                                                          |
| - Oxymorphone                 | --                                                       | 40                                                          |
| - Hydrocodone                 | --                                                       | 40                                                          |
| - Hydromorphone               | --                                                       | 40                                                          |
| 6-Acetylmorphine              | --                                                       | 4                                                           |
| Phencyclidine (PCP)           | 10                                                       | 10                                                          |
| Amphetamines                  | 50                                                       | --                                                          |
| - Amphetamines                | --                                                       | 50                                                          |
| - Methamphetamines            | --                                                       | 50                                                          |
| - MDMA                        | --                                                       | 50                                                          |
| - MDA                         | --                                                       | 50                                                          |

\*\* in oral fluid samples

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

A Certified Laboratory Analysis of urine or oral fluids will be conducted for most testing. Employers must retain a laboratory to conduct oral fluid testing. Oral fluid testing is permitted for post-incident testing, reasonable cause and random testing. Oral fluid testing is not permitted for site access or discipline purposes.

For screening purposes, a laboratory certified by the United States Department of Health and Human Services is permitted to test samples.

If a test is requested due to reasonable grounds or post incident NexGen Mechanical may use a Point of Collection Tests (POCT) device as one of a number of options for assessing the risk of having the employee return to work. A POCT device used for this purpose must have Health Canada approval, must be intended for urine assessment only, and must be calibrated to the extent possible with the urine cut-off levels. Only collection personnel trained to U.S. DOT standards shall administer the POCT. Such collection personnel must comply with standard operating procedures that must, at a minimum, address chain of custody and quality control.

When using a POCT, if the initial results are below the screening concentration results no further testing is required and the worker may resume his work tasks. If the initial screening results exceed those listed above the lab will complete a confirmatory test using approved mass spectrometry techniques. If the worker's concentrations exceed the confirmation concentrations they will be required to connect (likely via the phone) with the Medical Review Officer to discuss the results (certain medicines may impact results). The worker may ask to have the testing redone at their own expense (within 72 hours of the original test). The Medical Review Office (MRO) is a licensed physician, currently certified with the American Association of Medical Review Officers or Medical Review Officer Certification Council, with knowledge of substance abuse disorders and the ability to evaluate an employee's test results, who is responsible for receiving and reviewing laboratory results generated by an employer's drug testing program and evaluating medical explanations for certain drug test results.

### **Random Testing**

NexGen Mechanical may perform random alcohol and drug testing of employees in safety-sensitive positions, if random testing is going to begin all affected employees will receive written notice of the implementation of random alcohol and drug testing at least 30 days prior to implementation of that program at the worksite. Random testing may be part of our contractual obligations with our Client.

### **Pre-Access Testing**

Workers may be required to be alcohol and drug tested prior to beginning work at our Clients sites. All workers are notified and have signed off on this potential

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requirement during orientation or at least 30 days prior to Pre-Access Testing taking place. If a worker has been absent 90 calendar days (or more) they may be required to be retested. Pre-Access testing may be part of our contractual obligations with our Client.

**Testing for Cause**

If a worker's ability appears to be adversely affected because of the likely use of alcohol or drugs (prescription or non-prescription) NexGen Mechanical will not allow the worker to continue working and will send the worker for applicable alcohol and drug testing. Reasonable cause testing will be conducted as soon as reasonably practicable once the determination has been made that reasonable cause exists. Where a test occurs more than four hours from the time the decision was made to test, NexGen Mechanical may be required to provide a valid reason for the delay to our Clients. The affected worker must be supervised and escorted to the laboratory for testing.

**Post Incident Testing**

Workers are subject to testing for alcohol and specified drugs after any significant incident or near miss has occurred. The primary purpose of this type of testing is to determine whether substance use was a possible contributing factor in an incident. Testing will be conducted after all significant incidents unless there is clear evidence (for example, obvious structural failure) that the acts or omissions of the worker could not have been a potential contributing factor. Testing may also be required, for near misses or less serious incidents if they are considered to have had significant potential for more serious consequences. Because post-incident testing is an investigative procedure, testing is required even in the absence of direct evidence or suspicion of alcohol or drug misuse.

Testing must be conducted as soon as reasonably practicable following an incident. Where a test occurs more than four hours from the time of the incident, NexGen Mechanical may be required to provide a valid reason for the delay to our Clients. The affected worker must be supervised and escorted to the laboratory for testing. It is recognized that it may not be possible to test an individual after an incident which renders him or her incapable of giving informed consent.

**Re-Qualification Testing**

At NexGen Mechanical workers may be periodically re-tested for safety sensitive positions to verify continued compliance. It is suggested that re-testing occur within 36 months from the date of the employee's last negative test or the date of the alcohol and drug policy implementation.

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**Return-to-Duty and Follow-up Testing**

An employee who has tested positive and is returning to work after an assessment, must successfully pass a drug and/or alcohol test before returning to duty. A Substance Abuse Expert may determine the need for and frequency of follow-up testing.

**Confidentiality for Alcohol and Drug Testing Results**

In order to preserve the confidentiality of test results, NexGen Mechanical will not disclose the test results to any person other than a person who needs to know the test results to discharge an obligation under the alcohol and drug policy. The worker who was tested will receive a written report with the test results; this report is confidential.

**Analytical Methods**

The collection site person must establish the identity of the donor. Photo identification is preferable (identification of the worker by a company representative who holds a supervisory position is acceptable).

***Alcohol Testing***

If the worker appears affected by alcohol, that worker will be required to give a sample by breath or saliva; this is considered an alcohol test. The employee being tested is directed (and transported if necessary) to a collection site for testing, or a breath alcohol technician (BAT) will attend the worksite to administer the test.

***Drug Testing-Laboratory Based Testing***

If the worker appears affected by drugs, that worker will be required to give a urine specimen sample; this is considered a drug test. The employee being tested will be directed (and transported if necessary) to a collection site, or a collection site person will attend the worksite. The worker must remove coveralls, jacket, coat, hat, or any other outer clothing and leave these garments and any briefcase or purse with the collection site person. Also remove any items from his or her pockets and allow the collection site person to inspect them to determine that no items are present which could be used to adulterate a specimen. The employee must give up possession of any item that could be used to adulterate a specimen to the collection site person until the donor has completed the testing process.

The collection site person must understand and abide by the quality control procedures to ensure the accuracy and reliability of the results.

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The report to NexGen Mechanical will include whether the test results are negative or positive, as well as if tests that have been tampered with or otherwise invalidated.

If the worker has an acceptable medical explanation that could contribute to a false positive that will be discussed, and the results amended if confirmed by a medical professional.

**Safety Sensitive Work Activities:**

At NexGen Mechanical many of our field positions are considered Safety Sensitive. An assessment of each individual position is completed to determine if they are Safety Sensitive or not; workers are informed of this at hire or after a position change. A safety sensitive position means a position in which the worker has a key or direct role in an operation where if actions or decisions are not carried out properly it could result in a serious incident affecting the health or safety of employees, contractors, customers, the public, and/or the environment or an inappropriate response or failure to respond to an emergency or operational situation. Workers who are required to temporarily provide relief in a safety-sensitive position and leaders who directly supervise safety-sensitive positions and who may perform the same duties or exercise the same responsibilities are deemed to hold safety-sensitive positions as well. Safety Sensitive workers include all supervisors and workers who perform the following:

- Involvement in the operations, control, maintenance of equipment and or construction of site facilities for the production, processing or transportation of hazardous materials, or
- Involvement in activities at construction project sites for new or expanded facilities, or
- Involvement in the operation, control and / or maintenance or equipment for the drilling or servicing of an Oil and Gas Well, or
- The transport of workers via ground or air transport.

You will be informed during orientation or upon position change whether your position is considered Safety Sensitive.

**Discipline**

NexGen Mechanical may discipline an employee who fails to comply with the drug and alcohol policy. Discipline may include a variety of reasonable measures, up to and including termination for cause. Determination of the appropriate disciplinary measure will depend on the facts of each case, including the nature of the violation, the existence of prior violations, the response to prior corrective programs, and the seriousness of the violation.

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If there is reasonable suspicion to believe an employee is under the influence immediate action must be taken. Testing will be conducted when an individual reports to work in an unfit condition; the individual will not perform any Safety Sensitive task until confirmation is obtained of the worker being fit for duty.

Any employee suspected of substance abuse will be reported to NexGen Mechanical Management. If substance abuse is confirmed by a Substance Abuse Expert (SAE) or the employee is deemed unfit to work safely and effectively, the employee will be removed from the job and subject to the following measures by the management:

1. Suspension from work and workplace without pay for a minimum of 30 days until a return to work solution is determined and enacted.
2. Assistance to find professional help for drug and alcohol abuse will be offered.
3. A letter verifying that professional help was received must be submitted to NexGen Mechanical management before consideration is given to return to work.
4. Refusal to accept professional help may result in dismissal.
5. Any repeat offence WILL result in immediate dismissal for cause, subject to the company's right to intervene in instances where management deems special circumstances to exist.

Assistance is available for employees who struggle with addiction (without any resulting discipline). Once an employee comes to a supervisor with the request for assistance a package including the following will be provided:

- the resources and contact information available (including Employee Assistance Programs or Government sponsored Addiction & Substance Abuse program),
- the employee's responsibilities,
- and rules for discipline.

NexGen Mechanical will do it's best to ensure that after workers get the help they need that they have a position to go back to.

### **Record Keeping**

NexGen Mechanical will keep records of any testing, follow up, and discipline in a secure/locked cabinet.

### **General Information for our Workers**

If you know someone at work has an alcohol or drug problem, you have a personal responsibility to ensure the safety of yourself and others. Part of that responsibility would be to encourage and help that individual seek assistance through an

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employee assistance service or a supervisor. If that individual is putting him or herself or others in danger, you have a responsibility to report that individual to your supervisor or leader.

Any medication, prescription, or non-prescription, that may affect your ability to perform your job safely, must be reported. Other medications that do not affect your ability to perform your job safely need not be reported. Any medications or medical information reported is treated as confidential.

The effects and side effects of prescription medications are usually provided by pharmacies. Effects and side effects of non-prescription medications are also provided with the medication. More information can be obtained from your pharmacist or physician. Workers are advised to make their physicians or pharmacists aware of their safety-sensitive occupation and any other medications they may be taking.

A positive test result means non-compliance with this Policy and may lead to discipline or termination. Prior to making a final decision on disciplining or terminating an employee, the employee must be directed to an assessment by a substance abuse expert who will make recommendations. The initial assessment is to be completed as soon as possible and the report delivered within two days of completion; the employee is suspended for this period without pay provided this timeline is followed. If a worker is deemed to be dependent on one or more substances they will be referred for further assessment and treatment. If the assessment indicates that there is no dependence with alcohol or drugs a 30 day suspension will be required with a conditional re-employment after a negative test result.

Except in the most safety-sensitive of positions this policy does not give us the right to test employees at will. The value placed on our personal privacy generally outweighs the right to test simply because it is possible some employees might be abusing alcohol or drugs and coming to work impaired. The balance is however when NexGen Mechanical has, on any reasonable grounds, suspects that a violation of the policy has occurred by an employee who occupies a safety-sensitive position.

  
President - Jeff Young

**May 15, 2026**  
Date

\* the printed version is signed and dated

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### 8.3 Anti-Fraud/Ethics Policy

NexGen Mechanical is committed to ethical behavior and values. It is amongst its first priorities to establish a corporate and working culture that enhances the value of ethics and promote the individual responsibility as well. The cornerstone in preventing fraud is the creation of an environment that fosters morality, integrity and business conduct.

**Fraud** – Any illegal acts characterized by deceit, concealment, or violation of trust. Fraud is often perpetrated to obtain money, property, or services; to avoid payment or loss of services; or to secure personal or business advantage. Fraud may involve:

- falsification or alteration of accounting records and expense records,
- claiming extra hours or expenses,
- misappropriation of assets or theft (including using a company card for personal or unauthorized use),
- suppression or omission of transactions from records or recording of transactions without substance (including on timesheets),
- falsified sales with the intention of collecting payment,
- misapplying corporate or bank funds,
- manipulation of information system applications and data for personal advantage.

**Ethics** – Moral principles that govern a person's behavior or the conducting of an activity.

**Corruption** – The misuse of public power for private profit, or the misuse of entrusted power for private gain.

**Bribery** - The offer, promise, or payment of cash, gifts, or even excessive entertainment, or an inducement of any kind offered or given to a person in a position of trust to influence that person's views or conduct or to obtain an improper advantage. Bribery and corruption can take many forms, including the provision or acceptance of:

- Cash payments
- Phony jobs or 'consulting' relationships
- Kickbacks
- Charitable or political contributions
- Social benefits
- Gifts, travel, hospitality, or reimbursement of expenses

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**Training**

All NexGen Mechanical workers are trained in this policy during Orientation and annually after that.

**Guidelines**

The following guidelines have been put in place to create awareness of the anti-fraud/ethics measures at NexGen Mechanical. All workers at NexGen Mechanical are expected to:

- Always act in good faith in their relationships with other people when they interact on our company behalf.
- Comply with all applicable legal regulations, legal statutes, and with standards of equity and justice.
- Be truthful on all documents including timesheets, expense records, safety/quality forms, health insurance claims, etc.
- Maintain confidentiality of NexGen Mechanical data and that of our clients.
- Follow approved communications protocols and policies in regard to public comments, including media contact and the use of social media.
- Not use their position to benefit themselves, family members, or friends.
- Refuse to accept any 'kickbacks' or bribes. Report any offers of these to your supervisor.
- Notify a supervisor of any observed acts or suspicion of fraud or unethical infractions, if it is your supervisor that is the suspect individual do not contact them directly and go to their superior.
- Know that the information provided will be kept in strict confidence. Workers will not be subject to retaliation.
- Ask a supervisor if you are unsure about this policy and its requirements.

**Reporting Fraud/Ethics Incidents**

If you observe anything unusual, *tell your supervisor*. All fraud/ethics incidents that affect people, premises, information or customer reputation will be reported to the management of NexGen Mechanical. All reported fraud incidents that affect our Clients will also be reported promptly to our Client by the Management of NexGen Mechanical.

Additionally, proven fraud or suspected fraud will be reported to the appropriate authorities, at the earliest possible opportunity.

**Investigating Fraud Incidents**

All fraud/ethics incidents or potential incidents will be investigated and corrective action will be taken to prevent recurrence. If required, the police or other authorities will assist or take over the investigation. Corrective action may include:

- Suspension/Termination
- Criminal charges

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

- Prison
- Restitution

### **Discipline**

Any employee who violates the terms of this Policy will be subject to disciplinary action, up to and including immediate termination. Any employee who has direct knowledge of potential violations of this Policy but fails to report such violation to NexGen Mechanical management will be subject to disciplinary action as well.

**Failure to comply with this policy may lead to disciplinary action.**

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## 8.4 Behavior Based Safety Program

A behavior based safety program refers to a safety program that focuses on the behavior of workers and supervisors to prevent occupational injuries and illnesses. Behaviours are actions we can see and measure. Whether behaviours are repeated or not depends on their consequences. Actions with positive results tend to be repeated. Actions with negative results tend to be avoided. Safe behaviour must therefore be shown to yield benefits. These benefits will in turn reinforce the actions that produced them. In this way, safety becomes a *habit*.

### Training

All managers, supervisors and employees at NexGen Mechanical are trained on how to conduct an observation, and how to provide effective feedback on observed behaviors. All workers are required to attend a meeting that discusses the expectations of the observation program and the intended benefits of the program.

### Frequency of Observations (Tours)

Managers and Supervisors must do formal job observations monthly. It is expected that all workers are observed at least quarterly by the supervisor and annually by the manager.

### Job Observations

Job observations are used to identify and to promote recognition of positive behaviours for reinforcement as well as identify unsafe actions so they can be addressed and that behaviour can be stopped. They provide direct, measurable information on work practices performed by workers. Job observations should never be used to discipline workers; they are intended to help workers identify the safest ways to perform their work.

The purpose of these observations is to promote open communication and productive feedback. Changes in behaviour begin with observation. By observing workers performing a certain task, it's possible to identify which steps in the process are safe and which involve significant risk.

All job observations must be documented on an observation form. The observation forms will be used later to summarize companywide compliance and trends.

### Feedback to Workers

The observer is expected to emphasize that the purpose of observations is help employees perform their jobs safely, not to punish or discipline.

It's important that workers be recognized for doing the safe thing. This helps to reinforce the desired behaviour. Reinforcement must be consistent and personal.

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In some way, the safe behaviour must be made worthwhile to people, not in general but in immediate terms. In most cases this amounts to recognition and encouragement from fellow workers and supervisors.

The observer starts his feedback by commending the safe behavior the worker was doing during his work. Then he explains, one-by-one, the at-risk behaviors the worker was doing. Then the observer asks the worker why he was putting himself at risk. For example, if the worker is welding a piece of metal and the sparks are flying in the worker's direction. The observer would then ask the worker why he was not wearing protective clothing, like a flame-retardant apron.

They both discuss the at-risk behaviors until the worker agrees to try the suggested recommendation made by the observer. The worker might be aware of his at-risk behavior or maybe not. The worker may be doing the at-risk behavior for a long time without hurting himself. The observer's job here is to highlight this behavior, then explain the associated negative consequences with this behavior. The above discussion and agreement is the individual feedback which helps the worker to change his behavior.

At the end of the observation, the observer would fill in a checklist with the safe and at-risk behaviors he noticed along with the date, time and location of the observations. The worker's name or identification number are not noted in the checklist. The worker's comments and reasons for the at-risk behavior is documented along with the suggested safe behavior.

### **Observation Trends Analysis**

A group, including the management and the safety department, will take all of the observation results and analyze them to identify trends and enhancements that can be made to make work activities safer.

The group will have meetings (at least twice per year) to discuss and analyze report findings. The group then produces a set of recommendations to tackle workers' behaviors. Some of the recommendations would be as simple as providing Personal Protective Equipment (PPE) to workers in certain locations, or increase work force in another location. Some of the recommendations may require site modification or costly machinery. Such recommendations are sent to top management for necessary approvals.

The recommendations are aimed to eliminate hazards and risks caused by lack of training, hardware or wrong design at NexGen Mechanical. Group members devote time and effort to discuss and analyze these reports. These meetings are counted as part of the management commitment to the behavior process.

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## **8.5 Cellular Phone Use Policy**

*It is recommended that you pull over and stop prior to initiating a call, and if conditions permit when receiving a call. Only use hands free devices.*

- Always ensure that you know whether cell phone usage has been banned in the areas that you will be driving. It is illegal to use hand-held phones while driving in every jurisdiction in Canada.
- Focus your attention on safe driving as this is your first priority. Always buckle up, keep your hands on the wheel and your eyes on the road.
- Voice activated commands are the only acceptable method of communicating while driving. If the initial activation is through a single touch button on the dash then this is an acceptable method on initiating hand free communications. This is only acceptable if driving conditions are such that the driver is in full control of the vehicle and can remain calm. Do not use this feature in adverse driving conditions. All communication devices should be set to silent and placed in the glove box of the vehicle. The Bluetooth activation will remain active. This removes the phone from the driver's view and lessens the temptation to become distracted by incoming messages.
- Your cell phone must be in a secure position in case you make a sudden stop.
- Never take notes while driving. Carefully pull off the road if you must take notes. Keep in mind that municipal bylaws often prohibit stopping on the side of a highway unless it is an emergency.
- Texting or emailing while driving is prohibited.
- Let your voice mail pick up your calls when it is unsafe for you to answer your phone. It's easy to retrieve your messages later on. You can even use your voice mail as a note pad by leaving yourself reminders.

Be a cellular Samaritan by reporting crimes in progress, accidents and other emergencies to the proper authorities; 911 is a free call for cellular subscribers; however, it should only be used for life-threatening emergencies.

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## 8.6 Corporate Social Responsibility Policy

Corporate social responsibility is a tool used by business and industry to increase awareness of social, ethical, and environmental values and to ensure those values are taken into account during business planning activities. NexGen Mechanical strives to meet or exceed our Clients expectations by integrating social, ethical, and environmental concerns together with the usual measures of revenue, profit, and legal obligation.

Our overall goal is to positively impact society and the natural environment while achieving business success. This goal is accomplished by:

- making ethical decisions regarding company issues, and expecting workers to behave ethically as well, and
- assisting, where possible, in community or workers related projects (volunteering time or money).

### Environmental Practices

NexGen Mechanical ensures our workers are aware of the importance of environmental stewardship. Our management and employees have adopted the following practices:

- Providing and using proper equipment to clean any spills immediately after they occur.
- Limiting the amount of greenhouse gases by using low-emission technologies and renewable energy, where possible.
- Combining tasks to reduce the amount of driving and ensuring workers travel together, when possible.
- Vehicles and equipment are kept in good condition with up-to-date preventative maintenance (including filter changes and internal system cleaning). The most efficient vehicles and equipment are used when possible.
- When purchasing equipment and chemicals, a preference is given to products that minimally impact the environment, are made of recycled or renewable material, are energy-efficient, etc.
- When activities may have an effect on wild/domestic animals or vegetation (crop or forest), a pre-job plan will be put in place to minimize any environmental impact to them.
- An efficient material management system should be used to reduce the impact on the environment by limiting the amount of materials that are used, left over as waste, or transported.
- In the field, workers are encouraged to shut down equipment including vehicles when not in use.

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- In the office the use of energy efficient light bulbs is encouraged and lights are turned off when not in use. Efficiency is encouraged by shutting down equipment when it's not in use, using new energy efficient technology, using equipment with the ENERGY STAR mark, etc.
- Water conservation measures should be used whenever possible including repairing equipment that is leaking water, using a broom instead of a hose for cleaning purposes, upgrade equipment efficiency, educate employees, etc.

An annual report indicating what NexGen Mechanical has done over the past year, and what we would like to do in the coming year to continue to be socially responsible may be delivered verbally or in writing to our employees. The summary report will also be available to our Clients, on request.

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## 8.7 Document Control Policy

The purpose of this Document Control Policy is to ensure that proper and efficient document management practices are maintained. This has been implemented to ensure that the records of NexGen Mechanical are stored in the most effective and efficient manner.

NexGen Mechanical needs to ensure that important documents are retained to ensure legal, contractual, and other record keeping requirements are adhered to.

### Collection of Records

To properly monitor the safety program records must be created and stored. These records include (but are not limited to):

- Incident/Accident Investigation and Reports
- First Aid Reports
- Training Records
- Safety Meetings
- Hazard Assessments
- Alcohol and Drug Testing Acknowledgements
- Emergency Contact Information
- Inspections
- Statistics
- Maintenance Records
- Policy / Regulation Violations
- Observations
- Safety Performance Reviews
- Record of Drill

These records must be stored in a locked cabinet. Information that is included on the forms may be confidential.

This organizational process will also ensure that documents are available during an audit.

### Records Retention

Records required to be made or retained under the Occupational Health and Safety regulations must not be destroyed or disposed of for the period prescribed in the regulation for the specific class of records or if there is no prescribed period, for five years after the record is made or comes into the possession of NexGen Mechanical.

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## **8.8 Drinking Water Policy**

All worksites are supplied with drinking water either from small single use water containers, potable tap water, or a large container designed to pour out of a side spigot. Potable Water is labelled on all containers. Disposable paper cups are available, when required.

In addition to the water supplied, workers are allowed to bring a lunch onsite that consist of fluids of their choice (not including alcohol).

The drinking water container is NEVER to be used to hold any liquids, except potable water.

All workers have been informed of this policy.

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## **8.9 Driving Policy**

Unauthorized/unlicensed employees will not operate motor vehicles. A licensed driver of a vehicle is responsible for:

- Operating the vehicle in a safe and legal manner.
- The safety of passengers.
- Obeying all signs governing movement and parking of vehicles.
- Not operating a motor vehicle while under the influence of drugs or alcohol. This includes blood alcohol level at or above the local legal limit, illegal drugs, and prescription medications that cause drowsiness or other conditions that may cause impairment.
- Driving within the posted speed limits and for the road conditions at all times.
- Not talking on cell phones while operating a motor vehicle. Not reading and writing e-mails and conducting other keyboard-related activities on a smartphone or PDA while operating a motor vehicle. While on any customer/client property all cell phone use, including hands-free, is prohibited while driving.
- Yielding the right of way to any pedestrians.
- Ensuring that provincial driver's license is valid and current for the type of motor vehicle they operate, as required by law. Prior to allowing a worker to drive for company business a ride along to ensure competency will be completed. Workers will also take online driver training periodically.
- For personal owned vehicles used for work purposes.
  - Ensuring Insurance is valid and current as required by law and meets client requirements.
  - Employees who drive to field locations are required to have public liability and property damage insurance (PLPD) and have their vehicles insured for business use.
- Inspecting the condition and operation, before starting motion, of the following: tires, lights, horns, windshields, wipers, rear-view mirrors, brakes, steering gear, head lights, tail lights, turn signals, gasoline, oil and radiator coolant and transmission/steering fluid if applicable. Please use the Vehicle Inspection Form.
- Walking around the vehicle to look for barriers before starting the vehicle.
- All vehicles are equipped with four way hazard lights and two conventional brake lights.
- Ensuring regular maintenance is performed as per manufacturer guidelines.
- Driving in accordance with traffic laws and rules of the road.
- Ensuring all passengers, including the driver, wear seatbelts.
- Considering the rights and privileges of others as a basic "rule of the road".

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- Ensuring the vehicle's engine is not running while re-fuelling or changing a flat tire.
- Taking positive action to ensure that vehicle is unable to move while unattended. Apply emergency brake and leave vehicle in either low, reverse, or "park".
- First Aid kits and flashlights must be present in each vehicle and securely stowed.
- Backing up is discouraged, when parking every effort must be made to park the vehicle in a manner that allows the first movement when leaving the parking space to be forward. Before backing up, a walk around of the vehicle is conducted to verify a clear path by checking for any objects, persons or other vehicles.
- Passengers, other than coworkers required to complete the task, are not allowed in or on any vehicle used to deliver goods.
- Drivers will have 3 years of driving experience on the vehicle he/she is licensed to drive and regularly drives, unless a supervisor has deemed the driver competent.
- All vehicles are equipped with a mobile phone, 2-way radio, or other such communication device that allows communication with emergency response personnel or company managers. The vehicle must be safely parked prior to using a mobile phone or 2-way radio.
- Passenger compartments must be kept free from loose objects that might endanger passengers and the driver in the event of an accident. Any vehicle with non-segregated storage will be equipped with a cargo net or equivalent to separate the storage area.
- Cargo on or in a vehicle must be adequately stored and secured to prevent unintentional movement of the equipment which could cause spillage, damage to the vehicle, or injury to the operator.
- All vehicle incidents that occur while on company business must be reported.
- Vehicles (light vehicles, heavy vehicles and trailers) are not allowed to be modified without the endorsement of the manufacturer.
- All signs, stickers or labels must not obstruct the driver's vision or impede the driver's use of any controls.
- Vehicle weighing less than 1000 kg are not allowed on public roads except for crossing, when required.
- Tire Requirements:
  - All tires, including spares if full size, must be of same type, profile and tread pattern, except when the vehicle or tire Manufacturer recommends a different type for certain axles.

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- All tires are radial with a minimum tread depth of 1.6mm [1/16 inch], recommended 2.0mm, across 75% of the tire width and tread-pattern visible across 100% of the tire.
- The tire type and pattern must meet the recommended of the vehicle or tire manufacturer for use on the vehicle in the area of operation.
- All vehicles must have a spare wheel and changing equipment to safely change a wheel, or a suitable alternative.
- All tire load ratings must be applicable for the application/operating environment.

The following information is recorded and reviewed to improve the NexGen Mechanical driver safety program:

- Accident severity and frequency for all operations.
- Cargo space and capacity (weight) utilization.
- Mileage and trip reduction based on consolidation of loads.
- Mileage driven and hours worked for all land transport operations.
- Results (number and analysis of findings) of contractor's driver management system.
- Turnover (monthly percentage) of contractor's drivers.
- Driver abstracts are obtained (a driver abstract contains information on the operator's license, conviction information, demerit points, and suspensions.).

### **Vehicle Incident Procedure**

Our goal is to create driver awareness and reduce the potential for vehicular incidents. If an incident should occur:

6. STOP, ensure that everything possible is done for anyone who may be injured.
7. If the accident is of a serious nature, summon the police and in the meantime do not move the vehicle unless it is causing a hazard to other road users.
8. Do not make any admission of guilt or offer payment for the damage.
9. Make every effort to obtain the name and address, of at least one independent witness i.e. someone who was not involved with the accident.
10. Get information from the other driver:
  - Name and address, drivers licence number and province of issue
  - Registration mark of vehicle, make and type
  - Apparent injuries
  - Apparent damage to vehicle or property
  - Name and address of Insurance company including policy number

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

## 8.10 Enforcement and Discipline Policy

The purpose of this policy is to ensure that all employees of NexGen Mechanical are held accountable for their own actions in relation to safety and company rules, the following disciplinary action steps will be taken, if required.

All employees are informed of, and acknowledge, the Enforcement and Discipline program during new employee orientations; the training is refreshed during safety meetings and safety talks/training sessions. Any site visitors (including auditors, regulatory authorities, contractors, etc) that work with NexGen Mechanical will be monitored and corrected for non-compliance. Supervisors, foremen, and/or managers are responsible for enforcement of a company's health and safety rules, policies, and/or procedures. Disciplinary action is initiated by a supervisor, and may involve Senior Management.

Offences are categorized as minor or major infractions. Infractions include actions that impede production, employees who flagrantly disregard rules and regulations and are a hazard to themselves, their work associates, company property and equipment. All infractions will be written up on the Policy/Regulation Violation Form and address how the violations will be corrected.

Minor infractions could include:

- Absenteeism, and failure to call in
- Profanity within hearing distance of customers
- Not returning tools and equipment to its proper storage locations
- Not attending safety meetings
- Failure to call in when working alone resulting in a search to begin unnecessarily.

Major infractions could include:

- Careless or abusive use of company equipment
- Failure to carry out specific orders of a supervisor
- Violation of safety rules
- Failure to wear safety equipment in defined work sites
- Tampering with safety equipment or fire extinguishers
- Removing or immobilizing safety guards or devices
- Short cutting job procedures

### **Verbal Warning – First Infraction**

A verbal warning is the first step in disciplinary action and should be utilized when supervisors or fellow workers notice that Safe Work Procedures or company policies are not being followed (minor infraction).

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

The verbal warning should be documented and discussed with upper management. The Verbal warning will be noted in the employee's personnel file.

**Written Warning**

After issuing a verbal warning if the infraction occurs again (or if an initial, serious/major infraction occurs), supervisors should issue a written warning indicating whether or not the employee should participate in formal or informal training.

**Suspension**

Serious infractions and (continued) lack of personal accountability will result in a suspension from work. These offences pertain to an outright breach of company rules and regulations. If an individual has totally disregarded all rules and regulations without regard for NexGen Mechanical or fellow employees, the individual will be immediately suspended (without pay) pending an investigation of the offence. Discharge will be upon proof of the offence.

Management will determine whether or not:

1. The employee will undergo a suspension.
2. The suspension will be extended for a longer period of time.
3. The employee will be demoted or terminated from their current position.

Dismissal infractions include:

- Reporting for work under the influence of alcohol or unauthorized drugs.
- Wilful damage to company property or equipment, or that of another employee's.
- Theft from the company or fellow employees.
- Committing an act of violence, harassment, or extreme prejudice against fellow employees, supervisors, or customers.
- Falsifying records including accident/incident records, timesheets, etc.
- Refusal to wear or use safety equipment when ordered to do so by a supervisor.
- Breach of confidentiality about customers, fellow employees or company business.

All warnings and records will be kept in the employees file in order to monitor the safety longevity of the employee.

  
President - Jeff Young

**May 15, 2026**  
Date

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

## 8.11 Environmental Policy

Protecting Canada's natural environment is a national concern. NexGen Mechanical shares that concern and is committed to minimizing the impact of its activities on the environment while managing our operations economically and efficiently.

We take responsibility in upholding this commitment by:

- Complying with applicable environmental law, industry standards, and our own policies.
- Making environmental considerations an integral part of our planning process.
- Operating our vehicles and facilities in a manner that protects the environment.
- Identifying and mitigating the adverse impacts of our operations on the environment in keeping with good environmental and business practices.
- Remaining sensitive to the concerns of the public.
- Responding to environmental emergencies in a prompt and efficient manner.
- Committing sufficient resources to ensure that our employees are fully informed of their responsibilities and are trained to protect the environment while performing their duties.

NexGen Mechanical believes that reducing environmental, energy or social impacts in our day to day business will benefit our company, its employees, and our Clients. We are aware that managing resources and using a pro-active approach to protect the environment will ensure the long-term viability and integrity of the business, while not compromising profitability.

Management, employees, and contractors are all committed to meeting this policy, now and in the future.

  
President - Jeff Young

**May 15, 2026**  
Date

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

## **8.12 Ergonomics Policy**

This Ergonomics policy is intended to help address the risk of overexertion injuries of the back as well as strain and sprain injuries to other parts of the body. It is also the intent of NexGen Mechanical to lower the risk of Musculoskeletal Injuries (MSI) or conditions such as tenosynovitis, tendonitis, bursitis, hand arm vibration syndrome, epicondylitis, carpal tunnel syndrome, cubital tunnel syndrome, radial tunnel syndrome, thoracic outlet syndrome, and trigger finger.

This policy was designed to:

- Show a commitment to injury prevention;
- Specify training and education provisions;
- Ensure an understanding of risk identification, factors, assessment, and controls.

### **Education and Training**

All NexGen Mechanical workers will be educated during orientation in risk identification related to the work, including the recognition of early signs and symptoms of MSI's and their potential health effects. Prior to a worker being assigned to work which requires specific measures to control the risk of MSI they are trained in the use of those measures including, where applicable, work procedures, mechanical aids and personal protective equipment.

### **Risk Identification**

A review of tasks has been performed to identify factors in the workplace that may expose workers to a risk of musculoskeletal injury (MSI). Activities that may cause or aggravate musculoskeletal injuries are also periodically reviewed to identify ergonomic hazards. These regular reviews have been performed in consultation with the committee, where one exists. The following has also been completed to assist in the identification of the risks:

- A check of workplace records for evidence of MSI, including first aid records and claims history.
- Interviews with workers and supervisors
- Trends in our industry
- MSI statistics in similar operations
- Accident/incident investigation reports and first aid reports
- Information provided by workers who have reported risks or who have signs or symptoms of MSI

Careful job observation for repetitive, long duration, or forceful movements and awkward postures will likely identify most of the ergonomic risk factors.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

**Risk Factors**

People have different physical capabilities and limitations; therefore, they will also have different risk factors and predispositions for musculoskeletal disorders. The key work related risk factors are repetition, force, posture, and combinations of these three factors. Poor ergonomics in work procedures and in workplace design can result in compromised work quality, employee injury, and lost productivity.

The following factors are considered, where applicable, in the identification and assessment of the risk of MSI:

- the physical demands of work activities, including force required, repetition, duration, work postures, and local contact stresses;
- aspects of the layout and condition of the workplace or workstation, including working reaches, working heights, seating, and floor surfaces;
- the characteristics of objects handled, including size and shape, load condition and weight distribution, and container, tool and equipment handles;
- the environmental conditions, including cold temperature;
- work-recovery cycles;
- task variability;
- work rate.

When factors that may expose workers to a risk of MSI have been identified, the risk to workers is assessed.

**Risk Assessment**

When performing a risk assessment any worker with signs or symptoms of MSI and a representative sample of the workers who are required to carry out the work being assessed are consulted. A person who has a good understanding of the work processes involved will complete the risk assessment.

Methods of assessment may include but are not limited to

- Observation of workers performing their tasks, including videotaping
- Still photographs of work postures, workstation layout, etc.
- Workstation measurements, using for example, a measuring tape, or weigh scales
- Measurement of handle size, weighing tools, measuring tool vibration, etc.
- Determination of characteristics of work surfaces such as slip resistance
- Measurement of exposures to heat, cold, vibration, noise, and lighting
- Biomechanical calculations, for example, the force required to accomplish a task or the pressure put on a spinal disk
- Physiological measures
- Worker surveys (for example, use of subjective force rating scales)

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Seek employee comments, concerns, and input about specific job tasks in order to identify alternative ergonomic methods of accomplishing the work (e.g. work organization, job rotation, automation). Together decide the best safe work procedure. There are four basic approaches to accommodating an employee's task-specific needs:

1. design for adjustability;
2. design for interchangeability;
3. design for fit;
4. design to eliminate the problem!

### **Risk Controls**

NexGen Mechanical aims to eliminate or, if that is not practicable, minimize the risk of MSI to workers. Personal protective equipment may only be used as a substitute for engineering or administrative controls if it is used in circumstances in which those controls are not practicable. NexGen Mechanical will implement interim control measures when the introduction of permanent control measures will be delayed.

Where elimination is not practicable, the specific risk factors identified in the risk assessment should be reduced to the lowest practicable level. Typically this means minimizing the duration, magnitude, and/or frequency of the relevant risk factor. Care should be taken to ensure that the reduction of risk of MSI from one factor does not increase the risk from another.

PPE for MSI includes, but is not limited to the following:

- Gloves (for example, vibration dampening gloves, friction gloves)
- Footwear (for example, safe, cushioned footwear with a comfortable toe box, and proper-fitting, low profile heels)
- Devices to protect against contact stress (for example, knee pads and wrist rests on computer keyboards)

### **Annual Evaluation**

The effectiveness of the measures taken to comply with the Ergonomics (MSI) requirements is reviewed at least annually. When deficiencies have been identified, they are corrected without undue delay.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

## 8.13 Fatigue Management Program

*The safety information in this program does not take precedence over the Transportation Requirements, Labour Standards, or the Occupational Health and Safety Act and Regulations. Workers at every level should be familiar with the requirements as it relates to their work processes.*

A Fatigue Management Program (FMP) for NexGen Mechanical was created to increase awareness of fatigue, manage the risk factors and hazards, and prevent related injury and illness. All management and workers must understand what fatigue is, how extended hours of work or consecutive days of work can affect fatigue and the proper proactive methods of effectively dealing with worker fatigue. Training of all workers, supervisors, and management who require the training will occur at or near orientation and thereafter as necessary. The FMP will be monitored, enforced, and updated as needed.

NexGen Mechanical recognizes that fatigue is a factor in the workplace. The Alberta Motor Association (AMA) reports that fatigue is a factor in over half of single-vehicle collisions — one good reason rumble strips are put on highways. Lack of sleep has also contributed to some tragic incidents in the workplace. Fatigue affects a worker's ability to perform mental and physical tasks.

### Definition of Fatigue

Fatigue is defined as a state of being tired. It can be caused by long hours of work, long hours of physical or mental activity, inadequate rest, excessive stress, or combinations of these factors. The signs, symptoms, and affect fatigue has on workers varies from one person to the next, however fatigue may affect the individual worker's ability to perform mental and physical tasks, including driving and working with tools and equipment.

The resultant fatigue can lead to any of the following hazardous conditions, effects, or behaviors:

- Inability to see properly;
- Slower reflexes and reactions;
- Micro sleeps (up to 60 seconds where the brain goes to sleep and worker blacks out no matter what they are doing);
- Automatic behavior (where worker does routine tasks but is not having any conscious thoughts);
- Inability to make good decisions or plans;
- Inability to solve problems;
- Inability to concentrate, including wandering thoughts;
- Decreased alertness and watchfulness;
- Inability to remember things just done, seen, or heard;
- Inability to notice things the worker usually would notice;

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- More mistakes than usual;
- Failure to respond to changes in surroundings or situation;
- Poor logic and judgment, including taking risks the worker usually would not take;
- Inability to respond quickly or correctly to changes;
- Inability to communicate well;
- Inability to handle stress;
- Moodiness (example - depressed, irritable, impatient boredom, restlessness, depression, giddiness, grouchiness, and impatience).

### Factors that may have an Influence on Fatigue

NexGen Mechanical has recognized that there are many factors that have an influence on fatigue. Some are listed below:

- |                                                   |                                      |
|---------------------------------------------------|--------------------------------------|
| ✓ Time of day                                     | ✓ Availability of food and water     |
| ✓ Temperature                                     | ✓ Days off                           |
| ✓ Working alone                                   | ✓ Type of work                       |
| ✓ Repetitive or “boring” functions                | ✓ Job stress                         |
| ✓ Being inactive                                  | ✓ Home stress                        |
| ✓ Length and frequency of breaks                  | ✓ Non-effective use of personal time |
| ✓ Duration of the extended hours/consecutive days | ✓ Workplace safety culture           |

NexGen Mechanical will take the following measures to mitigate workplace conditions that can contribute to fatigue:

- Create a work environment that promotes alertness;
- Analyze and evaluate work tasks to minimize Fatigue hazards. This is done by reviewing the type of work task, the length of the task, workplace conditions, etc.
- Implement engineering and administrative controls to avoid or greatly reduce exposure;
- Ensure sufficient resources of personnel, equipment, and support;
- Structure hours of work to avoid the hottest or coldest periods of the day;
- Provide additional fluid/nourishment;
- Adjust time factors to incorporate the additional physical requirements and challenging environmental and physical conditions;
- Select Personal Protective Equipment (PPE) appropriate to the situation and/or condition that exists and limiting the duration of tasks requiring PPE that affects performance or that places additional physical demands on the worker.

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### **Choosing an Optimum Schedule**

When choosing work schedules, the risks can be better managed when worker needs, industry requirements, and competitiveness are taken into account. Optimum scheduling is efficient, effective, and appealing.

#### *Breaks*

NexGen Mechanical and workers should schedule tasks to allow for sufficient rest breaks and recovery time and should encourage workers to follow proper nutrition and increase physical activity.

#### *Travel*

When possible, workers will have a break after traveling and before their first shift. In that period of time, the workers are expected to sleep. Workers should treat their work-related travel time as they would regular work time in terms of fatigue management (e.g. scheduled rest breaks and physical activity breaks). If workers have a long drive ahead of them to get home after working away for extended days, they may be required to rest before getting behind the wheel.

### **Training**

All NexGen Mechanical workers, supervisors, and management have been or will be trained to recognize and respond to fatigue issues at the workplace. It is the responsibility of the supervisor to make corresponding changes to work requirements if fatigue impairment signs are evident. All concerns should be communicated to management and corresponding changes should be documented for review and follow-up.

### **Responsibilities**

#### *Responsibilities of Management*

- To ensure the FMP is implemented throughout the company;
- Managers are to ensure crews are strategically positioned for work the following day. Managers have also been trained in FMP and are familiar with the regulations;
- Provide the necessary information about fatigue;
- Provide instruction and training regarding Fatigue and Regulations;
- Communicate expectations to the workers;
- Monitor the effects of extended work hours;
- Support workers who are experiencing concerns with fatigue;
- Investigate any problems and/or concerns;
- Inspect the workplace and review FMP with workers;
- Review the FMP.

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*Responsibilities of Supervisors*

- Scheduling of work and rest days;
- Ensure all crewmembers understand the FMP;
- Conduct safety meetings discussing fatigue and the FMP;
- Solicit short-term help to minimize the need for extended hours;
- Ensure tasks are performed in a safe and healthy manner;
- Be aware of the possible risks associated with extended hours and/or consecutive days of work;
- Give workers as much notice as possible if extended hours are anticipated;
- Account for workers returning from sickness, absences and/or modified work;
- In conjunction with workers, identify health problems which may affect a workers ability to work extended hours i.e. diabetes;
- Consider travel time to and from work.
- Observe and record how individuals respond to extended hours;
- Recognize individual and crew fatigue;
- Get feedback from individual crew members and the crew as a whole;
- Assess and control hazards and risks and take prompt action if a risk develops;
- Relay information to and from management & workers;
- Report any FMP problems, concerns and/or issues.

*Responsibilities of Workers*

- Actively participate in FMP training;
- Take short and frequent breaks;
- Recognize symptoms of fatigue;
- Promptly report any fatigue or related concerns to supervisor;
- Report any individual medical or personal situations, which may have an effect on fatigue;
- To get proper rest during time off;
- Identify personal stress and seek assistance if required;
- Rotate and perform various functions of short duration during extended hours;
- Perform complex tasks earlier in the shift, if possible;
- Utilize the buddy system, when applicable;
- Never operate motor vehicles and/or heavy equipment while excessively fatigued.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

**Program Review**

The development, implementation, and continual monitoring of a FMP will ensure NexGen Mechanical is providing a safe and healthy work environment for all workers. The following will be monitored:

- Periodically review FMP procedures;
- Compare ratio of crews working extended hours to those not working extended hours;
- Review the effectiveness of the FMP training program;
- Discuss possible alternatives to extended hours of work;
- Management/supervisors to determine the need for extended hours;
- Management/supervisors are to monitor crews when working extended hours for fatigue related concerns;
- Management/supervisors are to address crew member concerns regarding working extended hours;
- Management are to monitor supervisor/worker relationships;
- Ensure everyone has been trained in the FMP.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

## 8.14 Firearms Policy

The possession or carrying of any firearms on the company or client premises is prohibited at all times. This includes company vehicles, privately owned vehicles while on company business, and in the office/shop.

In the event that there are concerns with bears or other dangerous wildlife on the work site, report immediately to the office.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

## 8.15 First Aid Policy

NexGen Mechanical is committed to the safety of its workers. NexGen Mechanical will provide the personnel, supplies, equipment, facilities and transportation to render prompt and appropriate first aid to workers at every worksite. When multiple activities are occurring on one worksite it is still our responsibility to ensure our workers have the resources to fast and appropriate first aid services. If another party at the worksite takes on any or all of the provision roles, including the personnel, supplies, equipment, facilities and transportation for injured workers required, an agreement in writing must be completed setting out who is responsible for each aspect. This agreement should be kept on site and the availability of personnel, supplies, equipment, facilities and transportation must be verified by NexGen Mechanical prior to the commencement of the work.

### Training

All field personnel are required to complete Standard First Aid Training put on by St. John Ambulance. On all daily toolbox safety meeting forms, list all designated first-aiders on site (update as new workers arrive). All workers certified in first aid are readily available to assist injured workers.

Ten percent of the NexGen Mechanical office staff are required to have current Standard First Aid Training. Management will determine who is required to have the training.

### Transportation of Injured Workers

Prior to all new jobs starting the office will ensure arrangements are in place to transport injured or ill workers from the work site to the nearest medical facility or hospital. This will generally be done in a work vehicle. When working on remote sites STARS will be contacted.

A first aid attendant must accompany any worker who is seriously injured or, in the opinion of a first aid attendant, needs to be accompanied during transportation.

### First Aid Equipment

Depending on the task being performed for NexGen Mechanical, certain work situations may require more extensive first aid supplies than others. All employees should be aware of the required first aid gear needed to satisfy Health & Safety requirements for any given work task (Office or Field). First Aid equipment must be kept in a conspicuous location, maintained in a clean, dry and serviceable condition and readily available to all employees. The First Aid equipment is located in the lunchroom and in all vehicles in easily identifiable containers bearing the First Aid cross. As any items are removed they will be refilled at the first available time.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

### Office/Administrative Work

The NexGen Mechanical office is supplied with a Standard First Aid Kit, readily available and accessible to all office workers. The contents of items needed for a Standard First Aid Kit are specified below.

### Field Work

Any field worker working alone must be equipped with the minimum a Standard First Aid Kit, the contents of items are specified below and a cellular phone or other means of communication must be in their vehicles.

Field First Aid kits or communication devices (including cellular phone or radio) will be supplied to field staff if not available/supplied at the vehicle/worksite.

The following personnel and supplies are provided for the type of work carried out at the place of employment, the distance of the place of employment from the nearest medical facility and the number of workers at the place of employment at any one time. NexGen Mechanical ensures that the personnel are readily available during working hours:

### Summary of First Aid Requirements

| Workers # | Close<br>(1/2 hour or less to medical facility)                                                                    | Distant<br>(1/2 - 2 hours to medical facility)                                                                                                             | Isolated<br>(More than 2 hours' surface transport to medical facility or normal mode of transport is aircraft)                                             |
|-----------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1         | minimum                                                                                                            | minimum                                                                                                                                                    | minimum                                                                                                                                                    |
| 2 - 4     | minimum                                                                                                            | minimum plus <ul style="list-style-type: none"> <li>blankets stretcher and splints</li> <li>Class A attendant and supplies for high hazard work</li> </ul> | minimum plus <ul style="list-style-type: none"> <li>blankets stretcher and splints</li> <li>Class A attendant and supplies for high hazard work</li> </ul> |
| 5 - 9     | minimum plus <ul style="list-style-type: none"> <li>Class A attendant and supplies for high hazard work</li> </ul> | minimum plus <ul style="list-style-type: none"> <li>blankets stretcher and splints Class A attendant and supplies</li> </ul>                               | minimum plus <ul style="list-style-type: none"> <li>blankets stretcher and splints</li> <li>Class A attendant and supplies</li> </ul>                      |
| 10 - 20   | minimum plus <ul style="list-style-type: none"> <li>Class A attendant and supplies</li> </ul>                      | minimum plus <ul style="list-style-type: none"> <li>blankets stretcher and splints</li> <li>Class A attendant and supplies</li> </ul>                      | minimum plus <ul style="list-style-type: none"> <li>blankets stretcher and splints</li> <li>Class A attendant and supplies</li> </ul>                      |

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

| Workers # | Close<br>(1/2 hour or less to medical facility)                                                 | Distant<br>(1/2 - 2 hours to medical facility)                                                                                                                                                                  | Isolated<br>(More than 2 hours' surface transport to medical facility or normal mode of transport is aircraft)                                                                                                                                                                |
|-----------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 21 - 40   | minimum plus <ul style="list-style-type: none"> <li>Class A attendant and supplies</li> </ul>   | minimum plus <ul style="list-style-type: none"> <li>blankets stretcher and splints</li> <li>Class A attendant and supplies</li> </ul>                                                                           | minimum plus <ul style="list-style-type: none"> <li>Class B attendant and supplies for high hazard work,</li> <li>Class A attendant and supplies for other work</li> <li>blankets stretcher and splints</li> </ul>                                                            |
| 41 - 99   | minimum plus <ul style="list-style-type: none"> <li>Class A attendant and supplies</li> </ul>   | minimum plus <ul style="list-style-type: none"> <li>Class B attendant and supplies for high hazard work, Class A attendant and supplies for other work blankets stretcher and splints</li> </ul>                | minimum plus <ul style="list-style-type: none"> <li>Class A attendant for low hazard work</li> <li>EMT for high hazard work</li> <li>Class B attendant and supplies for other work</li> <li>blankets stretcher and splints</li> </ul>                                         |
| 100 +     | minimum plus <ul style="list-style-type: none"> <li>2 Class A attendant and supplies</li> </ul> | minimum plus <ul style="list-style-type: none"> <li>First aid room</li> <li>1 EMT and 1 Class B attendant and supplies for high hazard work</li> <li>2 Class A attendant and supplies for other work</li> </ul> | minimum plus <ul style="list-style-type: none"> <li>First aid room</li> <li>1 EMT and 1 Class B attendant and supplies for high hazard work</li> <li>2 Class A attendant and supplies for low hazard work</li> <li>2 Class B attendant and supplies for other work</li> </ul> |

\*minimum is defined as a first aid box (see below), a first aid manual, a register and emergency information.

Reference: Saskatchewan OHS Regulations Appendix TABLE 9

### *Required Contents of First Aid Box*

NexGen Mechanical provides and maintains for every worksite a readily accessible first aid station that contains; a first aid box containing the following supplies and equipment (signage marking the location of all first aid stations must remain clearly and conspicuously identified):

- Antiseptic, wound solution or antiseptic swabs
- Bandage – adhesive strips and hypoallergenic adhesive tape
- Bandage – triangular, 100-centimetre folded, and safety pins
- Bandage – gauze roller, various sizes
- Dressing – sterile and wrapped gauze pads and compresses, various sizes including abdominal pad size
- Dressing – self-adherent roller, various sizes
- Pad with shield or tape for eye

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

- Soap
- Disposable latex or vinyl gloves
- Pocket mask with disposable one-way re-breathe valves
- Forceps – splinter
- Scissors – bandage.

Amounts or quantities of the above supplies and equipment adequate for the expected emergencies must be contained in a well-marked container:

*Reference: Saskatchewan OHS Regulations Appendix TABLE 10*

Where a first aid attendant is required, NexGen Mechanical will provide the following additional first aid supplies and equipment:

| - Class A Qualification                                                                                                                                                                          | Class B Qualification                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bag – hot water or hot pack<br>Bag – ice or cold water<br>Bandage – elastic, 5-centimetre and 10-centimetre widths<br>Sterile burn sheet                                                         | Class A plus,<br>Stethoscope with a bell<br>Sphygmomanometer<br>Thermometer<br>Where there are potential causes of spinal injury, short and long spine boards with adequate restraining straps and medium and large cervical collars<br>Emergency oxygen system<br>Bag valve and mask resuscitator |
| Any other first aid supplies and equipment that are appropriate to the dangers and other circumstances of the place of employment and commensurate with the training of the first aid attendant. |                                                                                                                                                                                                                                                                                                    |

*Reference: Saskatchewan OHS Regulations Appendix TABLE 11 and TABLE 12*

All injuries must be reported to supervisors no matter how minor. Any incident that requires use of first-aid or first-aid supplies should be reported and documented using the Incident/Accident form.

NexGen Mechanical must keep a record of the circumstances of any injury or illness at the workplace and the treatment given in each case. Records of injuries are to be kept for a period of three (3) years. For this reason, first aid kits are supplied with a first aid treatment record. The first aid attendant who administers first aid must enter in the register his family name and given name as well as those of the injured worker, the date, time and description of the injury or sickness and the type of first aid given.

### Posting of Emergency Procedures

The following emergency procedure information is prominently displayed at all first aid stations:

- an emergency telephone list or other instruction for reaching the nearest fire, police, ambulance, physician, hospital or other appropriate service, and,
- any written rescue procedure required.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

## **8.16 Fit for Duty**

NexGen Mechanical is committed to providing a safe work environment for its employees and subcontractors. In order to maintain a safe working environment it is essential that employees and subcontractors are physically able to perform the duties associated with their assigned tasks.

The purpose of this policy is to provide a reasonable assurance that workers are physically and mentally fit to safely perform their assigned duties without excessive risk or harm to themselves or others. Criteria will be based on a job evaluation of required physical requirements and a subsequent testing of those abilities. NexGen Mechanical ensures that workers are trained on the company's Fit for Duty policies and procedures; this is communicated often during Safety Meetings.

It is our duty to send each worker home to their family, whole and healthy and at the same time to ensure their job security.

### **Responsibilities**

Each worker has the responsibility to be ready to perform work in a healthy and focused manner.

- Workers must report all medications they are taking that may affect the workers ability to perform daily tasks. Over-the-counter medications such as allergy or cold and flu medications could also impair one's ability to perform safely and must also be reported to their supervisor.
- Workers must ensure they are physically and mentally fit to perform their job functions safely.
- Workers must take responsibility for their own safety. Workers must not report to work in a condition as to endanger the safety of their fellow workers.
- Workers unable to perform their duties due to personal health and/or personal issues must remove themselves from being available for work.

Management has the responsibility to ensure all workers are trained (necessary education, experience, and training) to perform their work safely. Workers must be competent to complete assigned tasks. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. Workers are also trained on the Fit for Duty policies and procedures.

Supervisors are trained to assess worker behavior for signs of fatigue, impairment, and lack of physical or mental fitness. Workers activities and behaviors will be monitored to determine if they should be removed from the work site (it will be at the supervisor's discretion to remove a worker from the worksite). NexGen

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

Mechanical will ensure that no person enters or remains at the job site while under the influence of drugs and/or alcohol.

**Criteria to Assess Fitness for Duty**

The following criteria are used to assess whether an employee is fit for duty:

- Workers must be physically capable of performing their job tasks. Pre-employment physicals are included in the hiring process, and also when changing into certain job functions and different environments. A Physical Demands Analysis (PDA) will be prepared for each job duty to ensure workers are placed accordingly.
- Training, based on the assigned task, must be completed and competency verified prior to completing the task unsupervised.
- All required safety training must be completed.
- Workers must have access to the safe work practices and procedures and they must be followed.
- Pre-employment, post-accident, or random drug and alcohol testing as prescribed by NexGen Mechanical and the host facility.

**Results of Assessment**

If an employee is determined to be unfit for duty, NexGen Mechanical will provide reasonable assistance to the employee. This may include, but is not limited to, transferring the worker to another role or providing a leave of absence.

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## 8.17 Initial Spill Response Policy

This policy is intended to provide the information necessary to address any spill that may occur on NexGen Mechanical owned property, during transportation, or our Clients property. Our goal is to have zero spills.

### Adverse Effect

An adverse effect is defined as impairment of or damage to the environment, human health or safety, or property. An adverse effect is further defined as:

- Any third party impact (off site impact);
- Un-recovered spilled substance likely to contaminate surface or groundwater;
- Groundwater and /or surface water that is contaminated;
- A release or spill that has potential for offsite odour complaints; or,
- Toxic or flammable release to air going offsite.

NexGen Mechanical management will be immediately notified of any spill *having an adverse effect* that occurred at the direction of one of our workers. Our policy is to clean up all spills as soon as possible once the release has been stopped.

### Training

Workers are trained on the proper response procedures for spilled materials that we use. The training includes materials available for clean-up, proper waste disposal, and communication procedures.

### Prevention and Maintenance

NexGen Mechanical will place a high priority on spill prevention to reduce the risk of spills and minimize environmental damage. In order to lower the risk of leaks or spills occurring, NexGen Mechanical personnel will incorporate into safety inspections a check for any signs that equipment may be leaking or is in a condition that future leakage may occur. Chemicals must be stored in proper containers to minimize the potential for a spill. Whenever possible, chemicals should be kept in closed containers and stored so they are not exposed to rainwater or snow.

### Emergency Response

NexGen Mechanical will maintain a high level of preparedness in the event of a spill so mitigation can be initiated immediately reducing the impact to the environment.

Emergency response to a spill draws on people's experiences, training and judgment. No manual can dictate response/contingencies for every type of situation and circumstance; however NexGen Mechanical is committed to being

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prepared for emergencies and to respond quickly and effectively to all situations.

Supervisors on sites where there is a potential to create a spill will be provided with a spill kit to be kept in their vehicle and be easily accessible when required. The spill kit will contain the appropriate supplies for any materials that may be spilled and take into account both the type and quantity of materials. Adequate spill response supplies are periodically inspected to assess their availability and adjust inventory as necessary.

Emergency response to a spill will occur according to the following priorities:

1. Protection of the public and employees health and safety
2. Protection of the environment
3. Protection of public/private land
4. Protection of company property

### **Safety**

The safety of site personnel will be considered top priority by NexGen Mechanical.

No clean up actions are to take place until the spilled material has been identified and the correct handling procedures are put in place. Proper health and safety measures should be taken when responding to a spill. This includes the use of appropriate personal protective equipment (PPE).

### **Procedure**

The following procedures are a general guideline to follow in the event of a spill:

1. Assess the conditions in the spill area to ascertain if it can be entered safely.  
Is there H<sub>2</sub>S, poisonous vapors, or explosive atmosphere present?
2. Refer to the Safety Data Sheets (SDS) kept onsite.
3. Contact your supervisor and advise them of the spill. If you have a large spill ask for backup personnel to assist you.
4. Remove as much spilled liquid from the site as you can using a vacuum truck and other equipment suitable under the circumstances.
5. If the spill is not flowing or spreading, no containment is required. If the spill is heading down a slope there may be a need to block the movement with a trench or sandbags. If a trench is used ensure Ground Disturbance practices are used.
6. If necessary, the area around the spill should be fenced off to prevent wildlife and livestock from entering the spill area.
7. An environmental company should be called in to deal with large spills. Sampling may be required to verify that the clean-up was successful.
8. Ensure any soil that has been excavated is piled on poly or tarps to prevent contaminating another area.

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9. Transportation of waste soil and vacuum truck waste must be characterized and disposed of at an approved facility.

### **Reporting**

In Saskatchewan spills which require reporting are to be reported to The Saskatchewan Ministry of Environment toll-free, 24 hours a day, 7 days a week at 1-800-667-7525.

For a TDG accidental release of dangerous goods from containment the following numbers can be used for reporting:

- **911** – this will notify the local police and the fire department
- Saskatchewan – 1.800.667.7525

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## **8.18 Journey Management Policy**

This program is in place, it will be utilized on our Clients request, for extended trips – greater than 400km from last location, or when our workers are travelling in highly risky situations (ice roads, extremely remote sites, etc.).

Driving is one of the most hazardous tasks in the oil patch. Many people have died or have been seriously injured because of a few seconds of inattentiveness. It is important to stay alert...stay ALIVE!

Vehicles must be driven courteously and in accordance with current traffic and motor vehicle regulations at all times. Failure to do so may result in the withdrawal of the privilege to drive a company vehicle.

### **Program Supervision**

A Journey Manager has been appointed at NexGen Mechanical. The following responsibilities will be completed by the Journey Manager:

- Ensure drivers are trained in Journey Management
- Prepare, maintain and distribute a list of everyone required to follow journey management practices and procedures. This includes drivers with our organization and all regularly contracted drivers and transport companies.
- Ensure all driving shift handovers are documented and reviewed.
- Ensure all drivers have knowledge of the plan prior to each job.
- Ensure sufficient communication is available.
- Complete a risk assessment of different journeys (i.e. to specific areas, wildlife collision likelihood, private roads, distance, etc.).
- Define journeys that do not require approval of the Journey Management Manager. Review and approve/reject requests for journeys that are not in the list and are subject to individual review and approval.
- Must verify that driver's implement all agreed upon control measures.
- Evaluate journeys and retain master copies of safe journey plans for at least three months after closeout of the relevant journey.
- Prepare a monthly report including the following:
  - The number of journeys managed.
  - The number of safe journey plan non-compliances.
  - The number of safe journey plans, which required permission from the authorizing person.
- Prepare an annual report including the following:
  - A trend analysis covering all safe journey experiences.
  - Report on all safe journey experiences including findings and actions to improve the systems.
- Review Journey Plans with drivers. The following is to be reviewed:

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- All trips during darkness or times of reduced visibility are systematically reviewed for risk and are subject to formal management approval.
- Appropriate means of communication between driver and journey manager are available and agreed between driver and journey manager.
- Appropriate vehicles are assigned and inspected.
- Confirm adequate food, drink, money and other provisions are available for the journey.
- Ensure appropriate equipment and qualified personnel are assigned for the journey.
- Estimate of the expected arrival time at the destination is made.
- Formal pre-trip briefings are held and documented.
- Identify and discuss all potential driving hazards associated with the journey.
- Immediately prior to departure, verify the latest report on road conditions and weather, etc.
- The driver and vehicle comply with all Owner Client requirements.
- The route is clearly defined and mapped, rest stops are scheduled.
- Before taking a trip to an unfamiliar location, ensure that the driver has printed driving directions available. Do not plan to read directions from a smartphone while driving. A GPS device may be used, but printed directions should be kept as a back-up.
- Before leaving on a trip, particularly during winter, ensure that weather conditions are safe for driving. Ensure the vehicle being used is adequate for the weather conditions. Make sure emergency supplies are in the vehicle, and the driver has a cell phone in case of emergency. In particularly harsh conditions, consider cancelling or rescheduling the trip.
- Road journeys should only be taken when necessary. Try to complete multiple tasks in single trips to reduce the amount of driving for improved safety and efficiency. If the trip is being taken to meet with someone, determine if the meeting can be done over the phone instead. Consider safer methods of travel (air, train, etc) where practicable.
- Driving should be done during daylight hours rather than after dark, whenever possible. Reduce speed when driving at night. Be aware of the potential for wildlife to be on the road, especially when driving at dusk or dawn.

### **Vehicle Equipment**

All vehicles owned by NexGen Mechanical contain:

- A Vehicle Information Booklet (in the glove compartment)
- Registration papers and insurance certificate
- Accident reporting forms

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

- A First Aid Kit
- Water
- Booster cables
- Blankets
- Warning triangles
- Flashlights
- Means of communication
- Sandbags and a shovel (in winter)

#### *Criteria for Operating a Company Vehicle*

Drivers of Company-owned and/or Company-operated vehicles, including rental cars, must:

- Have a valid driver's license for the type and size of equipment/vehicle to be operated.
- Know and obey all applicable traffic and motor vehicle laws.
- Have no record of conviction for drunk driving, driving while intoxicated, impaired driving due to drugs or alcohol, or any related offense during the preceding 36 months.

#### **Determining the Schedule and Route**

Everyday workers are required to drive to perform work tasks. Journey plans must focus on safety which will take priority over all operational considerations. The following should be taken into account before heading out each day:

- **Routes** - Allow for average speeds and not local speed limits. Trucks may not be allowed to travel certain roads, tunnels or bridges for weight, size or hazardous goods reasons.
- **Weather** - Take into account changes in weather on the day before or during the journey and select a safe driving speed.
- **Rest periods** - Truck drivers will be required to take statutory breaks. Car, pickup, and van drivers should take breaks approximately every two to three (2-3) hours.
- **Driver's Hours** - Truck drivers must make allowances for the effects of duty on site before driving. Daily rest must be taken before returning to base, if required.

#### **Convoy**

The purpose of a convoy is to ensure the timely, orderly, and safe arrival of all equipment and personnel to a location. A convoy is defined as two or more vehicles traveling the same route.

The convoy will:

- Travel no faster than 65 mph/100 kph.

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- The slowest unit in the convoy will be the limiting factor
- Reduce operating speeds for adverse traffic, road, or weather conditions
- Travel with their lights on except where prohibited by law
- Not pass Company vehicles traveling in the same direction as the convoy.
- Travel at a safe distance apart, keeping the vehicles in front and behind in sight with the minimum distance between trucks in a convoy being eight seconds or greater at any constant rate of speed
- Observe traffic rules at all times

A driver may make an emergency stop if needed, in which case the remaining vehicles in the convoy will proceed to the nearest safe parking area. One driver will return to the stopped vehicle to determine the problem.

### **General Safety Rules**

1. Workers must notify their supervisor or another individual who is not traveling with them of their travel plans. This includes where they are going, when they should be getting there, and when they plan to return.
2. All federal, provincial, and local laws, ordinances, and regulations must be followed. Above all NexGen Mechanical employees must drive the vehicle safely and courteously.
3. No ill or fatigued drivers will be permitted to operate NexGen Mechanical vehicles.
4. Driving under the influence of a narcotic or alcohol is cause for immediate dismissal. It is the driver's responsibility to notify his/her supervisor if for any reason he/she is unable to drive due to fatigue, medication, a medical condition or a distressed/unstable state of mind.
5. Speeding is absolutely forbidden; trips are scheduled so that the driver is not required to exceed any speed limit on the route to be traveled.
6. Vehicle pre-trip inspections will be performed prior to daily departure.
7. Drivers who are required to wear corrective lenses must have them on while driving.
8. It is mandatory that drivers passing stopped emergency vehicles or tow trucks must slow to 60 kilometers per hour or the posted speed limit, whichever is slower. Drivers passing construction workers must obey posted speed limits. Drivers must slow down to 30 kilometers per hour in school zones and watch for children. When passing a school bus the driver must

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stop when the flashing lights are present and not continue until the lights are no longer flashing.

9. Drivers must exercise extreme caution when hazardous conditions, such as those caused by snow, ice, sleet, fog, mist, rain, dust, or smoke exist. Stop the vehicle if conditions become too hazardous.
10. The driver and all passengers must wear seat belts at all times.
11. No vehicle is to be left standing or parked on the traveled portion of a highway if it can be avoided.
12. If a vehicle must be stopped on the highway or shoulder for an emergency the driver must immediately activate the hazard warning flashers.
13. All Company vehicles will have secure loads. Items not permanently affixed to Company vehicles will be carried in secure compartments and must be chained down or covered to prevent from falling off the vehicle. Loose, heavy items or materials must not be carried in the passenger compartments of any vehicle.
14. Disabled Company vehicles must be towed by towing equipment designed for that purpose. Towed vehicles must have brakes and tail-lights in full operation. Reduce speed for bad roads, inclement weather or other unsafe conditions.
15. An Incident Report must be completed if involved in an accident. Drivers will report all vehicle accidents promptly, factually and completely to their immediate supervisor.
16. A driver must notify the company if their license is revoked, suspended or withdrawn.
17. No fueling of vehicles with the engine operating.
18. No smoking or open flame in the vicinity of a vehicle being fueled.
19. No unauthorized riders allowed.
20. Drivers must have a valid driver's license for the type of vehicle to be operated and keep their license(s) with them at all times while driving.

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## **8.19 Load Securement Policy**

*The safety information in this policy does not take precedence over the Transportation Requirements or the Occupational Health and Safety Act and Regulations. Employees at every level should be familiar with the requirements as it relates to their work processes.*

All drivers at NexGen Mechanical must ensure that any items that may leak, spill, blow off, fall from, fall through or otherwise be dislodged from the vehicle, or shift upon or within the vehicle to such an extent that the vehicle's stability or maneuverability is adversely impacted have been adequately immobilized. *Keep in mind that this requirement affects ALL vehicles, not just commercial vehicles.* This Policy relates to all general freight and all equipment carried within the vehicle including shovels, tools, fire extinguisher, etc.

Cargo being transported on any highway must remain secured on or within the transporting vehicle. NexGen Mechanical has prepared this Cargo/Load Securement Policy to be followed by all employees that have to carry materials on their vehicles. This policy addresses when a load must be secured and by what means. The safety of all road users depends on every vehicle on the road complying with regulations and safe work procedures regarding load securement.

Cargo will be firmly immobilized or secured on or within a vehicle by structures of adequate strength, blocking, bracing, dunnage or dunnage bags, shoring bars, tie downs or a combination of these. The cargo securement system used to contain, immobilize, or restrain cargo will be appropriate for the size, shape, strength, and characteristics of the cargo. NexGen Mechanical will not permit a driver to operate a vehicle where the cargo transported in or on the vehicle is not contained, immobilized, or secured properly.

An improperly secured load can result in loss of life, loss of load, damage to the cargo, damage to the vehicle, an accident, issuance of litigations/fines to driver/carrier, or the vehicle being placed Out-of-Service.

All items must be secured including fire extinguishers, tool kits, accessories, etc.

### **Training**

All drivers are trained to meet the cargo securement requirements the National Safety Code Standard #10.

### **General Provisions**

Prior to operating a motor vehicle the cargo must be properly distributed and adequately secured.

The cargo or any other object must not:

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- Obscure the driver's view ahead or to the right or left sides (except for drivers of self-steer dollies).
- Interfere with the free movement of the driver's arms or legs.
- Prevent the driver's free and ready access to accessories required for emergencies. OR
- Prevent the free and ready exit of any person from the motor vehicle's cab or driver's compartment.

The securement system chosen must be appropriate for the cargo's size, shape, strength, and characteristics. The articles of cargo must have sufficient structural integrity to withstand the forces of loading, securement, and transportation. This includes packaged articles, unitized articles, and articles stacked one on the other.

### **Securing Devices**

A Securement System is a method that uses one or a combination of Vehicle Structure, Securing Devices, and /or Blocking and Bracing Equipment.

A securing device is any device specifically manufactured to attach or secure cargo to a vehicle or trailer. The following are examples of securing devices:

- |                       |                   |
|-----------------------|-------------------|
| • Synthetic Webbing   | • Binders         |
| • Chain               | • Shackles        |
| • Wire rope           | • Winches         |
| • Manila rope         | • Stake pockets   |
| • Synthetic rope;     | • D-rings         |
| • Steel strapping     | • Pocket          |
| • Clamps and latches  | • Webbing ratchet |
| • Blocking            | • Bracing         |
| • Front-end structure | • Friction mat    |
| • Grab hooks          |                   |

When nylon straps are used they must be at least 4 inch wide.

All load securing anchorage points must be designed so that all forces imposed by the load are transmitted to the main chassis.

All vehicles or trailers are fitted with a solid headboard or equivalent to stop loads, in combination with other load restraining devices, from moving forward when decelerating at 0.8G.

Trailers designed specifically to haul a container only, do not require a headboard, but must be fitted with suitable twist locks for both 20 ft. and 40 ft.

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A combination of securing devices that forms an assembly that attaches cargo to, or restrains cargo on a vehicle is called a Tie Down. Tie Downs can be used in two ways:

**Attached to the cargo**

- Tiedowns attached to the vehicle and attached to the cargo.
- Tiedowns attached to the vehicle, pass through or around an article of cargo, and then are attached to the vehicle again.

**Pass over the cargo**

- Tiedowns attached to the vehicle, passed over the cargo, and then attached to the vehicle again.

All components of a tie down must be in proper working order:

- No knots or obvious damage;
- No distress;
- No weakened parts;
- No weakened sections.

Cargo must be fully contained by structures of adequate strength. Cargo should not shift or tip and must be restrained against horizontal movement by vehicle structure or by other cargo. Horizontal movement includes forward, rearward, and side to side.

***Minimum Number of Tiedowns***

The cargo securement system used to keep articles from moving must consist of a minimum number of tiedowns. This requirement is in addition to complying with rules concerning the minimum working load limit. When an article of cargo is not blocked or positioned to prevent movement in the forward direction, the number of tiedowns needed depends on the length and weight of the articles. There must be at least:

- One tiedown for articles 1.5 metres or less in length, and 500 kilograms or less in weight;
- Two tiedowns if the article is:
  - 1.5 metres (5 feet) or less in length and more than 500 kilograms (1,100 pounds) in weight; or
  - Greater than 1.5 metres (5 feet) but less than 3.0 metres (10 feet), regardless of weight;
- Three or more tiedowns if the article is longer than 3.0 metres (10 feet).

For example, one tiedown is required if the article of cargo is 1.5 metres in length and does not exceed 500 kilograms (1,100 pounds). If the article of cargo was greater than 1.5 metres in length but less than 3.0 metres, then two tiedowns

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would be needed regardless of the weight. A six foot long ladder, weighing 50lbs will require 2 tiedowns.

When an article of cargo is not blocked or positioned to prevent forward movement and the item is longer than 3.0 metres (10 feet) in length, then it must be secured by:

- Two tiedowns for the first 3.0 metres of length; and
- One additional tiedown for every 3.0 metres of length, or fraction of, beyond the first 3.0 metres.

If an article is blocked or braced to prevent forward movement by a header board, bulkhead, other articles that are adequately secured, or by other appropriate means, then it must be secured by at least one tiedown for every 3.0 metres of article length, or fraction of.

### **Chocks**

Where any cargo or portion thereof may roll, it will be restrained by chocks, wedges, a cradle or another securing device that prevents the cargo from rolling. Chocks, wedges, a cradle, or other equivalent means that prevent rolling must be secured to the deck.

### **Working Load Limit (WLL)**

The Working Load Limit is the maximum load that may be applied to a component of a cargo securement system during normal service. The WLL is usually assigned by the component manufacturer. The working load limit of a tie down or a component of a tie down that is marked by its manufacturer with a numeric working load limit is the marked working load limit. The cargo securement system is only as strong as its weakest component.

### **Inspection of Load**

After the Load has been secured, and before operating the vehicle the driver (or swamper) will:

- Inspect the vehicle to confirm that the vehicle's tailgate, tailboard, doors, tarpaulins and spare tire, and other equipment used in its operation are secured.
- Ensure that the cargo does not interfere with the driver's ability to drive the vehicle safely.
- Ensure that the cargo does not interfere with the free exit of a person from the cab or driver's compartment of the vehicle.
- Inspect the vehicle's cargo and the cargo securement system used and make necessary adjustments.

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The driver of a vehicle will inspect the vehicle's cargo and the cargo securement systems used and make necessary adjustments:

- Before driving the vehicle, and
- Not more than 80 kilometers from the point where the cargo was loaded.

The driver of a vehicle will re-inspect the vehicle's cargo and the cargo securement system used and make necessary adjustments to the cargo or cargo securement system as necessary, including adding more securing devices when:

- There is a change of duty status of the driver,
- The vehicle has been driven for 3 hours; or
- The vehicle has been driven for 240 kilometers.

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## 8.20 Management of Change (MOC) Policy

This Management of Change (MOC) Policy is intended to identify and control potential hazards or impacts associated with change that may affect Health, Safety or the Environment. MOC ensures that the impact of changes are properly recognized, reviewed, approved, communicated, and documented.

Changes, even very simple ones, can cause accidents, near misses and environmental harm. We have developed this policy to mitigate the potential for harm resulting in a change of process.

Work arising from temporary and permanent changes to organization, personnel, systems, process, procedures, equipment, products, materials or substances, and laws and regulations cannot proceed unless a Management of Change process is completed.

There are 5 different changes where this policy should be used:

1. **Physical Change:** Any physical change, except replacement-in-kind, or any deviation from the documented safe operating limits or procedures.
2. **Personnel Change:** Change in the organization or a change in personnel that supervise that may lead to a loss or transfer of personnel with specific knowledge or experience.
3. **Replacement-in-Kind:** An item (equipment, chemical, procedure, etc.) that is quite similar to an existing product currently used.
4. **Temporary Change:** Any change that will not remain in effect indefinitely. A point in time will be specified when the temporary change will be returned to original conditions. A temporary change will be subject to the same evaluation as permanent changes.
5. **Emergency Change:** Action necessary to remedy an emergency situation that poses imminent impact to safety, health, or the environment.

### Pre-Project Review

During the planning/development stage of a project a review of any definite or potential changes must occur. If a change to facilities, equipment, or work process has been identified the project supervisor must ensure that health, safety, environmental, and/or quality standards can be maintained while staying on budget.

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**Procedure/Process**

While no single procedure is recommended for all changes, the process to manage each change should address:

- Analysis of safety and environmental implications
- Communication of potential consequences and required compensating measures
- Training, if required
- Authority approval of changes

Pre-Project and Pre-Start Up reviews include input from affected workers and supervisors (including Operations, Engineering, Information Technology, Sales/Marketing, Quality Assurance, and Environmental, Health and Safety), as appropriate, to determine if the change is required. The process begins when the need for a change is identified. The proposed change must be clearly communicated to appropriate management including a description of and reason for the change. Management will evaluate merits of the change and determine the additional action required to properly address the change.

When a proposed change has been identified it must be evaluated for potential safety, health and environmental implications. A review should be conducted to assess hazards associated with implementing a change. The review should also ensure that all codes, standards, design specifications, compatibility assessments, and generally accepted engineering practices have been met. In addition to hazards the review should also address all of the benefits associated with the change.

Management is required to authorize the change before implementation. This must be done in writing. Once the change has been authorized a pre-start up review must be completed to ensure that all requirements outlined in the pre-project review have been addressed, and to ensure that any other possible hazardous conditions are assessed.

Prior to implementation, the change must be properly communicated to affected workers; this can be accomplished through pre-job safety meetings. Any training requirements should be formally identified and completed prior to start-up.

After the change has been implemented, the management is responsible for verifying that the change was performed as intended.

If the change is temporary, time limits must be set. Management must ensure that these time limits and any other stipulations of the temporary change are not violated.

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In an extreme emergency, it may be necessary to carry out a modification or procedural change before normal MOC procedures can be followed, in these cases, the change will be permitted only on the verbal authority of a designated person in charge. However, the emergency change should be subjected to the normal MOC procedures at the earliest possible time.

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## 8.21 Modified/Return to Work Program

The purpose of this Return to Work Program is to assist NexGen Mechanical in safely returning injured / ill workers in a timely manner to meaningful and productive employment when medically able.

The modified work program is reviewed with employees as part of the new hire orientation and throughout the year in Safety Meeting and Toolbox talks.

NexGen Mechanical will make every reasonable effort to provide suitable employment to any employee unable to perform their regular duties. This may include a modification to the employee's original position or providing an alternate position, depending on the employee's medical restrictions. Only work that is considered to be meaningful and productive will be considered for use in the Return to Work program. Participants placed on Return to Work plans will be expected to provide feedback in order to improve the program. All employees, regardless of injury or illness, will be considered for placement through the Return to Work program.

A list of jobs available for employees on modified duty is maintained. These jobs are assessed to determine which jobs can be performed by persons working under specific restrictions. A Physical Demands Analysis (PDA) may be prepared for each of these jobs to ensure workers are placed accordingly.

Benefits the employee receives from the program are as follows:

- Provides a sense of security about continued employment.
- Injured workers remain active and productive, reinforcing a self-worth attitude.
- Pain and suffering are minimized and physical health is promoted.
- Maintain social contact with fellow employees to encourage a faster return to the job and speed up recovery time.
- Injured workers and their families experience less emotional and financial disruption in their lives.
- Maintain Employment Insurance eligibility. If a worker remains on Workers' Compensation benefits for longer than 104 weeks, they no longer qualify for Employment Insurance.
- Maintaining necessary job skills.

In order for the NexGen Mechanical Modified/Return to Work Program to work effectively the employee needs to contact the managers/supervisors as soon as an injury or illness occurs that restricts the performance of their job. As well NexGen Mechanical will enlist the cooperation of the employee in identifying and reporting other job functions that may be incorporated into the modified work. NexGen

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Mechanical may assign responsibilities and tasks different from the employee's regular job when the employee cannot perform their full duties or work a full day. In all cases, the assigned/modified work must be consistent with the employee's medical restrictions.

The injured employee will bring the modified work forms to the physician and indicate that they must be completed. If a physician determines the employee is not able to perform modified/return to work tasks, the employee will be placed on leave until such time as appropriate work can be assigned or the restrictions are lifted. Local health care providers will be advised that NexGen Mechanical provides modified work to injured employees, whenever practicable. This is accomplished by providing letter that outlines NexGen Mechanical modified work opportunities.

If a Worker is unable to perform his/her regular duties due to a workplace injury or incident and a physician approves modified work, the following steps are taken:

- The Physician advises what level of modified work the worker can perform;
- Worker is offered modified work;
- Worker agrees to the modified work or refuses stating that on the modified work offer;
- Worker is paid regular wages by NexGen Mechanical while performing modified work;
- Worker must continue to be monitored by a Physician; and,
- Worker will return to regular duties when cleared by a Physician.

### **Monitoring Program Participants**

The supervisor will monitor modified work activities to ensure that the employees work within the assigned limitations. Supervisors are trained to set a positive tone for the rest of the workers that will come in contact with the returning worker.

Work restrictions, as described by the treating physician, will be **strictly** adhered to. The employee must comply with all prescribed treatments, as well as keep the supervisor apprised of ongoing medical conditions or concerns.

If an employee's condition worsens or the condition is not improving as planned, the employee will be required to obtain medical assistance and not work until the employee's condition shows evidence, as determined by a physician, of improvement. Under no circumstances will a employee be permitted to return to work or continue to remain at work if their condition is not improving.

### **Records**

Medical records are kept by NexGen Mechanical strictly on a need-to-know basis. The records are kept in a locked file.

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NexGen Mechanical maintains written records of incident details. This will help NexGen Mechanical recall information about the circumstances of the incident at a later time, and will demonstrate due diligence. Records are kept of communications with the injured employee regarding modified work. Workers Compensation and medical records, where applicable, should also be maintained.

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## **8.22 New and Young Worker Policy**

This policy is to ensure that New and Young Workers are identified, appropriately supervised, trained and managed in order to prevent accidents such as personal injury, injury to others, environmental damage or property damage. This policy will be followed when required by the Client, and only when any New and Young Worker will be onsite for the project.

**New Worker / Short Service Employees (SSE)** - *Any full time or temporary personnel with less than 6 months experience in the same job type or with his/her present employer.*

**Young Worker** – *A worker under the age of 25. A young worker may also be considered a SSE.*

### **Pre - Job**

The supervisor will communicate the New and Young Worker Policy and expectations at the pre-job meeting. The supervisor will ensure that the crew makeup meets the following requirements:

- SSE's cannot work alone.
- Crew sizes of less than five will have no more than one SSE.
- Crews that have more than 20 percent SSE personnel may be permitted, but only with written permission from the NexGen Mechanical supervisor.

### **Notification**

The proposed crew make-up must be outlined in the Short Service Employee Form. Prior to the job mobilization, the SSE Form will be completed by the supervisor and be communicated to our Client. All variances will be reviewed by our Client and the crew makeup will be finalized.

If an SSE working for NexGen Mechanical arrives on our Clients property and a SSE form has not been submitted, our Client may elect to send the SSE back to our facility at our expense.

### **Identification**

New and Young Worker personnel will be visibly identified with a hi-vis orange hard hat, a green hand sticker, or the letters SSE in a contrasting color on the side of the hard hat.

### **SSE Monitoring**

NexGen Mechanical will monitor its employees, including SSE personnel, for Health, Safety, & Environment (HSE) awareness. If, at the end of the six-month period, the SSE has worked safely, adhered to Health, Safety, & Environment

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(HSE) policies and has no recordable incident attributable to him/her, the SSE identifier may be removed at the discretion of NexGen Mechanical. Any worker that does not complete the six-month period incident free may need to get our Clients approval in writing prior to returning to operator's property.

**Mentoring Process**

NexGen Mechanical has in place a mentoring process designed to provide guidance and development for New and Young Workers. A mentor can only be assigned one SSE per crew and the mentor must be onsite with the SSE to be able to monitor the SSE.

**Subcontractors**

NexGen Mechanical will manage all of our subcontractors in alignment with this process.

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## 8.23 Noise Policy

The purpose of this noise policy is to protect all NexGen Mechanical employees and contractors from occupationally induced hearing loss, increase worker noise awareness, and to reduce noise exposure using engineering and administrative controls, as much as possible. It is essential that all NexGen Mechanical workers read, understand, and comply with safe work practices and procedures for this noise policy.

NexGen Mechanical ensures that no worker is exposed to noise levels above 85 dBA Lex daily noise exposure level.

Whenever possible work must be completed as far as reasonably practicable from any noise sources. Our purchasing policy allows for the purchase of tools and equipment that are inherently less noisy.

The Saskatchewan Occupational Health and Safety Regulation has set limits to ensure that a worker's exposure to noise does not exceed 85 dBA Lex daily noise exposure level.

### Noise Exposure Assessments

NexGen Mechanical conducts noise exposure assessments at the workplace in accordance with CAN/CSA Standard Z107.56 06, Measurement of Occupational Exposure to Noise. A written report of the assessment will be prepared and posted in a conspicuous place in any area where a worker is or is likely to be exposed to noise at a workplace in excess of 80 dBA. A competent person will do the noise assessment. The competent person will evaluate the sources of the noise and recommend corrective actions. The measurements, evaluation and recommendations are to be documented. The documents, including noise level measurements evaluation and recommendations will be kept in a secure office filing cabinet for as long as NexGen Mechanical operates.

If it is not practicable to reduce noise levels to or below noise exposure limits, NexGen Mechanical will reduce noise exposure to the lowest level practicable and post warning signs in the noise hazard areas. If our work is not the cause of the noise and other workers or the host facility has already completed a noise exposure assessment you are required to abide by all signage and Client specific training. Workers in a posted noise hazard area must wear hearing protection.

If a noise exposure assessment has confirmed that workers at NexGen Mechanical are exposed to noise over 85 dBA then a site specific noise management program that includes policies and procedures will be developed and implemented. If the

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noise assessment identifies any area to be over 85 dBA then warning signs will be posted outside of each of these areas.

NexGen Mechanical will inform affected workers of the results of any noise exposure measurement and the significance of the measurement to risk of hearing loss. If noise in the workplace exceeds noise exposure limits, every employee will be trained on the noise control and hearing conservation program.

### **Noise Program**

If a noise exposure assessment has confirmed that workers at NexGen Mechanical are exposed to noise exceeding either of the noise exposure limits an effective noise control and hearing conservation program must be developed and implemented with the following elements:

- noise measurement;
- education and training;
- engineered noise control;
- hearing protection;
- posting of noise hazard areas;
- hearing tests; and
- annual program review.

### **Hearing Conservation**

Often it is impracticable to apply engineering and administrative controls to reduce the noise levels to which the worker is exposed to 85 dBA Lex or less. Hearing protection is recommended in addition to any other controls to reduce the level of noise reaching your inner ear.

During orientation all workers are provided with training in the selection, use and maintenance of hearing protection equipment required to be used at a work site, the hazards of noise exposure, and the Hearing Conservation program. The hearing protection will be in accordance with the CSA Standard Z94.2-02 Hearing Protection Devices-Performance, Selection, Care, and Use and manufacturer's specifications.

Hearing protectors provided must reduce the noise level received into the worker ears to not more than 85dBA. Where it is not practicable to comply NexGen Mechanical will ensure that a hearing protector provided reduces the noise level received into the workers ears to the lowest level that is practicable.

If a workers' occupational noise exposure is or is believed to be between 80-85 dBA, hearing protectors are expected to be worn and workers will be informed of the hazards of occupational noise exposure. The hearing PPE will be available and must meet the legislative requirements. Even then it should only be used as an

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interim measure until effective engineering controls can be installed. Hearing protection improperly fitted, worn, or maintained may only reduce noise entering the ear by as little as 3 dBA.

All workers whose occupational noise exposure equals or exceeds 85dBA are particularly protected by:

- taking all reasonably practicable steps to reduce noise levels in all areas where the worker may be required or permitted to work,
- minimizing the workers' occupational noise exposure to the extent that is reasonably practicable, and;
- documenting the steps taken.

Muffs are often preferred for intermittent use and when working with dirty hands. Facial hair and the arms of glasses (unless very thin) can cause an ineffective seal. Plugs are often preferred in hot environments.

Pre-molded plugs are available in more than one size; in some cases a person may need a different size for each ear. Ear caps are not used very often but can be used for short periods of time when noise is periodic and not extremely loud.

When workers are allowed to choose from several types of appropriate protection, they are much more likely to wear it.

Use your judgement, if signs are posted or it is difficult to communicate within 3 feet of another person you must use your hearing protection.

***The best hearing protection is of no value unless it is accepted and worn correctly and consistently.***

### Hearing Tests

All workers who are exposed to noise that exceeds or may exceed noise exposure limits must have an initial hearing test (at the expense of NexGen Mechanical) as soon as practicable after employment starts, but not later than 6 months after the start of employment, and at least once every 12 months after the initial test. A hearing tester authorized by the Board administers the hearing tests and sends the test results to the Board.

### Records

NexGen Mechanical keeps records of:

- the annual hearing test results for each worker, which must be kept as long as the worker is employed by the employer, and be kept confidential and not released to anyone without the written permission of the worker, or as otherwise required by law,

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- the education and training provided to workers, and
- the results of noise exposure measurements taken.

**Employer Responsibilities**

Under the regulations employers are required to take various steps to minimize the chance of workers being overexposed to noise, including:

- Ensuring the lowest possible noise levels in new and renovated workplaces;
- Measurement, evaluation and documentation of noise sources;
- Implementation of all reasonably practicable measures to reduce noise or to isolate workers from the noise source;
- Posting noise levels if over 80 dBA.

Where noise exposure cannot be sufficiently reduced by engineering means, the regulations require that workers be:

- Provided with information on the harmful effects of overexposure to noise
- Effectively protected against the harmful effects of noise (e.g. limiting exposure time, quiet “rooms”, etc.)
- Provided with, and wear, adequate and suitable hearing protection (choice of types should be made available) and be given training on the selection, use and maintenance of the protection
- Provided with an opportunity to have an audiometric (hearing) test, arranged for them by the employer/contractor, at least once every year.

**Worker Responsibilities**

The OH&S Regulations require workers to:

- Wear the hearing protection provided when average daily noise levels equal or exceed 85 dBA;
- Take all reasonable steps to prevent damage to the hearing protection;
- Notify the NexGen Mechanical if the protectors become defective or fail to provide the intended protection;

**Noise Reduction**

All reasonably practicable means are used to reduce noise levels in all areas where workers may be required or permitted to work.

**Noise Control Design**

At NexGen Mechanical, we make sure that all new design and construction will achieve the lowest reasonably practicable noise level. All alterations, renovations or repairs to NexGen Mechanical will ensure the lowest reasonably practicable noise level, and all new equipment to be used at a place of employment is designed and constructed so as to achieve the lowest reasonably practicable noise level.

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### *Preventing Noise Problems*

Many noise problems can be prevented by careful planning at the design stage prior to plant construction, renovation, repair, or introduction of new processes or equipment.

Practical solutions to noise problems include:

- Full or partial enclosures;
- Noise barriers;
- Sound absorption or baffles (in rooms/ buildings with hard walls and ceilings);
- Acoustical pipe wrap;
- Trowel-on vibration damping materials;
- Routing waste compressed air to remote locations and mufflers/silencers for engines and compressed air.

### **Hearing Conservation Plan**

When 10 or more worker's occupational noise exposure exceeds or is believed to exceed 85dBA NexGen Mechanical will develop a hearing conservation plan and review, where necessary, and revise the hearing conservation plan every three years.

A supervisor will be appointed to oversee the hearing conservation plan after it has been developed.

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## **8.24 Pandemic Virus/Flu Policy**

A Pandemic Flu rarely happens, about 3-4 times a century; usually it is when a dramatic change occurs in a strain of influenza-A virus, other viruses can also cause Pandemic strains. In the majority of people, the immune system has never been exposed to this new virus and therefore most people have no immunity to protect them from becoming infected. Existing vaccines are not effective and a new vaccine may take longer than usual to develop. If the new virus spreads easily from person-to-person, the influenza virus can spread around the world quickly. This causes widespread outbreaks of disease and can lead to significant numbers of hospitalizations and deaths as well as social and economic disruption. This worldwide outbreak is called a pandemic.

The effects of an influenza/virus pandemic are different than a natural disaster. Countries and provinces may not be able to help each other as they do during natural disasters, because a pandemic affects all parts of the world. Infrastructure remains intact but a pandemic can have a longer duration than a natural disaster and absenteeism may be high. Workers will be encouraged to stay home until the contagious period passes.

This plan and emergency communication strategies are periodically tested to ensure it is effective and workable.

### **Training**

All employees will be periodically trained on:

- Awareness of pandemic influenza and viruses including health issues of the pertinent disease to include prevention of illness and initial disease symptoms.
- Potential ways of contracting the virus.
- Control measures to break the chain of infection including hand washing and disinfecting.
- Awareness of social distancing-keeping a distance of 2 meters or more from someone suspected of having pandemic influenza/virus.
- When it is appropriate to return to work after illness.
- Disease containment plans.

Communicating information with non-English speaking employees or those with disabilities will occur.

### **Follow all Government and Client Requirements**

Local and Federal governments and the Clients you work for may put requirements in place. Ensure you abide by those requirements.

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Requirements may include:

- Self-Quarantine for a length of time after travel to a highly impacted area.
- Localized-Quarantine.
- Cancelling events (work related and high population events).
- Working from home, where possible.
- Wearing a hospital mask if you have been diagnosed or may have symptoms while in public to receive treatment or diagnoses.
- Reporting symptoms to a central database.

### **Prevention and Mitigation**

The main reasons the influenza virus spreads is coughing or sneezing by a person infected with the virus. The best method to reduce the likelihood of becoming sick is to follow these precautions (supervisors will remind workers to follow these precautions):

- Get your vaccinations, as recommended by the local Health services. All workers are encouraged to be vaccinated annually for the new flu / virus strains.
- Stay home when you're sick or have influenza symptoms. The first symptom is usually a high fever. Get plenty of rest and check with a health care provider as needed. Influenza is usually contagious for 7-12 days once symptoms start. Workers are encouraged to stay at home when ill, when having to care for ill family members, or when caring for children when schools close, without fear of reprisal.
- Antiviral drugs can be given to people shorten the length of illness and reduce flu complications.
- Avoid close contact with people who are sick. If you are sick, keep your distance from others to protect them from getting sick. Staying 1-2 metres away from people will reduce the airborne person to person transmission of influenza.
- Coughing or sneezing should be done into your elbow, upper arm or a tissue which is to be thrown away immediately. Do not cough or sneeze into your hands.
- Wash your hands for a minimum of twenty (20) seconds using soap and water. Washing your hands often will help protect you from getting sick. When soap and water are not available, use alcohol-based disposable hand wipes or gel sanitizers. Hand washing facilities, hand sanitizers, tissues, no touch trash cans, hand soap and disposable towels will be provided by NexGen Mechanical.
- Avoid touching your eyes, nose or mouth. You can become ill by touching a surface contaminated with viruses and then touching your eyes, nose or mouth.

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- Practice other good health habits. Get plenty of sleep, be physically active, manage stress, drink plenty of fluids, eat nutritious foods and avoid smoking, which may increase the risk of serious consequences if you do contract the flu.
- Social distancing including increasing the space between employee work areas and decreasing the possibility of contact by limiting large or close contact gatherings will occur. Reduce or avoid face to face meetings, unnecessary travel, public transportation, shaking hands, and restaurants.
- Telecommuting, working at home, and the use of offsite locations are valuable tools that NexGen Mechanical will use to contain the spread of illness at work sites during a public health emergency.
- Use household cleaners regularly on all hard surfaces.

### **Housekeeping**

While influenza viruses may live up to two days on a hard surface, regular cleaning with household cleaners and products will inactivate them. Surfaces that are frequently touched with hands should be cleaned often-preferably daily using disposable gloves. Household cleaners should be left for 30 seconds before being wiped off.

- Workstations and equipment should be cleaned with regular household cleaners when individuals are changing work stations, and at least daily.
- Clean all areas that are likely to have frequent hand contact (like doorknobs, faucets, handrails) periodically and when visibly soiled.
- Thoroughly wash cups, dishes, and cutlery with soap and hot water after individuals use. Preferably in the dishwasher.
- Garbage should be emptied daily.
- Ensure air filtration and air conditioning systems have been cleaned and able to properly filter.
- Discourage workers from sharing phones, desks, offices or other work tools and equipment, as possible.

### **Company Specific Plan**

This pandemic disease plan has been developed and the president has been appointed to have the overall responsibility for dealing with disease issues and their impact at the workplace. During a pandemic other responsibilities will be given to the Health & Safety Coordinator and other management. The President, with the guidance of others within the company, will ensure they monitor government and Client requirements. As each Pandemic is different in duration, cause, and severity a specific plan will be put in place. The presidents appointed designate may contact local health department and health care providers in advance and develop and implement protocols for response to ill individuals.

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A business continuity plan is developed to ensure companies can run during uncontrolled changes that may affect the company during a threat or potential threat. These threats may include a cyber-attack, terrorism, natural causes (earthquake, flood, hurricane, etc.), extended power or water outage, pandemic, etc. This plan will be put in place so NexGen Mechanical is prepared so that if significant absenteeism or changes in business practices are required business operations can be effectively maintained.

NexGen Mechanical has developed an emergency contacts process as part of the business continuity plan that includes:

- key contacts name and numbers,
- a chain of communications for employees,
- processes for tracking business and employees status,
- A procedure to notify key contacts including both customers and suppliers in the event an outbreak has impacted your company's ability to perform services. This procedure also includes notification to customers and suppliers when operations resume

### **Follow-Up**

Following a pandemic event, the person responsible for implementation of the plan should identify learning opportunities and take action to implement any corrective actions. These will be shared with all workers by a bulletin, safety meeting, or other similar method.

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## **8.25 Personal Monitor (Gas Hazard Awareness) Policy**

Gas monitoring instruments are designed to protect personnel from unseen hazards that may exist in workplace environments. It is vital to worker safety that these instruments are maintained and calibrated properly.

It is the responsibility of each worker to ensure the batteries are charged and ready to go the next workday. A spare set of batteries should be kept charged and located in your vehicle.

### **Training**

All NexGen Mechanical field employees receive personal monitor training at orientation and as needed after that. Workers will be informed of the hazardous gases they may be exposed to on the job. All employees, who are to work in areas where Hydrogen Sulphide gas, oxygen deficiency or enrichment, or the presence of toxic gases may be encountered, must be trained. This training will be provided initially, and annually thereafter. Training may be performed in-house or by a 3rd Party.

Gas Hazard Awareness training will include at a minimum:

- Locations of alarm stations
- Gas Monitoring Equipment - Portable and fixed detection.
- Gas Alarms
- Gas Hazards - Characteristics of gases. Include, at minimum: oxygen deficiency, oxygen or nitrogen enrichment, carbon monoxide and hydrogen sulfide. Hazard training must also include any plant-specific gases or department-specific gases of concern. Training must include signs and symptoms of overexposure.
- Personnel Rescue Procedures
- Use and care of Self-Contained Breathing Apparatus (SCBA) - Includes donning and emergency procedures, if applicable.
- Evacuation Procedures (in the event of an uncontrolled release) - Employees will be aware of the client's contingency plan provisions including evacuation routes and alarms. Employees should participate in emergency evacuation drills and practice rescue procedures.
- Staging Areas - Primary and Secondary

Gas Hazards training will be documented and available for review.

### **Use of Monitor**

All personnel will be supplied a personal monitor to be worn at every field location (some exceptions may apply). The monitors must be clipped to a top pocket on

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each workers coveralls (within the breathing zone); the sensors must be uninhibited.

Do NOT assume that since you cannot smell or see a gas that it is not there. A full hazard assessment completed prior to the beginning of the job should list (and all workers be informed) any potential gas or chemical that may be present. All potential emergencies should be defined.

In the event that your monitor is showing readings greater than the 8 hour Occupational Exposure Limit (OEL) you must immediately evacuate upwind or crosswind of the area. If a rescue is needed, only those trained in rescue are allowed to re-enter the area; and then only when properly protected from the hazard with a Self-Contained Breathing Apparatus (SCBA).

### **Maintenance**

The maintenance program is designed to reduce overall operating costs associated with monitors that are out-of-service. The maintenance program provides for continuous and regular inspections, maintenance and repair. The active maintenance schedule at NexGen Mechanical does not take precedence over any repairs or service prior to the service date.

Instrument inaccuracy due to improper or irregular calibration can lead to serious accidents. Exposure to excessive levels of toxic gas or an oxygen-deficient environment can cause workers serious illness and even death. Combustible gas explosions are often catastrophic, injuring or killing personnel and destroying property.

The primary reason for proper, regular instrument calibration is to prevent inaccurate gas concentration readings that could lead to injury or to death. Correctly calibrating an instrument helps to ensure that the instrument will accurately respond to the gases that it is designed to detect, warning users of hazardous conditions before they reach dangerous levels. Gas detection instruments are often subjected to harsh operating and storage conditions where they can be damaged. Both of these factors can affect instrument performance, leading to inaccurate readings or even instrument failure. While a unit may appear to be sound during a visual inspection, it actually could be damaged internally. Regular calibration is the only way to be certain that a detector is fully functional.

H<sub>2</sub>S meters and 4 head monitors must be calibrated at an accredited facility every 6 months (or as per manufacturers' recommendations) and contain a current calibration sticker on the monitor providing the date of calibration. Bump testing will be performed prior to each shift (monitor and alarms are also checked at this time); records of each bump test will be kept in the box with each monitor. Please ensure

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you submit documentation to the safety coordinator each time a unit you are in possession of is calibrated. Record the location of the bump test, date and any concerns.

Any required maintenance will be performed before the monitor is worn.

### **Understanding the Alarms**

For H<sub>2</sub>S your alarm will sound at 10 ppm (maximum). You will smell H<sub>2</sub>S prior to this limit. Immediately leave the area when the alarm sounds.

The oxygen content must be between 19.5 percent and 23 percent by volume. Leave immediately if this level drops or rises above these levels.

The primary risk associated with combustible gases and vapors is the possibility of explosions. Explosion, like fire, requires three elements: fuel, oxygen, and an ignition source. Each combustible gas or vapor will ignite only within a specific range of Fuel/Oxygen mixtures. Too little or too much gas will not ignite; these conditions are defined as the Lower Explosive Limit (LEL) and the Upper Explosive Limit (UEL). UEL is not an issue in the outside conditions we work in. Any amount of gas between the two limits is explosive. It is important to note that each gas has its own LEL and UEL. The gas concentrations are shown by percent of total volume, with the balance as normal air. Most personal monitors will read the concentration of the flammable gas in the air (as converted to methane) displayed as LEL. The monitor should alarm at 10% (low limit alarm) and 20% (high limit alarm); some monitors also have a high-high limit alarm. While on site be very aware if the low level alarm sounds, and if the high level alarm sounds you must immediately shut down the equipment and leave the site (notifying others, if applicable). Do not drive off of the location, walk quickly.

### **Overcome with any Known or Unknown Gas**

If a worker is overcome with any Known or Unknown Gas, you must not go and rescue him without protecting yourself first by donning a breathing apparatus:

1. Get out of the Known or Unknown Gas area.
2. Call out or sound alarm.
3. Call for HELP.
4. If the LEL is greater than 20% do not enter the area until it is deemed safe.
5. Put on breathing apparatus.
6. Rescue victim; move them to fresh clean air.
7. Get air into their lungs by use of mouth-to-mouth.
8. Treat for shock, keep them warm and quiet. DO NOT let them walk around or go back to work.
9. Take them to the nearest hospital.

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**Emergency Respiratory Equipment (See Respiratory Program for more info.)**

All workers are trained in the correct use, care, limitations and assigned maintenance of Self Contained Breathing Apparatus (SCBA) and are regularly fit tested. NexGen Mechanical provides a professionally maintained SCBA at every location in case of emergencies. This equipment must be located in a readily accessible location at all times.

Respiratory protective equipment that is not used routinely but is kept for emergency use is inspected at least once every calendar month by a competent worker to ensure it is in satisfactory working condition.

*All NexGen Mechanical workers have been informed of this policy. Any disregard to this policy will result in disciplinary action.*

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## 8.26 Personal Protective Equipment

Where it is not reasonably practicable to protect the health and safety of workers by design of the facilities and work processes, suitable work practices or administrative controls, NexGen Mechanical ensures that every worker wears or uses suitable and adequate personal protective equipment.

It is a requirement that all NexGen Mechanical employees must wear appropriate Personal Protective Equipment (PPE) whenever there is a foreseeable danger. A risk assessment will be completed to determine the appropriate PPE evaluating risks associated with the following hazards:

- Chemicals
- Mechanical
- Biological
- Radiation
- Noise

This approved PPE is available to the workers. NexGen Mechanical ensures that the PPE is used by the workers and that it is at the worksite before work begins. If the hazard assessment indicates the need for PPE workers must:

- Wear PPE that is correct for the hazard and that protects themselves;
- Properly use and wear the PPE that is in a condition to perform the function for which it was designed.

Workers are trained in the correct use, care, limitations and assigned maintenance of the PPE in the orientation and annually after that. A worker must use and wear properly, the appropriate PPE specified in accordance with the training, standards and instruction received, inspect the PPE equipment before using it, and not use PPE that is unable to perform the function for which it is designed. The use of PPE itself must not endanger the worker and be compatible, so that one item of personal protective equipment does not make another item ineffective. All Employees are responsible to maintain, clean/sanitize, and inspect their own Personal Protective Equipment. If the PPE becomes defective or does not provide the required protection, the worker must return the personal protective equipment to the employer for replacement or repair.

All NexGen Mechanical workers are responsible for providing clothing needed for protection against the natural elements, general purpose work gloves, appropriate footwear including safety footwear, and safety headgear. NexGen Mechanical will provide, at no cost to the worker, all other items of personal protective equipment appropriate for the risks associated with the workplace and the work.

  
President - Jeff Young

**May 15, 2026**  
Date

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**Workers Responsibilities**

All NexGen Mechanical workers that are required to use personal protective equipment must:

- use the equipment in accordance with training and instruction,
- if exposed to the hazard from moving parts of machinery ensure that their clothing fits closely about the body, and no dangling or protruding neckwear, bracelets, wristwatches, rings or similar articles are worn; and cranial and facial hair is completely confined or cut short.
- inspect the equipment before use,
- refrain from wearing protective equipment outside of the work area where it is required if to do so would constitute a hazard,
- report any equipment malfunction to the supervisor or employer.

A worker who is assigned responsibility for cleaning, maintaining or storing personal protective equipment must do so in accordance with training and instruction provided.

**Head Protection:** Employees working in areas where there is potential for injury to the head either from employee initiated impact or impact from falling, flying or thrown objects or other moving objects must wear an appropriate protective head protection. This includes at any project sites, active wellsite or facility and any site where heavy equipment is working. Head Protection must meet or exceed the requirements of CSA Standard Z94.1 05, Industrial Protective Headwear - Performance, Selection, Care and Use or ANSI Z89.1 2003, American National Standard for Industrial Head Protection.

When workers are exposed to electrical hazards, they must wear safety hats designed for protection from these hazards. Protective headwear must consist of a shell and suspension that is adequate to protect a person's head against impact and against flying or falling small objects and have a shell which can withstand a dielectric strength test at 20,000 volts phase to ground.

Head Protection must be inspected prior to every use to ensure that it is free from cracks, and/or deep scratches. Head Protection must be worn properly every time. Employees must review their Head Protection as many have dates of discard. Certain types of materials can break down over time and must be replaced prior to date of discard. All NexGen Mechanical employees are required to maintain all Head Protection. Cleaning should be completed using soap and water, never chemicals. Workers are not required or permitted to use any industrial protective headwear that is damaged or structurally modified, has been subjected to severe impact, or has been painted or had been cleaned with solvents.

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To determine your hat size, wrap a soft tape measure around the widest part of your head (this is usually just above the eyebrows). Make sure the tape measure is pulled snug, but not too tight. Use the sizing chart below to convert inches to hat size.

#### *Hat / Cap Sizing Chart*

| Size              | Small            | Medium           | Large          | XL               |
|-------------------|------------------|------------------|----------------|------------------|
| <b>Hat</b>        | 6-3/4 to 7       | 7-1/8 to 7-1/4   | 7-3/8 to 7-1/2 | 7-5/8 to 7-3/4   |
| <b>Head (in.)</b> | 21-1/2 to 21-7/8 | 22-1/4 to 22-5/8 | 23 to 23-1/2   | 23-7/8 to 24-1/4 |

#### *Maintenance*

- Wash in mild soap and water
- Replace if the hat has fallen from two stories or more, or if it has been used for more than 5 years
- Maintain condition by replacing inside plastic as needed, storing safely, and using correctly

**Foot Protection:** Employees must wear the appropriate protective footwear for the work that is being performed. Employee's footwear must be of a design, construction, and material appropriate to the protection required. Foot Protection must meet or exceed the requirements of the Canadian Standards Association CSA Standard-Z195.1-02, Guideline on Selection, Care, and Use of Protective Footwear, or CAN/CSA Standard-Z195-02, Protective Footwear or ANSI Standard Z41-1991, American National Standard for Personal Protection - Protective Footwear. Footwear (with safety toes) must be worn when working in areas where there is a danger of foot injuries due to falling or rolling objects, electric shock, or from an object piercing the sole. If handling chemicals or walking on uneven surfaces the footwear must be chemical resistant and cover the ankles. Steel toed and steeled shank boots are to be worn at **all** sites (except office).

Protective footwear must have a box toe that is adequate to protect the wearer's toes against injury due to impact and is capable of resisting at least 125 joules impact; and with a sole or insole that is adequate to protect the wearer's feet against injury due to puncture and is capable of resisting a penetration load of 1.2 kilonewtons when tested with a DIN standard pin.

Foot Protection must be inspected prior to every use to ensure that it is free from tears, cracks, holes, or any damage. Foot Protection must be worn properly at all times. If the footwear has laces, they must be completely tied up at all times. All NexGen Mechanical employees are required to maintain all Foot Protection. Cleaning should be completed using soap and water, never chemicals.

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When fitting boots wear the same type of sock you wear to work. Make sure that the ball of your foot is well-covered by the steel toe without being squashed up against it. Your heel should not slip around inside of the boot or rub too harshly against the inside of it. Unlace the boot, push your toes forward and stick your index finger down behind your heel. If it fits easily without being squished or having too much wiggle room, then you have the right size. Walk around the store in the boots for at least 15 minutes. Make sure you can comfortably crouch or squat in the boots without cutting off the circulation in your ankles if you will be doing a lot of that while you are wearing the boots.

#### *Maintenance*

- Wash with leather safe cleaner
- Replace if leather or soles are cracked
- Maintain by rinsing any chemicals off the bottom of shoes, seal leather with waterproof sealant, replacing shoelaces as needed

**Hand Protection:** Employees must use appropriate hand protection when their hands are exposed to hazards such as those from skin absorption, exposure to acids, caustics, steam, abrasives, poisons, harmful substances or from extreme heat or cold, except when the use of this equipment introduces greater hazards. NexGen Mechanical provides and requires workers to use suitable and properly fitted hand or arm protection to protect the worker from injury to the hand or arm.

Hand Protection must be inspected prior to every use to ensure that it is free from tears or damage. Hand Protection that has been stained from an unknown source should never be used. All NexGen Mechanical employees are required to maintain their hand protection. Cleaning should be completed using soap and water (never chemicals).

Work gloves that are appropriate for the risk must be provided and used when doing any manual labour especially around radiant heat or sharp or jagged objects that may puncture or abrade the skin. When using a power saw (chain saw) a safety mitten must be on the hand holding the upper handle of the saw.

The inch measurement of your hand should correspond directly to the numbered sizes of the glove. For example, if you measure your hand to be 8 inches, you would wear a size 8 glove. If your hand measures over 8 inches it is wise to choose the next size up to avoid hand fatigue or discomfort from a glove that is too small. Some gloves come in lettered sizes such as XS, S, M, L, and XL. These can easily convert to a numerical size for simple selection. See the table for numerical and lettered sizing relation.

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### Men's Sizes

|    | Inch         | cm |
|----|--------------|----|
| XS | 7            | 18 |
| S  | 7-1/2 to 8   | 20 |
| M  | 8-1/2 to 9   | 23 |
| L  | 9-1/2 to 10  | 25 |
| XL | 10-1/2 to 11 | 28 |

### Women's Sizes

|    | Inch  | cm |
|----|-------|----|
| XS | 6     | 15 |
| S  | 6-1/2 | 17 |
| M  | 7     | 18 |
| L  | 7-1/2 | 19 |
| XL | 8     | 20 |

### Maintenance

- Wash with mild soap and water
- Replace if there are holes, rips or tears
- Maintain by keeping in dry storage when not in use

**Eye Protection:** Employees must wear Safety Glasses in situations where flying objects or particles, splashing liquids (including acids and caustics), molten metal, ultraviolet visible or infrared radiation, dust, solids, air at high pressure, or liquids other than rain may get in their eyes. Safety glasses are required on all facility sites and where heavy equipment is working, it must meet the requirements of *CAN/CSA Z94.3 07, Eye and Face Protectors and CSA Standard Z94.3.1 07, Protective Eyewear: A User's Guide*, and be appropriate for the risk, if there is a risk of irritation or injury to the worker's face or eyes. Safety eyewear must be fitted with side shields when necessary for the safety of a worker.

Eye Protection must be inspected prior to every use to ensure that it is free from cracks or scratches. Eye Protection must be worn properly at all times. If working outside employees may want to wear tinted Eye Protection to protect from UV Rays. All Employees are required to maintain their Eye Protection. Cleaning should be completed using eye protection cleaner as other liquids can scratch, melt, or damage the lenses.

Prescription eyewear may be worn if it is safety eyewear and complies with the regulations and meets CSA Standard Z94.3 Industrial Eye and Face Protectors. Safety eyewear must be fitted with side shields when necessary for the safety of a worker.

All employees must inform NexGen Mechanical if they wear Contact Lenses. NexGen Mechanical must document this and advise the Employee of any hazards to the employee's eye during the work to be performed. NexGen Mechanical must also advise the employee of suitable alternatives to wearing Contact Lenses.

All reasonable steps must be taken to ensure that a worker does not perform electric arc welding if another worker may be exposed to radiation from the arc,

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unless the other worker is using a suitable industrial eye protector or is protected from the radiation by a suitable screen.

If there is a potential for a substance potentially injurious to the eyes to come into contact with a workers eyes NexGen Mechanical will maintain and immediately provide eyebaths, showers or other means of flushing the eyes.

Safety glasses should fit snug to face, wrapping completely around face. The glasses should not fall off when face is pointed downward or shift when moving face side to side.

#### *Maintenance*

- Wash with glass cleaner
- Replace if lenses are cracked, or if any pieces are broken
- Maintain by keeping them in a safe storage when not in use, and

**High Visibility Apparel:** All NexGen Mechanical workers exposed to the hazards of vehicles traveling at speeds in excess of 30 km/h (20 mph) must wear high visibility apparel meeting the Type 1 or Type 2 criteria of WCB Standard Personal Protective Equipment Standard 2-1997, High Visibility Garment. A worker whose duties on the work site result in exposure to the hazards of mobile equipment must wear reflective, fluorescent or other highly visible materials meeting at least the Type 3 criteria of WCB Standard Personal Protective Equipment Standard 2-1997, High Visibility Garment.

**Limb and Body Protection:** If there is a danger that a workers hand, arm, leg or torso may be injured, workers must wear properly fitting hand, arm, leg or body protective equipment that is appropriate to the work, the work site and the hazards identified. Examples of this include: warm weather clothes, chainsaw pants, rattlesnake guards, etc.

When working around sparks, molten metal, radiation, or chemicals that could cause an adverse effect to skin if contact is made workers must wear the NexGen Mechanical provided approved protective clothing or covers or any other safeguard that provides equivalent protection for the worker including impermeable apron, gloves, leg pads, oversleeves, and eye protection.

Where workers are routinely exposed to a hazardous material or substance, NexGen Mechanical will provide and require workers to use, protective clothing, gloves and eyewear or face shields that are impermeable and adequate to prevent exposure of a workers skin and mucous membranes to the hazardous material or substance.

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**Body Protection Against Flame:** Flameproof overalls must be worn in any situation in which there are flammable liquids or flammable gases stored or used or piped on a site. This includes all active wellsites, facilities, and pipelines. Flameproof overalls must meet or exceed CSA and Industry Guidelines. Also, flame resistant clothing should be worn when exposed to: flash fires, molten metal, welding and burning, or similar hot work hazards.

Body Protection must be inspected prior to every use to ensure that it is free from tears or holes. Body Protection must be worn properly at all times. It must be zipped up completely and not left hanging. Never wear Body Protection if it has a stain from an unknown substance. Employees must wear clothing under the Body Protection that is made of flame resistant fabric or natural fibres that will not melt when exposed to heat.

Coveralls must fit over regular clothes and not restrict movement, but cannot be baggy. Try on different sizes to be sure you have best fit.

#### *Maintenance*

- Wash in detergent only or dry-clean
- Do not use bleach, softener, etc. as this can damage the fire retardation
- Replace if there is any damages to the quality of the fabric other than staining
- Maintain condition by cleaning coveralls often

Employees must wear any other Personal Protective Equipment deemed necessary by a Hazard/Risk Assessment. NexGen Mechanical will perform spot checks of workers ensuring that they use the PPE required for the job and are using it correctly. Any worker found not using the proper PPE or using it incorrectly will be required to immediately remedy the situation. Repeated failure will result in disciplinary action.

In addition, an Employee must not use any Personal Protective Equipment that is in a condition that makes it unable to perform the function for which it is designed.

This personal protective equipment program is reviewed annually.

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## 8.27 Purchasing Policy

This policy is intended to provide the information necessary for the effective purchasing activities at NexGen Mechanical. Refer to the Management of Change Policy for information on assessing a new product.

### Best Value

Factors to be considered when determining the “best overall value” are:

- Price
- Warranty
- Availability
- References
- Quality
- Service
- Past Performance, if applicable

### Guidelines

Our purchasing policy allows for the purchase of items that are safe and environmentally responsible. All purchases will take safety and environmental aspects into account. The following items are of particular concern:

- Tools and equipment that are inherently less noisy and create low amounts of vibration.
- Monitoring equipment.
- Chemicals.
- Fire protection equipment.
- Vehicles or Powered Mobile Equipment.
- Engineered products.
- Personal Protective Equipment (PPE)
  - Respiratory Protection (proper for the task).
  - Fall Protection Equipment
  - Noise Protection
  - All other PPE

All regulated standards must be adhered to including, where applicable OHS, CSA, ANSI, etc.

### Emergency Procurements

Emergency procurements may be made when there may be a threat to public health, welfare or safety, provided that such emergency procurement will be made with such competition as is practical under the circumstances. NexGen Mechanical will be notified as soon as possible as to the emergency and the associated purchases.

### Local Advantage

NexGen Mechanical will make every effort to purchase from local businesses if the purchase fits into the category of “best overall value.”

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## **8.28 Quality Control Policy**

Quality control / quality assurance has always been and will remain one of the main tools for achieving the goals set for the company. Our concept of QA\QC is to achieve zero defects in our products; thereby meeting or exceeding the Client's job requirements.

It is the policy of NexGen Mechanical to ensure QA\QC is practiced in all stages of the project and that the job is executed as per specifications using good workmanship to meet the customer job performance criteria.

NexGen Mechanical's management team will strive to meet an agreed upon set of specifications or project requirements to ensure the clients expectations of quality services are met on time and on budget. This action will be accomplished by continuous project monitoring and improvements of work activities to meet the zero defects, zero mistakes, and zero returns policy. NexGen Mechanical implements this through training (workers and management), coordination, innovation, monitoring, and continuous education of all levels of employees and management.

Our Principles of QA\QC Management are:

- Meet or exceed the customer's requirements.
- Zero defects, zero mistakes, and zero returns.
- Proactive Supervision.
- QA\QC is the responsibility of all employees.
- Attention to Detail.
- Continuous Project Monitoring & Customer Interfacing.
- Detailed Record Keeping and Accountability.

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## **8.29 Respiratory Protection Policy**

The purpose of this Code of Practice is to protect and educate employees and contractors. It is essential that all NexGen Mechanical workers read, understand, and comply with these safe work practices and procedures for Respiratory - Personal Protective Equipment.

### **Training and Competency**

For PPE to be effective, workers must be trained in its correct use, care, limitations and assigned maintenance. Wearing and using respiratory protection does not eliminate the hazard. If the respiratory protection equipment fails, you will be exposed to the hazard. Respiratory protection must not be altered or removed even if it is uncomfortable.

All NexGen Mechanical workers receive in-house training, by a competent person, prior to wearing respiratory protection at a location. During the training the following items will be addressed:

- Description of different types of respiratory protection, and why the certain respiratory protective equipment is chosen for different tasks.
- Description of toxic, flammable, low oxygen etc. environments,
- General Hazards,
- Instruction on the use, cleaning, and care of the respiratory protective equipment,
- Information about the airborne contaminants, including potential health effects and warning properties,
- Limits of protection,
- Pre use and periodic inspections,
- Maintenance and cleaning,
- Methods of testing the equipment to ensure it is functioning properly,
- Instructions on proper donning and doffing of equipment,
- Procedures for emergency response, and
- Instructions on fit testing.

The worker must demonstrate understanding of the training provided by testing, maintaining, and cleaning the respiratory protective device, and by using the respiratory protective device safely. All training includes practical experience by the worker in an uncontaminated environment.

The training session includes a one on one determination of whether the worker has a physical or mental condition that prevents the ability to use the equipment properly. If it is determined the person is unable to wear respiratory protection alternate job tasks will be assigned. All employees will require a medical prior to

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using respiratory protective equipment. If the employee has a problem with claustrophobia he/she will be unable to wear the respiratory equipment. The physician will determine if the user has any medical conditions that would make it unsafe to use a respirator. Medical evaluations should be allowed during normal working hours and must be kept confidential.

Workers must be competent when working with respirators. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. All workers must have the proper combination of experience, knowledge, and education to perform the work required.

Training and retraining requirements are reviewed periodically and/or whenever there are changes in the products used or the processes involved.

Awareness training in respiratory protection is given to all field employees through Enform during the H<sub>2</sub>S Alive course (or equivalent), updated every 3 years.

All training documents must be on file.

### **Respiratory Equipment**

All NexGen Mechanical owned respiratory protective equipment is approved by NIOSH. The appropriate respiratory protective equipment is chosen in consultation with the worker and the occupational health and safety committee or the worker health and safety representative. We do not permit employee owned equipment to be used on our worksites. The CSA Z94.4-02, Selection, Use and Care of Respirators requirement is followed by all workers.

Respiratory protective equipment must always be stored in a readily accessible location and in a manner that prevents its contamination. It is maintained in clean and sanitary condition, inspected before and after use, and serviced properly.

The air delivered to a person wearing a self-contained breathing apparatus or remote supplied air apparatus must be as free of contaminants as possible. Contaminants may harm the person breathing the air or may damage the respiratory protective equipment being used. As a result, NexGen Mechanical will ensure the air is of a quality that complies with Table 1 of CSA Standard Z180.1-00 (R2005), *Compressed Breathing Air and Systems*. NexGen Mechanical will also ensure that the air does not contain a substance in a concentration greater than 10 percent of its occupational exposure limit. Standard air compressors will not be used. Only certified technicians may refill cylinders.

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The appropriate respiratory protective equipment to protect the worker from the identified hazards including concentrations of an air contaminant in excess of an applicable exposure or excursion limit, or an oxygen deficient atmosphere must be used. This equipment will be available at the work site when the potential requirement exists.

### Code of Practice

Prior to beginning work, all specific hazards that would or may require respiratory protection must be identified. A hazard assessment must take into account any hazardous items in the workplace including:

- Airborne contaminants;
- Biological contaminants;
- Dust;
- Fumes;
- Gas;
- Mist;
- Aerosol;
- Smoke;
- Vapor.

These hazards can cause an atmosphere to contain less than 19.5% or more than 23% by volume of oxygen, elevated levels of toxic chemicals or increased particulate matter.

Whether the contaminant is harmful or just offensive to the worker NexGen Mechanical will provide an approved respiratory protection device for use by the worker.

### Methods of Control

The following methods to ensure a safe atmosphere should be looked at before the decision to use respiratory protection is made:

- **Elimination** means to remove the toxic hazard from the workplace. This is the most difficult method of control.
- Consider **Engineering** methods such as local exhaust ventilation, addition of clean air to oxygen-deficient spaces, enclosure of a process producing the airborne contaminant, substitution of a less hazardous material, modifications to plants, equipment, ventilation systems, and processes that reduce the source of exposure.
- If engineering methods cannot be used then **administrative** procedures such as safe work procedures may be used when air contaminants are present. Alter the way the work is done, including timing of work, policies and other rules, and **work practices** such as standards and operating

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procedures (including training, housekeeping, equipment maintenance, and personal hygiene practices).

Often a combination of the above methods, along with Respiratory Protection is the safest control.

### **Determination Process**

A hazard assessment to determine the degree of danger to a worker at a work site and whether the worker needs to wear respiratory protective equipment must be performed. The determination process assesses the nature of the contaminants, the concentration or likely concentration of any airborne contaminants, the duration or likely duration of the workers exposure, the toxicity of the contaminants, the concentration of oxygen, the warning properties of the contaminants and the need for emergency escape. Respiratory protection must be worn if a worker is or may be exposed to an airborne contaminant or a mixture of airborne contaminants in a concentration exceeding their occupational exposure limits or the atmosphere has or may have an oxygen concentration of less than 19.5% by volume or more than 23 % by volume.

It is better to wear respiratory equipment that protects more than you need, than not enough.

### **Selecting the Proper Respiratory Protective Equipment for the Job**

The most appropriate respiratory protective equipment for the hazards present will be used. A respirator must be selected based on the following two conditions. One type is for conditions that may be Immediately Dangerous to Life or Health (IDLH). The other category is for non-IDLH.

#### ***IDLH***

If it is determined that breathing conditions at a work site are or may become immediately dangerous to life or health all workers must wear self-contained breathing apparatus or an airline (atmosphere supplying) respirator that meets regulations. An oxygen-deficient or highly toxic (ie. H<sub>2</sub>S at unknown concentrations) atmosphere is considered IDLH. No exceptions to wearing a full face piece positive pressure respirator which is either an SCBA, or an airline respirator with an auxiliary self - contained air cylinder of sufficient capacity to permit the worker to escape unassisted from the contaminated area if the air supply fails.

NexGen Mechanical will provide the worker with, and the worker must use an approved atmosphere supplying respirator that is an open circuit Self Contained Breathing Apparatus that operates in a pressure demand or other positive pressure

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mode, has a minimum rated capacity of 30 minutes, is sufficiently charged to enable the worker to perform the work safely, and is equipped with a low pressure warning device or an escape respirator.

During a task that has IDLH hazards a second worker, who is suitably equipped and trained, must be present and in communication with the worker at all times and suitably equipped personnel who are trained and capable in rescue procedures and are fully informed of the hazards are readily available to rescue the endangered worker immediately if the workers atmosphere supplying respirator fails or the worker becomes incapacitated for any other reason.

### *Non-IDLH*

The following factors determine the choice of respiratory protective equipment for non-IDLH situations. These factors need to be reassessed with every location, product, or process change.

- Identification of airborne contaminant(s). The potential contaminants need to be known - so the most appropriate filter is selected.
- Concentration of airborne contaminant(s). The average workday concentration and the highest short-term concentrations should be determined. Occupational Exposure Limits (OELs) should also be determined.
- Oxygen deficiency. This situation arises when the air has a reduced oxygen content that is hazardous to health, but is not IDLH. An atmosphere-supplying respirator must be used.
- Physical form. Identify all the physical forms that may be present including dust, mist, fumes, fiber, gas, vapor, etc.
- Length of time during which the respirator will be needed. Certain types are effective for longer periods of time than others.
- Toxic properties. By recognizing the full hazard, a full-face piece rather than a half mask respirator should be chosen for protection against eye irritants.
- Warning properties. If workers are aware of a substance and they detect a smell or their nose, eyes or throat become irritated, they will be aware that there is a poor fit of the mask or that the cartridges are exhausted.

### **Fit Testing**

All employees must be clean-shaven and fit tested (both quantitative and qualitative) before they are approved by NexGen Mechanical to use a respirator. Qualitative fit testing involves a pass/fail test relying on the users response to a test agent (e.g. banana oil), quantitative testing involves measurement of the amount of leakage into the respirator. Respiratory protective equipment depends on an effective facial seal for its safe use. If the user has a moustache, it may be no longer than the corner of the mouth. If the user has sideburns, they may not extend

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beneath the earlobes. All respiratory equipment must be the proper size and make an effective seal with the facial skin of the worker. The CSA requirements Z94.4-02 Selection, Use and Care of Respirators is used and trained during the fit test procedure. Respiratory protective equipment that depends on an effective facial seal for its safe use must be fit tested by a competent person. Fit testing must be performed every 24 months (2 years), at minimum.

Proper fit testing and equipment selection must take into consideration hot, cold, or confined working conditions. If the worker wears glasses alternative equipment may be required. If a satisfactory fit cannot be achieved, a different type of respirator must be used.

Except for specialty eyewear for use with positive pressure full-face piece respirators, nothing is permitted which intrudes between the face piece and the face, or which interferes with the face seal of the face piece.

A negative or positive user seal check in accordance with CSA Standard CAN/CSA-Z94.4-02, Selection, Use, and Care of Respirators must be completed prior to each use of respiratory protection.

NexGen Mechanical will provide a suitable and adequate approved respiratory protective device for use by the worker from one or more airborne contaminants; with a face piece that is the proper size and where a tight fit is essential to the proper functioning of the respiratory protective device, makes an effective seal to the facial skin of the worker. Where a tight fit is essential to ensure the worker is not exposed to an extent that may pose a risk of significant harm to the worker, the worker has been fit-tested by a competent person in an approved manner.

### **Maintenance, Storage, and Use of Respiratory Protective Equipment**

Respiratory Protective Equipment must be inspected for damage or deterioration, tested, and cleaned according to manufacturer's instructions after each use.

- If more than one person might be sharing a respirator, it must be sanitized between uses.
- Cartridges and canisters that are near the end of their service life require replacement.
- Worn or damaged valves, straps and other parts should be replaced exactly as specified by the manufacturer. Repairs on self-contained breathing apparatus must only be done by persons trained and certified by the manufacturer.
- Equipment should be stored in ready-to-use condition in a convenient, clean and dry location and not exposed to extremes of temperature or to any contaminant that may inactivate the respiratory protective device.

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- Disposable respiratory equipment should be disposed of after use according to manufacturer's instructions.

Inspection of compressed air cylinders must be done in accordance with CSA Standard CAN/CSA-Z94.4-02, Selection, Use, and Care of Respirators. Compressed air cylinders must be hydrostatically tested in accordance with CSA Standard CAN/CSA-B339-96, Cylinders, Spheres, and Tubes for the Transportation of Dangerous Goods. Self-contained breathing apparatus, including regulators, must be serviced and repaired by qualified persons.

### **Emergency Respiratory Equipment**

Respiratory protective equipment that is not used routinely but is kept for emergency use is thoroughly inspected at least once every calendar month and after each use by a competent worker to ensure it is in satisfactory working condition. The date of every inspection made and the name of the person who made the inspection must be recorded and conspicuously displayed at the location where the respiratory protective device is stored and a competent person corrects any defects identified during the inspection carried out immediately or takes it out of service.

### **Quality of Breathing Air**

All air used in a self-contained breathing apparatus or airline meets the requirements of Table 1 & 2 of CSA Standard Z180.1-00, does not contain any substance in a concentration that exceeds 10 percent of its occupational exposure limits.

### **Enforcement for Not Wearing Respiratory Equipment**

All NexGen Mechanical workers must use the appropriate respiratory equipment provided. If the worker does not wear the Respiratory Equipment they may be subject to disciplinary actions. If you have a reason that you cannot wear respiratory equipment that day, please notify your supervisor immediately.

### **Records**

The following records are maintained at NexGen Mechanical:

- fit test results and worker instruction,
- maintenance for air supplying respirators, powered air purifying respirators, and for sorbent cartridges and canisters, and
- maintenance and repairs for each self-contained breathing apparatus and all air cylinders in accordance with the requirements of CSA Standard CAN/CSA-Z94.4-02, Selection, Use, and Care of Respirators.

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### 8.30 Right to Refuse Dangerous Work Policy

Imminent (unusual) Danger – means, in relation to any occupation, a danger that is not normal for that occupation, or a danger under which a person engaged in that occupation would not normally carry out.

#### Responsibilities

The President is responsible for the overall administration of this policy and is specifically responsible to:

- Monitor and evaluate compliance to this policy.
- Review all work refusal situations and deal specifically with those which cannot be resolved at the project location.
- Meet with government, client, and any other outside agency directly affected by or involved in a refusal to work situation.
- Ensure any legislated requirements are incorporated into company procedures.

The Supervisor is responsible to:

- Review the standard practice and train new employees on the work refusal procedures at the time of hire and at least annually. This training includes all employees in his or her area of responsibility.
- Immediately investigate, in the presence of the employee, any work refusal situation.
- Take the necessary corrective actions to remedy the situation.
- Seek the assistance of an HSE professional or any other specialist, (professional engineer, occupational hygienist, vendor representative, etc.) that may be required to resolve the situation.
- Create and maintain a written record of all the facts and circumstances identified during the investigation.
- Advise the Client of all work refusal situations as soon as reasonably practicable.
- Provide the written report to the affected worker(s).
- Assign worker(s) to other work activities pending investigation.

The Employee is responsible to:

- Promptly notify the Supervisor of any situation where it is believed imminent danger exists.
- Cooperate in the investigation of all imminent danger situations.
- Advise the Supervisor if there are reasonable grounds to believe a danger still exists after the initial investigation and subsequent corrective action.
- Return to work after corrective action has been taken.

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No worker will:

- Carry out any work if, on reasonable and probable grounds, the worker believes that there exists an imminent danger to the health or safety of that worker,
- Carry out any work if, on reasonable and probable grounds, the worker believes that it will cause to exist an imminent danger to the health or safety of that worker or another worker present at the work site, or
- Operate any tool, appliance or equipment if, on reasonable and probable grounds, the worker believes that it will cause to exist an imminent danger to the health or safety of that worker or another worker present at the work site.

### **Notification of Refusal of Work**

All workers are provided training in the work refusal procedures. Once a worker has decided to stop work based on the task, conditions of site or tools, and/or hazards they must, as soon as practicable, notify NexGen Mechanical of the refusal and the reason for the refusal to do the work. At this point the work must stop, and may not resume, until the unsafe work concern has been addressed.

Depending on the circumstances, you may be required to remain at the work site and be temporarily assigned to other work; only accept work you are capable of performing. There will be no deduction of pay and NexGen Mechanical will not tolerate any form of retribution or intimidation directed at any individual for exercising their right to refuse unsafe work.

### **Investigating and Mitigating**

As soon as notified NexGen Mechanical will immediately investigate the situation. If it is as simple as a common tool malfunctioning place a RED Out of Service Tag on it and use another tool. No other person is allowed to complete the task unless trained and competent. All actions must be taken to eliminate the imminent danger. No worker will perform or cause to perform the work or use or operate the tool, appliance, or equipment.

A written record of the worker's notification will be prepared and include the conclusion of the investigation and actions taken. The worker(s) who gave the notification will also get a copy of the record.

### **After the Inspection**

If controls have been put in place or it was deemed that the activity does not constitute Imminent Danger the work will continue. If you think that imminent danger still exists, you are advised to discuss this with management; if the situation cannot be resolved an Occupational Health and Safety Office will be contacted.

*It is your responsibility and a job requirement to stop any task that may be considered imminent danger. You will not be disciplined for stopping work. That is the law!*

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### 8.31 Security Policy

Security is becoming a critical item that needs to be managed by companies. At NexGen Mechanical we have to ensure that we have security over the following areas:

- Physical Security including property, vehicles, tools, etc against theft, vandalism, natural disaster, manmade catastrophes, and accidental damage.
- Personal Security including violence and harassment.
- Information Security including release of company, Client, and personal information.
- Information Technology Security including email and internet.

#### Training

All NexGen Mechanical workers are trained in this policy including security theft and workplace violence during Orientation.

#### Guidelines

The following guidelines have been put in place to create awareness of the security measures at NexGen Mechanical.

*Physical Security* – All equipment, property, vehicles, tools, etc must be locked when they are not being directly supervised. Take notice of people who may not belong and report this to your supervisor.

*Personal Security* – There is always a risk of violence from coworkers, supervisors, Clients, Landowners, etc. NexGen Mechanical will inform employees if they are working in an area where there is a potential for violence and identify any risks that are specific to that area including the risk of violence of the nature and extent of the risk. This includes providing information related to the risk of violence from persons who have a history of violent behavior and whom workers are likely to encounter in the course of their work.

*Information Security* - At NexGen Mechanical it is a job requirement to ensure that information obtained while on a job (whether it be company, Client, or personal information) must remain confidential. Information will only be given to those who need the information to perform their job tasks.

*Information Technology Security* – It is recognized that confidential information is sent via email, internet, cell phone or by other means every day. The following are ways to reduce the potential for the undesired release of information:

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- Passwords: Change these frequently. Choose passwords that are difficult to guess at. Try using number and letter combinations. Do not give out your passwords.
- Read over all emails thoroughly prior to sending. Ensure they are written to the security level of the recipient. Double check the recipients email address (and that of everyone who is cc'd).
- Log off your workstation and close all password protected files prior to leaving your workstation.
- Ensure adequate virus protection is utilized.

**Reporting Security Incidents**

If you observe anything unusual, *tell your supervisor*. All security incidents that affect people, premises, information or customer reputation will be reported to the management of NexGen Mechanical. All reported security incidents that affect our Clients will also be reported promptly to our Client by the Management of NexGen Mechanical.

**Investigating Security Incidents**

All security incidents or potential incidents will be investigated and corrective action will be taken to prevent recurrence.

**Failure to comply with this security policy may lead to disciplinary action.**

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### 8.32 Social Media Policy

This policy provides the guidance for employee use of social media at work and while away from work. Social Media (Instagram, Facebook, Twitter, Snapchat, Tumblr, YouTube, and many more) facilitates the fast and easy sharing of information including photos and videos. For the purpose of this policy we are also including blogs, message boards, online forums, texting, emails, etc., anywhere information can be digitally transmitted.

The confidentiality of our company, Clients, and employees is paramount. Any disregard to this policy will be dealt with immediately using the Enforcement and Discipline Policy. Discipline may include a verbal warning, written warning, suspension, and/ or dismissal depending on the seriousness of the offence. NexGen Mechanical will follow up on all reports of improper social media usage.

On breaks, workers can access social media on computers, phones, tablets, etc. Workers are not to be using these devices during work hours unless required as part of their job; and then they are not to access social media unless on a break.

The following practices must be followed at all times:

- Any harassment or bullying on social media (even after work hours) will not be tolerated against co-workers, management, subcontractors, or Clients. Even jokes can come off as harassment towards an individual or group on social media, so be cautious.
- At the office or on worksites employees are strictly prohibited from taking photographs of company or client facilities or personnel using any camera functions on their cellular phone without first obtaining express written permission from the company. Even with express permission, there will be absolutely no posting of work-related media (photo or video) on any social media site whatsoever by NexGen Mechanical employees.
- The internet is a public place. Employees and representatives are not permitted to post comments on social media or otherwise, whether positive or negative about NexGen Mechanical's business, employees, customers, or business partners.
- During any emergency or post incident workers are not to share any details of the incident unless they are responsible for notifying family of the injured or reporting to the office. All notifications are to be done in person or on the phone (not via social media or direct text or email). A designated person will be assigned to make these notifications.

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### 8.33 Subcontractor Management Policy (SMP)

All companies employed by NexGen Mechanical have responsibilities as described in this Subcontractor Policy. NexGen Mechanical is responsible for providing a safe and healthy work environment for its workers and subcontract workers. All NexGen Mechanical subcontractors will be held to the same high standard our Clients require of us.

#### Responsibilities

##### *NexGen Mechanical Safety Managers or Supervisors Responsibilities*

- Communicate Health, Safety & Environment requirements to the subcontractor prior to starting work.
- Ensure the work is to be conducted in a safe and responsible manner in compliance with OH&S regulations and NexGen Mechanical Safety & Environment Standards.
- Orientate subcontractors to the worksite.
- Ensure that subcontractors are aware of incident reporting requirements. If a subcontractor is involved in an incident, NexGen Mechanical is responsible for reporting the incident to the Owner Client, ensuring the incident is investigated, and must participate in the investigation.
- Follow NexGen Mechanical subcontractor approval plan.

##### *Subcontractors Responsibilities*

- Meet or exceed all applicable federal, and provincial Health and Safety Regulations.
- Wear the necessary personal protective equipment for the identified hazards.
- All subcontractors must have a valid Worker's Compensation Board (WCB) account in good standing for the province in which the work is being performed.
- Carry valid insurance for vehicles, equipment, general liability, errors and omissions.
- Report all incidents to NexGen Mechanical, and participate in the investigation.
- Have all safety training tickets available for inspection.

#### Subcontractor Approval Plan

Prior to the onset of every job where a subcontractor will be used the following items must be verified:

- Worker's Compensation Board (WCB) account in good standing for the province in which the work is being performed.
- Verification that the subcontractors insurance meets the requirements that our clients set out.

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- OHS Statistics for all work performed by the subcontractor for the current and prior 2 years and review of WCB Rate Sheets.
- Verification that all required safe work procedures, training, and levels of competency are met to safely perform the task they will be performing. If you are not confident of subcontractors' ability to perform the task safely do not allow the work to continue.

If a subcontractor does not have a Health and Safety Manual, NexGen Mechanical will ensure the subcontractor is aware of applicable Health and Safety policies, procedures, and regulations. If the subcontractor works for NexGen Mechanical for extended periods he/she will be fully integrated into our safety program as if they were an employee. For all short term subcontractors an Orientation will be completed and procedures will be developed, if required.

The administrative step of the above verification must be done before the work is to begin. Only contractors that meet our highest standards will be approved to work as a subcontractor for NexGen Mechanical. These are the minimum requirements to be completed prior to hiring a subcontractor. Field supervisors are required to choose contractors based on their safety measures, not just rates and availability.

### **Communication Between NexGen Mechanical and our Subcontractors**

It is the responsibility of NexGen Mechanical to communicate hazards to all workers whether those workers are employees, subcontractors, or our clients. All subcontractors must ensure any hazards are communicated to NexGen Mechanical. This is done by including all workers (including subcontractors) in the following safety meetings:

#### ***Safety Orientations***

All subcontractors will be required to go through the orientation process for each client they will be working for. This may involve sitting through video presentations, writing out all pertinent ticket expiries, discussing site specific issues with the Client, etc. The Client's Drug and Alcohol policy will also be discussed; all subcontractors must adhere to the requirements of the Drug and Alcohol policy. This orientation may be required to be repeated at a frequency specified by the Client.

#### ***Pre-Job Meetings or Kick-off Meetings***

Prior to the commencement of any job, NexGen Mechanical meets with everyone on site, including subcontractors. This meeting will define the scope of the project and act as a general quality control and safety overview for the job. If a job has become extended or has had the scope change this meeting will be repeated.

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***Daily Tail Gate Meetings and Hazard Assessments***

The subcontractor is required to meet with NexGen Mechanical prior to the start of each workday and anytime as hazards change. A Work Site Hazard Assessment must be performed with worker involvement.

***Job Safety Inspections and Job Hazard Analysis***

Depending on the level of risk and the length of the job different types of Inspections and Hazard Analysis will be performed. Some inspections including daily equipment and vehicle inspections will be planned, other inspections will be unplanned.

The attendance at all communication meetings will be taken. All documentation will be kept on file.

**Non - Compliance with the OHS/Clients Standards or Regulations**

If during the course of the work at NexGen Mechanical the supervisor notes situations of non-compliance with OH&S or the Health, Safety & Environment program, this will be communicated verbally and followed up in writing. Failure to correct the violation or continued non-compliance is considered a violation of the sub-contract and could lead to termination of contract.

The subcontractor will be notified, in writing, regarding Health & Safety deficiencies. If these deficiencies are not corrected or continue, or imminent danger is observed, a NexGen Mechanical supervisor will issue an immediate order to stop work. Should this be necessary, the Supervisor will then call a meeting with the supervisors for the subcontracting company. Meeting minutes shall be taken and continued non-compliance may result in termination of employment.

**Post-Job Safety Performance Reviews**

After each project that a subcontractor works on for NexGen Mechanical it is important to rate the success of the contractor taking into account items such as:

- Quality of completed project;
- Cost of completed project;
- Timing of completed project;
- Safety Statistics;
- Attitude of all subcontractors;
- Compliance with site safety rules (wearing PPE and following safe work procedures); and
- Overall Success of the project.

This information must be documented and used to choose contractors for future work. If a subcontractor receives a less than adequate safety and performance

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rating that contractor will require strict controls and supervision to work for NexGen Mechanical again. All reviews will be summarized and made known to the subcontractor and all in-house Project Managers.

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## 8.34 Thermal Exposure Policy

The purpose of this thermal exposure policy is to protect all NexGen Mechanical employees and contractors from exposure to cold and hot environments, and increase worker awareness about hot and cold environments. It is essential that all NexGen Mechanical workers read, understand, and comply with safe work practices and procedures for this thermal exposure policy.

The feeling of hot or cold depends on:

- Air temperature
- Relative humidity of air
- Presence of hot or cold objects in the surrounding area
- Presence of air movement (breeze, ventilation)
- Physical exertion
- Clothing

Inexperienced workers may need special attention as they may continue to work beyond the point at which signs of heat strain appear. People are generally unable to notice their own heat stress related symptoms. Their survival depends on their co-worker's ability to recognize these symptoms and seek timely first aid and medical help.

### Education

Workers and supervisors involved with work in hot or cold environments are informed during orientation and ongoing as required (at the beginning of each season) about:

- symptoms of the adverse effect of exposure to extreme temperatures,
- thermal stress;
- proper clothing habits,
- safe work practices,
- physical fitness requirements for work in extreme temperatures, and
- emergency procedures in case of hot or cold injury.

While working in extreme temperatures, a buddy system should be used. Look out for one another and be alert for the symptoms of hypothermia and heat stress.

### Heat Exposure Limits

All NexGen Mechanical workers and subcontractors must not be exposed to levels that exceed those listed below in the ACGIH Standard. NexGen Mechanical will provide appropriate and suitable monitoring equipment in a workplace where the thermal environment is likely to pose a hazard to a worker. Clothing corrections must be applied in accordance with the heat stress and strain section of the

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American Conference of Governmental Industrial Hygienists (ACGIH) Standard below:

**Table 1: ACGIH Screening Criteria for Heat Stress Exposure (WBGT\* values in °C) for 8 hour work day five days per week with conventional breaks**

| Allocation of Work in a Work/Rest Cycle | Acclimatized |          |       |            | Action Limit (Unacclimatized) |          |       |            |
|-----------------------------------------|--------------|----------|-------|------------|-------------------------------|----------|-------|------------|
|                                         | Light        | Moderate | Heavy | Very Heavy | Light                         | Moderate | Heavy | Very Heavy |
| 75-100%                                 | 31.0         | 28.0     | --    | --         | 28.0                          | 25.0     | --    | --         |
| 50-75%                                  | 31.0         | 29.0     | 27.5  | --         | 28.5                          | 26.0     | 24.0  | --         |
| 25-50%                                  | 32.0         | 30.0     | 29.0  | 28.0       | 29.5                          | 27.0     | 25.5  | 24.5       |
| 0-25%                                   | 32.5         | 31.5     | 30.5  | 30.0       | 30.0                          | 29.0     | 28.0  | 27.0       |

**Notes:** Assumes 8-hour workdays in a 5-day workweek with conventional breaks. Threshold Limit Values (TLV's) assume that workers exposed to these conditions are adequately hydrated, are not taking medication, are wearing lightweight clothing, and are in generally good health.

**Examples of workloads:**

**Rest** - sitting (quietly or with moderate arm movements)

**Light work** - sitting or standing to control machines; performing light hand or arm work (e.g. using a table saw); occasional walking; driving

**Moderate work** - walking about with moderate lifting and pushing or pulling; walking at moderate pace; e.g. scrubbing in a standing position

**Heavy work** - pick and shovel work, digging, carrying, pushing/pulling heavy loads; walking at fast pace; e.g. carpenter sawing by hand

**Very Heavy** - very intense activity at fast to maximum pace; e.g. shovelling wet sand

\*WBGT – Wet Bulb Globe Temperature

The ACGIH exposure limits are intended to protect most workers from heat-related illnesses. The limits are higher than they would have been if they had been developed to prevent discomfort. If you are wearing heavier clothing then the exposure limit should be lowered. ACGIH recommendations for such situations are suggested in Table 2.

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**Table 2: Correction of TLV for Clothing**  
(Values cannot be added when wearing multiple layers)

| Clothing Type                                                    | WBGT Correction (°C) |
|------------------------------------------------------------------|----------------------|
| Work clothes (long sleeve shirt and pants)                       | 0                    |
| Cloth (woven material) coveralls                                 | 0                    |
| SMS (Spunbonded - Meltdown - Spunbonded) polypropylene coveralls | + 0.5                |
| Polyolefin coveralls                                             | + 1                  |
| Double-layer woven clothing                                      | + 3                  |
| Limited-use vapour-barrier coveralls                             | + 11                 |

**Note:** These values are not to be used for completely encapsulating suits. Coveralls assume only modest clothing is underneath, not a second layer of clothing.

For example, an acclimatized worker wearing double-layer woven clothing doing moderate work would have a corrected exposure level of:  $30.0 + 3 = 33^{\circ}\text{C}$ , which would lower his or her allowable exposure to 0-25% work (from 25-50% work)

## Heat Stress Assessment and Control Plan

When the hazard of extreme heat is present NexGen Mechanical will:

- Conduct a heat stress assessment to determine the potential for hazardous exposure of workers;
- Develop and implement a heat stress exposure control plan.

Heat stress occurs when the working environment overwhelms the body's ability to deal with heat. Heat illnesses include heat cramps, heat exhaustion, and heat stroke. Heat cramps are sharp pains in the muscles that occur from the body's loss of salt from sweat. Heat exhaustion is the loss of body water through sweating. Heat stroke occurs when the body's temperature reaches  $41^{\circ}\text{C}$ . Warning signs include muscle weakness, nausea, dizziness, and flu-like symptoms.

## Heat Stress Controls

If a worker is or may be exposed to extreme levels of heat, engineering controls will be implemented to reduce the exposure of workers to levels below those listed in the screening criteria for heat stress exposure in the heat stress and strain section of the ACGIH Standard. If the above action is not practicable, NexGen Mechanical will reduce the exposure of workers to levels below those listed in the screening criteria for heat stress exposure in the heat stress and strain section of the ACGIH Standard by providing; administrative controls, including a work-rest cycle, or personal protective equipment, if the equipment provides protection equally effective as administrative controls.

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The risk of heat-related illnesses can be reduced by:

- Engineering controls to provide a cooler workplace;
- Safe work practices to reduce worker exposure;
- Training employees to recognize and prevent heat illnesses.

### ***Engineering Controls***

Engineering controls are effective in reducing excessive heat exposure.

- *Reducing Metabolic Heat Production (heat produced by the body):* Automation and mechanization of tasks minimize the need for heavy physical work and the resulting buildup of body heat.
- *Reducing the Radiant Heat Emission from Hot Surfaces:* Covering hot surfaces with sheets of low emissivity material such as aluminum or paint that reduces the amount of heat radiated from this hot surface into the workplace.
- *Insulating Hot Surfaces:* Insulation reduces the heat exchange between the source of heat and the work environment.
- *Shielding:* Shields stop radiated heat from reaching workstations. Two types of shields can be used. Stainless steel, aluminum, or other bright metal surfaces reflect heat back towards the source. Absorbent shields, such as water-cooled jackets made of black-surfaced aluminum, can effectively absorb and carry away heat.
- *Ventilation and Air Conditioning:* Ventilation, localized air conditioning, and cooled observation booths are commonly used to provide cool workstations. Cooled observation booths allow workers to cool down after brief periods of intense heat exposure while still allowing them to monitor equipment.
- *Reducing the Humidity:* Air conditioning, dehumidification, and elimination of open hot water baths, drains, and leaky steam valves help reduce humidity.

### ***Personal Protection Equipment – for Heat***

Ordinary clothing provides some protection from heat radiated by surrounding hot surfaces. Specially designed heat-protective clothing is available for working in extremely hot conditions. In hot and humid workplaces, light clothing is best as it can be worn for maximum skin coverage (protection) while still allowing efficient body cooling through sweat evaporation.

Workers who move back and forth between very hot, dry indoor environments and cold winter outdoor environments find that long underwear may moderate the extremes in temperatures.

Eye protection which absorbs radiation is needed when the work involves very hot objects, such as molten metals and hot ovens.

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Work that requires the wearing of impermeable clothing presents an added heat burden as the clothing reduces the body's ability to dissipate heat. Under such circumstances, it is often necessary to reduce the exposure limit values of WBGT to levels below those appropriate for workers wearing light clothing.

**Cool Potable Water**

NexGen Mechanical provides and maintains an adequate supply of cool potable water close to all work areas for the use of a heat exposed worker. All trucks must have a case of water available to all workers when working outside.

**Cold Stress Assessment and Exposure Plan**

When the hazard of extreme cold is present NexGen Mechanical will:

- Conduct a cold stress assessment to determine the potential for hazardous exposure of workers;
- Develop and implement a cold exposure control plan.

**Cold Stress Controls**

If a worker is or may be exposed to extreme levels of cold, engineering controls will be implemented to reduce the exposure hazard. If the above action is not practicable, the exposure hazard will be reduced by providing effective administrative controls, or personal protective equipment (if the equipment provides protection equally effective as administrative controls).

Workers at risk of suffering due to the cold include the following outdoor workers:

- Road builders, house builders and other construction workers,
- Workers on all Oil & Gas sites;
- Hydro and telecommunications linemen,
- Police officers, fire fighters, emergency response workers, military personnel,
- Transport workers, bus and truck drivers,
- Workers in refrigerated warehouses,
- Meat packaging and meat storage workers.

Cold illnesses include health injuries such as freezing injuries, non-freezing injuries, and hypothermia. Examples of "non-freezing" injuries include chilblains, immersion foot, and trenchfoot. Examples of "freezing" injuries include frostnip and frostbite. Hypothermia occurs when the body's core temperature falls below 33°C and the body is unable to compensate for heat loss. Warning signs include nausea, fatigue, pain in extremities, and shivering.

Working in cold environments can be not only hazardous to your health but also life threatening. It is critical that the body be able to preserve core body temperature steady at + 37°C (+ 98.6°F). This thermal balance must be maintained to preserve

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normal body functioning as well as provide energy for activity (or work!). The body's mechanisms for generating heat (its metabolism) have to meet the challenge presented by low temperature, wind, and wetness - the three major challenges of cold environments.

Prevent contact of bare skin with cold surfaces (especially metallic) below -7°C as well as avoiding skin contact when handling evaporative liquids (gasoline, alcohol, cleaning fluids) below 4°C. Sitting or standing still for prolonged periods should also be avoided.

Balanced meals and adequate liquid intake are essential to maintain body heat and prevent dehydration. Eat properly and frequently. Working in the cold requires more energy than in warm weather because the body is working to keep the body warm. It requires more effort to work when wearing bulky clothing and winter boots especially when walking through snow. Drink fluids often especially when doing strenuous work. For warming purposes, hot non-alcoholic beverages or soup are suggested. Caffeinated drinks such as coffee should be limited because it increases urine production and contributes to dehydration. Caffeine also increases the blood flow at the skin surface which can increase the loss of body heat.

Alcohol should not be consumed as it causes expansion of blood vessels in the skin (cutaneous vasodilation) and impairs the body's ability to regulate temperature (it affects shivering that can increase your body temperature). These effects cause the body to lose heat and thus increase the risk of hypothermia.

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

A worker who is or may be exposed must wear adequate insulating clothing and personal protective equipment.

#### *Clothing*

Protective clothing is needed for work at or below 4°C. Clothing should be selected to suit the temperature, weather conditions (e.g., wind speed, rain), the level and duration of activity, and job design. These factors are important to consider so that you can regulate the amount of heat and perspiration you generate while working. If the work pace is too fast or if the type and amount of clothing are not properly selected, excessive sweating may occur. The clothing next to body will become wet and the insulation value of the clothing will decrease dramatically. This increases the risk for cold injuries.

Clothing should be worn in multiple layers, which provide better protection than a single thick garment. The air between layers of clothing provides better insulation than the clothing itself. Having several layers also gives you the option to open or remove a layer before you get too warm and start sweating or to add a layer when

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you take a break. It also allows you to accommodate changing temperatures and weather conditions. Successive outer layers should be larger than the inner layer; otherwise the outermost layer will compress the inner layers and will decrease the insulation properties of the clothing. The inner layer should provide insulation and be able to "wick" moisture away from the skin to help keep it dry. Thermal underwear made from polyesters or polypropylene is suitable for this purpose.

For work in wet conditions, the outer layer of clothing should be waterproof. If the work area cannot be shielded against wind, an easily removable windbreak garment should be used. Under extremely cold conditions, heated protective clothing should be made available if the work cannot be done on a warmer day.

#### *Footwear*

Felt-lined, rubber bottomed, leather-topped boots with removable felt insoles are best suited for heavy work in cold since leather is porous, allowing the boots to "breathe" and let perspiration evaporate. Leather boots can be "waterproofed" with some products that do not block the pores in the leather. However, if work involves standing in water or slush (e.g., firefighting, farming), waterproof boots must be worn. While these protect the feet from getting wet from cold water in the work environment, they also prevent the perspiration to escape. The insulating materials and socks will become wet more quickly than when wearing leather boots and increase the risk for frostbite.

#### *Socks*

You may prefer to wear one pair of thick, bulky socks or two pairs - one inner sock of silk, nylon, or thin wool and a slightly larger, thick outer sock. Liner socks made from polypropylene will help keep feet dry and warmer by wicking sweat away from the skin.

Always wear the right thickness of socks for your boots. If they are too thick, the boots will be "tight," and the socks will lose much of their insulating properties when they are compressed inside the boot. The foot would also be "squeezed" which would slow the blood flow to the feet and increase the risk for cold injuries. If the socks are too thin, the boots will fit loosely and may lead to blisters.

#### *Face and Eye Protection*

If work takes place outdoors in snow or ice covered terrain where excessive ultraviolet light, glare or blowing ice crystals present a risk of injury to the eyes, workers must wear eye protection appropriate to the hazards.

In extremely cold conditions, where face protection is used, eye protection must be separated from the nose and mouth to prevent exhaled moisture from fogging and frosting eye shields or glasses. Select protective eye wear that is appropriate for

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the work you are doing, and for protection against ultraviolet light from the sun, glare from the snow, blowing snow/ice crystals, and high winds at cold temperatures.

**Removal and Treatment**

If a worker exposed to hot or cold shows signs or reports symptoms of heat or cold stress or injury, the worker must be removed from further exposure and treated by an appropriate first aid attendant, if available, or a physician.

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## 8.35 Violence & Harassment Prevention in the Workplace Policy

*The violence & harassment prevention policy must be posted in a conspicuous place at NexGen Mechanical.*

The management of NexGen Mechanical recognizes the potential for workplace violence, harassment, and other aggressive behaviour directed at our employees. We will not tolerate behaviour from anyone that intimidates, threatens, harasses, abuses, injures or otherwise victimizes our employees and will take whatever steps are appropriate to protect our employees from potential hazards associated with workplace violence. We are committed to providing our employees with an appropriate level of protection from the hazards associated with workplace violence. NexGen Mechanical will ensure, so far as is reasonably practicable, that no worker is subjected to violence/harassment in the workplace. NexGen Mechanical will take corrective action respecting any person under the employer's direction who subjects a worker to violence.

### Management Responsibilities

NexGen Mechanical Management will:

- Inform employees if they are working in an area where there is a potential for violence/harassment and identify any risks that are specific to that area.
- Inform workers who may be exposed to the risk of violence of the nature and extent of the risk. This includes providing information related to the risk of violence from persons who have a history of violent behavior and whom workers are likely to encounter in the course of their work.
- Ensure that appropriate procedures are in place to minimize the risk to our employees from violence/harassment. NexGen Mechanical is committed to eliminating or, if that is not reasonably practicable, controlling the hazard of violence/harassment.
- Ensure that employees are trained in recognizing and responding to situations involving workplace violence/harassment.
- Ensure that every reported incident of workplace violence/harassment is investigated and potential areas for improvement are identified.
- Ensure corrective action is taken respecting any person under NexGen Mechanical's direction who subjects another worker to harassment.
- Inform employees they have the right to file a complaint. Complaints may be filed with the Human Rights Commission.

### Employees Responsibilities

- Employees of NexGen Mechanical are required to be familiar with and follow the procedures that are in place to protect them from workplace violence/harassment.

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- All employees must participate in the instruction of workplace violence/harassment prevention.
- Employees are required to immediately report all incidents of workplace violence/harassment to their supervisor.
- Employees are also responsible for participating in work site hazard assessments and implementing controls and procedures to eliminate or control the associated hazards of violence/harassment.
- No employee can be penalized, reprimanded, or in any way criticized when acting in good faith while following the procedures for addressing situations involving workplace violence/harassment.

**Definitions**

**Violence**, whether at a work site or work-related, means the threatened, attempted or actual conduct of a person that causes or is likely to cause physical or psychological injury or harm, and includes domestic or sexual violence. It is any act in which a person is abused, threatened, intimidated or assaulted in his or her employment. Workplace violence includes:

- Verbal abuse – condescending connotation in language, swearing or insults
- Verbal or written threats – any expression of an intent to inflict harm
- Physical attacks – kicking, shoving, pushing or hitting
- Threatening behaviour – destroying property, throwing objects or shaking fists.

**Harassment** means any single incident or repeated incidents of objectionable or unwelcome conduct, comment, bullying or action by a person that the person knows or ought reasonably to know will or would cause offence or humiliation to a worker, or adversely affects the worker's health and safety, and includes:

- conduct, comment, bullying or action because of race, religious beliefs, colour, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status, gender, gender identity, gender expression and sexual orientation, and
- a sexual solicitation or advance, but excludes any reasonable conduct of an employer or supervisor in respect of the management of workers or a work site.

Examples of workplace violence include but are not limited to, rumours, pranks, escalated arguments, vandalism, sabotage, theft, physical assault, psychological trauma, anger-related incidents, rape, arson, and murder.

Workplace violence can not only occur in the traditional workplace such as the office and jobsites but also at work related functions such as conferences and social events related to work.

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Harassment does not include any reasonable action that is taken by NexGen Mechanical, or a manager or supervisor employed or engaged by NexGen Mechanical, relating to the management and direction of NexGen Mechanical's workers or the place of employment.

NexGen Mechanical will make every effort to ensure that no employee is subjected to harassment at any of our places of employment. Our management is committed to keeping this policy and to see that no employee causes or participates in the harassment of another employee. NexGen Mechanical believes that all our employees have the right to work in an environment free from all forms of harassment.

### **Procedures**

#### **Office/Shop Workers**

- There is always a possibility of violence/harassment from a co-worker, supervisor, or manager.
  1. In case of any threatening or harassing situation or concern that a threatening situation is arising, leave the area. Report the situation to the office management or committee member.
  2. **If your** supervisor or employer does not act, or the threat of further **violence** is serious, report it to the local police.

#### **Field Workers:**

- There is a possibility of violence/harassment from a landowner, Client, co-worker, or a third party.
  - In case of any threatening situation or concern that a threatening situation is arising, leave the area. Report the situation to the office by phone. A decision will be made whether to report the incident to the police.
  - In case of a threat being made, leave the area at once and call 911 and report the incident. Also notify the office as soon as possible.
- If working on a customer's plant site, workplace violence/harassment could occur on the part of an angry plant worker(s) or other contractors on the site.
  - In case of any threatening situation or concern that a threatening situation is arising, leave the area. Report the situation to the office by phone. NexGen Mechanical will then contact the client(s) management.
  - In the case of a threat being made, leave the area at once and call 911 to report the incident. Also notify the office as soon as possible.

All reports of violence/harassment must be documented and investigated, actions must be taken to address the incident and ensure it does not happen again. If physical violence occurs in any of the above situations, leave the area at once and

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call 911 for assistance. Call the clients local contact person and then advise the NexGen Mechanical office of the situation.

### **Risk Assessment**

A risk assessment for violence/harassment is performed on an annual basis or when a new issue arises in consultation with the committee at the workplace, the representative at the workplace, or when there is no committee or representative, the workers at the workplace. Results of the assessment will be conveyed to the employees at the regular staff meetings. We believe the potential risk of injury to workers from violence/harassment arising out of their employment may always be present.

The annual risk assessment includes the consideration of:

- Previous experience in that workplace (statistics for prior years),
- Current employees behaviors and history,
- Occupational experience in similar workplaces, and
- The location and circumstances in which work will take place.

If the annual or site specific risk/hazard assessment indicates an elevated risk of injury to our workers from violence/harassment a site/job task specific procedure, policy and work environment arrangements to eliminate or minimize the risk to workers from violence and harassment must be developed.

Controls measure that have been put in place to reduce the likelihood of workplace violence/harassment include training employees, ensuring doors stay locked (when applicable), lighting, emergency response procedures, and working alone procedures.

- ***How potential hazards will be identified and communicated to staff***

Hazard assessments on workplace violence/harassment will be completed on an annual basis or when a new issue arises. Results of the assessment will be conveyed to the employees at the regular staff meetings.

- ***Managing the Risk of Violence***

At NexGen Mechanical we will not send you into a situation where there is a threat of violence. Any workers who have been observed or reported being violent will be dismissed on confirmation from an investigation.

Complaints should be verbally communicated to your supervisor. To minimize the risk of violence in a situation that is escalating you must stay calm. Do not confront the person who is getting violent. Leave the area and call for assistance from the office or 911.

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- **How to investigate and document incidents of workplace violence**

All incidents of workplace violence/harassment will be documented on the Incident Report and Investigation Form. The supervisor is responsible for investigating the incident to determine the causes and to identify how to prevent future occurrences.

- ***The support available for victims of workplace violence***

All workers who are exposed to workplace violence/harassment will be advised to consult with a health care professional for treatment.

- ***Disclosure of Information***

NexGen Mechanical will not disclose the name of a complainant or an alleged harasser or the circumstances related to the complaint to any person except where disclosure is necessary for the purposes of investigating the complaint or taking corrective action with respect to the complaint or required by law.

The complainant and alleged harasser will be informed of the results of the investigation as soon as practicable after the event. Often this will be with both parties at one time, in situations where the complainant is scared or intimidated the discussions may be kept separate.

- ***Training of workers***

All workers will be instructed on workplace violence/harassment policy and procedures in orientation. Additional training is provided, as new work processes/conditions arise or when new hazards are identified.

- ***Policy Review***

A review of the policy will be done on the earliest of the following:

- when an incident of violence/harassment occurs;
- if the joint work site health and safety committee or the health and safety representative, if applicable, recommends a review of the plan;
- annually.

This policy is not intended to discourage or prevent the complainant from exercising any other legal rights pursuant to any other law.

This program was developed with consultation of the committee.

  
President - Jeff Young

**May 15, 2026**  
Date

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

### 8.36 Waste Management Policy

Waste is defined as any material that the owner/generator has no further use of or is no longer suited for its initial purpose, and includes material that will be reused, recycled, or disposed of. Our goal is to minimize the amount and toxicity of waste generated in operations to reduce waste disposal cost and environmental, health and safety risks.

We are responsible for any negative impact of our waste on the environment. It is strict policy that all waste generated by NexGen Mechanical or our contractors be handled in a proper manner and disposed of at a licensed facility.

Workers are instructed on the proper handling, storage, and disposal of wastes at orientation, during WHMIS Training, and at pre-job meetings. This training includes general instruction on disposal of non-hazardous wastes, trash, or scrap materials. Workers who work with hazardous waste are additionally trained on those wastes.

Prior to the commencement of a new project the amount of waste produced will be estimated and the need, if any, for waste bins or containers will be determined. NexGen Mechanical will coordinate with the project site or owner to ensure the owner is aware of whether wastes and scrap materials will be taken off site by NexGen Mechanical or will be disposed of on the owner's site. NexGen Mechanical assigns the supervisor to be accountable for the disposal of wastes generated at the work site.

NexGen Mechanical manages its waste by the application of the 4 R's. It is important to:

- **Reduce** - Reducing the amount of wastes we generate is the most effective method to protect our environment.
  - ✓ Choose products with little or no packaging.
  - ✓ Buy in bulk.
  - ✓ Consider items that are durable.
- **Reuse** - Reusing is the next best—if you can reuse your waste, it is no longer considered waste!
  - ✓ Give away old computers, furniture, and other unwanted items to charities and thrift stores.
  - ✓ Look for reused items to purchase, where applicable.
- **Recycle** - Sometimes things can't be reused. Recycling keeps raw material in the system and keeps us less dependent on virgin ore, oil and trees for raw materials. Items that can often be recycled include (not limiting):
  - ✓ Plastics.
  - ✓ Filters / Motor oil.

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- ✓ Drinking containers.
  - ✓ Tires.
  - ✓ Printer cartridges.
  - ✓ Batteries.
- **Recover** – This applies to materials or energy from waste which cannot be reduced, reused or recycled. Examples include:
    - ✓ One example would be the chemicals used in printing. These can be recovered from the waste stream and used again in production.
    - ✓ Heat recovery is another money saving goal that is becoming more common as technology improves. Heat from production equipment can be recovered and used to heat offices or to preheat water needed for cleaning or production.
    - ✓ Solvents and spent oils can be reprocessed and returned to a productive use.

### **Hazardous Waste**

A Hazardous Waste exhibits one or more of the following characteristics:

- Ignitable
- Corrosive
- Toxic
- Flammable
- Reactive
- Infectious

Hazardous wastes must be stored, transported, and disposed in a manner that meets all legislative requirements. Hazardous waste is never to be mixed with non-hazardous waste for dilution or disposal.

### **Storage and Handling of Waste**

All waste must be characterized to identify potential risks. Waste must be stored in a safe manner to prevent impact on people and the environment in the event of a spill; proper waste receptacles must be provided (before the job begins). All hazardous or WHMIS hazardous waste must be stored in properly labeled containers and placed in secondary containment. Do not store incompatible waste together. Proper segregation and the use of recycle bins are used whenever possible.

Any waste that may be hazardous to people or the environment must have a safe work practice (SWP) developed to ensure safe storage and handling (use SDS Sheets in the creation of the SWP). The SWP will address the personal protective equipment required when handling waste; gloves are required when handling all waste, including domestic waste.

The effective tracking of hazardous waste is essential to ensure the proper handling, treatment, disposal and compliance with the regulations.

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### **8.37 Working Alone Policy**

*“Working Alone” means to work alone at a work site as the only worker of the employer or contractor at that worksite in circumstances where assistance is not readily available in the event of an injury, illness or emergency.*

*A copy of this Working Alone Safe Work Procedure must be posted in a conspicuous place at the workplace.*

#### **Policy**

Working alone in certain circumstances, situations, or environments is unsafe and requires special arrangements to minimize potential hazards. “Alone” means beyond the visual or audible range of any other individuals for more than a few minutes at a time.

All NexGen Mechanical personnel who work alone should be competent in their tasks and know their responsibilities; and any person assigned to check on the worker must be trained in the written procedure for checking the worker's well-being; when in doubt ask for help. The worker who will be working alone must, in conjunction with NexGen Mechanical, identify any potential hazard that may arise. Supervisors will judge competency based on experience and training.

The committee, the representative or where there is no committee or representative, the affected workers must complete a hazard assessment to identify all of the potential or actual risks, hazards, conditions, and circumstances of working in isolation. All reasonable steps must be made to eliminate any identified hazards, alternatively steps must be made to control any identified hazards if elimination of the hazard is not feasible. When the hazards cannot be eliminated or controlled to an acceptable level, two people will be required to complete the work. Examples of this include working around high rattlesnake or bear populations, very remote sites (with no available cell service), a highly hazardous task, etc.

The hazard assessment should be completed as much as possible, prior to going into the field to eliminate making two trips; unknown hazards should be added once on site. If it appears a significant hazard has been identified take a second person for safety. To assess this hazard, records of past incidents and measures or actions taken should also be assessed.

#### **Training**

All NexGen Mechanical employees receive training in this working alone program at orientation and as needed after that. A confirmation of the understanding of the policy is required prior to working alone for the first time.

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**Procedure**

This written procedure is for checking the well-being of a worker assigned to work alone or in isolation. Under conditions which present a risk of disabling injury the worker might not be able to secure assistance therefore this procedure must be followed whenever a worker is alone.

Since the working schedule is never routine, it is imperative to provide either in writing or by phone a schedule, your NexGen Mechanical contact must then write it down. This schedule must include specific sites, the hazards (ex: sour gas, remote locations, wild or farm animals, bad roads, adverse weather conditions), and check in times. When the schedule has changed the worker who is working alone must notify the contact within 1 hour.

This procedure for checking a worker's well-being, including time intervals between the checks, has been developed in consultation with the joint committee or the worker health and safety representative, as applicable and with the worker assigned to work alone or in isolation. Every time a worker is to be alone this procedure must be initiated:

- Assignment of a designated worker to contact the lone worker. This designated worker will be the workers supervisor.
- Contact intervals must be predetermined (based on hazards, but no more than 4 hour intervals). In addition to checks at regular intervals, a check at the end of the work shift must be done.
- All contacts must be recorded.
- If required, initiate the overdue response plan.

An effective means of communication (radio, telephone, GPS phone, or other electronic communication devices) between the worker and persons capable of responding to the workers needs must be established. If no effective means of communication can be established, a NexGen Mechanical member will visit the worker or ensure the worker contacts the company at regularly assigned intervals.

For emergencies, ensure a contact person has all of the same information on the Working Alone Schedule. Emergency work will likely require additional call-ins to keep the contact up to date on location and changing hazards.

Personal protective equipment must always be worn, it is equally important when working alone. Never attempt to do a job that requires supplied air respirator when alone. Emergency supplies that are required to be in your vehicle including first aid kit, communications equipment, flares, etc will be required to be carried on your person when you do not have immediate access to your vehicle.

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A Safe Work Practice will need to be developed for any repetitive work that is often completed alone.

### **Overdue Worker Response Plan**

The worker has within one hour to call the NexGen Mechanical contact person to tell them of any changes or to check in (unless the worker has asked this to be more stringent). If the worker fails to make contact within one hour, the Overdue Workers Response Plan will be initiated.

The following will be initiated one hour after contact was supposed to be made:

- NexGen Mechanical will attempt to contact the worker by cell phone, home number, hotel number, and/or radio.
- The client or other workers in the area (local contact) will then be notified and a plan to locate the worker will be initiated.
- Continual attempts will be made to contact the worker, also a call to the worker's spouse, significant other, parents or other emergency contacts to see if they have heard from the worker.
- The local contact will physically go to locations specified on the contact sheet.
- Local hospitals will be called to see if the worker has been admitted.
- The local police or RCMP will be notified with a request for assistance.

When the worker is located all members involved in the search must be notified immediately.

**The Overdue Workers Response Plan involves a considerable amount of time, effort, and expense for a number of people. For this reason workers should recognize their responsibility to maintain a reasonable level of contact at all times.**

This Working Alone Program is reviewed at least annually or more frequently when there is a change in work arrangements that could adversely affect a worker's well-being or a report that the system is not working effectively.

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## **Section 9    SAFE WORK PRACTICES**

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The following Safe Work Practices (SWP) have been developed for general knowledge on the topic. Safe work practices are generally written methods outlining how to perform a task with minimum risk to people, equipment, materials, environment, and processes. Further information regarding a breakdown of tasks and hazards are located in the Job Hazard Analysis (JHA) / Safe Work Procedures section.

The following SWP's have been developed:

1. Aerial Lifts
2. Asbestos Awareness
3. Backing Up
4. Chemical and Biological Hazards
5. Circular Saws
6. Confined Spaces
7. Control of Infectious Substances
8. Cranes, Hoists and Lifting Devices
9. Drill Press
10. Electric Drill
11. Electrical Safety
12. Fall Protection
13. Fire & Explosion
14. Forklift
15. General Work Requirements
16. Grinders
17. Ground Fault Protection
18. H<sub>2</sub>S - Hydrogen Sulphide
19. Jig Saws
20. Ladders
21. Lead
22. Lifting and Handling Loads
23. Locking Out
24. Office Safety
25. Pallet Jack
26. Powered Mobile Equipment
27. Propane
28. Refuelling
29. Rigging
30. Safe Work Permits
31. Scaffolds and Temporary Work Platforms

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- 32. Slips, Trips, and Falls
- 33. Tools, Equipment, Machinery, and Safeguards
- 34. Towing a Trailer
- 35. Use of Portable Arc Welders
- 36. Use of Portable Fire Extinguishers
- 37. Use of Tiger Torches
- 38. Working in Adverse Weather Conditions
- 39. Working on Flat Rooftops
- 40. Working Near High Voltage Electricity
- 41. WHMIS

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## **9.1 Aerial Lifts**

An aerial lift is any vehicle-mounted device, telescoping or articulating, or both, which is used to position personnel. These include extendible boom platforms, aerial ladders, articulating boom platforms, manlifts, and scissor lifts.

No person will operate an Aerial Lift until they have received adequate training, in accordance with manufacturers' specifications and deemed competent. Once they are deemed competent NexGen Mechanical will authorize the worker to operate aerial lifts.

The following steps will assist in ensuring the safe usage of an Aerial Lift:

1. Erect warning devices.
2. Erect barricades and warning signs
3. Ensure Flagperson on site.
4. Swamper to be utilized and identified.
5. Ensure means of communication between operator and swamper.
6. Fall arrest protection in place.
7. Follow aerial lift specific make / model safe work procedures step by step.

### **General**

- Equipment that is not designed for use as a personnel lift must not be used as a personnel lift (e.g., front end loader buckets, backhoe buckets and cranes).
- Lift controls, brakes, and operating systems must be tested prior to use to determine that such controls are in safe working condition. Ensure that the boom and lifting equipment is tested prior to use.
- Review and follow fall protection requirements for aerial personnel lifts as found in the Fall Protection section of this manual. Personnel must always stand firmly on the floor of the basket, and are not permitted to stand on the rails of aerial device (edge of the basket) or use planks, ladders, or other devices for a work position. A body harness must be worn and a lanyard appropriately attached. An approved fall restraint system must be attached to the boom or basket when working from an aerial lift (it is not permitted to be attached to adjacent poles or structures).
- The vehicle must have a reverse signal alarm audible above the surrounding noise level or a spotter must guide the vehicle when in reverse.
- Load limits specified by the manufacturer must not be exceeded.

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- Aerial personnel lifts that can operate horizontally must set brakes and outriggers, when used, be positioned on pads or a solid surface, and chock wheels before using on an incline.
- An aerial lift truck may not be moved when the boom is elevated in a working position with personnel in the basket, except for equipment that is specifically designed for this type of operation.
- For lines rated 50 kV. or below, minimum clearance between the lines and any part of the equipment or load is at least 10 feet. Look all around for obstructions.
- The insulated aerial devices must not be altered in any manner that might reduce its insulating value. The insulated boom of a lift must be regularly maintained and certified to ensure the continued insulating properties.
- Before moving an aerial lift for travel, the boom(s) must be inspected to see that it is properly cradled and outriggers are in stowed position.
- Use the ignition switch on the platform to start the engine and allow the machine to warm up. Use the platform control lever to drive with the foot switch depressed.
- Never leave the keys in the equipment when it is not in use.

### Modifications

Aerial lifts may be "field modified" for uses other than those intended by the manufacturer, provided the modification has been certified in writing by the manufacturer or by any other equivalent entity, to be at least as safe as the equipment was before modification.

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## 9.2 Asbestos Awareness

We do not allow our workers to disturb or remove Asbestos. Our workers have training on identifying asbestos containing material (ACM) or presumed asbestos containing material (PACM). If a project requires that we perform work where we have the potential to disturb any Asbestos we will implement this practice.

The purpose of this Asbestos Policy is to protect and educate employees and contractors. It is essential that all NexGen Mechanical workers read, understand, and comply with safe work practices and procedures for Asbestos. Whether the project you will be working on simply requires you to be aware of the hazard of Asbestos or it is a full abatement project this information is valuable to promote understanding of this potentially lethal substance.

Workers have the potential of coming into contact with Asbestos around any of the following areas (this is not an exhaustive list):

### Building Exteriors

- Asbestos cement siding or roof panels - flat, corrugated, shingles or accent panels
- stucco
- brick and block mortar
- loose fill insulation in exterior wall cavities (vermiculite)

### Structural

- fireproofing spray on beams, decks, joists, columns and other structural members

### Service Areas

- insulation in boiler rooms - boilers, vessels, pipes, ducts, incinerators, floors,
- fan rooms - insulation on pipes, ducts, chillers, floors, ceilings, walls
- machine rooms - insulation on pipes, ducts, floors, ceilings, walls
- crawl spaces - insulation on pipes, ducts
- wall cavities, insulation above ceiling spaces - pipe and duct chases, pipes, ducts

### Ceilings

- Asbestos cement ceiling tile
- acoustic and stippled finishes
- plaster or drywall jointing materials

### Pipes (insulation)

- steam and hot water heating supply and return lines
- domestic water supply and drain lines
- chilled water lines
- rain water and sanitary lines - Asbestos cement or bell and spigot cast iron,
- insulated or bare pipe
- gaskets in flanged pipe joints

### Flooring

- vinyl Asbestos tiles (VAT)
- sheet vinyl flooring (Asbestos paper backing)
- floor leveling compound

### Walls

- plaster or drywall jointing materials
- stippled finishes
- thermal spray
- Asbestos cement panels

### Miscellaneous

- emergency generators - thermal insulation and exhaust manifolds
- firestopping
- welding blankets and screens
- incinerators - internal insulation
- cooling towers - panels and fill

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Asbestos fibres, unlike man-made fibres such as fibreglass, can be split into thinner and thinner fibres parallel to their length. At their finest, the fibres can hardly be seen by the best optical microscope. The average diameter of an airborne Asbestos fibre ranges from 0.11 to 0.24 micrometres, depending on the type of Asbestos. By comparison, a human hair is approximately 75 micrometres in diameter (more than 300 times thicker) and a glass fibre ranges between 3 to 15 micrometres in diameter.

The main properties that make Asbestos useful are its incombustibility, strength and flexibility when separated into fibres. It is also effective as a reinforcing or binding agent when combined with cement or plastic.

A map or plan that is readily available to the workers must be available showing location of any asbestos-containing material. Where workers have access to asbestos-containing materials, the asbestos containing materials are clearly and conspicuously labeled with a placard as asbestos.

### **Training**

All NexGen Mechanical field employees receive Asbestos Awareness training at orientation and as needed after that as all field employees have the potential of working in areas with asbestos containing material (ACM) or presumed asbestos containing material (PACM). Supervisors of any project where Asbestos is or may be a hazard are competent and trained for working around Asbestos. No worker shall work in an asbestos process or enter a restricted area unless the worker has completed the training as specified below.

The training, at a minimum, contains the following elements:

- Information concerning the Health hazards associated with exposure to Asbestos;
- The means of identifying asbestos-containing material at the worksite,
- Safe Work Procedures related to the Asbestos work;
- Safe handling of asbestos that is appropriate to the level of risk of the asbestos process;
- How to properly select, fit, use and maintain personal protective equipment (including Respiratory Equipment) that will be used at the work site;
- The procedures to be followed in case of an emergency involving Asbestos;
- Decontamination methods;
- The purpose and significance of any required health monitoring; and,
- Information to judge and assure all other workers on-site understand their roles and responsibilities with regards to the Asbestos work they are performing.

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The training may be provided by a training agency or in-house by persons who are knowledgeable in the procedures and hazards associated with Asbestos and be approved by a Director of Occupational Hygiene.

During asbestos work all workers are trained in site specific procedures developed NexGen Mechanical to minimize the worker's exposure and are informed of measurements made of airborne concentrations of asbestos at the work site.

The original valid certificate of completion of the course issued to the worker must be kept on the worker when they are within the restricted area. Copies of all training records are kept in a secure filing cabinet.

### **Code of Practice**

A code of practice governing the storage, handling, use, and disposal of asbestos if there is potential for exposure must be developed. The code of practice must include measures to be used to prevent the uncontrolled release of asbestos and the procedures to be followed if there is an uncontrolled release.

While working on client sites review the existing Code of Practice.

### **Asbestos Exposure Control Plan/Risk Assessment**

If a worker is or may be exposed to potentially harmful levels of asbestos, an exposure control plan will be developed and implemented. To ensure adequate coordination of the overall plan, a properly trained person will administer the program with guidance from a qualified person who is an occupational health and safety professional with experience in the practice of occupational hygiene as it relates to asbestos management.

The qualified person must conduct the risk assessment on all asbestos-containing material identified in the inventory, with due regard for the condition of the material, its friability, accessibility and likelihood of damage, and the potential for fibre release and exposure of workers. Before work involving asbestos takes place the qualified person assesses the work activity and classifies it as a low, moderate, or high risk activity.

The risk assessment must be conducted before any demolition, alteration, or repair of machinery, equipment, or structures where asbestos may be disturbed.

A control plan that protects the health and safety of all workers in the event of the dispersal of asbestos dust into the atmosphere at a place of employment or worksite must be developed in consultation with the safety committee for all new tasks involving asbestos. The plan developed must be in writing and implemented and include:

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- emergency procedures to be used in case of an uncontrolled release of asbestos including the means to protect exposed workers,
- the methods to confine and control the release of asbestos and the decontamination procedures to be used in case of emergency,
- the asbestos processes that workers may undertake,
- the training of workers in any asbestos process the workers may be required or permitted to undertake,
- the methods to control the release of asbestos dust/fibre in asbestos operations where applicable,
- provision, use and maintenance of appropriate personal protective equipment and clothing,
- removal of asbestos waste and cleanup of asbestos waste material,
- decontamination procedure and
- the inspection and maintenance schedule for all asbestos-containing materials.

The procedures must provide a worker with task-specific work direction that addresses both hazards and necessary controls.

**Ventilation (Engineering Control)**

Where applicable, NexGen Mechanical ensures that Asbestos fibres do not enter the air supply or return air systems. Materials that have a potential to release Asbestos fibres must be removed prior to any demolition project. If a building is being altered or renovated the Asbestos fibres must be encapsulated, enclosed, or removed to prevent Asbestos to be released into the air. Exhaust ventilation equipment used to contain asbestos dust will be equipped with a HEPA filter, inspected regularly for defects, maintained and certified by a competent person at least once each year as being able to function safely and effectively.

**Exposure Limit (Administrative Control)**

No employee at NexGen Mechanical will be exposed to an airborne concentration of Asbestos in excess of 0.1 fibre per cubic centimeter of air (0.1 f/cc) over an 8 hour work day without the use of respiratory protection. If workers may be working for more than 8 hours, the exposure limit must be adjusted accordingly. NexGen Mechanical will test the atmosphere air to ensure that the air quality within the breathing zone is less than 0.1 f/cc. The samples must be representative of the conditions over the exposure time. All air monitoring must be documented. Respirators may be worn at lower levels of Asbestos air contamination to avoid air quality monitoring.

**Personal Protective Equipment (including Respiratory Equipment)**

Workers exposed to Asbestos fibres should wear protective clothing that:

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- Made of material such as Tyvek™ that resists penetration by Asbestos fibres;
- Covers the body and fits snugly at the neck, wrists, and ankles; and
- Covers the head and feet (laceless rubber boots are recommended).

All protective equipment must be immediately repaired or replaced if torn.

The wearing of disposable coveralls is recommended. Street clothes should not be worn under disposable coveralls if work is conducted inside containment.

Personal protective equipment such as safety boots, hard hats, etc. appropriate to the other hazards present at the work site must be used. If other airborne contaminants are also present, respiratory protective equipment appropriate to those hazards is necessary.

Before a worker removes protective clothing and equipment, they must clean their gear with a damp cloth or a vacuum cleaner equipped with a HEPA-filtered exhaust. NexGen Mechanical must ensure that a worker removes protective clothing and equipment before leaving the designated work area.

### **Respiratory Equipment**

For protection against airborne Asbestos, three main types of respiratory protective equipment are available: air purifying (equipped with a particulate filter), supplied air, and self-contained breathing apparatus (SCBA). The purpose of a respirator is to provide clean air to the person using it. Respiratory protective equipment works properly only when selected, used, maintained and cared for in the proper manner. Only approved respirators appropriate to the level of risk may be used. Approved respirators are those that have undergone testing and have been granted NIOSH approval. NexGen Mechanical will supply and ensure that workers within a designated work area wear, respiratory protection which is adequate for the anticipated level of exposure.

Disposable, single use respirators must **not** be used. The respirator selected must have a sufficient protection factor to provide adequate protection for the fibre levels encountered during the project.

### **Risk Categories**

Working with asbestos is categorized into three categories:

1. high risk asbestos process,
2. medium risk asbestos process and,
3. low risk asbestos process.

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If the program addresses a high risk process no worker is permitted to enter the area where the asbestos process was carried out without an approved respiratory protective device until a competent person determines that there are no visible signs of debris in that area and air monitoring verifies that airborne asbestos fiber concentrations are less than 0.01 fibers per cubic centimeter of air.

### **Restricted Area**

Project Supervisors are responsible to post signs that clearly indicate that Asbestos is present in the area and that only authorized people may enter the area. NexGen Mechanical workers must follow all requirements set out on posted Asbestos signage. Only a person authorized by NexGen Mechanical or by law to do so may enter a restricted area.

Before starting work with asbestos-containing material, with due regard for the level of risk, NexGen Mechanical will identify, effectively isolate, and mark the boundary of the designated work area by barricades, fences, or similar means, ensure that the immediate work area is cleared of objects, materials and equipment other than that required to do the work, and ensure that windows, doorways and all other openings are adequately secured to prevent the release of asbestos fibre into other work areas.

No person may eat, drink, smoke, or chew gum or tobacco at the work site except in a designated clean area. Workers must remove protective equipment and clothing and clean their hands and faces prior to any of these activities.

### **Monitoring**

During a high risk work activity, except where glove bags are used as the containment, NexGen Mechanical will sample for airborne asbestos fibre in the following areas:

- outside of the containment but in its vicinity, at least daily if there are unprotected workers in the area,
- the clean room, at least daily during removal and cleanup operations, and
- contaminated areas inside the containment, as necessary during removal and cleanup to ensure that workers are adequately protected.

### **Cleaning of Asbestos Contamination**

The work site must be kept clear of unnecessary accumulations of Asbestos. Localized wetting of Asbestos-Containing Material must be done to minimize fibre release.

During and immediately upon completing the Asbestos work:

- Clean up dust and waste by vacuuming with a vacuum cleaner fitted with a HEPA filter, by wet sweeping or by damp mopping.

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- Drop sheets must be wetted, folded in on themselves to contain dust, properly bagged and disposed of as Asbestos waste.

Compressed air must not be used to clean up or remove dust from work surfaces or clothing.

### **Asbestos Waste**

All Asbestos waste, including disposable protective clothing and cleanup equipment must be stored, transported, and disposed of in sealed containers.

### **Labeling**

The Asbestos waste must be clearly labeled "Asbestos" to identify that the contents are carcinogenic and to warn the handlers that the dust must not be inhaled.

### **Disposal**

While the work is in progress, at the end of each work shift, and at the completion of work involving asbestos the following must be adhered to:

- Clean the external surfaces of the sealed containers of Asbestos waste by wiping with a damp cloth that is also to be disposed of as Asbestos waste, or by using a vacuum cleaner fitted with a HEPA filter.
- All asbestos-containing materials removed are placed in appropriate receptacles that are impervious to asbestos.
- Remove containers from the work area.
- Send to an approved facility for disposal.

NexGen Mechanical will dispose of containers of asbestos waste promptly to prevent the accumulation of large amounts of asbestos waste.

Asbestos waste or dust produced in a place of employment must be cleaned away promptly and at least once each day, by vacuum cleaning equipment equipped with a HEPA filter to prevent the escape of asbestos dust into the air or where vacuum cleaning is not practicable, by wet methods.

### **Decontamination**

NexGen Mechanical will ensure that if a worker may be contaminated by Asbestos at a work site that there are decontamination facilities, including showers between the area of Asbestos and the clean Asbestos-Free area.

Non-disposable coveralls or other clothing contaminated with Asbestos must be laundered following proper procedures. Footwear should be properly decontaminated. All NexGen Mechanical workers must wear protective clothing so that their street clothes are protected from Asbestos contamination.

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Wash all exposed skin surfaces prior to removing respirators. All persons in the work area must properly decontaminate themselves prior to leaving the work area. This is to be done under all circumstances, including prior to drinking, eating, using a bathroom, etc.

All tools and electrical equipment such as vacuum cleaners and power tools must be left in the removal area until completion of the removal job. Before the equipment is removed, it should be vacuumed thoroughly and all accessible surfaces wiped with a damp cloth. Where decontamination is not possible, the item should be plastic wrapped and sealed and only opened when inside the containment area of another Asbestos project.

For high-risk removal jobs, the only satisfactory method of providing an appropriate decontamination facility is with a mobile or specially constructed onsite unit. The decontamination facility must be located immediately adjacent to, and joined to, the enclosed Asbestos removal area. The facility must be divided into three distinct rooms: Dirty Room, Shower Room, and Clean Room.

### **Site Inspection**

Upon completion of the work, the work area must be visually inspected to ensure that all visible Asbestos containing debris has been properly cleaned up.

### **Asbestos Records**

Records must be maintained for at least 10 years of records of asbestos-containing materials inventories and risk assessments, inspections and air monitoring results.

Records must be maintained for at least 3 years of records of corrective actions to control fiber release, training and instruction of workers, written work procedures and written notification of the Board.

### **Health Hazards and Assessments**

Workers who are likely to be employed in an asbestos process or are likely to be exposed to asbestos dust are warned that the inhalation of asbestos may cause pneumoconiosis, lung cancer or mesothelioma. Asbestos must be inhaled to cause disease. Intact and undisturbed Asbestos presents no direct health hazard but may present an exposure hazard should the fibres be released and inhaled.

Asbestos related diseases are caused by Asbestos fibres that are inhaled and settle in the lungs. Once embedded in lung tissue, the fibres may remain within the body for extended periods. Asbestosis, Lung Cancer, and Mesothelioma are conditions associated with exposure to high concentrations of airborne Asbestos. They are irreversible and potentially fatal. The lungs build up scar tissue around

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the fibres in an attempt to remove them. This causes lung tissues to stiffen and leads to symptoms of coughing, difficulty in breathing, weight loss and eventually death. The combination of smoking and occupational Asbestos exposure is extremely hazardous.

#### *Health Assessments for Workers Exposed to Asbestos*

A health assessment of the worker must include the following:

- The identity of the worker and the employer;
- The date of the medical examination, chest x-ray and spirogram;
- A 35 centimeters by 43 centimeters posteroanterior view chest x-ray, including a radiologist's report;
- A spirogram, conducted by a pulmonary function technician, including determinations of forced expiratory volume in the first, second and forced vital capacity;
- A history covering significant symptoms that may indicate silicosis, pneumoconiosis, Asbestosis or cancer,
- Past and current medical diagnoses of respiratory disease, and
- The worker's smoking history.

The physician must give the written interpretation and explanation of the results of the health assessment to the worker not more than 60 days after the tests are completed.

A worker who is regularly employed in an asbestos process will not more than 30 calendar days after the worker becomes an exposed worker and not less than once every two years and with consent of the worker, offer to arrange for a medical examination of the worker during the worker's normal working hours; and reimburse the worker for any part of the cost of the medical examination that the worker cannot recover. Exposed workers may refuse to undergo part or all of a health assessment by giving a written statement to NexGen Mechanical refusing it.

#### *Health Assessment Records*

The health assessment records are confidential and only the worker or health professional that conducts the health assessment have access to the exposed workers health assessment. Unless, the health assessment record does not identify the worker or the worker gives written permission for access by another person.

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### **9.3 Backing Up**

Backing up a vehicle is a manoeuvre that must always be done with extreme caution. Due to limited vision out of the back windows or around long truck beds and equipment bodies, drivers may not see other vehicles, obstacles, or even coworkers and pedestrians when they are driving their vehicles backward.

#### **Go Forward**

Do not backup unless you have to. Some good tips include:

- Park so you can leave by driving forward. Most sites have a turn around so that traffic moves in the forward motion only.
- If you are unloading, try to use drive by methods instead of backing up.

#### **Backing Up**

- Prior to moving walk around your vehicle looking for hazards existing behind or beside the vehicle. Get out and check frequently in congested areas.
- Pick out some landmarks that you will be able to see in your mirrors.
- Stay well clear of other vehicles, machinery, and pedestrians, objects in the mirrors are closer than they appear.
- Where necessary use someone to guide you when backing up. Follow only the directions of one spotter, and STOP immediately if you lose site of the spotter or if anyone yells STOP.

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## **9.4 Chemical and Biological Hazards**

NexGen Mechanical identifies the hazards associated with the chemical and biological exposures at a workplace. Workers have the potential of coming into contact with many different chemicals. These chemicals may cause short or long term detrimental effects on bodily systems if used in an unsafe manner or at levels exceeding legislation. It is essential that all NexGen Mechanical workers read, understand, and comply with safe work practices and procedures in this policy.

NexGen Mechanical keeps and maintains a record of all hazardous substances that are used, produced, handled, or stored in the workplace. This record is located at each worksite and a centralized record is also kept and maintained at the head office.

No person will use a hazardous substance in a workplace where it is reasonably practicable to substitute that substance for a non-hazardous substance. If a product is available that is less hazardous that substance will be used.

Whenever possible, substances should be substituted with non-harmful chemicals. Controls including administrative, engineering, and Personal Protective Equipment are often employed to keep exposure to a minimum.

The Saskatchewan Occupational Health and Safety Regulations has set limits for the employer to ensure that a worker's exposure to chemical and biological hazards are kept as low as reasonably practicable, and does not exceed its contamination limits.

The following general work procedure has been developed and implemented to ensure the safe handling, use, storage, production and disposal of chemical and biological substances. Site-specific procedures have been developed for our more common or hazardous substances.

### **Training**

The purpose of this policy is to keep workers safe and increase awareness for potential chemical and biological risks. All NexGen Mechanical workers receive basic Chemical and Biological Substances training (including work procedures, emergency procedures, and the proper use of any personal protective equipment) and Workplace Hazardous Materials Information System (WHMIS) training prior to going to the field. All workers must have the proper combination of experience, knowledge, and education to perform the work required and to protect the health and safety of the worker.

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All NexGen Mechanical workers must read, understand, and comply with safe work practices and procedures arranged to control chemical and biological substances. If you do not understand how to work with a particular chemical, the supervisor can be asked or refer to the Safety Data Sheet (SDS) for more information. SDS sheets often include information including: Product Identification, Composition, Hazards Identification, First Aid Measures, Fire Fighting Measures, Handling and Storage, Exposure Controls/Personal Protection, Physical and Chemical Properties, Stability and Reactivity, Toxicological Information, Accidental Release Measures, Ecological Information, Disposal Considerations, and Other Information.

If a worker may be exposed to a chemical or biological substance which could cause an adverse health effect, NexGen Mechanical will ensure that before a worker enters that area:

- the identity of the substance, its possible effects on worker health and safety and any precautions required for the health and safety of the worker are clearly indicated by labels, SDSs, placards, signs, tags or other similar means, and that,
- the supervisor and the worker are trained in and follow the established procedures for safely handling, using, storing and disposing of the substance, including emergency and spill cleanup procedures

Health hazards, both short and long term are identified on the SDS. For ceiling limits and exposure limits OHS legislation will need to be reviewed; keep in mind ceiling limits and exposure limits may be different in other provinces.

### **Worker Exposure**

The primary methods of preventing a worker's exposure to an airborne chemical or biological substance should include Engineering and Administrative Controls; this includes substitution with a less hazardous substance, use of ventilation, safe work practices, etc. Control measures must not include a requirement for a worker to wear or use personal protective equipment to prevent or reduce exposure to a chemical or biological substance unless no other measure is reasonably practicable. Respiratory protective equipment is used when engineering controls are not practicable to ensure workers are not exposed to an airborne concentration of a chemical/biological substance that exceeds its occupational exposure limit. Often a combination of Engineering, Administrative, and PPE controls offer the best protection to the worker.

NexGen Mechanical will assess all information that is practicably available regarding chemical or biological substances present in the workplace to determine if the substance creates or may create a risk to the safety or health of a worker in the workplace.

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At NexGen Mechanical a hazard assessment has indicated that there is the potential to encounter chemicals and biological hazards. At NexGen Mechanical our goal is to keep any exposure as low as reasonably achievable and ensure that no worker will exceed the Occupational Exposure Limit (OEL), Ceiling Limit, Time Weighted Average (TWA), or Short-Term Exposure Limit (STEL) at any time, for any substance listed in OH&S Regulation. For limits consult Table 21 of the OH&S Regulation in Saskatchewan. Containers holding the substances must be clearly marked with the name of the substance.

Atmospheric testing results should be assessed before a worker is exposed. Where there is a likelihood that the concentration of an airborne chemical agent may exceed the Occupational Exposure Limit, air samples will be taken and the concentration of the chemical agent will be determined in accordance with the standards set out by the ACGIH, NIOSH, or other scientifically proven methods.

When working around Chemicals proper personal protective equipment must be worn. Safety glasses or goggles, gloves, CSA chemical resistant Safety Boots, long sleeves and pants must always be worn, refer to the current SDS Sheet for PPE requirements for each chemical.

At a minimum, whenever working around chemicals where there is the potential of those chemicals to splash/spill into the eyes or skin an eyewash station (kept in serviceable condition) must be present at readily accessible locations. The eyewash station must contain approved equipment to flush the eyes of the worker with lukewarm water or another appropriate liquid. When there is a risk of substantial contamination of a worker or of a workers clothing, NexGen Mechanical or the host Client will provide a deluge shower or emergency bath facilities ensuring lukewarm water. If a worker has been contaminated at a work site, the worker needs to immediately remove the soiled clothing and wash the contaminated area. The soiled clothing should be cleaned with water and soap before putting it back on (always have a change of clothing with you). The affected worker will report the contamination to his/her supervisor and will see a doctor if required. All emergency washing equipment will be clearly identified and have unimpeded access.

### **Storage of Chemicals**

All harmful substances used or stored at all NexGen Mechanical worksites will be clearly identified and stored in a way that it is not hazardous to workers. All chemicals must be transported in their original container. Workplace and supplier labels are required on all chemical containers. Any label that has fallen off or has become unreadable will immediately be replaced with the correct WHMIS label or discarded accordingly using the SDS.

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All flammable, unstable, highly reactive and corrosive substances must be stored in a self-contained enclosure, room or building that is isolated from work-related areas and worksites. This area must be adequately ventilated and protected from conditions, including excessive temperature, shock or vibration that could reduce the stability or increase the potential hazard of the substance.

### **Communication**

Chemicals and Biological Hazards are a part of our everyday life. NexGen Mechanical identifies the hazards associated with the chemical and biological exposures at a workplace. Workers have the potential of coming into contact with many different chemicals. These chemicals may cause short or long term detrimental effects on bodily systems if used in an unsafe manner or at levels exceeding legislation.

Chemicals and Biological Hazards have the potential to cause harm with just one exposure or over many years. Our goal is to ensure all workers are knowledgeable and competent to deal with any chemicals they may encounter both safely and environmentally responsibly. Prior to working around any new chemical you must review the SDS. Even common chemicals should have their SDS reviewed periodically. If a worker is or may be exposed to a chemical or biological substance that could cause an adverse health effect, NexGen Mechanical will ensure that the content and meaning of the information is clearly communicated to the worker.

All chemicals regularly handled, used, stored, produced or disposed of in the course of work processes and that may be hazardous to the health and safety of the workers at the worksite at NexGen Mechanical must be listed and have a SDS readily available to the workers at the worksite. A written procedure must be created that identifies:

- the substances to which a worker may be exposed,
- the conditions under which a worker will be required or permitted to work, including the frequency, quantity and duration of exposure to the substances, and,
- the steps that will be taken to ensure that no workers personal exposure exceeds the equivalent of the contamination limit set out in the Tables and Schedules listed in the Worker Exposure section.

### **Safe Work Procedure for Chemicals**

Each chemical will have a different safe work procedure. Refer to the SDS. A copy of a current SDS must be kept in a vehicle or office that is accessible during the use of the chemical. If a worker is or may be exposed to a chemical or biological substance which could cause an adverse health effect, NexGen Mechanical will ensure that effective written procedures are prepared and implemented to prevent exposure by any route that could cause an adverse health effect, and to address

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emergency and cleanup procedures in the event of a spill or release of the substance. If the SDS sheet does not address how the chemical is used at NexGen Mechanical, we will develop and implement safe work procedures respecting the use, production, storage, handling and disposal of any chemical or biological substance that an assessment has determined creates or may create a risk to the safety or health of a worker in that workplace.

### **Emergency Response Plan**

NexGen Mechanical has developed emergency procedures to be implemented in the event of an accumulation, spill or leak. These emergency procedures have been developed using the SDS, input from workers, and incident/accident reports. Workers are trained in the emergency response procedures.

### **Procedure**

The safety of site personnel will be considered top priority by NexGen Mechanical.

No clean up actions are to take place until the spilled material has been identified and the correct handling procedures are put in place. Proper health and safety measures should be taken when responding to a spill. This includes the use of appropriate personal protective equipment (PPE).

The following procedures are a general guideline to following in the event of a spill:

1. Assess the conditions in the spill area to ascertain if it can be entered safely. Is there H<sub>2</sub>S, poisonous vapors, or explosive atmosphere present?
2. Refer to the Safety Data Sheets (SDS) kept onsite.
3. Contact your supervisor and advise him of the spill. If you have a large spill ask for backup personnel to assist you.
4. Remove as much spilled liquid from the site as you can using a vacuum truck and/or other equipment suitable under the circumstances.
5. If the spill is not flowing or spreading, no containment is required. If the spill is heading down a slope there may be a need to block the movement with a trench or sandbags. If a trench is used ensure Ground Disturbance practices are used.
6. If necessary, the area around the spill should be fenced off to prevent wildlife and livestock from entering the spill area.
7. An environmental company should be called in to deal with large spills. Sampling may be required to verify that the clean-up was successful.
8. Ensure any soil that has been excavated is piled on poly or tarps to prevent contaminating another area.
9. Transportation of waste soil and vacuum truck waste must be characterized and disposed of at an approved facility.

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## **9.5 Circular Saws**

The purpose of this practice is to protect workers from injuries associated with operation of power circular saws. Supervisors are responsible to facilitate and/or provide proper instructions to their workers on protection requirements.

### **Safe Work Practices**

1. Approved safety equipment such as safety glasses or a face shield is to be worn.
2. Where harmful vapors or dust are created, approved breathing protection must be used.
3. The proper sharp blade designed for the work to be done must be selected and used.
4. The power supply must be disconnected before making any adjustments to the saw or changing the blade
5. Before the saw is set down, be sure the retracting guard has fully returned to its down position
6. Both hands must be used to hold the saw while ripping.
7. Maintenance is to be done according to manufacturer's specifications
8. Ensure all cords are clear of the cutting area before starting to cut
9. Before cutting, check the stock for foreign objects or any other obstruction that 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.
11. Do not wear loose clothing.

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## **9.6 Confined Space**

### **Code of Practice for Confined Space**

A confined space is an enclosed or partially enclosed space, not designed or intended for continuous human occupancy, having restricted means of entry or exit that may become hazardous to a worker entering it due to its design, construction, location, work activities or atmosphere, the materials or substances in it and/or the provision of first aid, evacuation, rescue or other emergency response service is compromised.

Examples of confined spaces are (this is not a comprehensive list):

- a) Crawlspace
- b) Ducts
- c) Excavations
- d) Exchangers
- e) Pipelines
- f) Piping Systems
- g) Sewers
- h) Some components of major equipment
- i) Tanks
- j) Utility manholes
- k) Vessels

The purpose of this policy is to protect and educate employees and contractors. It is essential that all NexGen Mechanical workers read, understand, and comply with these safe work practices and procedures for Confined Spaces.

### **Training and Competency**

All NexGen Mechanical employees who may be required to work in or around any confined space must take in-house training by a competent person to become familiar with the NexGen Mechanical Code of Practice for Confined Spaces including that of the entry and rescue procedures. All NexGen Mechanical workers must have the proper combination of experience, knowledge, and education to perform the work required.

No workers under the age of 16 are permitted to enter a confined space.

All field employees are required to participate in Confined Space Awareness training during orientation and as needed after that.

Workers must be competent when working around and entering a confined space. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a

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minimal degree of supervision. The Tending Worker is always competent in rescue.

Before any worker can enter a confined space an entry supervisor will be assigned to the confined space. Supervisors are adequately trained to supervise the job. The supervisor must ensure that:

- pre-entry testing and inspection is conducted based on the written procedures,
- the precautions identified in the written procedures and the precautions required by Regulations or which are otherwise necessary for the health and safety of workers are followed,
- Ensure help is available if a rescue is needed;
- only authorized workers enter a confined space, and
- all work activities are coordinated to ensure:
  - ventilation, lighting, rescue equipment are adequate for the number of workers in the confined space,
  - all workers (even those working nearby) are informed of any hazards associated with the confined space, and
  - workers can perform tasks safely.

The following workers must be trained in and will implement a hazardous confined space entry plan:

- a worker who is required or permitted to enter,
- a worker who tends to a worker in the space, and
- a worker who may be required or permitted to implement the rescue procedures including:
  - first aid;
  - the use of appropriate emergency response equipment;
  - procedures appropriate to the confined space.

All workers are trained in:

- recognizing hazards associated with working in confined spaces,
- performing the duties in a safe and healthy manner.

All training documents are kept on file and this is verified prior to each worker being sent to the field to complete a task that may involve working in or around a confined space.

### **Entry Permit**

All NexGen Mechanical workers must not enter a confined space without a valid entry permit. The Entry Permit acts as a Hazard Assessment for Confined Space Entry. All workers (and in consultation with the work place committee or the health and safety representative, where existing) will be involved in the control or elimination of the hazards identified. Where a worker will be required or permitted

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to enter a hazardous confined space, a hazardous confined space entry plan must be developed to ensure the health and safety of workers who enter or work in the hazardous confined spaces. The Entry Permit must be dated and in writing. The entry permit system includes:

- Alternative means to perform the work in a confined space that will not require the worker to enter the confined space, if applicable.
- A list of the names of each worker who enters or tends the confined space along with the date and time of entry and the anticipated time of exit. Workers must sign in and out.
- The location of the confined space.
- The time during which an entry permit is valid.
- The work being done in the confined space.
- The code of practice / procedures requirements for entering, being in and leaving a confined space.
- Existing or potential physical and chemical hazards to which the worker is likely to be exposed while in the confined space including the conditions which may exist prior to entry due to the confined space's design, location or use, or which may develop during work activity inside the space
- Lockout requirements, if required, including blanking or blinding off and ensuring mechanical equipment installed in the confined space is disconnected from its power source and locked out.
- The type and frequency of inspections and tests necessary to determine the likelihood of worker exposure to any of the identified hazards.
- Person responsible to perform the inspections and tests identified and results of those tests. Specifically, the potential for oxygen enrichment and deficiency, flammable gas, vapour or mist, combustible dust, other hazardous atmospheres, harmful substances requiring lockout and isolation, engulfment and entrapment, and other hazardous conditions.
- The means, if any, of ventilating the hazardous confined space.
- The safety and personal protective equipment required to perform the work including insulated protection equipment and tools, if working around electrical applications.
- The personal protective equipment and emergency equipment to be used by a worker who undertakes rescue operations in the event of an accident or other emergency.
- Emergency rescue and evacuation requirements, including the number and duties of personnel.
- The means to maintain effective communication with a worker who has entered the hazardous confined space.

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Before a worker enters a confined space, an entry permit/Hazard Assessment must be properly completed, dated, signed by a competent person and a copy kept readily available at the confined space location. Written procedures specifying the means to eliminate or minimize all hazards likely to prevail must be developed based on the hazard assessment. Once issued, the information on an entry permit may only be altered by:

- the responsible supervisor who signed the permit to update it,
- the standby worker to update the list of workers inside the confined space, or
- the tester to record test results.

Before an entry permit is obtained all applicable Safe work procedures must be in place including:

- all reasonably practicable steps must be taken to prevent any unauthorized entry into the confined space,
- procedures for recognizing the risks associated with working in the confined space,
- procedures for isolating - including blanking, disconnecting, interrupting and locking out - pipes, lines and sources of energy from a confined space,
- safety and personal protective equipment to be used,
- procedures for communicating with a standby worker,
- an emergency response plan and rescue procedures to be implemented in the event of an accident or other emergency in a confined space.

The following controls must be put in place, where applicable:

- Supplied breathing air available and/or worn.
- All Entrants and Monitors must be trained in the use of supplied breathing air equipment
- A Confined Space Monitor in attendance at all times.
- A specific Rescue Plan needs to be reviewed and approved.
- A valid Confined Space Entry Permit.
- An Evacuation Procedure.

A list of each confined space or group of similar spaces and a hazard assessment of those spaces will be completed and updated. When assessing a Client's confined space the hazard assessment must be reviewed.

### **Inspections**

The following inspections must be carried out by a competent person:

- Safety and emergency rescue equipment.
- Personal protective equipment.
- Test of the communication system.
- Of access/egress points.

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- The Entry permit is readily available to workers in a confined space and is appropriate to the hazards.
- Verification that within the confined space:
  - any liquid where a person could drown has been removed,
  - any free-flowing solid in which the person may become entrapped has been removed.
  - the entry of any liquid, free-flowing solid or hazardous substance into the confined space has been prevented by a secure means of disconnection or by the fitting of blank flanges,
  - all electrical and mechanical equipment that may present a hazard to the person has been disconnected from its power source, real or residual, and has been locked out, and
  - the opening for entry into and exit from the confined space is sufficient to allow the safe passage of a person using protection equipment.

All inspections must be documented and filed with the entry permit.

### **Barriers or Barricades**

Measures necessary to prevent unauthorized entry must be implemented. Pedestrian, vehicle and other barriers necessary to protect entrants from external hazards will be provided.

### **Testing the Atmosphere**

After performing the hazard assessment a competent worker must perform pre-entry atmospheric tests (using calibrated test instruments), if required, of the confined space to:

- a) Verify that the oxygen content is between 19.5 percent and 23 percent by volume.
- b) Identify the amount of toxic substances (chemical and physical).
- c) Identify the amount of flammable or explosive substance that may be present (ensuring that an explosive atmosphere will not occur).

Testing must be completed periodically (as often as necessary) by a competent worker. If the likelihood of toxic atmospheres forming is high then continuous monitoring is required. The competent person shall prepare a report in writing that sets out:

- the results of the assessment, tests and determinations,
- recommended special precautions and procedures to reduce the risk to a worker that are to be followed by a worker entering into, exiting from or occupying the confined space, and
- recommended personal protective equipment to be used by a worker entering the confined space.

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All workers are provided with and required to use a respiratory protective device if the airborne concentration for any substance meets or exceeds the permissible contamination limit, oxygen deficiency or enrichment is detected or the airborne concentration of any other substance may be harmful to the worker.

All results of the atmospheric tests required in this section are recorded on the Permit.

### **Classification of Confined Spaces**

There are three classes of confined space to reflect the conditions present at the time of entry with consideration for potential changes of conditions as identified.

**Class A** - The hazards in the confined space or in its proximity are either not known or have not been determined.

- Oxygen concentration is less than 19.5% or more than 23% by volume.
- Explosive or flammable atmosphere between 10% and 20% Lower Explosive Limit ("LEL"). Workers must not enter or remain in a confined space if more than 10% of the lower explosive limit (LEL) of an explosive substance is present in the atmosphere.
- The area atmosphere exceeds the protective limits of air purifier respiratory equipment.

**Class B** - A confined space will be considered Class B if all identified hazards are controlled and the following applies:

- Oxygen concentration is between 19.5% and 23% by volume; and explosive or flammable atmosphere, less than 10% of the Lower Explosive Limit (LEL).
- The concentration of toxic substances exceeds 50% of the Occupational Exposure Limit (OEL).

**Class C** - A confined space will be considered "Class C" if all identified hazards are controlled, the potential for change is unlikely, and *all* of the following apply:

- Oxygen concentration is between 19.5% and 23% by volume.
- Concentration of explosive gases is less than 1% of LEL
- Airborne concentration of toxic substances is less than 50% of OEL.

The Class of the confined Space must be recorded on the permit. The following controls must be put in place, where applicable:

- Supplied breathing air available and/or worn.
- All Entrants and Monitors must be trained in the use of supplied breathing air equipment
- A Confined Space Monitor in attendance at all times.

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- A specific Rescue Plan needs to be reviewed and approved.
- A valid Confined Space Entry Permit.
- An Evacuation Procedure.

A list of each confined space or group of similar spaces and a hazard assessment of those spaces will be completed and updated. When assessing a Client's confined space the hazard assessment must be reviewed.

### **Ventilation and Purging**

If the atmospheric testing identifies that a hazardous atmosphere exists or is likely to exist in a confined space either the work must be stopped or the confined space must be ventilated, purged or both before a worker enters. If ventilating or purging a confined space is impractical or ineffective in eliminating a hazardous atmosphere, NexGen Mechanical must ensure that a worker who enters the confined space uses personal protective equipment (supplied air respiratory protection) appropriate for the conditions within the confined space, alternatively if a safe atmosphere cannot be maintained ensure that no work is carried-on in the confined space. The confined space must be ventilated sufficiently to maintain an oxygen content of at least 18% by volume under normal atmospheric pressure and to prevent the accumulation of contaminant.

Where ventilation equipment is used to maintain the concentration of chemical agents at or below acceptable limits, or to maintain the percentage of oxygen in the air of a confined space within acceptable limits, access to the confined space will only be granted if the ventilation equipment is equipped with an alarm that will, if the equipment fails, be activated automatically and be audible or visible to every person in the confined space, or monitored by an employee who is in constant attendance at the equipment and who is in communication with the person or persons in the confined space. In the event of failure of the ventilation equipment, sufficient time must be available for the person to escape from the confined space before the concentration of chemical agents exceed acceptable limits, or the percentage of oxygen ceases to remain within acceptable limits.

### **Inerting**

If the atmospheric testing identifies that an explosive or flammable atmosphere exists or is likely to exist in a confined space either the work must be stopped or the confined space must be inerted before a worker enters. If it is not reasonably practicable to eliminate an explosive or flammable atmosphere within the confined space through another means it must be inerted. If a confined space is inerted, an employer must ensure that:

- Every worker entering the confined space is equipped with supplied air respiratory protection equipment.
- All ignition sources are controlled.

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- The atmosphere within the confined space stays inerted while workers are inside.

**Responsibilities of Safety Watch/Standby Person**

A Safety Watch or standby worker is designated for every confined space. They must be trained in entry and emergency procedures. The responsibilities of that person are as follows:

- Competent in summoning rescue personnel, if required. A means of communication is mandatory. Be in communication or visual contact with personnel inside the confined space at all times.
- Initiate evacuation as necessary, and ensure proper signage is posted at the entrance to the confined space.
- NEVER leave the entry to the confined space with people inside unless properly relieved by another certified monitor.
- NEVER enter the confined space for any reason.
- After verifying all personnel have exited the confined space, ensure correct signage is in place prior to leaving the confined space entrance unattended. (ie. breaks and end of shift)
- Control the number of personnel allowed in the confined space, as identified by hazard assessment.
- Maintain a Confined Space Entry and Exit log for the duration of the job. Entry and exit logs must be safely stored for record retention purposes.
- Ensure Entry and Exit points are kept clear and clean.
- Maintain awareness of potential hazards in the vicinity of the confined space that may affect the health and safety of the worker(s) inside.
- Ensure that persons not authorized are prevented from entering a confined space.
- Ensure workers are protected from traffic hazards in the vicinity of the confined space.

If multiple spaces are to be monitored by a single attendant, he/she must have the means to respond to an emergency in one space while continuing oversight of the others, or he/she must be relieved by another individual.

**Safe Means of Entry and Exit from the Confined Space**

A safe means of entry and exit must always be available to all workers required to work in a confined space and rescue personnel attending to the workers. Depending on the location of the confined space safe entry and exits may be obtained from one or a combination of the following secured steps, temporary platforms, handrails, and barricades to ensure the area is free from traffic hazards. No worker is allowed to enter or remain in a confined space unless the worker is using a body harness, lanyard and lifeline. The lifeline must be attached to a secure anchor outside the confined space, be controlled by the qualified attendant,

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protects the person from the hazard for which it is provided and does not in itself create a hazard, and is, where reasonably practicable, equipped with a mechanical lifting device.

The electrical equipment that the worker uses or plans to use in the confined space must be of a type designed for use in a confined space. The safety and personal protective equipment required will be identified in the entry permit.

### **Emergency Response**

Pre-planning can help prevent the need for Confined Space rescue, but sometimes emergencies do happen. During the hazard assessment process if it has been determined that it is possible that an effective rescue may not be able to be carried out no workers are allowed to enter or remain in the confined space. If the hazards change (ie. air monitoring indicates an increase of a toxic substance) the hazard assessment must be re-assessed and the workers may have to exit the confined space.

Personnel and services necessary to perform rescue must be identified and in place prior to entry. These services may be provided by the site owner/operator, the company performing the confined space work, or by a third party that specializes in confined space rescue. Local fire departments may not have the means to perform confined space rescue, so do not assume they are able to do so.

A site-specific emergency response plan (ERP) is required to be documented on the Confined Space Permit. The ERP will be made in consultation with the work place committee or the health and safety representative, if in existence. The emergency response plan includes the emergency procedures to be followed if there is an accident or other emergency, including the procedures in place to evacuate the confined space immediately and the list of all workers (including those specifically trained in rescue).

The following are general triggers that would require evacuation of the personnel inside the confined space:

- When an air monitoring alarm is activated.
- If the concentration of oxygen inside the confined space drops below 19.5 percent by volume or exceeds 23 percent by volume (without respiratory protection).
- If there is a significant change in the amount of hazardous substances inside the confined space.
- If the communication system in place to summon emergency response becomes ineffective.

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All workers responding to a confined space emergency (and listed on the permit as being competent in rescue) have competence (In Saskatchewan a Class A qualification) in first aid, the use of appropriate emergency response equipment, and the procedures appropriate to the confined space rescue. All rescue workers must be fully informed of the hazards in the confined space and be readily available to assist in a rescue procedure. All PPE and emergency equipment required for use in a confined space is inspected by a competent person before workers enter a confined space. Equipment necessary to rescue workers must be readily available at the entrance to the hazardous confined space and used in accordance with rescue procedures developed.

### **Isolating Pipes and Pipelines**

When there are harmful substances under pressure in a piping system the methods to isolate that system are by blanking or blinding or equivalent engineered system. If the adjacent piping contains a harmful substance that is not a gas or a vapour, nor a liquid of sufficient volatility to produce a hazardous concentration of an air contaminant in the discharge of the piping, a double block and bleed system. An operable bleed-off between the two seals must also be utilized to release the build up pressure and render the equipment safe. This isolation must be completed by a person competent in Lock Out Procedures before a worker can enter a confined space.

### **Retaining Records**

NexGen Mechanical must ensure that all written records with respect to entry and work in a confined space, including entry permits, safe entry tags, atmospheric testing, and entry/exit logs are retained for not less than:

- 1 year if no incident or unplanned event occurred during the entry; or
- 2 years if an incident or unplanned event occurred during the entry.

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## 9.7 Control of Infectious Substances

Employees are at risk of contracting infectious diseases each time they are exposed to bodily fluids. Since a single exposure to infected bodily fluids may result in infection and subsequent illness, it is the policy of NexGen Mechanical to prevent exposure incidents whenever feasible.

Occupational exposure is defined as reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

The Safety Coordinator will be responsible for management of the Exposure Control Plan. The plan will be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures that affect occupational exposure and, also, to reflect new or revised employee positions with occupational exposure.

### Exposure Determination

At NexGen Mechanical, it has been determined that all employees may incur occupational exposure to blood or other potentially infectious materials. This determination is based on the premise that all employees could potentially be a witness to illness or injury of a fellow worker, client or contractor. Thereby may be a first responder, providing first aid, thus putting the employee at risk for exposure to blood or other potentially infectious materials. This determination was made without regard to the use of personal protective equipment and without regard to the frequency of such exposures. Situations, which would cause employees to be occupationally exposed, may include the following:

- administering first aid;
- administering CPR;
- disposing of contaminated waste;
- handling contaminated laundry;
- handling and disposal of sharps;
- handling contaminated objects.

### Methods of Compliance

NexGen Mechanical is dedicated to effectively eliminating or minimizing exposure to bloodborne pathogens. This is accomplished by the following methods:

#### *Universal Precautions*

According to the concept of Universal Precautions, all human blood and certain body fluids are treated as if known to be infectious.

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### *Engineering and Work Practice Controls*

The engineering and work practice controls include, but are not limited to, the following:

- Handwashing facilities are readily available at our main facility. The antiseptic towelettes are made available to each field employee; they are in the First Aid kits.
- Each employee is trained on how to remove surgical gloves and is aware that they need to wash hands and/or other potentially infected skin areas as soon as possible with soap and water.
- This practice includes methods to handle and dispose of sharp items that have been exposed to Bloodborne Pathogens. Handwashing facilities are available at the office worksite, field employees are supplied with Antiseptic Wipes and Alcohol Towelettes; if the latter is used the employee will wash their hands with soap and running water as soon as feasible. The employees of NexGen Mechanical have minimal exposure to bloodborne pathogens.

### *Personal Protective Equipment (PPE)*

When dealing with the hazards of Bloodborne Pathogens, employees are trained to protect themselves utilizing a one-way CPR barrier, gloves and washing facilities/antiseptic wipes. PPE is provided to the employee such as gloves, gowns, etc. PPE must be used unless NexGen Mechanical shows that employees temporarily declined to use PPE under rare circumstances. NexGen Mechanical will ensure that appropriate PPE in the appropriate sizes is readily accessible. PPE should be cleaned, laundered & properly disposed. NexGen Mechanical will repair & replace PPE as needed to maintain its effectiveness.

When personal protective equipment is removed, including any garments penetrated by blood or other potentially infectious materials, it is placed in an appropriately designated area or container for storage, decontamination, or disposal.

### **Decontamination Procedures**

The following procedure is used during the cleaning of contaminated surfaces:

- Gloves and other appropriate PPE are worn during the entire cleaning procedure.
- Visible body fluids are removed and materials used during clean up are disposed of as infectious waste.
- A solution of ¼-cup sodium hypochlorite (household bleach) per one-gallon water is used to disinfect the surface. The solution will be mixed no sooner than the day of use. (Alternatives to the bleach solution are chemical germicides that are approved for use as “hospital disinfectants” and are tuberculocidal).
- After washing the area with the solution, the surface is allowed to air dry.

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- Laundry contaminated with blood or “Other Potential Infectious Material” OPIM will be handled as little as possible. Such laundry will be placed in appropriately marked “Biohazard”, labeled or color-coded leak proof red bags for handling, storage and transport (including blood soaked bandages) and disposed of at an appropriate facility.

### **Information and Training**

All employees that may be exposed to bloodborne pathogens participate in a training program before initial assignment and within 1 year of previous training.

The training program includes explanations of the following topics:

- The Bloodborne Pathogens Standard itself;
- The epidemiology and symptoms of bloodborne pathogens;
- The modes of transmission of bloodborne pathogens;
- Our facility’s Exposure Control Plan and where employees can obtain a copy;
- Appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;
- The use and limitations of methods that will prevent or reduce exposure, including engineering controls, work practice controls, and personal protective equipment;
- Selection and use of personal protective equipment, including types available, proper use, location within the facility, removal, handling, decontamination, and disposal;
- Actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;
- The procedures to follow if an exposure incident occurs, including the method of reporting the incident and medical follow-up that will be made available;
- Information on the post-exposure evaluation and follow-up that our facility will provide;
- Signs and labels and/or color coding within the facility;
- Opportunity for interactive questions and answers.

### **Labels / Bags**

A fluorescent orange or orange-red warning label/bags bearing the universal biohazard symbol and the legend BIOHAZARD will be used. Labels on contaminated equipment will also indicate which portions of the equipment are contaminated. When appropriate, red “color-coded” bags are used in place of the biohazard label.

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**Exposure Incident Investigation**

The Safety Coordinator will conduct an exposure incident investigation immediately after a report of an exposure incident. The documentation will include at a minimum the following elements:

- Date and time of exposure incident
- Where incident occurred
- What potentially infectious material was involved (i.e., bodily fluid)
- Route(s) of exposure (i.e., skin puncture, splash in eye)
- Source of infectious material (i.e., needle, razor blade)
- Circumstances under which exposure occurred
- Identification of the source individual
- Any failure of engineering or work practice controls at the time of the exposure incident
- Description of the exposed employee's duties as they relate to the exposure incident
- Recommendations for avoidance of future exposure incidents in similar situation

**Recordkeeping**

The Safety Coordinator is responsible for maintaining the following training records. These records will be kept in the Safety Coordinator's office.

Training records must be maintained for three (3) years from the date of training. The following information must be documented:

- The dates of the training sessions;
- An outline describing the material presented;
- The names and qualifications of persons conducting the training;
- The names and job titles of all persons attending the training sessions.

**Post-Exposure Evaluation and Follow-Up**

Following report of a potential exposure incident, confidential medical evaluation and follow-up will be provided to the employee. An accredited laboratory at no cost to the employee will conduct the medical evaluation and follow-up. All medical information remains strictly confidential.

**Evaluation and Review**

The Safety Coordinator is responsible for annually reviewing this program, and its effectiveness, and for updating this program as needed.

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## **9.8 Cranes, Hoists and Lifting Devices**

Equipment that falls into this category includes: Boom Truck, Floor Operated Crane, Gantry Crane, Bridge Crane, Jib Crane, Tower Crane, Drum Hoist, and Electric Hoist.

The purpose of this policy is to protect and educate employees and contractors. It is essential that all NexGen Mechanical workers read, understand, and comply with these safe work practices and procedures for cranes.

At NexGen Mechanical, every hoist, crane and lifting device, including all rigging, has been purchased using rigorous standards. They are all designed, constructed, installed, maintained and operated to perform safely any task for which the hoist, crane, lifting device or rigging is used.

Notice to OHS must be given as soon as is reasonably possible of the failure of a crane or hoist or the overturning of a crane, whether or not a worker sustains injury. The notice must include:

- the name of each employer, contractor and owner at the place of employment;
- the date, time and location of the dangerous occurrence;
- the circumstances related to the dangerous occurrence; and
- the name, telephone number and fax number of the employer, contractor or owner or a person designated by the employer, contractor or owner to be contacted for additional information.

### **Crane, Hoist or Lifting Device Requirements**

At NexGen Mechanical the cranes, hoist, or lifting device all have a durable and clearly legibly written rated load capacity (this is checked in the daily inspection) that is accessible to the operator at the control station that states:

1. The maximum load-rating chart of the crane in all permitted working positions and configurations of use, as determined by the manufacturer.
2. The manufacturer's name.
3. The model and serial number.
4. The year of manufacture or shipment date.

A copy of the manufactures operating manual for each hoist or crane must be readily accessible to the operator. NexGen Mechanical never requires or permits the operator of any hoist, crane or lifting device to raise any load that is greater than the rated load determined by the manufacturer of the equipment or a professional engineer for the condition in which the equipment is to be operated.

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A fire extinguisher having at least a 10 BC rating must be immediately available in the cab of each crane.

Every manlift and every safety device attached to it must meet the CSA Standard B311-M1979 (or current version).

If any safety device attached to an elevating device is inoperative the elevating device will not be used. No safety device attached to an elevating device shall be altered, interfered with, or rendered inoperative. This does not apply to an elevating device or a safety device that is being inspected, tested, repaired, or maintained by a qualified person.

### **Training and Competency**

All NexGen Mechanical employees receive training at orientation and refresher training every year thereafter.

Workers must be competent when working with cranes. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. Before operating a lifting device, all workers must be able to demonstrate to the supervisor, his/her competency in the equipments operation and understanding of load charts and the code of signals for hoisting operations for hoisting operations.

No worker other than the competent worker authorized by NexGen Mechanical may operate a crane, hoist, or lifting device. All operators of each hoist or crane have been thoroughly trained, certified, and be able to implement the manufacturers recommended operating procedures and complete the required pre-use inspection. Additionally, for motorized materials handling equipment the instruction will cover fuelling procedures and its safe and proper use, taking into account the conditions of the work place in which the operator will operate the materials handling equipment.

No person under the age of 16 years will be employed or permitted to work as an operator of a crane or a hoist.

### **Record Keeping**

All cranes, hoists, and lifting devices need a logbook if they have a rated load greater than five (5) tonnes in Saskatchewan.

The logbooks are kept in the cab of each crane. NexGen Mechanical ensures that a record of the inspections and maintenance carried out is kept in the logbook and readily available to any worker who will use the crane.

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The crane logbook will have the following information recorded:

- Date and time when any work was performed on the lifting device;
- Length of time in lifting service (recorded as hours of service);
- Manufacturer's specifications;
- Defects or deficiencies and when they were detected;
- Inspections, including examinations, checks and tests (calibrations), that are performed, including those specified in the manufacturer's specifications; and
- Repairs or modifications performed (maintenance records).
- Every logbook must be signed by the person who performed the inspection, maintenance, calibration and/or review on a regular basis.

NOTE: Logbooks are not required for manually operated hoists.

### **Maintenance and Inspection**

Every hoist, crane or lifting device including the controls and safety devices must be inspected by a competent / qualified person to ensure it is in safe working condition:

- Before the hoist, crane or lifting device is used at the start of each work shift;
- After alterations to the elevating device or a safety device are performed;
- At regular intervals as recommended by the manufacturer; and
- In accordance with legislative requirements of the cranes, hoist, or lifting device.

A mobile crane or boom truck must be inspected at least once every 12 months in accordance with good engineering practice and inspected, tested, and maintained in accordance with the requirements of CSA Standard Z150-98 (R2008), to ensure it meets the crane or boom truck manufacturer's specifications, and the requirements of the applicable design and safety standard or Regulation.

Any defects found during inspection or use of a crane or hoist must be recorded in the inspection and maintenance record system (logbook) and be reported immediately to the supervisor, who must determine the course of action to be taken. If a defect affects the safe operation of the crane or hoist, the equipment must not be used until the defect has been remedied. All restrictions of use must also be noted in the log book. Before operating a particular lifting device, the operator must be familiar with all recent entries in its logbook.

A record of each inspection and test must

- be signed by the person who made the inspection and test,

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- include the date of the inspection and test and the identification and location of the elevating device and safety device that were inspected and tested, and
- set out the observations of the person inspecting and testing the elevating device and safety device on the safety of the devices.

Repair and maintenance of elevating devices or their safety devices must be performed by a qualified person.

### **Safe Lifting**

It is imperative that loads are not moved until an operator of a lifting device is assured that the working conditions are safe.

A crane or hoist operator must not pass a load over a person, unless no practicable alternative exists and then only after the person has been warned of the danger by an audible alarm or other effective means. A person working at a workplace must not stand or pass beneath a suspended load. Loads must be positioned as close to the ground as possible before unloading. The workers must be warned if loads are passed too close. Hand signals, telephone, and/or siren warning system could be used as an effective communication system for workers that are required to work in loud areas with lifting devices. All NexGen Mechanical workers are required to wear steel-toed boots for protecting themselves against falling objects.

Prior to any lift the location of any overhead lines (power, phone, etc.) must be identified. The lift must be planned to avoid the area of any overhead lines; if that is not possible minimum clearance distances must be adhered to or the line must be de-energized.

### **Critical Lifts**

While it is a good practice to complete load calculations for each lift regardless of the load weight, it is critical as the load approaches the crane's capacity. This calculation must be performed when the load reaches or exceeds 75 percent of the crane's capacity. The rated capacity of a crane or hoist must not be exceeded.

Performing a lift calculation ensures that relevant and applicable factors for lifting a load have been considered and calculated. These factors include:

- load information (total weight of item to be lifted, weight of load block, weight of rigging/attachments, load centre of gravity, if applicable;
- crane information:
  - mobile cranes i.e. maximum radius, boom length/angle, configuration, relevant deductions, etc.;
  - overhead cranes i.e. capacity;

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- calculated percentage of crane capacity; and
- sketch i.e. crane placement, clearance to surrounding facilities like buildings and power lines.

For multiple lifts, the “worst-case” lift can be used to satisfy this requirement.

In the case of tower cranes, lifting operations are typically planned or engineered and test weights are lifted daily. This would satisfy this requirement.

### **Designated / Qualified Signaller**

A designated / qualified signaller will be used when the operator of a hoist or crane does not or may not have a clear unobstructed view throughout the whole range of movement including the pick-up point, the setting point and the load (the hook if there is no load). The operator must act only on the directions of a qualified signaller who has a clear view of the things the operator cannot see. The operator of the crane or hoist must stop the operation of the equipment on receiving a stop signal from any person.

### **Outriggers**

When a hoist or crane is designed to be operated with outriggers or other stabilizing devices, the outriggers or other stabilizing devices must:

- Be used in accordance with manufactures instructions,
- Be set on a solid footing or pad,
- Have their controls, if any, readily accessible to the operator and in a suitable position for safe operation,
- Have the area around the outriggers or other stabilizing devices is kept free of obstruction,
- Ensure a minimum clearance of 600mm between any moving part of the crane and any obstacle near the base of the hoist or crane,
- Ensure that where there is a danger of a worker being trapped or crushed by any moving part of the crane when the crane swings, the area around the base of the crane is barricaded to restrict the entry of workers.

### **Raising and Lowering Workers**

It is always best, when practical to use only man baskets to raise or lower workers. When that cannot be done, a crane or hoist may be used to raise or lower the workers by following the site/equipment specific work practices and procedures.

All NexGen Mechanical workers who are operating the crane or hoist, are being raised or lowered, or just working nearby will be trained in the work practices and procedures to raise or lower workers. Motorized or manual materials handling equipment will only be used for transporting, hoisting, or positioning workers, if it is equipped with a platform, bucket, or basket designed for those purposes.

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The hoisting equipment and personnel lifting unit must be inspected by a competent person before use and daily when in use. A competent person must record the details of the inspection in the log book.

**Site Specific Procedures for Erecting and Dismantling a Hoist or a Crane**

If a hoist or a crane will be erected or dismantled a written procedure for safety will be developed. The procedure will take into account the following:

- the crane designer's or crane manufacturer's instructions;
- technical standards relevant to access and egress;
- the crane's stability;
- any adverse effects on other plant, structures or work processes at the workplace;
- the use of special tools, jigs and appliances necessary to minimize the risk of injury;
- control measures for securing crane components;
- the interaction of the crane with other plant;
- environmental factors, such as wet or windy conditions; and
- all relevant electrical installations associated with the crane.

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## **9.9 Drill Press**

Before operating the drill press, the operator must:

- Be designated or directed by supervisory personnel to operate the machine.
- Read and understand the manufacturer's operational instructions and these safe work practices.
- Receive instruction from experienced shop personnel in the operation of the machine.

### **General Precautions**

1. Firmly secure the material to be drilled, tapped or reamed by blocks or clamps so that it cannot spin or climb the drill. Never use your hand to secure the material from turning.
2. After tightening drill or chuck of drill press, be sure to remove release key before starting the machine.
3. Run the drill only at the correct speed for material and application. Forcing or feeding too fast may cause broken drills and result in serious injury.
4. An operator should never attempt to loosen the chuck of a tapered shank drill unless the power is turned off.
5. When chucks are being removed from the spindle, the spindle should be lowered close to the table so the chuck will not fall.
6. Use a brush to remove drillings from the work. Never use your hands.
7. Wear appropriate eye protection at all times.

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## **9.10 Electric Drill**

The following precautions must be followed when using an Electric Drill:

- Wear safety glasses when operating a portable electric drill.
- Disconnect the drill from the electrical supply when installing bits.
- Clamp stock so it will not move during the drilling operation.
- Before drilling, turn the drill on to see if the bit is centered and running true.
- Align the bit with the desired hole location before turning the drill on.
- Hold the drill firmly with both hands while drilling.
- When drilling deep holes with a twist drill, move the bit up and down several times while drilling to remove cuttings and reduce overheating in the bit.
- Do not allow the cord to become wrapped around the drill when working.
- If the electrical cord becomes frayed or starts to separate from the drill housing, repair it immediately!
- Remove the bit from the drill as soon as the work is completed.
- Select the correct bit for the finish and material being drilled. Make sure the bit is securely tightened in the drill chuck.
- Be extremely careful when using larger portable electric drills (3/8" and 1/2"). If the bit should hang or get caught the drill will twist in the operators hands causing a sprain or bruised fingers.
- Tighten the drill bit by rotating the chuck key to all three holes in the chuck. This will help to keep the drill bit centered. Always remove the key from the chuck before drilling.
- To prevent seizing, reduce the feed pressure when the drill bit is about to come through the material.
- Always center punch or make a starting indentation in the material being drilled to get an accurate starting point for the drill bit. To obtain holes that are placed accurately, drill a small pilot first then drill the final hole.
- Apply moderate even pressure to the drill during the drilling operation. If excessive pressure is required to make the bit cut then the bit is dull and needs to be sharpened.
- Maintain good balance at all times when drilling.
- Use slow drill speeds for drilling metal and fast speeds for drilling wood.

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## **9.11 Electrical Safety**

It's a fact, electricity kills! Burns, shock, and electrocution are common hazards that everyone needs to watch out for. Basic safety practices can help you avoid a minor injury or a major catastrophe. NexGen Mechanical understands that although not all of our workers are trained Electricians we must all have a basic understanding of electricity and its hazards.

The purpose of this practice is to protect and educate employees and contractors. It is essential that all NexGen Mechanical workers read, understand, and comply with these safe work practices and procedures for electrical work. This policy establishes written procedures for compliance that have been implemented at NexGen Mechanical.

### **Training and Competency**

All NexGen Mechanical employees receive basic electrical training at orientation and as needed after that. Prior to being permitted to do work in proximity to energized electrical conductors or equipment all NexGen Mechanical workers are informed of the potential electrical hazards of the specified task. This is done during the pre-job hazard/risk assessment. If the work requires proficiency in Electrical Applications, only a trained Electrician will perform the task including constructing, installing, altering, repairing or maintaining electrical equipment. Only qualified electrical workers may enter electrical rooms and enclosures containing energized parts or to conduct diagnostic work.

All Electricians must have the proper combination of experience, knowledge, and education (including approved training in high voltage safety) to perform the work required. Workers must be competent when working with electricity. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. A "qualified electrical worker" will have a journeyman's certificate in the electrician trade or power lineman trade issued pursuant to The Apprenticeship and Trade Certification Act, and includes an apprentice in the trade while under the supervision of a journeyman.

All training documents (including Apprentice and Journeyman Certificates) must be on file prior to the commencement of all electrical work.

### **Risk Assessment and Permits**

Prior to obtaining a permit a shock and arc flash risk hazard assessment will be completed. It will estimate the likelihood of occurrence of injury or damage to the worker or the environment. The hazard assessment will also help to determine if

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additional protective measures are required; PPE requirements within the arc flash boundary will be determined by completing an arc flash hazard analysis.

An electrical work permit must be completed before energized work begins. The work permit will include, but not be limited to the following: a description of the circuit and equipment to be worked on, a description of the work to be performed, justification for why the work needs to be performed in an energized condition and the results of a shock risk/arc flash assessment.

### **Personal Protective Equipment**

The following personal protective equipment must be worn for protection from electrical shock and/or arc flash:

- Voltage rated gloves (hot gloves), rated and tested for the maximum line-to-line voltage upon which work will be done, must be worn when:
  - performing work on energized parts,
  - an electrical panel is de-energized, but the power supply feeding the electrical disconnect or enclosure is not guarded (e.g. - finger-safe guards, manufacturer shields), and/or there is no guarding around foreign power components, and
  - testing voltage of energized components.
- All work on energized equipment between 50 and 240 volts (including when the power supply feeding the electrical disconnect or enclosure is not guarded and/or when there is no guarding around foreign power components), and/or when removing the bolts of a cover, and circuit breaker or fuse switch operations with the cover on, circuit breaker or fuse switch operation with the covers off, and the opening of hinged covers to expose bare wire on energized equipment requires the use of:
  - fire resistant long pants made of natural fibers (e.g. untreated cotton, wool, denim) or treated fire resistant material, and
  - fire resistant long sleeved shirt made of natural fibers or arc flash suit jacket ( $\geq 11$  cal/cm<sup>2</sup>), or
  - fire resistant coveralls with an arc flash rating of  $\geq 4$  cal/cm<sup>2</sup>.
- All work on energized equipment between 241 and 480 volts (including when the power supply feeding the electrical disconnect or enclosure is not guarded and/or when there is no guarding around foreign power components), and/or when removing the bolts of a cover, requires the use of:
  - arc flash suit jacket and pants ( $\geq 11$  cal/cm<sup>2</sup>), and
  - hardhat with fire resistant face shield ( $\geq 8$  cal/cm<sup>2</sup>), or
  - arc flash suit hood worn over head and secured,
  - leather gloves,
  - leather footwear,
  - hearing protection.

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- Clothing worn around live circuits should be 100% untreated natural fiber. Synthetic materials, such as nylon, will melt onto skin in the event of an arc flash or electric shock which can lead to serious burns.

### **Equipment Requirements**

Often NexGen Mechanical workers do not have input in the specifications of electrical equipment used in electrical installations. Prior to the installation by a trained NexGen Mechanical worker a verification of the electrical equipment must prove that it is of a kind or type and rating approved for the specific purpose for which it is to be employed. Electrical equipment must be maintained in proper working condition, capable of safe operation, and tested in accordance with the manufacturer's recommendations. The equipment owner is responsible for maintenance of the electrical equipment and documentation. The maintenance history will help to determine risks associated with performing energized work on the equipment.

If you are unsure do not proceed. Contact with both NexGen Mechanical and the client will be required.

### **Hazardous Locations**

Prior to the commencement of work, an assessment must be performed to determine whether the location is Hazardous or not, based on the CSA Electrical Z462. All hazardous locations must be classified according to the nature of the hazard.

*Class I locations* - flammable gases or vapours are or may be present in the air in quantities sufficient to produce explosive gas atmospheres.

*Class II locations* - the presence of combustible or electrically conductive combustible dusts.

*Class III locations* - the presence of easily ignitable fibres or flyings, but in which such fibres or flyings are not likely to be in suspension in air in quantities sufficient to produce ignitable mixtures.

If the hazard assessment determines that a work area is a hazardous location, a professional engineer, or a competent person authorized by a professional engineer, must divide and classify the work area in accordance with the Canadian Electrical Code, or the Code for Electrical Installations at Oil and Gas Facilities. Adequate documentation must be prepared and maintained, outlining the boundaries of the classified area and any specific measures to prevent the unintentional ignition of an explosive atmosphere.

If the hazard assessment indicates that the above classification has changed, NexGen Mechanical will review and update that classification.

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Whenever practicable, all service equipment, panel boards, switchboards, and similar electrical equipment will be located in rooms or sections of the building in which hazardous conditions do not exist. All electrical equipment that must be used in the hazardous location must be approved for the specific gas, vapour, mist or dust that will be present. NexGen Mechanical ensures that no electrical equipment will be used in a hazardous location, unless the equipment is essential to the process.

NexGen Mechanical ensures that in a hazardous location, equipment used will not ignite a flammable substance, and static electricity is controlled. Flammable material must not be stored or placed close to electrical equipment.

### **Limits of Approach**

Prior to any work being performed NexGen Mechanical will accurately determine the voltage of any energized electrical equipment or conductor and the associated minimum set back distance.

Unqualified employees will maintain a minimum distance from exposed energized conductors so they cannot come into contact with energized electrical parts. The CSA Standard Z462-18 Table 1A and 1B outline the specific approach boundaries that should not be exceeded. For employees who are required to cross into these areas, additional control measures will be utilized.

"Qualified persons must not approach or bring conductive objects closer to exposed energized electrical conductors or circuit parts operating at voltages greater than 30 V within the restricted approach boundary unless at least one of the following applies:

- The qualified person is insulated or guarded from the energized electrical conductors or circuit parts operating at voltages greater than 30 V. Insulating gloves and sleeves will be considered insulation only with regard to the energized parts on which work is being performed.
- The energized electrical conductors or circuit parts are insulated from the qualified person and from any other conductive object at a different potential.

Qualified electrical workers must perform all work in accordance with written instructions or safe work procedures that have been developed and signed by a competent person. Equipment must be approved for the intended use of the equipment. Qualified electrical workers must use personal protective equipment that meets the requirements of our Personal Protective Equipment Policy.

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### Saskatchewan

The following minimum distances from Exposed Energized High Voltage Electrical Conductors have been set out:

| Risk Factor            |                   | Column 1                                     | Column 2                     | Column 3          |
|------------------------|-------------------|----------------------------------------------|------------------------------|-------------------|
| Voltage Phase to Phase | Voltage to Ground | Non- electrical Workers, Material, Equipment | Qualified Electrical Workers | Vehicles and Load |
| (kV)                   | (kV)              | (Metres)                                     | (Metres)                     | (Metres)          |
| 230                    | 133               | 6.1                                          | 1.4                          | 1.83              |
| 138                    | 79.8              | 4.6                                          | 1                            | 1.22              |
| 72                     | 41.6              | 4.6                                          | 0.6                          | 0.8               |
| 25                     | 14.4              | 3                                            | 0.3                          | 0.6               |
| 15                     | 8.6               | 3                                            | 0.3                          | 0.6               |
| 4.16                   | 2.4               | 3                                            | 0.15                         | 0.6               |
| 0.75                   | 0.75              | 3                                            | 0.15                         | 0.6               |

### Locking Out

Before any work begins on an electrical conductor or electrical equipment and during the progress of that work, NexGen Mechanical will ensure that the electrical conductor or electrical equipment is isolated, locked out, connected to ground, and then is 'Tested Before Touching'. If it is not reasonably practicable to de-energize electrical equipment before performing electrical work, alternative hazard controls must be implemented and approved before electrical work begins.

### Portable Electrical Equipment

Portable electrical equipment having double insulation or equivalent protection does not need to be grounded provided it is marked to that effect.

All other portable electrical equipment (including those not permanently connected to the wiring system) must be effectively grounded by the use of approved cords and polarized plugs inserted in grounded polarized receptacles and be approved for the location of use (indoor/outdoor). The electrical extension or power supply cord; must be maintained and protected from physical or mechanical damage. Cord-connected electrical equipment and tools shall have a casing that is adequately grounded.

When used outdoors or in a wet or damp location, portable electrical equipment, including temporary lighting, must be protected by an approved ground fault circuit interrupter of the class A type installed at the receptacle or on the circuit at the panel, unless another acceptable means of protection is provided. A ground fault circuit interrupter must not be used in place of grounding except as permitted by the *Electrical Safety Act* and the regulations made under it.

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NexGen Mechanical will mark or tag as unsafe and remove from service any equipment with damaged or defective electrical components (e.g.- damaged power cord or plug) that may render it unsafe for use.

### **General Guidelines**

All NexGen Mechanical electricians have a significant amount of training and experience. The following are general guidelines to ensure safety:

#### *Electric Installations*

- Electrical installations must be made so that the likelihood of fire spreading through fire stopped partitions, floors, hollow spaces, firewalls or fire partitions, vertical shafts, or ventilating or air-conditioning duct is reduced to a minimum. Where a fire separation is pierced by a raceway or cable, any openings around the raceway or cable must be properly closed or sealed in compliance with the National Building Code of Canada.
- Electrical equipment must be installed and guarded so that adequate provisions are made for the safety of persons and property and for the protection of the electrical equipment from mechanical or other injury to which it is liable to be exposed.
- Bare live parts must be guarded against accidental contact by means of approved cabinets or other forms of approved enclosures. The entrance to a room or similar enclosure containing exposed live electrical parts will have a conspicuous sign, warning of the danger, and forbidding entry by unauthorized persons.
- Electrical equipment such as switchboards, panel boards, industrial control panels, meter socket enclosures and motor control centres that are installed and are likely to require examination, adjustment, servicing or maintenance while energized must be marked to warn persons of potential electric shock and arc flash hazards. The markings must be located so that it is clearly visible to persons before examination, adjustment, servicing, or maintenance of the equipment.
- When installed outdoors, arc-producing electrical equipment must not be installed within 1m of the discharge of a combustible gas relief device or vent.
- The path to ground from circuits, equipment, or conductor enclosures must be permanent and continuous, must have ample ampacity to conduct safely any currents liable to be imposed on it, and must have impedance sufficiently low to limit the voltage above ground and to facilitate the operation of the overcurrent devices in the circuit.
- All switches, receptacles, luminaires and junction boxes must be fitted with a cover that is approved for the intended use and location of the cover.
- All wire joints or connections must be fitted with an approved cap or other approved cover; enclosed in an approved box; or where the wire joints or

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connections are not permanently installed, protected from damage by another approved means.

- All dead, abandoned, or disused electrical conductors or equipment are removed from the place of employment or disconnected and secured to prevent inadvertent energization.

### *Maintenance and Operation*

The following should be adhered to during any maintenance and operation of electrical equipment:

- Low voltage and high voltage electrical equipment must be completely disconnected, locked out, and grounded before starting work on it. The power supply to electrical installations, equipment or conductors shall be disconnected, locked out of service and tagged before any work is done, and while it is being done, on or near live exposed parts of the installations, equipment or conductors. If it is not practical to disconnect electrical installations, equipment or conductors from the power supply before working on, or near, live exposed parts of the installations, equipment or conductor. The worker shall use rubber gloves, mats, shields and other protective equipment and procedures adequate to ensure protection from electrical shock and burns while performing the work.
- Before beginning the work, each worker shall determine if the equipment has been locked out correctly.
- Locking out is not required, if the conductors are adequately grounded with a visible grounding mechanism; or if the voltage is less than 300 volts and there is no locking device for the circuit breakers or fuses and procedures are in place adequate to ensure that the circuit is not inadvertently energized.
- If more than one worker is involved in the work the worker who disconnected and locked out the power supply shall communicate the purpose and status of the disconnecting and locking out.
- If a tag is used as a means of communication, the tag will,
  - be made of non-conducting material,
  - secured to prevent its inadvertent removal,
  - placed in a conspicuous location,
  - state the reason the switch is disconnected and locked out,
  - show the name of the worker who disconnected and locked out the switch; and
  - show the date on which the switch was disconnected and locked out.
- Low voltage and high voltage electrical equipment must be completely disconnected and locked out before starting work on it.
- All operating electrical equipment must be kept in safe and proper working condition.

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- Electrical equipment maintained for emergency service must be periodically inspected and tested, as necessary, to ensure its fitness for service.
- Before completing installation and after energizing low voltage, and high voltage electrical equipment, conspicuous signs visible to workers must be placed close to the equipment stating "Danger, Energized Equipment, the Highest Voltage in Use" and that "Access is Restricted to Authorized Persons Only". These signs must be legible and maintained. Signs need to identify the hazard and be present on electrical rooms/vaults and labels on electrical equipment.
- Infrequently used electrical equipment maintained for future service must be thoroughly inspected before use in order to determine its fitness for service.
- Electrical equipment must be inspected before use on a shift to determine if there are external defects (e.g., loose parts or deformed and missing pins) and for evidence of internal damage (e.g., pinched or crushed outer jacket). In addition, all safety equipment and insulating tools need to be inspected before use.
- Defective equipment must either be put in good order or permanently disconnected. Where defects or unsafe conditions have been identified in electrical equipment, the following must occur:
  - steps are taken immediately to protect the health and safety of any worker who may be at risk (mark or tag as unsafe and remove from service) until the defects are repaired or the unsafe conditions are corrected; and the defects are repaired or the unsafe conditions are corrected as soon as is reasonably practicable; or
  - must ensure that the electrical equipment is disconnected and removed from use.
- In locations where explosive or flammable materials or gases are present, repairs or alterations must not be made on any live equipment. Seals in enclosures must be maintained in their original safe condition.
- Passageways and working space around electrical equipment must not be used for storage and must be kept clear of obstruction and arranged to give authorized persons ready access to all parts requiring attention. A minimum working space of 1m with secure footing must be provided and maintained about electrical equipment such as switchboards, panel boards, control panels, and motor control centers that are enclosed in metal, except where working space is not required behind such equipment where there are no renewable parts such as fuses or switches on the back and where all connections are accessible from locations other than the back. Each room containing electrical equipment and each working space around equipment must have suitable means of egress, which must be kept clear of all obstructions.
- Adequate illumination must be provided to allow for proper operation and maintenance of electrical equipment.

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- A Class C fire extinguisher must be readily available to workers working on or near energized high voltage electrical equipment.
- Flammable material must not be stored or placed in dangerous proximity to electrical equipment.
- Adequate ventilation must be provided to prevent the development around electrical equipment of ambient air temperatures in excess of those normally permissible for such equipment.
- Where a portable luminaire is used the electrical extension cord and fittings must be approved for the intended use and location of the extension cord and fittings. The luminaire must be properly maintained. An electrical extension cord used for a luminaire must not be used to supply power to any equipment other than the portable luminaire unless the cord meets the proper requirements.
- Tools and other equipment that are capable of conducting electricity and endangering the safety of any worker shall not be used in such proximity to any live electrical installation or equipment that they might make electrical contact with the live conductor.
- Protective devices will be maintained to adequately withstand or interrupt available fault circuit and to function in accordance with their designed operating times. Instructions for use will be provided and temporary protective grounds shall be rated for the circuit it is being attached to.

### **Emergency Rescue Program**

A person working on live power voltage should never be working alone. A person, not located in the hazardous zones, who can assist the worker, should be present. Electricity, even at voltages of 115V, can cause severe injury or death by causing a person's heart or lungs to stop working. Electricity can also cause minor to severe burns. Serious electrical burns often appear to be minor since most of the damage to body tissues and organs is internal. If a worker has come into contact with electricity the worker may not be able to remove themselves from the electrical source. An electrical safety person should be present when applicable.

### **DO NOT ATTEMPT TO PULL THE PERSON FROM THE ELECTRICAL SOURCE WITH YOUR BARE HANDS, YOU MAY BE ELECTROCUTED.**

The human body is a good conductor of electricity. If you touch a person while they are in contact with the electrical source, the electricity will flow through your body causing electrical shock. Always attempt to turn off the source of the electricity (disconnect). If the electrical source cannot readily and safely be turned off, **use a non-conducting object**, such as a fiber glass object or a wooden pole, to remove the person from the electrical source. Emergency medical services should be called as soon as possible.

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When the victim has been removed from the electrical source, check to see if the person is breathing and if they have a pulse. If necessary, administer CPR (if you are trained) until emergency personnel arrive at the scene.

Never go near a victim that has been electrocuted by a high voltage transformer or line, even if they are no longer in direct contact with the power source, because electricity from the line or other source can arc several feet through the air and you could be electrocuted.

If equipment contact is made with an overhead power line:

1. Do not touch the equipment if you are on the ground next to it.
2. Warn anyone approaching not to touch the equipment or any lines which may have fallen. Ensure the area is de-energized prior to entering.
3. Contact Powerline Owner immediately and follow their instructions
4. If you are operating mobile equipment that has contacted a power line:
  - Remain on the equipment and call for help
  - If no one is around, and if faced with an emergency such as fire, jump with both feet together and hop or shuffle away from the equipment.

All workers who will implement the emergency procedures have been trained in the procedures and the emergency program.

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## **9.12 Fall Protection**

Fall Protection is necessary when there is a potential to fall more than 3 meters and/or guardrails are not provided or if there is an unusual possibility of injury if a worker falls less than 3 meters. Fall protection must be worn and a Fall Protection Plan be developed when working over water, open vessels, machinery, extremely hot or cold surfaces (even if the fall may be less than 3m), working from a boom elevating work platform, boom supported aerial device, ladder, or telescopic forklift truck work platform. Whenever possible handrails must be installed.

Some of our Clients follow the US OSHA standard of fall protection of 6 ft (1.8m). When working at sites owned by these client's we must adhere to the 6 ft (1.8m) requirement, this will be discussed prior to any work requiring the more stringent standard. In General Industry, fall protection for wall openings and holes must be used at a height of 4 ft (1.2 m). Some clients may require fall protection at 4 ft (1.2m).

A fall arresting device prevents a worker from falling more than 1.2 metres without a shock absorber; where a shock absorber is used, prevents a worker from falling more than two metres (or the limit specified in the manufacturer's specifications, whichever is less) and applies a peak fall-arrest force not greater than eight kilonewtons to a worker. The fall arresting device must be fastened to a lifeline or to a secure anchor point that has a breaking strength of at least 22.2 kilonewtons.

The purpose of the Fall Protection policy is to protect and educate employees and contractors. It is essential that all NexGen Mechanical workers read, understand, and comply with safe work practices and procedures for Fall Protection.

### **Training**

NexGen Mechanical employees performing work requiring fall protection require training in the fall protection plan and the safe use of the fall protection system before being allowed to work in an area where a fall protection system must be used. All personnel who perform tasks that include the use of fall protection must have the proper combination of experience, knowledge, and education and be considered competent by their supervisor. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. If you are unsure of a rule or requirement, stop and ask.

Training includes the following:

- an understanding of the company's fall protection policies and procedures,
- fall protection equipment a worker may be required to use at a work site,
- identification of potential fall hazards,

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- information about the effect of a fall on the human body,
- pre-use inspection, and
- emergency response procedures to be used at the work site, if necessary.

Workers are also trained in their responsibilities to ensure that the lifeline or lanyard is free of imperfections, knots and splices other than end terminations, is protected by padding where the lifeline or lanyard passes over sharp edges and is protected from heat, flame or abrasive or corrosive materials during use. Before using a safety belt or full body harness a worker must ensure that the safety belt or full body harness is properly adjusted to fit the worker securely and is attached by means of a connecting linkage to a fixed anchor or lifeline.

All training certificates are kept in a secure filing cabinet.

### **Standards and Equipment Requirements**

NexGen Mechanical ensures all equipment identified for use in fall protection must be in compliance with the OH&S code and applicable CSA, ANSI/ASSE, or CEN standards and updates to those standards. Our purchasing policy for Fall Protection Equipment ensures the following CSA Z259 standards have been met for all manufactured on or after July 1, 2009 (prior to this date previous applicable standards are acceptable):

- CSA Z259.10 – 06, Full Body Harnesses, ANSI/ASSE Standard Z359.1-2007, *Safety requirements for personal fall arrest systems, subsystems and components*, or CEN Standard EN 361: 2007, *Personal protective equipment against falls from a height — Full body harnesses*
- CSA Standard Z259.1-05, *Body belts and saddles for work positioning and travel restraint*, ANSI/ASSE Standard A10.32-2004, *Fall Protection Systems – American National Standard for Construction and Demolition Operations*, or CEN Standard EN 358: 2000, *Personal protective equipment for work positioning and prevention of falls from a height — Belts for work positioning and restraint and work positioning lanyards*
- CSA Standard Z259.11-05, *Energy absorbers and lanyards*, ANSI/ASSE Standard Z359.1-2007, *Safety requirements for personal fall arrest systems, subsystems and components*, or CEN Standard EN 354: 2002, *Personal protective equipment against falls from a height — Lanyards*.
- CSA Standard Z259.11-05, *Energy absorbers and lanyards*; ANSI/ASSE Standard Z359.1-2007, *Safety requirements for personal fall arrest systems, subsystems and components*; or CEN Standard EN 355: 2002, *Personal protective equipment against falls from a height – Energy absorbers*.
- CSA Standard Z259.12-01 (R2006), *Connecting Components for Personal Fall Arrest Systems (PFAS)*, ANSI/ASSE Standard Z359.1-2007, *Safety requirements for personal fall arrest systems, subsystems and components*, CEN Standard EN 362: 2004, *Personal protective equipment against falls*

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*from a height – Connectors, or CEN Standard 12275: 1998, Mountaineering equipment – Connectors – Safety requirements and test methods.*

- *CSA Standard Z259.2.1-98 (R2004), Fall Arresters, Vertical Lifelines, and Rails, ANSI/ASSE Standard Z359.1-2007, Safety requirements for personal fall arrest systems, subsystems and components, or CEN Standard EN 353-2: 2002, Personal protective equipment against falls from a height – Part 2: Guided type fall arrestors including a flexible anchor line.*
- *CSA-Z259.2.2-98 (R2004), Self-Retracting Devices for Personal Fall Arrest Systems.*
- *CSA Standard Z259.2.3-99 (R2004), Descent Control Devices, CEN Standard EN 341: 1997, Personal protective equipment against falls from a height – Descender devices, or (c) NFPA Standard 1983, Standard on Life Safety Rope and Equipment for Emergency Services, 2006 edition, classified as general or light duty.*
- *NFPA Standard 1983, Standard on Life Safety Rope and Equipment for Emergency Services, 2006 Edition, as light-use or general-use life safety rope, CEN Standard EN 1891: 1998, Personal protective equipment for the prevention of falls from a height — Low stretch kernmantle ropes, as Type A rope, CSA Standard CAN/CSA-Z259.2.1-98 (R2004), Fall Arresters, Vertical Lifelines, and Rails, or ANSI/ASSE Standard Z359.1-2007, Safety requirements for personal fall arrest systems, subsystems and components.*
- *CSA Standard Z259.11-05, Energy absorbers and lanyards, as a Class F adjustable positioning lanyard, or CEN Standard EN 358: 2000, Personal protective equipment for work positioning and prevention of falls from a height — Belts for work positioning and restraint and work positioning lanyards.*
- *CSA Standard Z259.2.3-99 (R2004), Descent Control Devices, CEN Standard EN 341: 1997, Personal protective equipment against falls from a height – Descender devices, or NFPA Standard 1983, Standard on Life Safety Rope and Equipment for Emergency Services, 2006 Edition, classified as general or light duty.*
- *CSA-Z259.14-01, Fall Restrict Equipment for Wood Pole Climbing in combination with CSA Standard Z259.3-M1978 (R2003), Lineman's Body Belt and Lineman's Safety Strap.*
- *CSA Standard Z259.1-1976, Fall-Arresting Safety Belts and Lanyards for the Construction and Mining Industries (or current version);*
- *CSA Standard Z259.2-M1979, Fall-Arresting Devices, Personnel Lowering Devices and Life Lines (or current version); and*
- *CSA Standard Z259.3-M1978, Lineman's Body Belt and Lineman's Safety Strap (or current version).*

A lifeline must be suitable for the conditions in which the lifeline is to be used, having regard to factors including strength, abrasion resistance, extensibility, and

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chemical stability. All NexGen Mechanical supplied lifelines are made of wire rope or synthetic material, is free of imperfections, knots and splices, other than end terminations, is protected by padding where the lifeline passes over sharp edges, is protected from heat, flame or abrasive or corrosive materials during use and is maintained to manufacturer's recommendations.

Engineering controls such as guardrails are the best method of fall protection, and must be used whenever practicable. A standard guardrail consists of a top rail located between 92 cm (36 in) and 107 cm (42 in) above the work surface, and a mid-rail that is spaced midway between the top rail and the work surface. A guardrail must be capable of supporting a worker who may fall against it.

A travel restraint or fall arrest system must be used when a worker is exposed to a potential fall of 3 meters or greater (6 ft /1.8 m when working for Clients using the more stringent US OSHA Standard), when guardrails are not practicable. The fall protection system is made up of many parts, including anchor points, hooks, harness, connecting linkage, and lanyards that must be approved and maintained. If a NexGen Mechanical worker uses a personal fall arrest system or a travel restraint system, the worker must ensure that it is safely secured to an anchor. The following safety issues must be addressed:

- If a NexGen Mechanical worker uses a personal fall arrest system or a travel restraint system, the worker must ensure that it is safely secured to an anchor and that separate anchor points are used for each worker.
- Anchor points should be above the workers head. Select an anchor point that will limit the distance of the fall.
- A permanent anchor for a personal fall protection system must have an ultimate load capacity in any direction required to resist a fall of at least 22.2 kN (5 000 lbs) and is not used to suspend any platform or other load.
- Consider the amount of lanyard that would be lengthened from the shock absorber. Lanyards must be short enough to prevent a worker from falling too far but long enough to not interfere with the work being carried out. All lanyards are constructed of nylon, polyester, or polypropylene rope or webbing or wire rope that is equipped with an approved shock-absorbing device. Lanyards must be equipped with suitable snap hooks.
- Where a snap hook is used as an integral component of a personal fall arrest system, connecting linkage, fall arresting device, full body harness or lifeline, the snap hook must be self-locking.
- When a Man basket is used there must be a separate safety line attached from the basket frame up to the boom or crane line above the hook holding the man basket.
- Where a full body harness is used:
  - it must be properly fitted to the worker,
  - the worker must be trained in the safe use of the full body harness,

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- all metal parts of the full-body harness and connecting linkage are of drop-forged steel 22.2 kilonewtons proof tested;
- a protective thimble is used to protect ropes or straps from chafing whenever a rope or strap is connected to an eye or a D-ring used in the fullbody harness or connecting linkage; and
- the connecting linkage is attached to a personal fall arrest system, lifeline or secure anchor point to prevent the worker from falling more than 1.2 metres.

All components of the fall protection system must be protected from exposure to harsh conditions or substances that could contribute to its deterioration.

### **Inspection and Maintenance**

Employees of NexGen Mechanical are required to thoroughly inspect the fall protection equipment including the connecting linkage, full-body harness, or lifeline before each shift or use to ensure that it is functional and safe. The inspection must be performed by a competent worker. The components must be inspected according to the manufacturer's specifications and maintained in good working order; the components must be re-certified as required by the manufacturer.

The use of a connecting linkage, personal fall arrest system, full-body harness or lifeline requires a competent person to:

- inspect the connecting linkage, personal fall arrest system, full-body harness or lifeline as recommended by the manufacturer (the components must be re-certified as required by the manufacturer);
- inspect after the connecting linkage, personal fall arrest system, full-body harness or lifeline has sustained a fall-arresting incident; and
- determine whether the connecting linkage, personal fall arrest system, full-body harness or lifeline is safe for continued use.

If the inspection indicates that the fall protection equipment is unsafe or damaged then it must be rejected and be removed from service. An out-of-service tag should be affixed to the equipment indicating it is defective. All defective components of a fall protection system must be repaired by an outsourced provider. NexGen Mechanical workers are not allowed at any time to repair the fall arrest systems. If it is determined the component cannot be repaired they must be discarded immediately. After a fall protection system has arrested the fall of a worker, it must be removed from service and not be returned to service until it has been inspected and re-certified as safe for use by the manufacturer or its authorized agent, or by a professional engineer.

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**NexGen Mechanical Fall Protection Plan**

A fall protection plan must be written for a workplace if work is being done at a location where workers are not protected by permanent guardrails, and from which a fall of 3m or more may occur, or if the use of a fall arrest system is not practicable, or will result in a hazard greater than if the system was not used. The plan must be reviewed by all NexGen Mechanical workers using the fall protection system prior to commencing work. The fall protection plan must be available at the work site at all times. The Fall Protection Plan should include the following components:

- Location of work.
- Identification of fall protection system to be used including types and location of anchor points.
- Assembly, maintenance, and dismantling instructions.
- Inspection and rejection criteria.
- The rescue procedures.
- All hazard, including fall hazards, present at the worksite (hazard assessment).
- A list of the important emergency phone contacts.
- Date, name, and signature of plan developer.
- All workers must sign the Plan to acknowledge that they have reviewed and understand the contents.

If the work and hazards are similar between two jobs, the development of a separate plan may not be necessary, but the requirement to review, understand and sign the plan must be adhere to.

**Fall Arrest Rescue Plan**

Prior to any work involving the potential for a worker to fall NexGen Mechanical will create a plan to retrieve a suspended worker from a fall arrest system if a fall were to occur. Site specific written rescue procedures will be established and in place before any worker uses a fall arrest system at a work site. The plan will include method(s) to be used to rescue a suspended worker from a fall arrest system following a fall. When external emergency services are to be used, they must be capable of performing that method of rescue and be readily available to assist.

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## **9.13 Fire & Explosion**

The purpose of this policy is to protect and educate employees and contractors. It is essential that all NexGen Mechanical workers read, understand, and comply with these safe work practices and procedures for Fire and Explosion.

### **Training and Competency**

All NexGen Mechanical workers receive fire and explosion prevention and emergency training at orientation and during WHMIS training. All workers must have the proper combination of experience, knowledge, and education to perform the work required.

Specific training is given to all workers who handle, use, store, produce, or dispose of a flammable substance that may spontaneously ignite or ignite when in combination with any other substance. All workers who are required or permitted to perform work associated with flammable substances are trained in and will implement, the procedures developed.

Workers are provided hot work training before performing welding, cutting, grinding, and/or other types of hot work, this training includes information set out in this practice. Workers must be qualified to operate the equipment that is producing the Hot Work. Workers who authorize hot work and those who conduct fire watches are trained on the hot work program, and on emergency response procedures.

Workers must be competent when working with welding equipment. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision.

All workers are trained in and implement the procedures developed, where applicable, for compressed and liquefied gas systems and the procedures for Hot Taps (piping).

Specific fire safety plan training will be given to the designated workers. Those workers will be adequately trained in their assigned fire safety duties and how to implement them. Part of this training at NexGen Mechanical includes a fire drill at least once a year. All fire drill documentation will be kept at the NexGen Mechanical main office.

All training and formal education documents must be on file.

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**Fire Safety Plan**

At NexGen Mechanical our ultimate goal is to prevent the outbreak of fire at our place of employment, if that is unsuccessful we aim to provide effective means to protect workers from any fire that may occur. NexGen Mechanical has developed and implemented a written fire safety plan that provides for the safety of all workers in the event of a fire.

This fire plan includes:

- The emergency procedures to be used in case of fire
- The quantities, locations and storage methods of all flammable substances present at the place of employment;
- The designation of persons to carry out the fire safety plan and the duties of the designated persons;
- The training of designated persons and workers in their responsibilities for fire safety; and
- The holding of fire drills.

***Fire Emergency Response Procedure***

1. Remain calm!
2. Sound the fire alarm.
3. Ensure all personnel are accounted for and out of danger.
4. Evacuate endangered workers, with special provisions for workers with disabilities.
5. If a minor fire, activate extinguishing facilities. DO NOT jeopardize personnel safety.
6. If a major fire, call nearest fire department or fire control team.
7. Take reasonable steps to minimize loss of equipment. Disconnect electrical equipment if it is on fire and only if it is safe to do so.
8. Control the fire hazards.
9. Do not break windows.
10. Do not open a hot door (before opening a door, touch it near the top. If it is hot or if smoke is visible, do not open).
11. Do not attempt to save possessions.
12. Meet in the park across the street (if at the office), if at a jobsite meet at the designated muster point.
13. Do not return to the affected area until told to by the fire department.
14. If a minor fire occurred, conduct an investigation and develop an incident report.

***Fire Extinguishers***

All portable fire extinguishers at NexGen Mechanical are selected, located, inspected, maintained, and tested to ensure safety in the event of a fire emergency. All portable fire extinguishers are placed not more than nine metres

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away from each industrial open-flame portable heating device, tar pot or asphalt kettle that is in use and each welding or cutting operation that is in progress. A Class B (or ABC) fire extinguisher must be readily available when working with or near flammable and combustible liquids. Fire extinguishers are inspected monthly in-house and sent out to be maintained yearly.

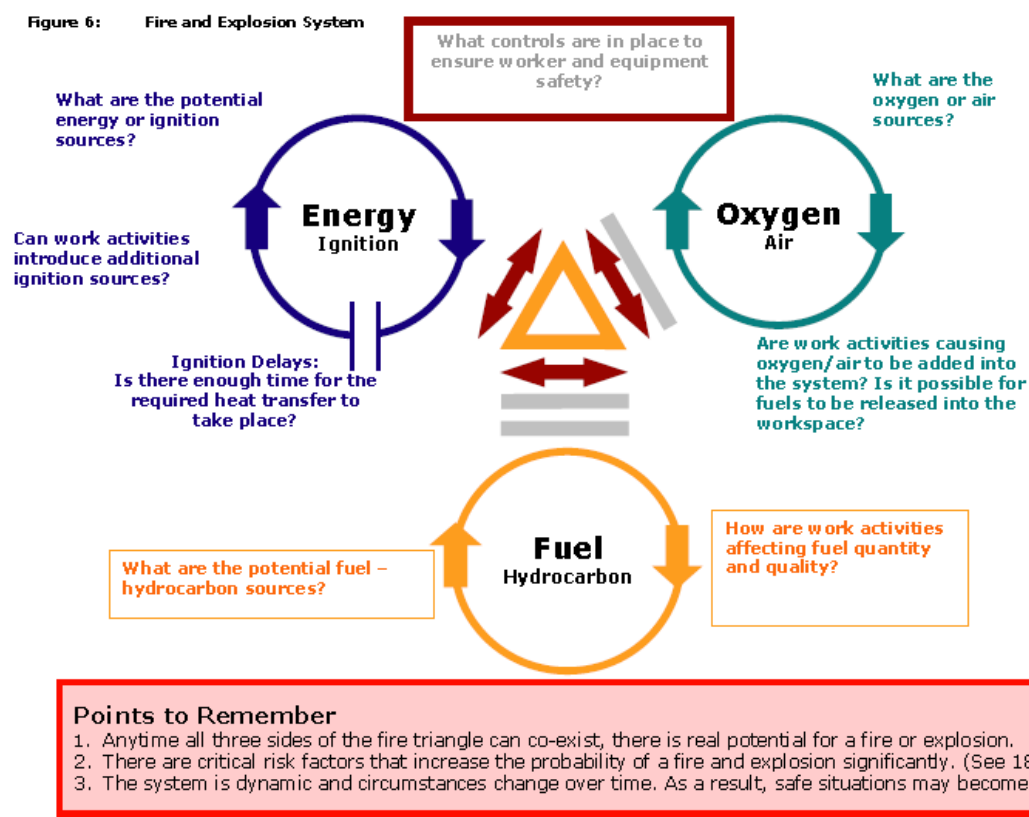
### *Garbage as a Fire Hazard*

All garbage at NexGen Mechanical is put into covered receptacles. It is important to practice good housekeeping at NexGen Mechanical.

### **Hazard Assessment**

Prior to the commencement of work, or when a process changes NexGen Mechanical employees are required to complete a hazard assessment. This assessment looks at the following Fire and Explosion safety issues: inventory of all flammable substances, determination of whether the location is Hazardous or not (based on the CSA Electrical Code), and verification that proper labeling, containers, amounts required to do the task, and safe storage locations are being adhered to.

The hazard assessment will use the following Fire Triangle to assess the potential for fire / explosion:



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If the hazard assessment indicates the potential for any explosive substance to have entered the atmosphere in the area where the work is to commence Atmospheric testing (personal and/or area monitors) must be utilized. Atmospheric testing results should be assessed before a worker is exposed. A person must not enter or work at a work area if more than 10 percent of the lower explosive limit of a flammable or explosive substance is present in the atmosphere.

### **Personal Protective Equipment**

A worker involved in welding or burning operations must wear:

- flame resistant work clothing,
- gauntlet gloves of leather or other suitable material and arm protection,
- an apron of leather or other suitable material for heavy work,
- eye and face protection against harmful radiation, particles of molten metal, and while chipping and grinding welds, and
- substantial safety footwear made of leather or other suitable material.

Respiratory protective equipment must be provided and worn if an effective means of natural, mechanical, or local exhaust ventilation is not practicable including during short duration welding, burning or similar operations or emergency work.

Special precautions are required when performing Arc Welding. All workers who may be exposed to radiation from the arc flash must be protected by adequate screens, curtains or partitions, or wear suitable eye protection. A screen, curtain or partition near an arc welding operation must be made of or be treated with a flame resistant material or coating, and must have a non-reflective surface finish.

### **Safe Handling and Storage of Flammable Substances**

NexGen Mechanical ensures that flammable liquids or explosive dusts that are stored or used at a work area will not be of sufficient quantity to produce an explosive atmosphere. The following safety issues are ensured:

- All sources or potential sources of ignition are eliminated or controlled where an explosive atmosphere exists or is likely to exist (this includes cigarette smoking, sparks from welding or grinding, open-flames, etc);
- A flammable substance is not stored within 30 meters of an underground shaft.
- Flammable and combustible substances must be stored in areas away from substances that may cause a reaction, such as an oxygen tank.
- A flammable substance is not stored in the immediate vicinity of the air intake of a ventilation supply system, an internal combustion engine, or a fired heater or furnace.
- Flammable substances are stored only in containers approved by CSA, NFPA, or ULC Standards.

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- A container that may have held a combustible substance must be thoroughly cleaned before any welding or burning operation is carried out on the container.
- All materials contaminated by flammable liquids are placed in receptacles that: are non-combustible and have close-fitting metal covers, are labeled “flammable”; and are located at least one metre away from other flammable liquids.
- Where work involves the use of a flammable liquid, vapour, or gas, the concentration of the liquid, vapour, or gas in the work area must be maintained a minimum of 10% below the lower explosive limit (LEL) of the substance involved.
- Combustible and flammable liquids are kept in fire resistant receptacles (cabinets or rooms) with adequate ventilation that meet the requirements of the National Fire Code of Canada 1990, respecting the storage of flammable and combustible liquids.
- No gasoline may be used to start a fire or used as a cleaning agent.
- No worker is required or permitted: to replenish a tank on a heating device with a combustible or flammable liquid while the device is in operation or is hot enough to ignite the liquid.
- Static electricity must be controlled while the contents are being transferred from one metallic or conductive container to another by grounding or bonding.
- Waste material contaminated with a solvent, oil, grease, paint, or other flammable substance must be placed in covered metal containers before disposal and must not be stored in work areas.

### **Transporting Flammable Substances**

Workers are not allowed to service or perform maintenance of a vehicle while a flammable liquid or gas or an explosive substance is loaded into or unloaded from the vehicle or is present in the vehicle in any place other than the fuel tank.

A worker who operates a vehicle that contains a flammable liquid or gas or an explosive substance must shut off the vehicle during the connection or disconnection of the lines for the loading or unloading of the flammable liquid, gas or explosive substance. Tank Trucks must always be grounded prior to loading any flammable or potentially flammable substance. A few seconds could save your life!

### **Decontamination**

Preparation for spill or leak that may cause contamination to you and your clothing is important. All NexGen Mechanical employees must keep a change of day-to-day clothing in the work vehicle and have access to a change of coveralls. If your clothing/and or skin is contaminated with a flammable or combustible liquid, the following procedure must be adhered to:

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

- Avoid any activity where a spark or open flame may be created or exists,
- Remove the contaminated clothing and ensure the clothing is decontaminated before it is used again,
- Wash any areas on your body that liquid has touched at the earliest possible time, and,
- Consult the SDS for more information, including health hazards.

### **Internal Combustion Engines in a Hazardous Location**

Not all vehicles in our fleet are equipped with a combustion air intake and exhaust discharge with a flame-arresting device. Know your vehicle. Whenever, possible, all vehicles should be parked outside any hazardous or potentially hazardous location. If the task requires your vehicle to enter a hazardous area ensure that it is equipped with a combustion air intake and exhaust discharge with a flame-arresting device.

If an event, such as a gas leak or spill of a flammable product occurs all vehicles must be left parked, do not go back into your vehicle for any reason. Re-entering a vehicle may create a static charge that may cause an explosion.

### **Precautions for Hot Work**

Hot work permits must be used when heat or sparks are generated by work such as welding, burning, cutting, riveting, grinding, drilling, and where work involves the use of pneumatic hammers and chippers, non-explosion proof electrical equipment (lights, tools, and heaters), and internal combustion engines.

Workers performing hot work must wear appropriate protective equipment. Appropriate PPE includes, but is not limited to, leather gloves with arm protection, flame retardant work clothing, leather apron, and welder's helmet.

Recently welded or flame cut work must be marked "HOT" or effectively guarded to prevent contact by a worker, if a worker not directly involved in the hot work is likely to enter the work area.

NexGen Mechanical ensures that before a hot work process has begun:

- A hot work permit is issued.
- An inspection is completed to ensure the area is free of fire hazards. The surrounding area must be free of flammable and combustible material to a minimum distance of 35 feet in every direction. If this is not practicable, flammable liquids and combustible materials should be covered with a flame resistant material. Combustible floors should be dampened with water. NexGen Mechanical workers are not required or permitted to perform any hot work in the vicinity of a material that may constitute a fire hazard until suitable steps have been taken to reduce the risk of fire.

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- A container or piping that contains or has contained a flammable substance must be purged using an effective method to remove the flammable substance from the container or piping before any hot work is begun on that container or piping.
- Ensure continuous safe performance of the hot work. For example do not start work on a project if enough time is not allotted to complete or have another employee complete the task.
- Atmospheric testing is completed. The atmosphere must not contain a flammable substance, in a mixture with air, in an amount exceeding 10 percent of that substance's lower explosive limit for gas or vapors, or the minimum ignitable concentration for dust. Portable detectors for combustible gases must be placed in the area to warn workers of the entry of these gases. No hot work may begin until suitable tests have been conducted that indicate whether the atmosphere contains a flammable substance in a quantity sufficient to create an explosive atmosphere and confirm that the work may be safely performed and the work procedures developed have been implemented to ensure continuous safety. While hot work is being performed, NexGen Mechanical shall conduct tests at intervals appropriate to the work being performed and record the results.
- Metal that has been cleaned with a flammable or combustible liquid has thoroughly dried.
- Equipment including fire extinguisher and a communication system (phone) is on hand before the hot work begins.
- No oil, grease or other contaminant contacts a cylinder, valve, regulator or any other fitting of an oxygenizing apparatus, an oxygen distribution or generating system.
- It is ensured that oxygen is not used as a substitute for compressed air: in pneumatic tools; to create pressure; for ventilating purposes; or to blow out a pipeline.
- Where gas burning or welding equipment is in use, approved flashback devices are installed on both hoses at the regulator end and acetylene and liquefied gas containers are used and stored in an upright position.
- Where electric arc welding or cutting operations are performed, a protective screen must be used to protect the other workers in the area from harmful radiation.

### **Hot Taps**

When a line or pressure vessel shutdown is unavoidable a hot tap may be required. Where workers are required or permitted to work on piping that may contain harmful substances or substances under pressure, NexGen Mechanical will develop written procedures specific to the type or class of hot tap to protect the workers from contact with those substances before hot tap work begins. The procedures developed must include:

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- the installation of a blank that is appropriate for the proper pressure in the piping;
- the closing of two blocking valves installed in the piping and the opening of a bleed-off valve installed between the blocking valves;
- the installation of an approved safety device; or
- where the procedures are not reasonably practicable, any other procedures that are adequate to protect the health and safety of the workers.

Only those welders competent in hot taps may perform them.

### **CSA and Manufacturers Requirements**

NexGen Mechanical complies with the requirements of CSA Standard W117.2-06, "Safety in Welding, Cutting and Allied Processes." NexGen Mechanical ensures that welding or allied process equipment is erected, installed, assembled, started, operated, used, handled, stored, stopped, inspected, serviced, tested, cleaned, adjusted, carried, maintained, repaired, and dismantled in accordance with the manufacturer's specifications.

### **Inspections**

Prior to the commencement of an allied process or welding you must ensure that the area surrounding the operation is inspected and all combustible, flammable or explosive material, dust, gas or vapour is removed, or alternate methods of rendering the area safe are implemented. If it is not safe to weld, do not begin the job.

### **Protecting Workers**

If a welding or allied process is performed above an area where a worker may be present, you must ensure that adequate means are taken to protect a worker below the operation from sparks debris and other falling hazards. If protection of workers below is not feasible the work must stop.

When hot work generates sparks and/or hot slag, a fire watch must be conducted while hot work is underway, and for 30 minutes following completion.

A coating on metal which could emit harmful contaminants (such as lead, chromium, organic materials, or toxic combustion products) must be removed from the base metal, whenever practicable, before welding or cutting begins.

### **Electric Welding Machine**

All NexGen Mechanical electric welding machine operators must not leave the machine unattended without removing the electrode.

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**Welding and Ground Leads**

NexGen Mechanical ensures that appropriate welding and ground leads are used to fasten the electric supply cable securely.

**Prevention of Leaks While Welding**

NexGen Mechanical ensures that a regulator and its flexible connecting hose are tested immediately after connections to a gas cylinder to ensure that there is no leak of the gas supply. If a leak of the gas supply develops during gas welding or an allied process, the supply of gas must be immediately shut off by the worker performing the welding or allied process, and the work is not resumed until the leak is repaired. An out-of-service tag will be placed on the equipment until the leak is repaired and/or defective parts are replaced.

**Welding Services from Vehicles**

NexGen Mechanical ensures that all compressed and liquefied gas cylinders and horizontal cylinders are stored as per the manufacturer's specifications. Storage compartments for compressed gas cylinders must meet legislative requirements. The cylinders must have their valves closed when not in use and to prevent rolling in the vehicle must be securely attached to the vehicle. Cylinders must not be handled by their valve or valve protection cap.

Welding services provided from vehicles must comply with CSA Standard W117.2-06, *Safety in Welding, Cutting and Allied Processes*.

**Safe Work Procedure for Compressed and Liquefied Gas**

NexGen Mechanical ensures that the safe work procedures are followed for the storage and use of compressed and liquefied gas. A compressed and liquefied gas cylinder if punctured can act as a missile and cause damage to the building and hurt people. Be respectful of this danger!

The following written procedures for the safe installation, use and maintenance of a Compressed and Liquefied Gas system are readily available for reference by workers before requiring or permitting the use of the system:

- A cylinder of compressed flammable gas must not be stored in the same room as a cylinder of compressed oxygen, unless the storage arrangements are in accordance with the Fire Code;
- The compressed or liquefied gas cylinders, piping and fittings are protected from damage during handling, filling, transportation, and storage. A cap can be added to the top of the cylinder for protection;
- The compressed or liquefied gas cylinders are equipped with a valve protection cap if manufactured with a means of attachment, and oxygen

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cylinders or valves, regulators or other fittings of the oxygen using apparatus or oxygen distributing system are kept free of oil and grease;

- The compressed or liquefied gas cylinders must not be exposed to heat sources that generate temperatures that may result in the failure or explosion of the contents or the system, or exceed the maximum exposure temperatures specified by the manufacturer;
- A flashback device is installed at either the torch end or the regulator end, and a backflow prevention device is installed at the torch end;
- The compressed or liquefied gas cylinders are secured, upright, and cannot fall or roll;
- At all times the cylinder containing acetylene (used in welding operations) is secured to prevent falling and stored upright.
- Compressed gas equipment designed to be used with a specific gas is only used with that gas;
- The cylinder valve is shut off and pressure in the hose is released when cutting or welding is not in progress;
- Sparks, flames or other sources of ignition are not allowed to come in contact with the cylinders, regulators or hoses of a compressed or liquefied gas system.

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## **9.14 Forklift**

The purpose of this forklift program is to protect employees and contractors from injury.

It is essential that all NexGen Mechanical workers read, understand, and comply with safe work practices and procedures for forklifts.

### **Training**

All NexGen Mechanical workers who operate forklifts must be trained. The training will occur before the employee is expected to drive the forklift. Formal instruction includes lecture, discussion, and written materials. Practical training involves instructor demonstrations and trainee exercises with operator competence evaluations. Only competent workers are required or permitted to operate forklifts.

### **Inspection**

The employees of NexGen Mechanical are required to complete a visual inspection of the equipment and the surrounding area before operating any forklift. Where industrial trucks are used on a round-the-clock basis, they must be examined after each shift. The inspection ensures that the equipment is in a safe operating condition and that no worker, including the operator is endangered when the equipment is started up. A competent worker (on the specified forklift) must also perform an inspection as is necessary to ensure that it is capable of safe operation. The inspection includes walking around the forklifts and ensuring that it is in good working order. All defects or conditions affecting the safe operation of the equipment must be reported to your supervisor immediately. The supervisor will determine if it is safe to use or if it must be repaired before using. As soon as is reasonably practicable the defect must be repaired or the unsafe condition is corrected.

A record of the inspections and maintenance carried out on all equipment is located in or on all equipment; this assures it is readily available to any worker who is operating the equipment.

### **General Provisions**

The following controls are addressed, where applicable:

#### *Engineering*

- Where there is a danger to the operator of a forklift or any other worker who is required or permitted to be in the forklift from a falling object or projectile, the forklift will be equipped with a suitable and adequate cab, screen or guard.

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- Every forklift is equipped with a seat belt for the operator if the forklift is equipped with a seat.
- Every forklift is provided with a durable and clearly legible load rating chart that is readily available to the operator.

*Administrative*

- The NexGen Mechanical operator must maintain full control of the equipment at all times.
- The forklift must be kept free of objects that could interfere with the operation or create hazards. Such hazards could be objects leaning on, or under the powered mobile equipment that are not noticed before operating the machine.
- Where a worker may be endangered by the movement of a load or a part of the forklift, NexGen Mechanical workers are not required or permitted to remain within range of the moving load or part.
- Operators must verify the use of trailer chocks, supports, and dock plates prior to loading/unloading.
- Operators must not leave the controls of the equipment unless the equipment is secured against unintentional movement by an effective method of immobilizing the equipment. Where applicable, remove the key, lock the doors, chock the wheel, park on level ground, lower forks, and/or set the parking brake.

*Personal Protective Equipment (Seat Belts and Helmets)*

- The NexGen Mechanical operator must use seat belts or other restraining device required. Passengers are not allowed.
- No worker may be transported on the top of a load that is being moved by a forklift.

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## **9.15 General Work Requirements**

It is the responsibility of NexGen Mechanical to ensure a safe work area for all workers. The following requirements are intended for all area of operations:

### **Housekeeping**

All floors must be kept clean and free from materials or equipment that could cause workers to slip or trip. Any chemicals, bodily fluids, or toxins must not be left out when not in use.

All floors, platforms, walkways, ramps and stairs available for use by workers must be maintained in a state of good repair and kept clean and free from materials or equipment that could cause workers to slip or trip. If areas are converted to storage and taken out of service as part of the general work area all reasonable means for preventing entry or use must be taken.

This must be maintained daily as part of the job you are working on.

### **Vehicle Traffic Control**

When working on any field sites you are required to wear Nomex coveralls with reflective strips around the arms, legs, and back to be visible. When our work is being done on or around public roads you must use/rent signs warning oncoming traffic that you are working ahead.

If the vehicle you are driving breaks down pull off the road as far as you can, then ensure you turn on your four-way flashers so that you are visible.

### **Tire Servicing**

NexGen Mechanical employees are not qualified to inspect, disassemble and reassemble a tire or tire and wheel assembly. This service must be performed by professionals and NO employees are allowed to perform this task.

### **Compressed Air**

Compressed air must not be directed towards a worker for the purpose of cleaning clothing or personal protective equipment or for any other purpose if the use of compressed air may cause dispersion into the air of contaminants that may be harmful to workers. Compressed air or steam must not be used for blowing dust, chips, or other substances from equipment, materials, and structures if any person could be exposed to the jet, or to the material it expels or propels. Cleaning objects, machinery, bench tops, clothing and other things with compressed air is dangerous. Injuries can be caused by the air jet and by particles made airborne.

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Compressed air is extremely forceful. Depending on its pressure, compressed air can dislodge particles. These particles are a danger since they can enter your eyes or abrade skin. The possible damage would depend on the size, weight, shape, composition, and speed of the particles. There have also been reports of hearing damage caused by the pressure of compressed air and by its sound.

Compressed air itself is also a serious hazard. On rare occasions, some of the compressed air can enter the blood stream through a break in the skin or through a body opening. An air bubble in the blood stream is known medically as an embolism, a dangerous medical condition in which a blood vessel is blocked, in this case, by an air bubble. An embolism of an artery can cause coma, paralysis, or death depending upon its size, duration, and location. While air embolisms are usually associated with incorrect diving procedures, they are possible with compressed air due to high pressures. While this seems improbable, the consequences of even a small quantity of air or other gas in the blood can quickly be fatal.

Unfortunately, horseplay has been a cause of some serious workplace accidents caused by individuals not aware of the hazards of compressed air, or proper work procedures.

A brush or a vacuum cleaner should be used instead of compressed air for cleaning purposes.

### **Lighting**

At NexGen Mechanical, worksite lighting that is sufficient to protect the health and safety of workers and suitable for the work to be done at the worksite must be provided. If it cannot be provided work must cease.

### **Contaminated Areas**

No worker is permitted to eat or drink anywhere at a workplace that is, or may be, contaminated by a hazardous substance.

### **Access to Work Areas**

There must be a safe way of entering and leaving each place where work is performed. Exits must be clearly marked and be free and clear of any obstacles. All work areas should have two points of access/egress to ensure a safe way to exit in an emergency. Prior to the onset of work workers are informed of all access/egress points; if an escape route is or may become hazardous all workers are instructed not to use this route.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

**Restricted Areas**

Locked doors must secure hazardous areas that are not intended to be accessible to workers or equivalent means of security, and a conspicuous sign must be posted at or near the area clearly indicating that it is not to be used.

**Smoking / Vaping**

No worker is allowed to smoke/vape in an enclosed place of employment, worksite or work-related area (including company vehicles) except in an area designated for smoking/vaping.

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## **9.16 Grinders**

The purpose of this practice is to protect workers from injuries associated with Grinder operations. Abrasive wheels can cause severe injury. Proper storage of new wheels, proper use and maintenance of wheels must be observed.

Supervisors are responsible to facilitate and/or provide proper instructions to their workers on protection requirements.

Workers must:

1. Regularly inspect tools before using.
2. Familiarize yourself with the grinder operation before starting to work.
3. Ensure proper guards are in place and that safety glasses, face shields, gloves and safety boots are worn during operation.
4. Never exceed the maximum wheel speed (marked on every wheel) Check the speed marked on the wheel and compare it to the speed on the grinder.
5. When mounting the wheels, check them for cracks and defects, ensure that the mounting flanges are clean and the mounting blotters are used. Do not over-tighten the mounting nut.
6. Before grinding, run newly mounted wheels at operating speed to check for vibrations.
7. Do not use grinders near flammable materials.
8. Do not use a grinder for any other purpose then what it is intended for. i.e. do not use it for cutting.
9. Check the tool rest for the correct distance from the abrasive wheel, max: 1/8" or 3mm clearance. Replace the grindstone when adjustment cannot provide proper clearance.
10. If the wheel has been abused and ground to an angle or grooved, reface the wheel with the appropriate surfacing tool.
11. Bench grinders are designed for peripheral grinding. Do not grind on the side of the wheel.
12. Do not stand directly in front of the grinding wheel when it is first started.

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## 9.17 Ground Fault Protection

**Ground-fault circuit interrupters (GFCI)** - All 120 volt, single phase, 15 and 20 ampere Receptacle outlets on the job site, which are not part of the permanent wiring of the building or structure and which are in use by employees, must have approved ground fault circuit interrupters for personnel protection. Receptacles on a two wire, single phase portable or vehicle mounted generator rated not more than 5kw, where the circuit conductors of the generator frame and all other grounded surfaces, need not be protected with ground fault circuit interrupters.

NexGen Mechanical has established the following assured equipment grounding conductor program covering all cord sets, receptacles which are not part of the building or structure, and equipment connected by cord and plug which are available for use or used by employees. This program will comply with the following minimum requirements:

- Each cord set, attachment cap, plug and receptacle of cord sets, and any equipment connected by cord and plug, except cord sets and receptacles which are fixed and not exposed to damage, must be visually inspected before each day's use for external defects, such as deformed or missing pins or insulation damage, and for indications of possible internal damage. Equipment found damaged or defective must not be used until repaired. Damaged or defective items must be tagged "DO NOT USE" and removed from service until repaired and tested.
- The following tests will be performed on all cord sets, receptacles which are not part of the permanent wiring of the building or structure, and cord and plug connected required to be grounded:
  - All equipment grounding conductors will be tested for continuity and be electrically continuous.
  - Each receptacle and attachment cap or plug will be tested for correct attachment of the equipment grounding conductor. The equipment grounding conductor must be connected to its proper terminal.
- All required tests will be performed:
  - Before first use;
  - Before equipment is returned to service following any repairs;
  - Before equipment is used after any incident which can be reasonably suspected to cause damage (for example, when the cord set has been run over; and
  - At intervals not to exceed 3 months, except that cord sets and receptacles which are fixed and not exposed to damage will be tested at intervals not exceeding 6 months.

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- NexGen Mechanical will not make available or permit the use by employees on any equipment which has not met the above requirements.
- Tests performed as required will be recorded. This test record must identify each receptacle, cord set, and cord and plug connected equipment that passed the test and must indicate the last date it was tested or the interval for which it was tested.

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## 9.18 Hydrogen Sulphide (H<sub>2</sub>S)

*When H<sub>2</sub>S is present or has a potential presence, all OH&S regulations, as well as H<sub>2</sub>S training procedures must be strictly adhered to.*

Hydrogen Sulphide, commonly called H<sub>2</sub>S (Sour Gas), is highly poisonous gas and is a killer in high concentration. H<sub>2</sub>S can be found near sour wells, sewers, plant sites, sour tanks, and any well being drilled (unknown H<sub>2</sub>S content). A properly maintained H<sub>2</sub>S meter must be worn at any site where H<sub>2</sub>S is known to exist or may potentially be encountered. If you do not know if you are going into a sour area be prepared...wear an H<sub>2</sub>S meter and ensure contact is maintained on a regular basis with someone who can help in an emergency. Emergency contacts can include fellow workers in the area, and client operators, if these are not available ensure regular contact with the NexGen Mechanical office. If you are working alone make sure your contact is aware that you are in a sour area.

The following is discussed in this procedure: exposure to H<sub>2</sub>S, the conditions under which a worker will be required or permitted to work, including the frequency, quantity and duration of exposure to H<sub>2</sub>S, and the steps that the employer will take to ensure that no worker's personal exposure exceeds the ceiling limit and 8 hour OEL.

### Hydrogen Sulphide properties are:

|               |                                                                                                                                                                     |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Colour        | -Colourless                                                                                                                                                         |
| Odor          | -A smell similar to rotten eggs                                                                                                                                     |
| Density       | -Heavier than air (1.189)                                                                                                                                           |
| Explosive     | -Mixed with the right proportion of air of oxygen, H <sub>2</sub> S is explosive (4.3%-46%)                                                                         |
| Flammability  | -H <sub>2</sub> S will ignite at 260°C and burn readily with a blue flame, producing Sulphur Dioxide, another unpleasant gas that will irritate the eyes and lungs. |
| Solubility    | -H <sub>2</sub> S can be dissolved in fluids. If the fluid's temperature increases or becomes agitated, H <sub>2</sub> S will be released.                          |
| Boiling Point | -Is -60°C, so we would likely find H <sub>2</sub> S as a gas instead of a liquid.                                                                                   |

### Occupational Exposure Limit (OEL)

When the potential for worker exposure to H<sub>2</sub>S is identified during the hazard assessment, NexGen Mechanical will ensure:

- that a worker's exposure to the H<sub>2</sub>S is kept as low as reasonably achievable.
- a walkthrough survey is conducted to assess the potential for overexposure taking into account inhalation, and
- reassessment is conducted when there is a change in work conditions which may increase the exposure, such as a change in production rate, process or equipment. If the walkthrough survey reveals that a worker may be at risk of

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overexposure to H<sub>2</sub>S, NexGen Mechanical will ensure that air sampling is conducted to assess the potential for overexposure.

However, when the amount of H<sub>2</sub>S in the environment is 10 ppm or less, the worker can function for eight (8) hours without significant side effects. This is called the Occupational Exposure Limit (OEL), workers must not be exposed to a concentration of H<sub>2</sub>S exceeding the OEL. Atmospheric testing results will be assessed before a worker is exposed.

### **Ceiling Limit**

The ceiling limit for H<sub>2</sub>S is 10 ppm. Workers are not to be exposed to a concentration over the ceiling limit at any time. When the amount of H<sub>2</sub>S in the environment is 10 ppm or higher, an appropriate breathing apparatus must be worn if the work has to be done in that area.

The following are limits you should be aware of:

|            |                                                                                                             |
|------------|-------------------------------------------------------------------------------------------------------------|
| 10 ppm     | .001% Occupational Exposure Limit (OEL) for 8 hours                                                         |
| 100 ppm    | .01% will kill the sense of smell within 3 to 15 minutes                                                    |
| 200 ppm    | .02% loss of smell rapidly and will burn the eyes and throat                                                |
| 500 ppm    | .05% loss of reasoning and balance; breathing will stop within 15 minutes or less                           |
| 700 ppm    | .07% unconscious very quickly, breathing will stop, and the result will be death if not rescued promptly    |
| 1,000 ppm  | .1% unconsciousness immediately results; will have permanent brain damage or death, if not rescued promptly |
| 10,000 ppm | 1% may result in death at once, if not rescued promptly                                                     |

When you encounter H<sub>2</sub>S or suspect the presence of H<sub>2</sub>S:

- 1. EVACUATE**

Get to a safe area immediately.  
Move upwind if release is downwind of you.  
Move crosswind if release is upwind of you.  
Move to higher ground if possible.

- 2. ALARM**

Call for help "Man Down", sound bell, horn, whistle or call for help by radio.

- 3. ASSESS**

Do a head count. Consider other hazards.

- 4. PROTECT**

Put on breathing apparatus before attempting rescue.

- 5. RESCUE**

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Remove victim to a safe area.

**6. REVIVE**

Apply CPR if necessary.

**7. MEDICAL AID**

Arrange transport of casualty to medical aid. Provide information to Emergency Medical Services (EMS).

The following precautions should be strictly observed when H<sub>2</sub>S is known to be or suspected of being present as part of the normal working environment:

- Maximum care should be taken to prevent the escape of Hydrogen Sulphide into air surrounding any work area.
- Adequate ventilation should be provided.
- Before entering any area suspected of containing Hydrogen Sulphide, determine whether or not the gas is present, ongoing monitoring is required. All workers are required to wear a personal monitor.
- Never enter an area suspected of Hydrogen Sulphide without proper protective breathing apparatus and employing the "Buddy System".

Where it is not reasonably practicable to reduce a worker's personal exposure to Hydrogen Sulphide below 10ppm over an 8 hour workday NexGen Mechanical will provide an approved respiratory protective device. Workers are not to be exposed to greater than 10ppm concentration of H<sub>2</sub>S over an 8 hour period. All workers will be required to use the respiratory protection. All employees, who are to work in areas where Hydrogen Sulphide gas may be encountered, must review the comprehensive instructions as to the dangers of the gas and how to properly use the breathing apparatus. The use of personal protective equipment as the primary means to control exposure is permitted only when:

- substitution, or engineering or administrative controls are not practicable, or
- additional protection is required because engineering or administrative controls are insufficient to reduce exposure below the applicable exposure limits, or
- the exposure results from temporary or emergency conditions only.

NexGen Mechanical requires that all personnel working in H<sub>2</sub>S or H<sub>2</sub>S potential areas have a current H<sub>2</sub>S Alive (or equivalent) training course (renewed every **three years**). This training includes clear information on the possible effects on worker health and safety, and any precautions required to protect the health and safety of the worker. The supervisor and the worker are trained in and follow all above emergency procedures.

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## 9.19 Jig Saws

A jigsaw is a type of saw. It is a power tool and can enable you to complete a variety of tasks. Many of these tasks would be difficult if not impossible to undertake, using a traditional hand saw. Using a jigsaw it is possible to cut intricate patterns and curves, relatively easily and quickly, plus a good straight line if needed. This tool can be used on a multitude of materials such as wood, melamine or MDF.

**Potential Hazards:** Exposed moving parts and electrical hazard with the potential to cause harm through entanglement, exposure to dust, projectiles and sharp objects.

### **Before Operating a Jigsaw:**

- Jig saws should always be used with a safety switch.
- Ensure the work area is clear of debris. Example – previous off cuts have been moved to a safe position.
- Check the trigger switch and Lock-on button operates correctly and does not stick.
- Check the blade roller guide is adjusted so that it is in slight contact with the rear of the blade.
- Ensure the task (e.g. Drawings, instructions, specifications etc) is clearly understood.
- Make sure guarding is in place (if applicable).
- Make sure the appropriate blade is being used for the task.

### **Safety While Operating Your Jig Saw**

- Secure your materials with clamps before picking up your jig saw. Jig saw safety is never to be ignored, even for the smallest cuts.
- If the jig saw seems like it is not cutting, do not try to force it. Check your blade selection and make sure it is not dull.
- Send the jig saw in for repairs, do not alter your jig saw to bypass a non-working part. Be sure to keep the jig saw in good working condition and to send it in for service if anything is not as it should be.
- Never reach under the material you are cutting, the blade goes below the visual field. Allow the blade to come to a complete stop before taking away from material.
- Hold the jig saw by the handle during operation.
- Use the jig saw on applications it is meant to cut.
- Turn off and unplug when not in use.
- Keep both feet on floor and do not reach to make a cut.
- Wear protective eyewear.
- Check that saw runs 'true' and does not wobble.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

- Check that the cord is always well away from the blade.
- Keep hands clear of work piece and away from blade.

*POST-Operation:*

- Switch off jigsaw before removing waste material from the table.
- Make sure good housekeeping practices are in place to minimize dust build-up.

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## **9.20 Ladders**

The purpose of this Ladder Policy is to protect and educate employees and contractors. It is essential that all NexGen Mechanical workers read, understand, and comply with safe work practices and procedures for Ladders.

Following these general safe practices will help all NexGen Mechanical employees perform their work safely while working on, or around a ladder. Whenever possible a ladder must not be used to enter or leave an elevated or sub-level work area if the area has another safe and recognizable way to enter or leave it.

All employees, workers, contractors, and subcontractors must have a safe means of entrance to and exit from a place of employment and all worksites and work related areas in or on a place of employment. All doors in a hazardous work area must open away from the hazard and must not be blocked by an obstruction.

### **Training**

All NexGen Mechanical shop and field employees receive basic ladder training at orientation and as needed after that.

### **3 Point Contact Rule**

When climbing or descending a ladder, the worker must face the ladder and have at least three points of contact between the hands/feet and the ladder at all times. While working on a ladder, a worker must, at minimum, have two feet on the ladder and his/her body leaning into the ladder. If three points of contact cannot be maintained, a fall arrest system must be used.

### **Ladder Standards**

All ladders used at NexGen Mechanical meet the CSA and ANSI Standards. Dependent on the type of ladder used the following standards have been met (either by purchasing or construction controls):

- CSA Standard CAN3-Z11-M81,
- ANSI Standard A14.1-2000,
- ANSI Standard A14.2-2000, or
- ANSI Standard A14.5-2000.

The following must be followed:

- Portable ladders must be CSA certified. They should have a CSA label affixed to them.
- All single portable ladder and sections of an extension ladder must not exceed nine meters in length.
- A Wooden ladder or stepladder must not be made by fastening cleats across a single rail or post.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

- The portable ladder must be equipped with non-slip feet and is secured against accidental movement during use.
- A metal or wire bound portable ladder must not be used where the ladder or worker handling or using the ladder may come into contact with an exposed energized electrical conductor.
- A portable ladder must extend at least one meter above any platform, roof or other landing to which the ladder is used as a means of access and if necessary, be secured to ensure stability during use.
- A ladder must be placed on a firm and level base and be positioned so that the horizontal distance from the base to vertical plane of support is approximately  $\frac{1}{4}$  of the ladder length.
- A stepladder must not be more than six metres high when set for use, and must have legs that are securely held in position by means of metal braces or an equivalent rigid support and when in use, and must have a front section slope at an angle of one horizontal to six vertical.
- An extension ladder must be equipped with locks that securely hold the sections of the ladder in the extended position, where a section of an extension ladder is extended:
  - the section that is extended overlaps another section for at least one metre,
  - an extension ladder consisting of two sections does not exceed 14.6 metres in length, and
  - an extension ladder consisting of more than two sections does not exceed 20 metres in length.
- A fixed ladder means a ladder that is fixed to a structure in a vertical position or at an angle that is between vertical and 25 degrees to the vertical. All fixed ladders must meet legislative standards.
- A manufactured portable ladder must be marked for the grade of material used to construct the ladder and the use for which the ladder is constructed.

### **Ladder Inspection**

All ladders at NexGen Mechanical are inspected for defects before the commencement of any work requiring their use. The following items must be inspected:

- The rungs, cleats, or steps in good condition.
- The side rails intact without any cracks, bends, or breaks.
- The side rails and steps free of oil or grease.
- Rungs, cleats, or steps fit snugly into the side rails.
- The moveable parts operate freely without binding or excessive play.
- The ladder is free of corrosion.
- The ladder's hardware and fittings are secure and undamaged.
- The ropes on extension ladders are intact without fraying or excessive wear.

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- Untreated wooden ladders should be stored in dry areas to prevent moisture or water absorption.
- Ladders constructed from fiberglass should be cleaned and sprayed lightly with a clear or pigmented lacquer or paste wax once every three (3) months.
- Do not attempt to straighten, or allow to remain in use, a bent or bowed ladder.

All defective and damaged ladders must be discarded or repaired according to the manufactures specifications. In the meantime, those defective ladders must be tagged as “Defective and Do Not Use” and removed from the work area.

### **Painting Ladders**

NexGen Mechanical does not permit wooden ladders to be painted. Paint and other coatings can prevent a person from seeing the condition of the wood of a wooden ladder. Only transparent, nonconductive finishes such as varnish, shellac, or a clear preservative should be used. A minimum amount of paint may be used for placing identifying information on a ladder. If this is done, the marking(s) should only appear on one face of the side rails.

### **Electrical Work**

During electrical work a non-conductive (fibreglass) ladder must be used. Metal ladders must never be used for electrical work and they must always be kept clear of overhead power lines and electrical circuits when used for other projects. The use of metal ladders or metal reinforced rails on a ladder must be avoided when there is a possibility that they will be used around electricity. Wooden ladders with metal reinforcing rods shall not be used for electrical work (or wooden ladders where there is a chance it may get wet), due to the danger of inadvertent electrical contact.

### **Transporting Ladders**

When transported on a vehicle, ladders should be properly supported and secured using proper “tie down” straps. Avoid using rubber “bungee cords” unless the travel distance is short. Check your load periodically.

### **Portable Ladders**

Portable ladders are available in several models, the most common of which are stepladders, single ladders, and extension ladders. Ladders are made out of three main types of materials - aluminum, wood, or fiberglass. Each model and/or type of material has certain advantages and disadvantages. Selection of the correct ladder for the type of work activity is important to ladder safety.

A NexGen Mechanical worker must ensure that a portable ladder is secured against movement and placed on a base that is stable. The base of an inclined

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portable ladder must not be further from the base of the wall or structure than 1/4 of the height to where the ladder contacts the wall or structure (use the 4 to 1 rule (1 foot from the wall for each 4 feet of ladder length). Also, a NexGen Mechanical worker must ensure that the side rails of a portable ladder extend at least 1 metre (and at least 3 rungs) above a platform, landing, or parapet if the ladder is used as a means of access to the platform, landing or parapet. A worker must not perform work from either of the top three rungs (two rungs when it is a step ladder), steps or cleats of a portable ladder unless the manufacturer's specifications allow the worker to do so.

Accidents involving portable ladders are common in the workplace because this tool is often abused and/or used improperly. Please ensure to:

- Select a ladder with adequate length and load limits.
- Use the ladder for its intended purpose.
- Set up the ladder on a firm, solid surface.
- Secure or barricade the ladder to protect it from being bumped when you have to work in doorways, passageways, or driveways.
- Keep the area around the top and bottom of the ladder clear.
- Fully open the stepladder with the spreaders locked to keep the ladder stable.
- Set up your straight ladder so the rails are supported equally at the top.
- Use your extension ladder so the upper section overlaps the lower section, and the overlap is on the climbing side with the rungs locked in place.
- Face the ladder when ascending or descending.
- Use both hands to grip the side rails whenever possible. Always use at least one hand to grasp the ladder when climbing.
- Have only one person on the ladder at a time.
- Wear a tool belt to help you manage tools while you're working on a ladder.
- Store the ladder in a secure designated area after use.

If work cannot be done from a ladder without hazard to a worker, a work platform will be provided. A worker must not carry up or down a ladder any heavy or bulky objects that may make the ascent or descent unsafe.

### **BEWARE...**

The following are Common Causes of Ladder Accidents:

- Over-reaching from ladders, rather than moving them. Work within the side rails. If your belt buckle goes past the side rail, you are leaning too far. Descend and move the ladder as needed to stay close to your work.
- Too much haste in climbing or descending.
- Climbing one-handed while carrying something in the other hand.

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- Standing at the very top of a short ladder, rather than getting one long enough for the job.
- Hanging tools from ladder rungs, or leaving tools on the top of the stepladder.
- Throwing tools to a fellow worker on a ladder.
- Placing the ladder at an improper angle.
- Using metal ladders in locations where contact with electric wires is possible.
- Using worn or damaged ladders.
- Failure to secure (tie) the ladder in place.
- Using a ladder as a brace, skid, lever, gangway, platform, scaffold, plank, or material hoist.
- Tying ladders together to make them longer.
- Placing a ladder on boxes or blocks to make it taller.
- Setting up a ladder on a scaffold to gain extra height.
- Setting up a ladder on a slippery or icy surface.

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## **9.21 Lead**

The purpose of this Lead Program is to protect and educate employees and contractors. It is essential that all NexGen Mechanical workers read, understand, and comply with safe work practices and procedures for Lead. Whether the project you will be working on simply requires you to be aware of the hazard of Lead or it is a full abatement project this information is valuable to promote understanding of this potentially lethal substance.

Workers have the potential of coming into contact with Lead around any of the following areas:

- Lead paint. Lead-based paint does not normally pose a health hazard if it remains in good condition. The hazard usually begins after the paint starts to chip or peel or if paint is damaged during renovation activities. If the flakes turn into dust, anything the dust contacts will be contaminated. The lead based paint should be removed using a chemical stripper, and not sanding;
- Batteries;
- Lead shielding for x-rays;
- Lead solder – used in water pipes in older homes, electronics, radiator shops;
- Pesticides (lead arsenate);
- Lead Weights and Tools;
- Welding Activities (due to lead paint on the metals being welded, produced as a by-product in metal smelting operations);
- Exterior paint could still contain more lead. For example, the yellow markings found on highways still use lead-based paint.

The most common ways that workers are exposed to lead at the workplace are inhalation of airborne lead dust or fumes and accidental ingestion. Often time's workers ingest lead by handling cigarettes or food when their hands are contaminated with lead. The lead that remains in the body tends to accumulate in bone where it can be stored for decades. Lead in bones can be released back into the blood long after the original exposure. Although, the use of lead in gasoline was stopped in Canada in 1990, farming equipment may still use leaded gasoline.

### **Provincial Requirements**

#### ***Saskatchewan***

Where lead is present at a place of employment, NexGen Mechanical will take all practicable steps to ensure that no worker's personal exposure exceeds 0.05 mg/cubic meter 8-hour Time Weighted Average. Where it is not reasonably practicable to reduce a worker's personal exposure to lead below 0.05 mg/cubic meter 8-hour Time Weighted Average, NexGen

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Mechanical will provide an approved respiratory protective device and require the worker to use it.

### **Training and Competency**

All NexGen Mechanical employees who are at risk of exposure to lead receive basic lead training at orientation and as needed after that. All workers must have the proper combination of experience, knowledge, and education to perform the work required.

Workers must be competent when working with lead. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. The training program includes:

- information regarding the properties and hazards of Lead, including the nature and degree of the effects to their health of lead to which the workers are exposed in the course of their work,
- where Lead is found,
- how to prevent contact with Lead,
- the written work procedures to be followed,
- the correct operation and use of any required engineering controls and personal protective equipment,
- personal hygiene and decontamination procedures, and
- the purpose and significance of any health monitoring.

All training documents must be on file prior to the commencement of all lead work.

### **Hazard Assessment**

Prior to the commencement of work, or when a process changes NexGen Mechanical employees are required to complete a hazard assessment. This assessment must look at prevention and control of Lead exposure. NexGen Mechanical wants to ensure that the workers are protected from an exposure to lead. If the hazard of lead cannot be removed solely by using engineering controls, such as installation of dust collection systems or enclosures around the work process, then administrative controls can be looked at. An administrative control such as educating the workers and practicing good hygiene can greatly reduce an exposure to lead but the hazard is still present. Personal Protective Equipment is another method of Control. Often a combination of all three methods best protects the workers.

### **Restricted Area**

Project Supervisors are responsible to post signs posted at the boundary of any work area where hazardous lead exposures could occur that clearly indicate that Lead is present in the area and that only authorized people may enter the area.

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NexGen Mechanical workers must follow all requirements set out on posted Lead signage. Only a person authorized by NexGen Mechanical or by law to do so may enter a restricted area.

All workers authorized to be in a restricted area are provided with protective clothing that protects other clothing worn by the worker from lead contamination.

No person may eat, drink, smoke, or chew gum or tobacco at the work site except in a designated clean area. Workers must remove protective equipment and clothing and clean their hands and faces prior to any of these activities.

### **Good Housekeeping**

The release of Lead into the air must be kept to a minimum. Removal of lead dust must be done by a means which prevents the dispersal of finely divided lead into any work area. The work site must be kept clear of all unnecessary accumulations of lead dust and waste materials containing lead. In areas that have been identified as being contaminated with lead, the work area should be enclosed during any activity that may cause the Lead to disperse into the air. Also, if available HEPA filtered exhaust ventilation and vacuum systems can be used to aid in containing the dust. Wet work procedures or watering down the area to decrease the amount of dust also is a good procedure. All lead containing wastes must be properly packaged and labeled and taken to an approved facility for disposal.

An additional way to prevent the uncontrolled release of Lead would be to remove, encapsulate, or enclose any lead that is present. The best method will be chosen taking into account condition of the lead, its location, function and the cost of the proposed method of controlling exposure. Prior to the beginning of a lead abatement project a site specific procedure must be developed and followed in the event of an uncontrolled release.

### **Exposure Limit (Administrative Control)**

No employee at NexGen Mechanical will be exposed to an airborne concentration of Lead (elemental and organic compounds) in excess of 0.05 milligrams per cubic meter of air (0.05 mg/m<sup>3</sup>) over an 8-hour workday without the use of respiratory protection. If workers may be working for more than 8 hours, the exposure limit must be adjusted accordingly. NexGen Mechanical will test the atmosphere air to ensure that the air quality within the breathing zone is less than 0.05 mg/m<sup>3</sup>; this is completed during the first shift of the construction project involving lead and as necessary throughout the project to ensure that controls are effective and respiratory protection is adequate. The samples must be representative of the conditions over the exposure time. All air monitoring must be documented. Respirators may be worn at lower levels of Lead air contamination to avoid air

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quality monitoring. NexGen Mechanical will make available to the workers, the results of any measurements of worker exposure to lead.

There is no ceiling limit for Lead.

**Decontamination**

If exposure to finely divided lead or lead compounds results in the contamination of exposed skin or work clothing, the requirements for personal hygiene must be met.

NexGen Mechanical or the facility owner will provide emergency baths, eyewash stations, and showers where lead abatement activities are occurring.

Wash all exposed skin surfaces prior to removing respirators. All persons in the work area must properly decontaminate themselves prior to leaving the work area. This is to be done under all circumstances, including prior to drinking, eating, using a bathroom, etc.

Lead contaminated clothing must be removed immediately after the shift is completed. If clothing used in a restricted area containing lead is reused and not discarded, the clothing must be laundered in the appropriate manner and at appropriate intervals to ensure, the clothing is decontaminated and there is no cross contamination of other clothing. Lead contaminated clothes should not be laundered at home.

Personal Protective Equipment must be properly maintained. At times, personal protective equipment can create a hazard to workers, causing heat stress, limited vision, and allergic reactions to the equipment material. These issues need to be evaluated when personal protective equipment is selected.

All tools and electrical equipment such as vacuum cleaners and power tools must be left in the removal area until completion of the removal job. Before the equipment is removed, it should be vacuumed thoroughly and all accessible surfaces wiped with a damp cloth. Where decontamination is not possible, the item should be plastic wrapped and sealed and only opened when inside the containment area of another Lead Abatement project.

**Records**

NexGen Mechanical will maintain records of risk assessments, worker exposures, worker training, and health monitoring records. Provisions for confidentiality must be adhered to.

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## **9.22 Lifting and Handling Loads**

Safe lifting is critical to ensure the protection of the health and safety of every employee. Every feasible effort must be made to provide a work environment that allows workers to maintain a healthy back. NexGen Mechanical recognizes this and expects all workers to follow these procedures. This will be accomplished by implementing acceptable engineering controls and work practice controls, where applicable.

### **Training**

All NexGen Mechanical workers who may be exposed to the possibility of musculoskeletal injury (MSI) receive training in this policy including the following specific measures to eliminate or reduce the possibility of MSI. This is particularly important when carrying loads weighing in excess of 10 kg:

- (a) Identification of factors that could lead to a musculoskeletal injury,
- (b) The early signs and symptoms of musculoskeletal injury and their potential health effects, and
- (c) Preventive measures including, where applicable:
  - Safe methods of manually lifting, adapting, holding, or carrying of loads. The employee's physical condition and the conditions of the work place will be considered while developing the procedures.
  - The use of altered work procedures,
  - The use of mechanical aids, and
  - Personal protective equipment.

The supervisor will periodically evaluate work areas and work techniques of the workers to assess the potential for and prevention of injuries. All new operations will be evaluated to engineer out hazards before work processes are implemented.

### **Practice**

If the weight, size, shape, toxicity, or other characteristic of the object may be hazardous to the health or safety of an employee, NexGen Mechanical will ensure that the object not be handled manually. The frequency and duration of manual lifting and the distances and terrain over which an object is to be manually lifted or carried must be considered in deciding whether the manual handling of the objects may be hazardous to the health or safety of an employee.

Following these general safe practices will help all employees protect their back while lifting:

- A hazard assessment must be performed before a worker manually lifts, lowers, pushes, pulls, carries, handles or transports a load that could injure the worker.
- Wherever possible, pack shipments so all containers are less than 20 kg.

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- Size up or test a load before attempting to lift to see if you can handle it. Never attempt to lift an oversized or awkward load alone.
- Reduce oversized or awkward loads by splitting into smaller loads.
- Use suitable mechanical equipment (dolly, crane, etc.) to reduce the load. Whenever mechanical equipment can make the task safer it is a requirement to use this equipment. The use of manual lifting equipment by workers will be enforced by the supervisors.
- Make sure the route or path that you intend to take is clear.
- Use extreme caution when carrying items across uneven terrain, or up or down stairs.
- Where use of lifting equipment is impractical or not possible, two man lifts must be used.

Keep your back straight. Bend at your knees as far as you can and still be able to return to an upright position. Initiate the lift and come to an upright position with your leg and buttock muscles. Tighten your abdominal muscles to help brace your back as you lift. Keep the object close to your body. Keep your head higher than your shoulders. Grip with your whole hand – not just your fingers.

### **Workstation Comfort**

The height of workbenches, desks, and the position of chairs have been adapted to the work and the worker in such manner as to ensure workers maintain correct posture to reduce fatigue. Adjustable chairs are used when practicable. Tools, handles, and materials are located in positions that facilitate work and reduce strain. Workers will have chairs or benches to use when the nature of their work so permits.

### **If an injury occurs**

If a worker reports what the worker believes to be work related symptoms of a musculoskeletal injury, NexGen Mechanical must promptly review the activities of that worker, and of other workers doing similar tasks, to identify work-related causes of the symptoms, if any, and take corrective measures to avoid further injuries if the causes of the symptoms are work related.

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## **9.23 Locking Out**

The purpose of the Locking Out policy is to protect and educate employees and contractors. It is essential that all NexGen Mechanical workers read, understand, and comply with the following procedures for Locking Out.

If a lockout is not performed, uncontrolled energies could cause:

- Electrocution (contact with live circuits);
- Cuts, bruises, crushing, amputations, death, resulting from: entanglement with belts, chains, conveyors, rollers, shafts, impellers;
- Entrapment by bulk materials from bins, silos or hoppers;
- Drowning in liquids in vats or tanks;
- Burns (contact with hot parts, materials, or equipment such as furnaces);
- Fires and explosions;
- Chemical exposures (gases or liquids released from pipelines).

If a power source is inadvertently turned on, or valves opened mistakenly before the work is completed, the result could be serious injuries and fatalities. Therefore, it is important not only to ensure that all energies are properly locked out, but also that they remain locked out until the work is completed. Lockout Tagout is used before performing any electrical work.

### **Training and Competency**

All employees who may be required to work in or around any lockout procedure must take in-house training to become familiar with the NexGen Mechanical Lockout policy. All NexGen Mechanical workers must have the proper combination of experience, knowledge, and education to perform the work required.

All field and shop employees are required to participate in Locking Out Awareness training during orientation and as needed after that.

Workers must be competent when working around any equipment that must be locked out. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision.

All training documents are kept on file and this is verified prior to each worker being sent to the field to complete a task that may involve using our lockout procedures.

### **Standards for Electrical Equipment**

The design, construction, installation, operation, and maintenance of all electrical equipment must meet the standards set out in the Canadian Electrical Code, Part I.

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All testing or work performed on electrical equipment must be performed by a qualified person or an employee under the direct supervision of a qualified person.

**Standards for Locks and Tags**

NexGen Mechanical uses locks and tags that have unique marks or tags with the following information on it:

- The name of the worker (or an identifying picture) that has locked out the machinery, equipment, or powered mobile equipment. Note: that each individual will put their own individual tag onto the machinery, equipment, or powered mobile equipment.
- The date.
- Reason for locking out the equipment.
- Estimated time of completion.

All workers who have installed a lock or tag must be readily available during the time the equipment is locked out. Combination locks must not be used for lockout.

**Designated Person**

Each Lockout process will have a designated person assigned who coordinates and controls the ultimate safety of the process.

When locking equipment/machinery out the worker who is performing the work (original key) and a designated person (duplicate key) are the only people who have access to the keys. The NexGen Mechanical designated person is the only person permitted to use a duplicate key; they must record the following in the logbook if the key is used:

- The use of the duplicate key;
- The reason for its use;
- The date of its use;
- Sign the logbook each time that the duplicate key is used.

The duplicate key is accessible only to the designated person and the log book is kept to record the use of the duplicate key and the reasons for that use. Log books will be reviewed by upper management periodically.

During a lockout process where there is no method to use a lock and key NexGen Mechanical will designate a person to coordinate and control the lockout process. No person shall deactivate a lock-out process that does not use a lock and key except the designated person.

When lockout of energy isolating devices is required, the devices must be secured in the safe position using locks in accordance with procedures that are made available to all workers who are required to work on the machinery or equipment.

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**Written Lock Out Process**

A Hazard Assessment and written lockout processes have been developed for each machine that is required to be locked out. Each worker who is required to work on locked out equipment will be issued a lock that is operable only by that worker's key and a duplicate key.

This lock out process is performed, documented, and taught prior to any new machine being brought into service.

A hazard assessment must be completed prior to work starting that addresses all hazards and protects personnel directly related to the lockout procedure and those in the vicinity of the work. All site-specific procedures must be documented in writing.

The manufacturer's specifications will be reviewed, if practical, when developing and implementing procedures and controls for a work process.

Before servicing, repairing, testing or adjusting of machinery, equipment, or powered mobile equipment the NexGen Mechanical worker must ensure that the machinery, equipment, or powered mobile equipment has come to a complete stop and must follow this written lockout process, as well as any site specific process.

If machinery or equipment is shut down for maintenance, no work may be done until all parts and attachments have been secured against inadvertent movement. If the work will expose workers to energy sources, the hazard must be effectively controlled and the energy isolating devices locked out. Turn off and/or disconnect energy control points, such as electrical plugs, switches, valves, and circuit breakers. Restrain or dissipate all stored energy. This includes, but is not limited to, the following:

- Compressed springs- block springs from releasing,
- Parts of a machine held up by hydraulic or pneumatic power- block to prevent parts from falling,
- Pressurized lines- bleed the pressure from the lines,
- Components that are hot - allow sufficient time for cooling before work begins,
- Capacitors that may store electrical energy- discharge the energy from the capacitor.

Electrical equipment that might be fed by more than one source should be tested with a voltage meter to verify the absence of electrical energy.

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### *Notification of Isolation*

The machinery, equipment, or powered mobile equipment must be locked or tagged to show that it is being worked on (see above for lock and tag standards). Each worker who will be involved in the maintenance activity, must place his/her own lock on the energy control point. The key to the lock must be kept under the control of the owner of the lock at all times. Mobile equipment can be locked out by removing the key from the ignition and pocketing it, and detaching the negative battery cable. Each lock owner must write the particulars of the lockout on a tag and attach it to the energy control point(s).

### *Verification of Isolation*

Before a NexGen Mechanical worker undertakes the maintenance, repair, test or adjustment of a machine NexGen Mechanical must ensure that the machine is locked out and remains locked out during that activity. Locking Out the machinery (or power tool) will ensure that the energy source has been isolated and any residual energy in the power tool has been dissipated and the energy source remains isolated during the activity.

Attempt to re-start the equipment to verify that the energy sources have been de-energized. Turn on switches, open valves, push start buttons, etc. If an energy release occurs during this verification, work cannot proceed until this source is located, isolated, and verified as de-energized. Turn switches off and close valves once de-energized state is verified.

Work is not to be performed until the equipment is tested to ensure that it is inoperative and the worker is assured that it is inoperative and effectively isolated. The job supervisor must determine, on the basis of visual observation, that every control device and every locking device necessary to establish and maintain the isolation of the equipment:

- is set in the safe position with the disconnecting contacts of control devices safely separated or, in the case of a draw-out type electrical switch gear, is withdrawn to its full extent from the contacts of the electrical switch gear,
- is locked out, and
- bears a distinctive tag or sign designed to notify persons that operation of the control device and movement of the locking device are prohibited during the performance of the work or live test.

### *Removing Lock or Tag and Returning Equipment to Service*

A NexGen Mechanical employee must not remove a lock from a locked out piece of equipment unless the person is the worker who installed it and the worker ensures that no workers will be in danger if it is removed (including guards replaced and tripping hazards removed). If the NexGen Mechanical worker who installed a lock is not available a shift supervisor/designated person must remove

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the lock. The designated person must make every reasonable effort to contact the worker who installed the lock to determine the reason that the worker's key is not available and that it is safe to remove the lock and activate the machine. The worker must be notified at the start of his or her next shift if their personal lock(s) have been removed since the worker's previous shift. No person shall remove a lock-out device except the worker who installed the lock-out device or the designated person.

Securing devices must not be removed until each involved worker is accounted for, any personal locks placed by workers are removed, and procedures are implemented to verify that no worker is in danger before a worker removes the securing devices and the machinery, equipment, powered mobile equipment, piping, pipeline or process system is returned to operation.

Once maintenance activities are complete, a supervisor must ensure that personnel are out of harm's way, slip, trip, and fall hazards have been cleared from the area, and guards have been replaced. Each worker who affixed a lock to an energy control point must remove his/her own lock(s). Equipment start-up may occur after all of the above are complete.

#### *Shift/Personnel Change*

If a lockout process will be carried over to the next shift or set of workers an orderly transfer of control of locked out energy isolating devices between outgoing and incoming workers must occur.

#### **Running Equipment During Servicing**

Some equipment must stay running to lubricate, adjust, repair, or clean; the procedure in the manufacturer's specifications must be adhered to. If there are no manufacturer's guidelines, a task specific procedure must be developed and implemented to ensure that the activity is safe. If it is not practicable to shut down machinery or equipment for maintenance, only the parts which are vital to the process may remain energized and the work must be performed by workers who are trained and qualified to do the work and have been authorized by NexGen Mechanical to do the work.

Where electrical equipment is not live but is capable of becoming live, workers must ensure that procedures that are safe for work on live equipment are used or a safety ground is connected to the equipment prior to beginning work. These procedures must be easily accessible.

#### **Group Procedure Lockout**

If there is more than one worker working on the machinery, equipment or powered mobile equipment to be locked out, then the group lockout procedure must be

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

followed. All employees (that are involved in the lockout) must put their individual lock or tag on the equipment. The machinery, equipment or powered mobile equipment must not be turned on until the last lock is removed from the machinery, equipment or powered mobile equipment. After a lock-out device has been installed or a lock-out process has been initiated, the worker who installed the first lock or initiated the process shall check the machine to ensure that the machine is inoperative.

Workers may lock out a secondary key securing system if 2 qualified workers lock out the primary key securing system and place their keys in the secondary system. On completion of his or her work, each worker must remove his or her personal lock from the key securing system.

The written group lockout procedure must be conspicuously posted at the place where the system is in use.

**When Locks are NOT Required**

The application of a lock is not required if the energy isolating device is under the exclusive and immediate control of the worker at all times while working on the machinery or equipment, or a tool, machine or piece of equipment which receives power through a readily disconnected supply, such as an electrical cord or quick release air or hydraulic line, is disconnected from its power supply and its connection point is kept under the immediate control of the worker at all times while work is being done.

**Emergency Procedure**

In an emergency or if the worker who installed the lock is not available, the shift supervisor/designated person may remove the lock only after verifying that no worker will be in danger due to the removal.

**Isolating Pipes and Pipelines**

When there are harmful substances under pressure in a piping system the two methods to isolate that system is by blanking or blinding, or a double block and bleed isolation system. An operable bleed-off between the two seals must also be utilized to release the build-up pressure and render the equipment safe.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

## **9.24 Office Safety**

Injuries and incidents in the office are just as painful and costly as those in the field. The office is to be kept safe and tidy. Know the escape route to take in a fire and contact the fire department for assistance by dialling 911 after you have evacuated the premise.

### *Working Alone or at Night*

- Ensure the door is locked at all times.
- Do not let anybody in, unless you know him or her.
- Prior to leaving, look outside for suspicious looking people.

### *Housekeeping*

All floors must be kept clean and free from materials or equipment that could cause workers to slip or trip. This must be maintained daily as part of the job you are working on.

### *Filing and Storage Cabinets*

To prevent cabinets from tipping over:

- Bolt cabinets together side by side or to support walls.
- Do not overload the top shelves when using filing and storage cabinets.
- Open drawers one at a time so as not to unbalance the cabinet.
- Close the drawers when they are not being used.
- Use the handles for closing the drawers to prevent fingers from being pinched.

### *Paper Cutters and Shredders*

After using the paper cutters, close the blade. Be very careful when using the paper shredder not to catch jewellery, ties, clothing or long hair in the blades.

### *Wastepaper Baskets*

Never use a wastepaper basket as an ashtray as this could easily start a fire. When disposing of glass or sharp-edged cans in the wastepaper basket, place them first in a paper bag and mark the contents clearly.

### *Electrical Cords*

- To avoid a fire hazard, ensure that all electrical cords are in good condition and are not overloaded, have any worn cords repaired or replaced immediately.
- To avoid a tripping hazard, do not run any electrical or telephone cords across aisles or walkways. Ensure cords do not create tripping hazards around desks.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

- Never pull a cord from the wall socket by yanking on the cord; pull the plug instead.

### *Floors, Aisles and Stairs*

There are many possible ways to slip and trip in an office. To prevent tripping and slipping:

- Keep floors, aisles and stairs free of debris and storage boxes. Pick up debris.
- Do not obstruct your view while walking around by reading or carrying oversized loads.
- Wipe up spills immediately.
- Watch for slippery surfaces.
- Report and correct unsafe conditions.
- Hold the handrail when using the stairs.

### *Ladders*

When using a ladder:

- If the ladder is a stepladder, ensure that it is fully spread open on a level surface before beginning to climb.
- Do not stand on either of the top two steps of the ladder.
- Do not reach to the side when on the ladder; instead, get down and move the ladder.
- Never paint a wooden ladder.

### *Flammable Materials*

- Never use flammable cleaning fluids, such as gasoline, varsol or naphtha in an office.
- Keep any flammable materials in approved containers that are labelled.
- Never leave the containers uncapped.

### *Fans*

- Use only fans with wire mesh safety guards that completely cover the fan blades.
- Never remove the guards.

### *Improper Storage of Heavy Items*

Large stacks of materials and/or heavy articles can pose a great safety risk to employees if they fall or are knocked over. Heavy items should always be stored close to the floor, and care should be taken never to exceed the safe load capacity of shelving or storage units.

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*Running*

Avoid running in the office.

*Space Heaters*

Portable space heaters can pose a major fire hazard if used improperly. Space heaters in the workplace should always be approved for use by the CSA, never placed near combustible materials, and have a tip-over switch to ensure they will turn off automatically if knocked over. Space heaters should also never be used with an extension cord.

- Only plug one space heater in each circuit to avoid blowing a fuse.
- Turn off space heaters before leaving, even if you will be back in a short while.

*Smoking*

- All offices are non-smoking areas.
- Smoking is only permitted outside, away from the door.

*Fire Precautions*

- Ensure that you know what the fire extinguishers are around and where they are kept.
- Ensure that the extinguisher is properly maintained.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

## **9.25 Pallet Jack**

Pallet Jacks put workers at risk of rollover and “runover” incidents. But they also have features that expose workers to other risks of injury.

### **Training**

All NexGen Mechanical workers who operate Pallet Jacks must be trained. Training will include operating and service procedures given in the operator's manuals and on the loader's warning signs. The training will occur before the employee is expected to drive the equipment. Only competent workers are required or permitted to operate powered mobile equipment.

### *Pre Operating Check*

- Make sure that you understand all manufacturers' warnings and instructions before you operate the Pallet Jack.
- You must carry out a pre-use check prior to use. If the pre-use check identifies a safety issue do not use the equipment.
- Ensure that you are familiar with and follow safe operating procedures.
- Ensure that the backup alarm is functional, if applicable.
- Follow safe mounting procedures.

### *Operating the Pallet Jack*

- Keep all walking and working surfaces clean and clear of debris.
- When possible, plan to load, unload, and turn on level ground.
- NEVER exceed the manufacturer's recommended load capacity for the machine.
- Operate on stable surfaces only.
- Avoid traveling across slopes; travel straight up or down with the heavy end of the machine pointed uphill.
- Always face the direction of travel.
- Keep bystanders away from the work area. Be ever mindful of pedestrian traffic.
- NEVER modify or bypass safety devices.
- Keep the controls free of mud, ice, snow, and debris.
- Carry a communication device (Cell phone, Mike phone, radio, etc).

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

## **9.26 Powered Mobile Equipment**

The purpose of this Powered Mobile Equipment policy is to protect employees and contractors from injury.

It is essential that all NexGen Mechanical workers read, understand, and comply with safe work practices and procedures for the Powered Mobile Equipment Protocol. Powered mobile equipment includes forklifts, pile driving equipment, all-terrain vehicles, ride-on lawn mowers, tank trucks, farm tractors, heavy equipment, etc.

Operators must not leave the controls of the equipment unless the equipment is secured against unintentional movement by an effective method of immobilizing the equipment. Where applicable, remove the key, lock the doors, chock the wheel, park on level ground, lower bucket, and/or set the parking brake.

### **Training**

All NexGen Mechanical workers who operate powered mobile equipment must be trained. The training will occur before the employee is expected to drive the equipment. Only competent workers are required or permitted to operate powered mobile equipment; only then will they be authorized by NexGen Mechanical to operate that piece of equipment. Competency is verified by:

- Completed training program,
- Observation by a competent operator, and
- Knowledge review of equipment operating instructions.

### **Inspection and Maintenance**

The employees of NexGen Mechanical are required to complete a visual inspection of the equipment and the surrounding area before operating any powered mobile equipment. The checklist must be used for pre-use inspections. The inspection ensures that the equipment is in a safe operating condition and that no worker, including the operator is endangered when the equipment is started up. A competent worker (on the specified equipment) must also perform an inspection as necessary to ensure that it is capable of safe operation. The inspection includes walking around the powered mobile equipment and ensuring that it is in good working order. All defects or conditions affecting the safe operation of the equipment must be reported to your supervisor immediately. The supervisor will determine if it is safe to use or if it must be repaired before using. As soon as is reasonably practicable the defect must be repaired or the unsafe condition is corrected.

The equipment must be maintained according to the manufacturer's instructions.

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A record of the inspections and maintenance carried out on all equipment is located in or on all equipment; this assures it is readily available to any worker who is operating the equipment.

Maintenance records for any service, repair, or modification which affects the safe performance of the equipment must be maintained and be reasonably available to the operator and maintenance personnel during work hours.

Servicing, maintenance and repair of mobile equipment must not be done when the equipment is operating, unless continued operation is essential to the process and a safe means is provided.

All NexGen Mechanical employees, when doing maintenance on mobile equipment, must follow the lockout-tag out procedures and render the equipment inoperative.

### **Refuelling**

No NexGen Mechanical workers may smoke within 7.5 metres of a vehicle or powered mobile equipment while it is being refuelled. If a source of ignition is within 7.5 metres do not refuel and dispensing flammable fuels into the fuel tank while its engine is running is prohibited. Do not go back into your vehicle when refuelling, static may be created that could cause an explosion (if you need to enter your vehicle ground yourself by touching metal with your bare hand before handling the pump or Jerry can again). Be alert when refuelling.

Where a unit of powered mobile equipment is equipped with an enclosed cab, NexGen Mechanical will ensure that a fuel tank located in the enclosed cab has a filler spout and vents that extend to the outside of the cab.

### **Rollover Protective Structures (ROPS)**

The following types of powered mobile equipment (weighing 700 kilograms or more) have rollover protective structures:

- tracked (crawler) or wheeled bulldozers, loaders, tractors or skidders, other than those operating with side booms;
- back hoes with a limited horizontal swing of 180 degrees;
- motor graders;
- self-propelled wheeled scrapers;
- industrial, agricultural, and horticultural tractors, including ride-on lawnmowers;
- wheeled trenchers.

For other powered mobile equipment where rollover is identified as a potential hazard, NexGen Mechanical will either equip the powered mobile equipment with a

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rollover protective structure that is either supplied by the manufacturer or certified by a professional engineer as being suited to that equipment, or institute safe work procedures that eliminate the possibility of rollover.

All powered mobile equipment fitted with ROPS has seat belts or restraining devices for the operator and passengers; all workers must use the seat belts or restraining devices at all times.

### **General Provisions**

The following controls are addressed, where applicable:

#### *Engineering*

- Where there is a danger to the operator of a unit of powered mobile equipment or any other worker who is required or permitted to be in or on a unit of powered mobile equipment from a falling object or projectile, the powered mobile equipment will be equipped with a suitable and adequate cab, screen or guard.
- Every forklift is equipped with a seat belt for the operator if the forklift is equipped with a seat.
- Every forklift is provided with a durable and clearly legible load rating chart that is readily available to the operator.

#### *Administrative*

- The NexGen Mechanical operator must maintain full control of the equipment at all times.
- The powered mobile equipment must be kept free of objects that could interfere with the operation or create hazards. Such hazards could be objects leaning on, or under the powered mobile equipment that are not noticed before operating the machine.
- Where a worker may be endangered by the swinging movement of a load or a part of a unit of powered mobile equipment, NexGen Mechanical workers are not required or permitted to remain within range of the swinging load or part.
- Operators must not leave the controls of the equipment unless the equipment is secured against unintentional movement by an effective method of immobilizing the equipment. Where applicable, remove the key, lock the doors, chock the wheel, park on level ground, lower bucket, and/or set the parking brake. Elevated parts must be lowered to the ground.

#### *Personal Protective Equipment (Seat Belts and Helmets)*

- The NexGen Mechanical operator must use seat belts or other restraining device required. All passengers must also use the seat belts and other safety equipment.

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- No worker may be transported on a vehicle or a unit of powered mobile equipment unless the worker is seated and secured by a seat belt or other restraining device that is designed to prevent the worker from being thrown from the vehicle or equipment while the vehicle or equipment is in motion.
- No worker may be transported on the top of a load that is being moved by a vehicle or a unit of powered mobile equipment.
- Workers are provided with and required to use approved protective headgear and approved eye or face protectors if the all-terrain vehicle, snowmobile or towed conveyance does not have an enclosed cab.

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## **9.27 Propane**

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

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

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

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

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## **9.28 Refuelling**

This practice is intended to protect workers from injuries associated with Refuelling. Refuelling is a daily task, which may be hazardous if not carried out properly.

### **Supervisor Responsibility**

- Supervisors are responsible to facilitate and/or provide proper instruction to their workers. Wear gloves when working with diesel. Viton gloves have been shown to be most effective in protecting against diesel exposure. Do not use vinyl or butyl rubber gloves with diesel, as they offer no protection.

### **Worker Responsibility**

- Ensure you are conversant with regulations.
- Refuelling area is ventilated.
- Ensure equipment is shut off prior to refuelling.
- Ensure there is no smoking or open flames in vicinity.
- Avoid spillage on equipment or ground.

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## **9.29 Rigging**

The purpose of the rigging policy is to protect and educate employees and contractors. It is essential that all NexGen Mechanical workers read, understand, and comply with safe work practices and procedures for rigging.

Rigging is defined as any sling, chain, rope, or associated fitting used to lift or pull items by any mechanical means.

### **Training**

All NexGen Mechanical employees receive training at orientation and refresher training every year thereafter. Rigging and slinging work must be done by or under the direct supervision of qualified workers familiar with the rigging to be used and with the code of signals for controlling hoisting operations.

Workers must be competent when working with rigging. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. At NexGen Mechanical all rigging is assembled, used, maintained, and dismantled under the supervision of a competent worker and in accordance with manufacturers' specifications.

All NexGen Mechanical workers who are required or permitted to assemble, use, maintain or dismantle rigging are trained in these safe rigging practices.

### **Standards**

NexGen Mechanical ensures that all wire rope, alloy steel chain, synthetic fibre rope, metal mesh slings, and synthetic fibre slings meet the requirements of ASME Standard B30.9-2006, Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks and Slings (or current version). Below-the-hook lifting devices, other than slings, meet the requirements of ASME Standard B30.20-2006, Below the Hook Lifting Devices (or current version).

### **Inspections and Rejection Criteria**

Contractors and employees of NexGen Mechanical are required to thoroughly visually inspect the rigging before each shift or use to ensure that it is functional and safe. The inspection must be performed by a competent worker. A competent worker means adequately qualified, suitably trained, and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. The following items are inspected:

- Synthetic web slings will be inspected for cuts, burns, excessive wear, and broken threads.

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- Synthetic rope slings will be inspected for any distortion, cuts, broken fibers or wear.
- Chains will be inspected for wear, cracks, nicks, or discoloration.
- Steel wire rope slings will be inspected for kinks, broken wires, protruding core, crushing, corrosion, or other damage.
- A sling with a knot must not be used.
- Towrope slings will be inspected for wear, broken fibers threads, burns, knots or distortion.
- All fittings must be used for the proper type of application and must be inspected for any sign of wear, distortion, cracks, missing or unacceptable replacement parts, missing or broken safety latches on hooks, and bent or worn pins or bolts.
- Any hook must have a safety latch, mousing, or shackle if the hook could cause injury if it is dislodged while in use. A hook is considered defective if:
  - the throat opening, measured at the narrowest point, has increased by more than 10% of the original opening,
  - the hook has twisted more than 10° from the original plane of the hook,
  - the hook has lost 10% or more of its cross-sectional area,
  - the hook is cracked or otherwise defective, or
  - wear or damage exceeds any criteria specified by the manufacturer.

If the inspection indicates that the rigging is unsafe or damaged then it must be rejected and be permanently removed from service.

### **Rigging Identification and Working Load Limit**

Rigging fittings must be marked with the manufacturer's identification, product identifier and the working load limit (WLL) or sufficient information to readily determine the WLL. The WLL of any existing fittings not identified must be removed from service.

An alloy steel chain sling must be permanently identified with:

- the size,
- the manufacturer's grade and the WLL,
- the length and number of legs, and
- the name or mark of the sling manufacturer.

Synthetic fibre web slings must be permanently identified with:

- the manufacturer's name or mark,
- the manufacturer's code or stock number,
- the working load limits for the types of hitches permitted, and
- the type of synthetic web material.

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A wire rope sling with a swaged or poured socket or a pressed fitting will be inspected to ensure it is permanently identified with:

- its working load limit,
- the angle upon which the WLL is based, and
- the name or mark of the sling manufacturer.

### **Rigging Breaking Strength and Load Rating**

No load may be imposed on any rigging that is in excess of 10% of the breaking strength of the weakest part of the rigging (if the rigging is being used to raise and lower workers) and 20% of the breaking strength of the weakest part of the rigging in all other cases.

A sling used to hoist a load and the slings fittings and attachments must remain in compliance with legislated standards, and capable of supporting at least 10 times the load to which the slings fittings, and attachments may be subjected where they are used to support a worker, and at least five times the maximum load to which they may be subjected in any other case. All slings at NexGen Mechanical are clearly labelled to indicate the slings maximum. The load capacities of the slings are readily available to workers.

No shackle may ever be subjected to a load greater than the maximum load indicated on the shackle, and all shackle pins must be installed to prevent accidental withdrawal, and a bolt may never be used in the place of a properly fitted shackle pin.

The maximum load of any hook must be clearly labelled in a location where a worker using the hook can easily see the rating.

The determination of the working load limit (WLL) of a sling assembly must ensure that the WLL of any individual component of the assembly is not exceeded. Rigging must not be subjected to loads more than the maximum load rating. If the load rating is not labelled on the rigging information must be kept with all rigging and made readily available to workers that states the maximum load rating of that piece of rigging and its associated parts. Remember that rigging is only as strong as its weakest component.

### **Tag line and Hoisting Line Requirements and Procedures**

Where a NexGen Mechanical worker may be endangered by the rotation or motion of a load during hoisting one or more tag lines must be used to control the rotation or motion of the load. The tag lines must be of sufficient length to protect the workers from any overhead hazard. Tag lines are never to be removed from the load until the load is securely landed.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

**General Guidelines**

- Loads to be unhooked by a worker must be safely landed and supported before the rigging is detached.
- A sling must be stored to prevent damage when not in use.
- When a sling is applied to a sharp edge of a load, the edge or the sling must be protected to prevent damage to the sling.

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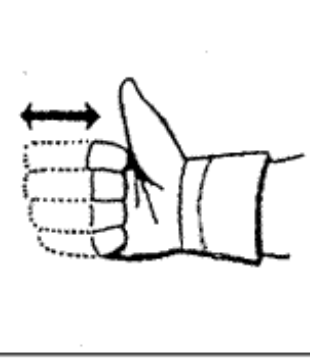
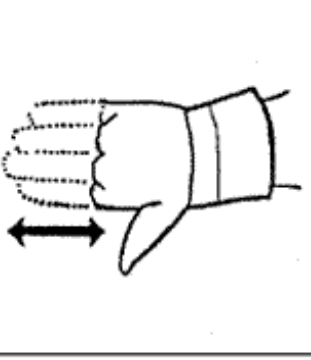
Qualified Signalers are required to use the following hand signals:

|                                                                                                                                                                        |                                                                                                                                                                                             |                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                        |                                                                                                                                                                                             |                                                                                                                                                                                                     |
| <p>HOIST. With forearm vertical, forefinger pointing up, move hand in small horizontal circles.</p>                                                                    | <p>LOWER. With arm extended downward, forefinger pointing down, move hand in small horizontal circles.</p>                                                                                  | <p>USE MAIN HOIST. Tap fist on head; then use regular signals.</p>                                                                                                                                  |
|                                                                                                                                                                        |                                                                                                                                                                                             |                                                                                                                                                                                                     |
| <p>USE WHIPLINE. (Auxiliary Hoist). Tap elbow with one hand; then use regular signals.</p>                                                                             | <p>RAISE BOOM. Arm extended, fingers closed, thumb pointing upward.</p>                                                                                                                     | <p>LOWER BOOM. Arm extended, fingers closed, thumb pointing downward.</p>                                                                                                                           |
|                                                                                                                                                                        |                                                                                                                                                                                             |                                                                                                                                                                                                     |
| <p>MOVE SLOWLY. Use one hand to give any motion signal and place other hand motionless in front of hand giving the motion signal. (Hoist slowly shown as example.)</p> | <p>RAISE THE BOOM AND LOWER THE LOAD. Arm extended, fingers closed, thumb pointing upward, other arm bent slightly with forefinger pointing down and rotate hand in horizontal circles.</p> | <p>LOWER THE BOOM AND RAISE THE LOAD. Arm extended, fingers closed, thumb pointing downward, other arm with forearm vertical, forefinger pointing upward and rotate hand in horizontal circles.</p> |

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

|                                                                                                                                                                                                                    |                                                                                                                          |                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                   |                                        |                                                                                                                                                                                   |
| SWING. Arm extended, point with finger in direction of swing of boom.                                                                                                                                              | STOP. Both arms outstretched at the sides horizontally, fingers outstretched.                                            |                                                                                                                                                                                   |
|                                                                                                                                  |                                        |                                                                                                |
| TRAVEL. Arm extended forward hand open and slightly raised, make pushing motion in direction of travel.                                                                                                            | DOG EVERYTHING. Clasp hands in front of body.                                                                            | TRAVEL (Both Tracks). Use both fists in front of body, making a circular motion about each other, indicating direction of travel; forward or backward. (For crawler cranes only.) |
|                                                                                                                                 |                                       |                                                                                               |
| TRAVEL (One Track). Lock the track on side indicated by raised fist. Travel opposite track in direction indicated by circular motion of other fist rotated vertically in front of body. (For crawler cranes only.) | EXTEND BOOM. (Telescoping Booms). Both fists in front of body with thumbs pointing outward. One hand signal may be used. | RETRACT BOOM. (Telescoping Booms). Both fists in front of body with thumbs pointing toward each other. One hand signal may be used.                                               |

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|                                                                                                                                                                                        |                                                                                                                                                          |                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>MAGNET IS DISCONNECTED.<br/>Crane operator spreads both hands apart – palms up.</p>               |  <p>OPEN CLAM SHELL BUCKET.<br/>Arm extended, palm down, open hand.</p> |  <p>CLOSE CLAM SHELL BUCKET.<br/>Arm extended, palm down, close hand.</p> |
|  <p>HOIST SLOWLY TO CLEAR FOULED LINE. Hands crossed in front, above shoulders, fingers relaxed.</p> |  <p>BOOM UP AND LOWER THE LOAD. One hand.</p>                          |  <p>BOOM DOWN AND RAISE THE LOAD. One hand.</p>                          |
|  <p>STOP. One hand.</p>                                                                             |  <p>WHIP LINE. One hand.</p>                                         |                                                                                                                                                             |

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### 9.30 Safe Work Permits

Safe Work Permits are intended to ensure that potentially hazardous work is carried out under safe working conditions. The permit system is a two-way arrangement that allows for communication between parties at a location. It is the responsibility of both the issuer and the receiver of the permit to comply with its requirements.

- Permit Requestor is the individual requesting the Safe Work Permit and identifies hazards and proposed controls (The Permit Requestor will not issue a Safe Work Permit to themselves). Must sign permit.
- Permit Issuer is the Individual approving the use of Safe Work Permit and ensuring site preparations are complete and informing individuals affected by the work. Must sign permit.
- Permit Holder is the individual responsible for obtaining the Safe Work Permit and ensuring work is carried out in accordance with conditions of the Work Permit. Must sign permit.

A Safe Work Permit is issued for all high-risk and non-routine tasks. When performing low-risk/routine tasks, the authorized permit issuer must be consulted to determine if a safe work permit is needed. Deviations from a work permit may apply in the event of an emergency.

Safe Work Permits will be authorized and issued in accordance with local management directives.

A Safe Work Permit must be issued and executed before work on a task begins. In certain situations it may not be reasonably practical to issue the permit prior to work beginning. Any such exceptions should be authorized by site supervisor. Before the beginning of each shift, a thorough review of any active Safe Work Permits shall be completed. If the work scope changes, then the current safe work permit must be closed and a new permit must be issued. In situations where new, previously unidentified hazards arise, the safe work permit will be suspended and reviewed.

A risk assessment must be conducted to identify and assess hazards. Proper controls must be implemented to mitigate identified hazards.

The most common permits are:

- *Hot Work Permit* - prevents a fire or explosion and checks for flammable materials
- *Maintenance Work Permit* - permits maintenance work.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

- *Vessel Entry Permit* - permits entering any vessel that may pose the hazard of toxic or flammable vapors, oxygen deficient atmospheres or corrosive or irritating chemicals.
- *Confined Space Permit* - permits entry into spaces with restricted access or egress, such as fuel tanks, pipelines, pumping stations, process vessels, septic tanks, sewage digesters, manholes, vats, pits, etc.
- *Vehicle Entry Permit* - permits vehicle entry into an area where hydrocarbon vapors, or other flammable or explosive vapors, may be present.
- *Excavation Permit* - ensures that buried cables are located and workers informed of hazards

A Safe Work Permit must be issued to **all** subcontractors working on site. An exemption may be given when the subcontractor is supervised by a NexGen Mechanical employee at all times. If any additional hazards will be performed (Hot Work, Lock Out, etc) an additional permit will also be required.

A safe work permit is a written record that identifies:

1. the date, time of issue, and time of expiry of the permit;
2. the location of the work —it must be as specific as possible;
3. the company doing the work;
4. a description of the work to be done;
5. Depending on work to be done:
  - any toxic, corrosive, flammable, or other dangerous materials in the immediate work area and whether the work area has been inspected and found free of the above materials;
  - the need for fire protection;
6. the need for specific personal protective equipment to protect the worker from the hazard;
7. the need for emergency procedures and competent rescue personnel;
8. a special instructions and comments section — special procedures, special precautions;
9. a general instruction-to-receiver section;
10. the name and job title of the person who issued the permit and when;
11. the name and job title of the person who received the permit and when;
12. that the work has been completed and the permit signed by the person returning it; and
13. the name of the person signing off the permit and whether or not the work has been completed.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

## **9.31 Scaffolds**

The purpose of the scaffold policy is to protect and educate employees and contractors from injury. It is essential that all NexGen Mechanical workers read, understand, and comply with safe work practices and procedures for the Scaffolds.

### **CSA Requirements**

NexGen Mechanical ensures that scaffolds are erected to provide working platforms during the construction, alteration, repair or demolition of buildings and other structures that comply with applicable CSA Standards - S269.2-M87 (R2003), Access Scaffolding for Construction Purposes.

### **Training**

A NexGen Mechanical worker who erects, dismantles, or works on scaffolding must receive training at orientation and refresher training every year thereafter.

The NexGen Mechanical worker must be competent when working with scaffolds, aerial device, or elevating work platforms. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. The following is discussed in training:

- Prior to beginning a task workers must be informed of the maximum load that the scaffold, aerial device, or elevating work platform is permitted to carry.
- Inspection and defect recognition.
- Scaffold tagging requirements.
- Safe operation of aerial device or elevating work platform.
- The manufactures instructions and recommendations.
- The proper use of all controls and any limitations on the surfaces on which the device or platform is designed to be used.

After training in the scaffolds safe and proper use employees may only use a temporary structure once he/she has authority from NexGen Mechanical to use it.

All modification, assembly, disassembly and moving of a scaffold must be completed by or under the supervision of a qualified / competent person.

### **Inspection**

The employees of NexGen Mechanical have a responsibility to inspect the scaffolds/temporary structure before each use.

NexGen Mechanical ensures that the scaffolds are inspected by the workers, are safe to use, and are able to withstand the load, regardless of who erected the

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scaffold. All aerial devices, elevating work platforms, suspended powered scaffolds, personnel lifting units or scaffolds must be tagged. A maintenance inspection record tag has the following recorded on it:

- the date of the last maintenance,
- the name and signature of the person who performed the maintenance, and
- an indication that the maintenance has been carried out in accordance with manufacturers recommendations.

The tags will be colour coded and used at each point of entry indicating its status and condition.

- Green tag indicates it is safe for use.
- Yellow tag indicates caution and that there may be a potential or unusual hazard.
- Red tag indicates that it is unsafe for use. It must be removed from the workplace and repaired or discarded.

The maintenance and inspection of any aerial device, elevating work platform, suspended powered platform, personnel lifting unit or scaffold must be completed only by a competent worker and address (where applicable):

- That the scaffold planks are free of defects before the planks are incorporated into a scaffold.
- If a manufactured scaffold plank is used according to the manufacturers' recommendations and is clearly marked with its maximum working load or the load specifications are readily available at the worksite.
- Where a metal scaffold is used it is inspected prior to use and daily when in use for any damage, deterioration or weakening of the scaffold or the scaffolds components.
- If a metal scaffold or a component of a metal scaffold is damaged, deteriorated or weakened so that the strength or stability of the scaffold is affected, the scaffold must not be used until the scaffold or component is repaired or replaced by a competent person in accordance with the manufacturers or a professional engineers specifications and recommendations.

A worker must not use a scaffold if it has a red tag, a green or yellow tag that has expired, or no tag at all. Scaffolds must not be used if major defects are found.

### **Record Keeping**

NexGen Mechanical keeps records of the inspections and maintenance carried out; these are kept at the work site and readily available to a worker who will use the aerial device, elevating work platform, suspended powered platform, personnel lifting unit or scaffold.

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**Scaffold Design Requirements**

A single pole or double pole scaffold must be supported against lateral movement by adequate bracing, anchored by one tie-in for each 4.6 metre vertical interval and one tie in for each 6.4 metre horizontal interval, anchored by one tie in for each 3 metre vertical interval (hoarded masonry walk-through scaffolds have different anchor and tie-ins space requirements), and set plumb on a base plate, jackscrew or other load dispersing device on a stable surface with the ledgers and bearers level. Protection from impact from vehicles and powered mobile equipment must be employed where the hazard exists.

The base of a scaffold must have bearing plates or sills that rest on a solid surface and are sufficient to support the weight of the scaffold. The poles, legs and uprights of a scaffold must be securely and rigidly braced to prevent movement.

A scaffold must be designed and constructed to support at least 4 times the load that may be imposed on it; the load the scaffold is subjected to must never exceed the equivalent of 1/4 of the load for which it is designed.

The platform of each scaffold must be a minimum nominal width of 50 cm (20 in), except that a nominal 30 cm (12 in) wide work platform may be used with ladder jacks, pump jack or similar systems. Only one opening in the work platform is allowed, which must be no greater than 25 cm (10 in) in width. If the platform is not level, it must be designed to ensure adequate footing of workers.

Guardrails and toe boards must be installed at the open edges of temporary platforms and be constructed to meet or exceed minimum specifications. Every guardrail will consist of a horizontal top rail not less than 900 mm but not more than 1100 mm above the base, a horizontal midrail between the top rail and the base; and supporting posts spaced not more than 3 m apart at their centres. Where there is potential that objects may fall onto persons below a toe board that extends from the floor of the platform to a height of not less than 125 mm shall be installed.

All connections between the parts of a scaffold must be secure.

**General Precautions**

Where a scaffold is partially or fully enclosed all scaffold components and tie-ins must be adequate to support the added load that may be placed on the scaffold as a result of wind or other adverse weather conditions.

Where a suspended scaffold, suspended powered scaffold or load-carrying unit is suspended from or attached to a structure, NexGen Mechanical will ensure that wire mesh, or other material equally effective to prevent objects from falling from

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the working surface, is installed from the working surface to a height of at least 900 millimetres on all sides except the side adjacent to the structure.

A worker is not required or permitted to work on an exposed energized high voltage electrical conductor from an aerial device or elevating work platform unless the controls are operated by the worker on the device or platform. A scaffold must be effectively grounded if it is a metal scaffold and is located close to a high voltage energized electrical conductor or equipment, and a hazardous level of electrical charge is likely to be induced in the scaffold.

While a worker is on a work platform mounted on a forklift and the forklift is in the raised position, NexGen Mechanical will ensure that the operator remains at the controls and does not move the forklift. A work platform mounted on a forklift on which a worker may be raised or lowered or required or permitted to work must be:

- Designed and constructed and certified safe for use by a professional engineer to support safely the maximum load that the platform is expected to support.
- Securely attached to the forks of the forklift to prevent accidental lateral or vertical movement of the platform.
- Equipped with guardrails and toe-boards.
- Equipped with a screen or similar barrier along the edge of the platform adjacent to the mast of the forklift to prevent a worker from contacting the mast drive mechanism.
- Occupied only by a worker working using a personal fall arrest system.

### **Dangerous Occurrence**

NexGen Mechanical will give notice to the division as soon as is reasonably possible of any structural failure or collapse of a scaffold or the failure of an elevated or suspended platform. The notice must include:

- the name of each employer, contractor and owner at the place of employment;
- the date, time and location of the dangerous occurrence;
- the circumstances related to the dangerous occurrence; and
- the name, telephone number and fax number of the employer, contractor or owner or a person designated by the employer, contractor or owner to be contacted for additional information.

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### 9.32 Slips, Trips, and Falls

EnForm has put together a *Guide to Safe Work...Slips, Trips, and Falls (Revised August 2011)*; information from this guide is referenced throughout this practice. In Canada, about 60,000 workers are injured on the job from slips, trips, and falls every year. This accounts for 15 percent of the lost-time injuries accepted by Workers' Compensation Boards (WCBs) across the country. Besides being a huge financial loss, these injuries can cause people pain and suffering, and much too often, even death.

#### Toolbox Talks

We raise awareness of slips, trips, and falls in toolbox talks throughout the year. Topics of discussion include:

- Personal Protective Equipment: Footwear, use, care, and maintenance and Fall protection
- Mental and Physical Conditions
- Housekeeping: standards and expectations
- Slipping – tripping – falling: Causes and Prevention

#### Causes of Slips, Trips and Falls

Bumps and bruises, sprains and strains, tears and broken bones—these are all injuries you can get from slips, trips, and falls. But some more serious injuries can occur as well, such as head injuries and impalement.

| Causes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Prevention                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Slips                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p>Slips happen when you don't have enough traction or friction between your boots and what you're walking on. Surfaces can vary, so expect a slippery or loose surface only a few strides away.</p> <p>Watch <b>for substances on surfaces that can make them slippery</b> such as</p> <ul style="list-style-type: none"> <li>• Frost or snow</li> <li>• Visible or black ice</li> <li>• Freshly waxed flooring</li> <li>• Oil or spills of any kind</li> <li>• Water or wetness, such as wet mud</li> <li>• Smooth, cold surfaces (eg, cold metal stairs)</li> </ul> <p><b>Look out for loose items on top of surfaces</b>—these can cause slipping hazards (e.g., loose, unanchored mats that can slide out from under you, and small-diameter gravel).</p> <p>Other factors that can cause slips are <b>poor lighting and lack of attention to hazards</b>.</p> | <p>Take your time and pay attention to where you are and where you are going.</p> <ul style="list-style-type: none"> <li>• Be aware of <b>lighting issues</b> such as poor light, blind spots, or shadows that hide objects. Also, schedule outdoor work during daylight hours.</li> <li>• Create <b>temporary or permanent additional traction</b> by spreading sawdust to absorb liquids and provide traction, or by coating floors with paint embedded with sand.</li> <li>• <b>Replace floors, or use mats, pressure-sensitive abrasive strips, abrasive-filled paint-on coating, or metal or synthetic decking.</b> But remember that even this high-tech flooring still requires good footwear and good housekeeping for safety.</li> <li>• If needed, wear <b>overshoes for better traction</b>—especially over grippless dress shoes.</li> <li>• <b>Shorten your stride</b> to suit walking surfaces and tasks.</li> <li>• <b>Point your feet outward slightly</b> for extra balance.</li> <li>• Make <b>wide turns at corners</b>.</li> <li>• Keep <b>one free hand</b> (a "hand for yourself") when you're using stairs, ladders, or ramps.</li> </ul> |

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

| Causes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Prevention                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Trips</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p>Trips occur when your foot hits something in your way so that you lose your balance and fall.</p> <p>Watch for <b>uneven surfaces</b> such as</p> <ul style="list-style-type: none"> <li>• Wrinkled rugs or carpet</li> <li>• Frozen vehicle ruts</li> <li>• Uneven steps, thresholds, or slopes</li> </ul> <p>Look out for <b>things in your path</b> such as</p> <ul style="list-style-type: none"> <li>• Materials, tools, or clutter on the ground or floor</li> <li>• Uncovered cables</li> <li>• Low cabinet drawers left open</li> <li>• Narrow or short steps</li> </ul> <p>As with slips, there are some general factors that contribute to trips: <b>lack of attention</b>, <b>poor lighting</b>, and any <b>obstructions that limit your line of vision</b>.</p>                                                                                                                                     | <p>Take your time and pay attention to where you are and where you are going.</p> <ul style="list-style-type: none"> <li>• Be aware of <b>lighting issues</b> such as poor light, blind spots, or shadows that hide objects. Also, schedule outdoor work during daylight hours.</li> <li>• Make sure anything you're carrying, pushing, or moving doesn't stop you from being able to <b>see tripping hazards</b>.</li> <li>• Use the engineered devices that help you keep your balance, such as <b>handrails</b> on stairs.</li> <li>• Ensure good Housekeeping.</li> <li>• <b>Point your feet outward slightly</b> for extra balance.</li> <li>• Keep <b>one free hand</b> (a "hand for yourself") when you're using stairs, ladders, or ramps.</li> </ul>                                                                                                                                                                                                                                                    |
| <b>Falls</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p>Since <b>falls from low elevations</b> or walking can cause serious injury and even death, <b>falls from higher elevations</b> can clearly be much more serious. The following situations may cause you to fall—whether it's a short distance while walking, or from relatively low elevations, or from higher up:</p> <ul style="list-style-type: none"> <li>• <b>Jumping</b> from a platform to the ground or <b>climbing</b> from equipment to the ground</li> <li>• <b>Falling off</b> the side or edge of an area of construction or through a wall opening</li> <li>• Stepping into a <b>floor hole</b> you didn't see</li> <li>• <b>Falling off</b>, or along with, an improvised stepping stool you're using for added reach</li> <li>• Unbalancing a ladder by <b>leaning</b> off it instead of getting down and moving it (These reaches are the source of most falls from short heights.)</li> </ul> | <p>Take your time and pay attention to where you are and where you are going.</p> <ul style="list-style-type: none"> <li>• Be aware of <b>lighting issues</b> such as poor light, blind spots, or shadows that hide objects. Also, schedule outdoor work during daylight hours.</li> <li>• Use the engineered devices that help you keep your balance, such as properly maintained and used <b>ladders and ramps</b>.</li> <li>• Use barriers such as <b>guardrails</b>, and warning devices such as <b>flagging tape</b>, for unprotected/open sides, edges, wall openings, and floor holes.</li> <li>• Remember the importance of using <b>three-point contact</b> when you're getting in and out of vehicles and equipment, or climbing ladders.</li> </ul> <p><b>How do you prevent falls from higher up?</b><br/>You'll need to learn about freefall limits, clear fall paths, and total fall distance. You'll also need to select appropriate personal protective equipment (PPE) and use it properly.</p> |

### Mental and Physical Condition

Mental impairment can be from fatigue, drinking alcohol or taking drugs—either illegal drugs or some over-the-counter medications. Mental impairment increases the likelihood that you will slip, trip, or fall. If your mental condition is impaired, your ability to notice and react to hazards is reduced. And any loss of mental focus, such as daydreaming about your new pay raise or what you're going to do next weekend, also takes your mind from your task.

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If you're in good physical condition, you will have quicker reflexes and limber, toned muscles to help you keep or recover your balance. And if you fall, being in good condition will help you recover faster. This becomes even more important when you get older because, as you age, your ability to recover from an injury slows down. If you're an office worker, this still applies. Working in one place for long periods may reduce your ability to respond to a slip, trip, or fall and add to the severity of injuries. Basic stretching for mobility and flexibility can help protect you from injury.

**Housekeeping**

Poor housekeeping can cause injuries such as trips over loose objects; slips on greasy, wet, or dirty surfaces; impacts against projecting objects; and cuts or punctures on nails, wire, or steel strapping that is sticking out. Worksite housekeeping includes keeping work areas neat and orderly, maintaining unobstructed halls and floors, and removing waste from work areas. It should be an ongoing operation. The following must be done regularly:

- Mop or sweep debris from floors.
- Remove walkway obstacles and clutter.
- Secure mats, rugs, and carpets that do not lie flat.
- Regularly inspect, clean, and repair all tools and take any damaged or worn tools out of service.
- Close file cabinet or storage drawers.
- Cover cables that cross walkways.
- Clean up any spills immediately.
- Mark spills and wet areas including just-cleaned floors.
- Keep working areas and walkways well lit.
- Replace burnt-out lights and faulty switches.

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### **9.33 Tools (Hand/Power), Equipment, Machinery, and Safeguards**

The purpose of this policy is to protect and educate employees and contractors. It is essential that all NexGen Mechanical workers read, understand, and comply with these safe work practices and procedures for Hand/Power Tools, Equipment and Machinery.

NexGen Mechanical will ensure that each tool, machine and piece of equipment in our workplace is capable of safely performing the functions for which it is used, and selected, used and operated in accordance with the manufacturer's instructions, if available, and safe work practices. Tools (power / hand) must be appropriate for the job for which they are intended and be used solely for the purposes for which they were designed.

A hazard assessment has been completed on all equipment or machinery used at NexGen Mechanical. Tools that are ergonomically correct for the appropriate task based on the nature of the job, the workplace layout, and the job design must be selected. Employees using hand and/or power tools that are exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dust, fumes, mists vapors, or gases will be provided and wear the PPE necessary to protect them from the hazard. Other factors to consider include (but are not limited to): Low-vibrating tools, lightweight tools, tools with vibration-absorbing handles, tools that are easier to manipulate and handle, etc.

#### **Training and Competency**

All NexGen Mechanical employees receive basic training by a qualified person for all tools, equipment and machinery they may be required to use at orientation and as needed after that. The training will address the safe and proper inspection, maintenance, and use of all tools and machinery that he/she is required to use. All workers must have the proper combination of experience, knowledge, and education to perform the work required.

Workers must be competent when working with all tools, equipment and machinery required to do their job. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision.

All training documents are kept on file.

#### **Clothing or Jewellery**

NexGen Mechanical has identified areas that workers may have potential contact between moving parts of machinery, electrically energized equipment or part of the work process with the workers clothing, jewelry or hair. All NexGen

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Mechanical workers that work around machinery must ensure that their clothing does not come in contact with a moving part of a machine and must wear close-fitting clothing. The use of personal protective equipment may be required.

NexGen Mechanical management, supervisors, and workers ensure that:

- Clothing fits closely to the body;
- All jewellery, including dangling neckwear, bracelets, rings, a wristwatch, or other similar items must be removed prior to the onset of the shift;
- Head and facial hair must be confined or cut short, depending on the type of machinery being operated, or operating in the vicinity of the worker.

### **Unattended and Suspended Machines**

At NexGen Mechanical no worker is required or permitted to leave unattended or in a suspended position any machine or any part of a machine unless the machine or part has been immobilized and secured against accidental movement or enclosed by a safeguard to prevent access by any other worker to the machine or part. Any breach of this requirement will result in disciplinary action being taken.

### **Warning Signs**

Adequate, appropriate and clearly visible warning signs must be placed at each point of access to a machine that starts automatically.

### **CSA Requirements**

NexGen Mechanical must ensure that the application, design, installation, operation, and maintenance of safeguards including an opening in a guard and the reach distance to a hazardous part meet the requirements of CSA Standard Z432\_04, Safeguarding of Machinery. This is best done in the purchase stage; prior to purchasing any equipment it must be assured that it meets this CSA Standard.

### **Inspection**

The employees of NexGen Mechanical have the responsibility to inspect the tools, equipment or machinery before each use and monthly; the monthly inspection must be recorded on NexGen Mechanical Equipment Inspection Form.

- A NexGen Mechanical worker must ensure that the tool, machinery, or equipment is inspected thoroughly at the beginning of the shift to ensure that it is functional and safe.
- If the tool, machinery, or equipment has a defect or is deemed unsafe then it must be reported and removed from operation and identified in a manner (mark or tag) that will ensure it is not inadvertently returned to service until repaired.

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**Machine Operator Responsibilities**

Before starting machinery, all NexGen Mechanical operators must ensure the starting or operation of the machinery will not endanger themselves or another worker. The start-up of machinery can cause injury to workers near the machine if they are not aware that the machine is being started. If a machine operator cannot see the machine or parts of the machine being operated from the control panel or operator's station, and moving machine parts may endanger workers, an alarm system must be installed. The alarm system may include sirens, buzzers, horns, flashing lights or a combination of these alarms. A combination of both visual (flashing lights) and audible (siren, buzzer or horn) alarm systems provides the best protection.

**Modifications and Re-Assembly**

Any modification of a tool, machine, or piece of equipment must be carried out in accordance with the manufacturer's instructions, if available, safe work practices, and the requirements of any provincial Regulation.

If machinery, equipment or a structure is dismantled in whole or in part and subsequently re-assembled, it must be checked by a qualified person and determined to be safe before operation or use.

**Safeguards**

The purpose of safeguards is to prevent a worker from coming into contact with hazardous areas while operating a machine, and to make the machine inoperative if the employee or any part of his clothing is in or near a part of the machine that is likely to cause injury. NexGen Mechanical will provide safeguards if a worker may accidentally, or through the work process, come into contact with:

- moving or rotating parts of machinery or equipment,
- a pinch point,
- cutting edge or point of machinery or equipment at which material is cut, shaped, or bored,
- surfaces with temperatures that may cause skin to freeze, burn, or blister, including an open flame, a steam pipe or other surface with a temperature that exceeds or may exceed 80 degrees Celsius or a cooled surface that is or may be less than minus 80 degrees Celsius,
- energized electrical cables,
- debris, material, or objects thrown from machinery or equipment,
- material being fed into or removed from process machinery or equipment,
- machinery or equipment that may be hazardous due to its operation, or
- any other hazard.

At no time should any of the machinery or equipment at NexGen Mechanical be used without a safeguard, if equipped. Alternatively, if the supervisor determines

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that an effective safeguard cannot be provided in the circumstances, NexGen Mechanical must ensure that an alternative mechanism or system or a change in work procedure is put into place to protect workers from being exposed to hazards that exist if there is no safeguard.

It is essential that all NexGen Mechanical workers read, understand, and comply with the safe work practices and procedures for equipment that has Safeguards.

A hazard assessment has been completed on all equipment or machinery. The appropriate Personal Protective Equipment must be worn when working with the machinery or equipment.

#### *Removing, Tampering or Disabling Safeguards*

A NexGen Mechanical employee is never to remove, tamper, or disable any safeguard from a machine that is operating if the safeguard is not designed to be removed when the machine is operating; a safeguard must remain in place at all times. The only time it is acceptable to remove a safeguard or make it ineffective is when it is necessary to perform maintenance, tests, repairs, adjustments or other tasks on equipment at that time the safe work procedure will be followed. If a worker removes a safeguard or makes it ineffective, the worker must ensure that:

- alternative protective measures are in place until the safeguard is replaced,
- the safeguard is replaced immediately after the task is completed and before a worker is required or permitted to use the machine, and
- the safeguard functions properly once replaced.

All NexGen Mechanical employees, when doing maintenance on the machinery or equipment, must follow the Lockout Tagout procedures and render the equipment or machinery inoperative. A copy of Lockout Tagout instructions will be kept readily available for the information of the person who performs repair and maintenance work on machines.

A fixed guard must not be modified to be readily removable without the use of tools.

#### **Records**

Detailed reports of inspection, maintenance, repairs, and modifications must be kept for the duration of the service life of the tools, machine or equipment. All documents are available at the worksite and made available, upon request, to the operator and to anyone else involved in the operation, inspection, testing, or maintenance of the equipment.

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### **9.34 Towing a Trailer**

NexGen Mechanical understands that some of its workers may be exposed to the hazards associated with towing trailers. A vehicle may act different when it has a loaded or unloaded trailer attached to the back.

- Use a vehicle of sufficient size to ensure safe handling of the trailer being towed.
- Before pulling any trailer or other equipment, the driver shall ensure the trailer or equipment is properly attached to the towing vehicle, complete with auxiliary chain, and that the brakes, brake lights and turn signals are functioning.
- Connect and test lights.
- Connect and test brakes.
- Connect safety chains.
- Raise storage leg prior to towing.
- Ensure pin, safety pin, or locks are in position and fastened.
- Posted speed limits, or speed limited governed by the Highway Traffic Act, are not to be exceeded at any time. Weather and road conditions will affect these speeds and a further speed reduction will be required to ensure full control of the vehicle at all times.
- Dead man brake is connected and operational.
- Use caution when turning or changing lanes, you will need more room to enter a lane and the trailer turns tighter than the truck.
- Check load and trailer hook-up periodically and inspect tire pressure. Check that safety chains are not dragging on the road.
- Periodically check hubs for heat build-up, this will warn of potential bearing failure.
- When unhitched from the trailer, wheels of trailer will be blocked. All units must have wheel blocks available.

#### **Procedure:**

##### *Trailer Hook Up:*

1. Assess load to be towed to determine properly equipped towing vehicle needed.
2. Back tow vehicle into position.
3. Apply park brake.
4. Lower trailer onto coupling.
5. Securely couple the trailer to tow vehicle (ensure coupling devices match).
6. Lock coupling into place.
7. Stow away dolly legs.
8. Connect safety chains from trailer to towing vehicle.

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9. Connect breakaway cable where applicable.
10. Connect trailer plug where applicable.
11. Check lights and brakes to ensure operational.
12. Remove blocking from tires where applicable.

*Towing Trailer:*

1. Release park brake.
2. Pull ahead slowly to see brakes are not engaged.
3. Remember when turning you must make wider turns.
4. Allow extra distance for stopping.
5. Before backing up, do a walk-around.
6. Designate signal person if vision is impaired.

*Unhooking Trailer:*

1. Set vehicle park brake.
2. Block trailer wheels.
3. Set dolly leg(s) into place.
4. Disconnect trailer plug, break away cable and safety chains where applicable.
5. Unlock coupling.
6. Raise trailer.
7. Disengage park brake, move truck ahead.
8. Lower trailer to level position.

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## **9.35 Use of Portable Arc Welders**

### **General**

Portable arc welders are equipment that should be treated similar to a vehicle.

- Be sure the machine is firmly attached to the transporting unit.
- Make sure all cables are wound securely when transporting.
- Do not operate them indoors.
- Check all fluid levels, water, oil and gas to be sure they are at acceptable levels for operation.
- When fuelling, **DO NOT** “top off” the gas tank. Gasoline expands as the outside temperature rises, this may result in seepage and an ensuing fire.
- Do not fuel the machine while it is running.
- Be sure the radiator and gas caps are in proper working order and securely attached.
- Do a “walk around” to check for damage and obvious leaks.
- Ensure the side covers are kept closed to protect the machine from any damage from external objects and outside weather, as well as to protect the operator and others from the moving parts of the machine.
- Note all deficiencies and report to appropriate personnel.
- Any repairs should be done by qualified mechanics or technicians.

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### **9.36 Use of Portable Fire Extinguishers**

The purpose of this practice is to protect workers from injuries associated with IMPROPER use of fire extinguishers.

Portable fire extinguishers must be installed, inspected and maintained on a regular basis to ensure proper operation in an emergency. NexGen Mechanical is required to ensure proper selection of equipment with regards to the work hazards and regulations.

#### **Training**

Supervisors are responsible to facilitate and/or provide proper annual instruction to their workers. The training must address the following worker responsibilities:

- Ensure you are fully trained with operation and maintenance of fire extinguishers, including.
  - Check Cylinder.
  - Inspect cartridge puncture cap.
  - Weigh cartridge.
  - With cartridge removed, check action of puncture lever.
  - Check hose and nozzle for obstruction.
  - Check date of manufacture.
  - Check level and condition of powder.
  - Check fill-cap threads and gasket.
  - Attach visual seal.
  - Check Pressure Gauge.
- Incipient firefighting techniques,
- Location of all firefighting equipment,
- Various categories of fire extinguishing equipment according to their capacity for handling specific types of fires.

All workers must have the proper combination of experience, knowledge, and education to perform the work required. All workers are trained in fire prevention methods to prevent the onset and spread of fires.

Training is completed initially and annually after that. All records are kept in a secure cabinet in our office.

#### **Prevention**

Precautions must be taken at all times to prevent the outbreak of fire. The following should be addressed to minimize the likelihood of a fire:

- Give heat generating equipment room to breathe. Don't stack papers on devices such as computer monitors.
- Don't pinch extension cords under furniture.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

- Report and discard frayed electrical cords.
- Unplug coffeemakers and other small appliances before everyone leaves for home.
- Make sure trash, boxes, or other potential impediments do not block the exit ways.
- Report blocked exit ways as well as problems with sprinklers, alarms, and emergency lighting.
- Carefully store flammable liquids.

**Availability of Equipment**

Fire extinguishing equipment at NexGen Mechanical is readily accessible and located in adequately marked locations (including field vehicles). At facilities other than ours ensure identifying the location of all existing fire extinguishers is completed during the hazard assessment.

At least one fire extinguisher must be provided in a workshop for each 300 or fewer square metres of floor area. The following areas have a greater potential to have a fire and at least one fire extinguisher provided in addition to the minimum amount:

- where flammable liquids or combustible materials are stored, handled or used;
- where oil-fired or gas-fired equipment, other than permanent furnace equipment in a building, is used;
- where welding or open-flame operations are carried on; and
- on each storey of an enclosed building being constructed or altered.

**Type of Equipment**

Fire extinguishing equipment must be of a suitable type and size to permit the evacuation of workers during a fire. NexGen Mechanical ensures every fire extinguisher is the type whose contents are discharged under pressure; and has an Underwriters' Laboratories of Canada 4A40BC rating.

**Maintenance and Inspections**

Fire extinguishers must be properly maintained, regularly inspected, and promptly refilled after use. After a fire extinguisher is used, it must be refilled or replaced immediately.

Every fire extinguisher must be inspected for defects or deterioration at least once a month by a competent worker who must record the date of the inspection on a tag attached to it.

Fire extinguishing equipment must be protected from physical damage and from freezing.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

**Procedure**

As soon as a fire is discovered:

- Sound the alarm and start to evacuate.
- Call the fire department.

These are important steps for everyone's safety, even if you feel the fire can be brought under control by using an extinguisher.

Make sure everyone is out or leaving the building and the fire department is on the way, before you consider using an extinguisher. If you decide the fire is manageable...

- Test that the extinguisher works before you approach the fire.
- Protect yourself at all times.
- Take care. Speed is essential but it is more important to be cautious.
- Keep your back to the exit at all times and stand 2 to 2.4m (6 to 8 ft.) away from the fire.
- Follow the 4-step P-A-S-S procedure:
  1. Pull the pin (release the lock latch or press the punch lever).
  2. Aim the nozzle at the base of the fire.
  3. Squeeze or press the trigger.
  4. Sweep the extinguisher from side to side.

If the fire does not go out immediately or the extinguisher appears to be getting empty, leave the area at once. Back out with the lever squeezed and the nozzle pointed at your feet. This will help protect you until you are out of the area.

- Leave immediately, closing doors behind you. If fire is between you and the way out, sometimes it's better to stay inside a closed room.
- If you encounter smoke, try a different way out. Be aware of all the exits available to you.
- If you have to leave and there's smoke, crawl low under it.
- Use stairs, not elevators.
- Never go back inside a burning building.

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## **9.37 Use of Tiger Torches**

### **General**

Tiger torches, although valuable to a job-site, are sometimes misused in a manner that can make them dangerous. Tiger torches are only to be used for preheating of piping etc. prior to welding.

1. When a torch is used, an adequate fire extinguisher must be present.
2. Tiger torches are only to be used to apply heat to objects that will not readily ignite and are capable of withstanding the aggressive application of heat. If you need to apply heat with a tiger torch to more delicate objects the use of a heat transfer pipe will allow the heat to reach the desired area more gently without the risk of direct open flame causing ignition of heated objects. A standard 4 - 6 inch diameter stove pipe of 3 - 5 feet in length is a good transfer pipe.
3. Fuel lines should have regulators.

When not in use.

1. Ensure that the propane bottles are properly shut off.
2. Propane bottles must be secured in an upright position.

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### **9.38 Working In Adverse Weather Conditions**

Temperature extremes, snow, ice, and remote locations all represent significant hazards to workers. These hazards increase when personnel are working alone.

Pre-planning can help to reduce the potential for an injury or other incident. The following should be considered prior to embarking on any travel.

- All vehicles will be equipped with a basic survival kit including blanket, matches, flares (optional), cell phone, extra clothes, water, granola bars, nuts, etc.
- Dress appropriately – ensure you have warm boots, layer clothes, closed toed shoes, etc.
- Follow all working alone procedures if you are working alone.
- Even when not working alone, advise a colleague or supervisor of destination, route, and expected time of return.
- Carry out communication checks before departure and periodically throughout the day.

If weather conditions are such that they make travel hazardous, you will not be required to place yourself at risk. Should this situation arise, notify your supervisor and do not leave home or stop at a nearby hotel.

#### **Electrical Storms**

When an electrical storm approaches, remove yourself from construction equipment until the storm has passed. Mobile equipment is grounded and can attract lightning. Before leaving the equipment, remember to shut it down first.

Look for shelter in a building or car; if there is neither nearby and the storm is moving too quickly for you to avoid it, move away from equipment and trees, drop to your knees and bend forward putting your hands on your knees. Do not lie flat on the ground.

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### **9.39 Working on Flat Rooftops**

Working on flat rooftops poses a unique set of hazards. Workers must use caution due to the high risk of falls, and use proper fall protection equipment including guardrails, safety nets, and personal fall arrest systems.

Additionally, workers need to assess the roof's structural integrity before any work begins; always follow local safety regulations when working on flat roofs.

#### **Fall Protection Plan**

A fall protection plan must be written for work performed on a Flat Roof. The fall protection plan must be available at the work site at all times. The Fall Protection Plan should include the following components:

- Location of work.
- Identification of which zones employee enters and performs tasks in.
- PPE to be used and how to wear/maintain/inspect PPE
- Fall clearance distance.
- Identification of fall protection system to be used including types and location of anchor points and confirmation it meets engineering requirements.
- Assembly, maintenance, and dismantling instructions.
- Inspection and rejection criteria.
- Designated access points must be determined. They must also be maintained and workers should have safe, unobstructed access to the area of the roof where work is being performed.
- The emergency and rescue procedures.
- All hazard, including fall hazards, present at the worksite (hazard assessment).
- A list of the important emergency phone contacts.
- Date, name, and signature of plan developer.
- All workers must sign the Plan to acknowledge that they have reviewed and understand the contents.

If the work and hazards are similar between two jobs, the development of a separate plan may not be necessary, but the requirement to review, understand and sign the plan must be adhere to.

#### **Control Zones**

Control zones are the distance between an unguarded edge of a building and a line which is set back at a safe distance, generally two meters. Control zones cannot be used if the level working surface where the work being performed is less than four meters wide.

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Raised warning lines will be used if the worker is expected to come within two meters of the control zone. The purpose of warning lines are to provide a visual and physical reminder of the presence of a fall hazard, but not prevent the employee from accessing the control zone. Warning lines can generally consist of ropes, wires, chains, or flagged with highly visible material.

### **Steps for Flat Roof Rescue and Emergency Procedures**

- **Stay calm. Do not panic.** Staying calm will help with the emergency response.
- **Call emergency services.** Call or delegate someone to call 911 immediately and explain the situation (i.e., worker suspended at heights, worker fallen from heights, worker injured or unconscious, etc.). Assign someone to meet and direct the emergency responders to the location and to notify supervisor.
- **Assess the situation.** Exercise caution when approaching the scene to avoid being injured yourself. Eliminate or control any hazards which may exist before performing rescue to prevent further danger to the fallen worker and to fall rescuers. Determine if worker is conscious or unconscious.
- **Deploy self-rescue devices.** If worker is conscious and equipped with self-rescue devices such as safety straps, instruct them to deploy the devices and wait for rescue. Encourage fallen worker to keep legs active.
- **Perform fall rescue.** Once it is safe to do so, safely retrieve the suspended worker and bring them to a safe level. Methods include:
  - Self-rescue ladders can be deployed by a fall rescuer to allow the suspended worker to climb back to a safe level.
  - Peer rescue kits can be used to raise or lower the suspended worker to safety.
  - Elevating work platforms or portable ladders can be used to reach the suspended worker and get them down safely, depending on the height of the roof.
- **Provide first aid.** Once retrieved from their suspension, on-site medical assistance or first aid may be required depending on the nature of the injuries (if any) and level of medical attention required. Fall rescuers must be ready to provide basic medical treatment to the fallen worker or move the injured worker to a place where they can be attended to by emergency responders.
  - Loosen or remove harness.
  - Maintain an airway for breathing.
  - Assess victim for injuries and manage identified injuries as best as possible. Use first aid equipment and supplies.
  - If worker is unconscious, apply CPR. Provide oxygen and secure airway. Once worker is conscious, treat the worker for suspension

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trauma and other injuries by resting conscious worker in a seated recovery position and raise legs gradually and carefully.

- If worker is conscious, treat the worker for suspension trauma and other injuries by resting conscious worker in a seated recovery position and raise legs gradually and carefully.

**IMPORTANT:** Workers who have been suspended for 10 minutes or more must stay in a seated position for 30 minutes following the rescue. Laying the worker down can be fatal.

- **Wait for emergency services to arrive.** Ensure proper access for emergency responders and vehicles. Worker must be safely transported to a hospital and be evaluated by a health care professional after experiencing a fall from heights.

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## **9.40 Working Near High Voltage Electricity**

It's a fact, electricity kills! Burns, shock, and electrocution are common hazards that everyone needs to watch out for. Basic safety practices can help you avoid a minor injury or a major catastrophe. NexGen Mechanical understands that although not all of our workers are trained Electricians we must all have a basic understanding of electricity and its hazards.

The purpose of this policy is to protect and educate employees and contractors. It is essential that all NexGen Mechanical workers read, understand, and comply with these safe work practices and procedures for electrical work.

### **Training and Competency**

All NexGen Mechanical employees working near high voltage electricity who are not qualified electrical workers receive awareness training at orientation and as needed after that. Employees are trained in safety related work practices that pertain to their respective job assignments, clearance distances, Lockout Tagout, long dimensional conductor objects clearances, Arc Flash Protection, and conductive materials awareness.

If the work requires proficiency in Electrical Applications, only a trained Electrician will perform the task including constructing, installing, altering, repairing or maintaining electrical equipment.

All Electricians must have the proper combination of experience, knowledge, and education to perform the work required. Workers must be competent when working with high voltage electrical equipment. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. A "qualified electrical worker" will have a journeyman's certificate in the electrician trade or power lineman trade issued pursuant to The Apprenticeship and Trade Certification Act, and includes an apprentice in the trade while under the supervision of a journeyman. Qualified workers are trained on the use of special precautionary techniques, specific PPE requirements (e.g. Arc Flash), insulating & shielding materials, and insulated tools.

All training documents (including Apprentice and Journeyman Certificates) must be on file prior to the commencement of all electrical work.

### **Hazard Assessment**

A pre-job hazard assessment will be conducted to identify and evaluate hazards before entering any high voltage work areas. Safe work practices will be employed

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to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts.

If the hazard assessment indicates that workers must be Qualified Electrical Workers to proceed then work must be stopped until the properly qualified workers are present.

**Locking Out**

Before any work begins on an electrical conductor or electrical equipment and during the progress of that work, NexGen Mechanical will ensure that the electrical conductor or electrical equipment is isolated, locked out, and connected to ground.

A worker must not approach high voltage electrical equipment within the safe limit of approach distance unless the equipment has been de-energized and locked and tagged out.

If parts cannot be de-energized, tagging must be applied. Barriers such as insulated blankets must be used to protect against accidental contact. Arc Flash PPE must be worn.

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## 9.41 Workplace Hazardous Materials Information System (WHMIS)

The purpose of the WHMIS policy is to protect and educate employees and contractors. It is essential that all NexGen Mechanical workers read, understand, and comply with safe work practices and procedures for WHMIS. This program meets the requirements of WHMIS 2015 (with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)).

All hazardous products (as classified in the classes of Schedule II to the Hazardous Products Act) that are used, stored, handled or manufactured at a work site are done so in accordance with WHMIS. Workers who work with or in proximity to a hazardous product have access to all hazard information received from the supplier concerning that hazardous product as well as any further hazard information NexGen Mechanical is aware or ought to be aware concerning the use, storage and handling of that product. NexGen Mechanical may store a hazardous product in the workplace while actively seeking information required by WHMIS regulations.

The WHMIS program, including the education and training component, is reviewed at least annually, or more often if there is a change in work conditions, hazard information or similar. This review must be done in consultation with the health and safety committee or representative, if applicable. The supervisor is responsible for our WHMIS program.

### Education and Training

In Canada, if a workplace uses hazardous products, there must be a WHMIS program in place. Workers must be educated and trained so they understand the hazards, and know how to work safely with hazardous products.

WHMIS training, as it pertains to the workplace, is provided to all NexGen Mechanical workers who work with or in proximity to a hazardous product. A worker who works with a hazardous product is any worker who stores, handles, uses or disposes of a hazardous product or who immediately supervises another worker performing these duties. "In proximity" is the area in which the worker's health and safety could be at risk during storage, handling, use or disposal of the product, maintenance operations or in an emergency situation such as a spill or fire.

NexGen Mechanical WHMIS Education and Training includes:

- The rights and responsibilities of NexGen Mechanical and its workers;
- Previous exposure investigation results, if applicable;
- The information on both the supplier label and workplace label, and what that information means.

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

- The information on the Safety Data Sheet (SDS) and what that information means.
- The procedures required for safe use, handling and disposal of a hazardous product.
- Any other procedures required when the product is in a pipe, piping system, vessel, tank car, etc.
- The procedure to follow if the hazardous product may be present in the air and a worker may be exposed.
- All procedures that must be followed in an emergency that involves the hazardous product.
- And the significance of this information.

Refresher education and training is generally required:

- As needed to protect the worker's health and safety.
- If conditions of the workplace have changed.
- If new products are introduced.
- If the products have changed and now have different hazards.
- When new hazard information becomes available.
- If there is new information about safe use, handling, storage or disposal.

All training records are kept in a secure filing cabinet.

### **Inventory of Hazardous Substances**

NexGen Mechanical will keep and maintain a record of all hazardous substances that are used, produced, handled, or stored at the workplace.

### **Substitution with Safer Products**

No person will use a hazardous substance in a workplace where it is reasonably practicable to substitute that substance for a non-hazardous substance. If a product is available that is less hazardous that substance will be used.

### **Safety Data Sheets (SDS's)**

A safety data sheet (SDS) must be prepared for a hazardous product produced or made at a work site and obtained for all commercial products used at a work site. The SDS's must be in a form that is easy to handle and be readily available at a work site (including mobile work sites) to workers who may be exposed to a hazardous product and to the joint work site health and safety committee.

NexGen Mechanical ensures that the most recent safety data sheet for hazardous products are kept at the work site where the product is being used. All SDS must be the most up to date copy available, in English & French (where required).

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Every product that is classified as a “hazardous product” under WHMIS that is intended for use, handling or storage in a workplace in Canada must have an SDS.

### **Supplier Label or Workplace Label**

A hazardous product or its container at a work site must have a supplier label or a workplace label on it.

#### *Supplier Label Requirements*

A supplier label is provided or affixed (attached) by the supplier and will appear on all hazardous products received at a workplace in Canada. If the hazardous product is always used in the container with the supplier label, no other label is required.

If a supplier label is not attached to a hazardous product then the NexGen Mechanical employee is not to use the material until the supplier gives you an SDS and a supplier label.

A supplier label must appear on all hazardous products received at NexGen Mechanical and contain the following information:

- **Product identifier** - the brand name, chemical name, common name, generic name or trade name of the hazardous product.
- **Initial supplier identifier** – the name, address and telephone number of either the Canadian manufacturer or the Canadian importer\*.
- **Pictogram(s)** – hazard symbol within a red "square set on one of its points".
- **Signal word** – a word used to alert the reader to a potential hazard and to indicate the severity of the hazard. *"Danger" is used for high risk hazards, while "Warning" is used for less severe hazards.*
- **Hazard statement(s)** - standardized phrases which describe the nature of the hazard posed by a hazardous product.
- **Precautionary statement(s)** – standardized phrases that describe measures to be taken to minimize or prevent adverse effects resulting from exposure to a hazardous product or resulting from improper handling or storage of a hazardous product.
- **Supplemental label information** - some supplemental label information is required based on the classification of the product. For example, the label for a mixture containing ingredients with unknown toxicity in amounts higher than or equal to 1% must include a statement indicating the percent of the ingredient or ingredients with unknown toxicity. Labels may also include supplementary information about precautionary actions, hazards not yet included in the GHS, physical state, or route of exposure. This information must not contradict or detract from the standardized information.
- All text in English and French.

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### *Workplace Label Requirements*

A workplace label must appear on all hazardous products produced in a workplace or transferred (decanted) to other containers.

These are the minimum requirements for workplace labels:

- Product name (matching the SDS product name).
- Safe handling precautions may include pictograms or other supplier label information.
- A reference to the SDS (if available).

A supplier label must not be removed, modified or altered on a container in which a hazardous product is received from a supplier if any amount of the hazardous product remains in the container. If the supplier label on a hazardous product or its container is illegible or is removed or detached, NexGen Mechanical will immediately replace the label with another supplier label or a workplace label.

### **Pipes and Reaction Vessels**

Pipes and reaction vessels will be marked using colour coding or placards.

### **Transferring of a Hazardous Product**

When transferring a hazardous product you must ensure that a workplace label is placed on the new container.

When a hazardous material is poured into a container that is going to be used immediately, no label is required.

### **Hazardous Waste**

If a hazardous product is a hazardous waste generated at the work site, NexGen Mechanical ensures that it is stored and handled safely using a combination of any means of identification (labels or signs) and instruction of workers on the safe handling of the hazardous waste. This waste will be sent to an approved facility for disposal.

The workers must be informed by a sign and by training if fugitive emissions are present. The signage must indicate the precautions to be taken in handling them and in case of exposure to them.

### **Bring Hazardous Products onto site Owned by Others**

Prior to bringing hazardous Products onto sites of our Clients we will give them a chance to review and approve the selection of the Product. If our Client does not approve the hazardous product we will need to find an approved substitute product (at our expense).

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## WHMIS Symbols

|                                                                                    |                                                                                                                    |                                                                                   |                                                                                               |                                                                                     |                                                                                                   |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|   | <b>Exploding bomb</b><br>(for explosion or reactivity hazards)                                                     |  | <b>Flame</b><br>(for fire hazards)                                                            |  | <b>Flame over circle</b><br>(for oxidizing hazards)                                               |
|   | <b>Gas cylinder</b><br>(for gases under pressure)                                                                  |  | <b>Corrosion</b><br>(for corrosive damage to metals, as well as skin, eyes)                   |  | <b>Skull and Crossbones</b><br>(can cause death or toxicity with short exposure to small amounts) |
|   | <b>Health hazard</b><br>(may cause or suspected of causing serious health effects)                                 |  | <b>Exclamation mark</b><br>(may cause less serious health effects or damage the ozone layer*) |  | <b>Environment*</b><br>(may cause damage to the aquatic environment)                              |
|  | <b>Biohazardous Infectious Materials</b><br>(for organisms or toxins that can cause diseases in people or animals) |                                                                                   |                                                                                               |                                                                                     |                                                                                                   |

\* The GHS system also defines an Environmental hazards group. This group (and its classes) was not adopted in WHMIS 2015. However, you may see the environmental classes listed on labels and Safety Data Sheets (SDSs). Including information about environmental hazards is allowed by WHMIS 2015.

Reference: [https://www.ccohs.ca/oshanswers/chemicals/whmis\\_ghs/pictograms.html](https://www.ccohs.ca/oshanswers/chemicals/whmis_ghs/pictograms.html)

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## Section 10 JOB HAZARD ANALYSIS (JHA) / JOB PROCEDURES

The following Job Hazard Analysis (JHA) / Job Procedures have been developed with the input of involved workers. They are the steps that need to be followed along with associated hazards and controls. Further general information is located in the Safe Work Practice (SWP) section.

### 10.1 Hazard Priority Ranking

When a hazard assessment is started at NexGen Mechanical the hazards must first be identified, then classified or prioritized based on severity associated with the task or item.

The first ranking estimates the **severity** of the problem if the potential accident/incident were to occur:

1. Negligible/Ok (e.g. minor injury, requiring first aid or less)
2. Minor (e.g. non-serious injury, illness, or damage)
3. Serious (e.g. severe injury, serious illness, property and equipment damage)
4. Imminent Danger (e.g. causing death, widespread occupational illness, loss of facilities)

The second ranking estimates the **probability** (think in terms of risk assessment) of the accident/incident occurring:

1. Extremely remote – unlikely to occur
2. Remote – could occur at some point
3. Reasonably probable – likely to occur eventually
4. Probable – Likely to occur immediately or soon

| PROBABILITY                                                                                                                                                                                                                                  | POTENTIAL SEVERITY |           |             |                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------|-------------|---------------------|
|                                                                                                                                                                                                                                              | 1 - Negligible     | 2 - Minor | 3 - Serious | 4 - Imminent Danger |
| 1 - Extremely Remote                                                                                                                                                                                                                         | 1                  | 2         | 3           | 4                   |
| 2 - Remote                                                                                                                                                                                                                                   | 2                  | 4         | 6           | 8                   |
| 3 - Reasonably Probable                                                                                                                                                                                                                      | 3                  | 6         | 9           | 12                  |
| 4 - Probable                                                                                                                                                                                                                                 | 4                  | 8         | 12          | 16                  |
| 1 to 2 - Low Risk - No further action required                                                                                                                                                                                               |                    |           |             |                     |
| 3 to 6 - Medium Risk - Risk controls must be in place and review potential for risk reduction if or when available                                                                                                                           |                    |           |             |                     |
| 8 to 16 - High Risk - Immediate action should be taken if an action plan is feasible to reduce risk to a level as low as practicable. Risk controls and JHAs (Procedures) are required along with worker awareness, training and competency. |                    |           |             |                     |

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## 10.2 Job Hazard Assessments (JHA's) / Job Procedures

### 10.2.1 Driving

This includes the following tasks:

- Driving on Highway
- Driving on dirt or gravel roads
- Fuelling
- Changing Tire
- Breakdown

In performing these tasks the worker is exposed to some hazards. These are:

- Traffic
- High speeds
- Weather
- Poor lighting
- Exhaustion (falling asleep while driving)

Personal Protective Equipment may include reflective vests when outside vehicle. Safety equipment may include flares and reflective triangles for breakdown situations.

Administrative Controls require all workers to be properly licensed to drive the type of vehicle they are driving. All vehicles must be equipped with a first aid kit.

Frequency: **Daily**    Weekly    Monthly    Yearly

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| Sequence of Steps |                                 | Potential Accidents or Hazards                                                               | Severity         | Probability      | Priority         | Controls                                                                                                                                                                                                                                       | Severity         | Probability      | Priority         |
|-------------------|---------------------------------|----------------------------------------------------------------------------------------------|------------------|------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|------------------|
| 1                 | Driving on Highway              | Accident caused by others, weather conditions, inattentiveness                               | 3<br>3<br>3      | 2<br>2<br>2      | 6<br>6<br>6      | <i>Eng:</i><br><i>Admin:</i> Be alert, stay overnight if too tired or poor weather, defensive driving courses, pay attention, do not drink or use drugs and drive, inspect vehicle prior to driving.<br><i>PPE:</i>                            | 2<br>2<br>2      | 2<br>2<br>2      | 4<br>4<br>4      |
| 2                 | Driving on dirt or gravel roads | Poor road conditions, washboard, large trucks driving in the centre of the road, dust clouds | 3<br>4<br>3<br>3 | 2<br>2<br>2<br>2 | 6<br>8<br>6<br>6 | <i>Eng:</i><br><i>Admin:</i> Use radio if it is a road requirement, slow down prior to turns and downhill slopes (this is where washboard conditions are most often), pull over and let vehicles pass (stay out of dust clouds)<br><i>PPE:</i> | 2<br>3<br>3<br>2 | 2<br>2<br>1<br>2 | 4<br>6<br>3<br>4 |
| 3                 | Fuelling                        | Explosion, fumes                                                                             | 3                | 1                | 3                | <i>Eng:</i><br><i>Admin:</i> No smoking within 7.5m of pump, do not enter vehicle after pumping has begun – if necessary to re-enter the vehicle, ground yourself by touching metal.<br><i>PPE:</i>                                            | 3                | 1                | 3                |
| 4                 | Changing Tire                   | Hit by other vehicle, crush of body parts                                                    | 1<br>1           | 4<br>3           | 4<br>3           | <i>Eng:</i> block tires<br><i>Admin:</i> use flares or triangles, ensure jack sits securely, park on level ground,<br><i>PPE:</i> Wear reflective vest                                                                                         | 1<br>2           | 2<br>2           | 2<br>4           |

**\*\*The safety information in this program does not take precedence over any applicable legislation.**

| Sequence of Steps |           | Potential Accidents or Hazards | Severity | Probability | Priority | Controls                                                                                                        | Severity | Probability | Priority |
|-------------------|-----------|--------------------------------|----------|-------------|----------|-----------------------------------------------------------------------------------------------------------------|----------|-------------|----------|
| 5                 | Breakdown | Hit by other vehicle           | 1        | 4           | 4        | <i>Eng:</i><br><i>Admin:</i> use flares or triangles, pull far off the road<br><i>PPE:</i> Wear reflective vest | 1        | 3           | 3        |

#### Follow Up

|    | Outstanding Implementation | Assigned to | Expected Completion Date |
|----|----------------------------|-------------|--------------------------|
| 1. |                            |             |                          |
| 2. |                            |             |                          |
| 3. |                            |             |                          |
| 4. |                            |             |                          |
| 5. |                            |             |                          |

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## 10.2.2 Office Work

This involves all tasks completed in the office environment. Some basic tasks are:

- Answering telephones
- Working with the computer
- Writing Reports/Manuals/Proposals
- Using Photocopier/Fax Machine
- Filing
- Incoming/Outgoing Mail

In performing these tasks the worker is exposed to some hazards. These are:

- Eye strain
- Carpal Tunnel Syndrome
- Cuts
- Slips, Trips, Falls

Personal Protective Equipment is not required for conducting this work

Frequency: **Daily**    Weekly    Monthly    Yearly

| Sequence of Steps |                      | Potential Accidents or Hazards | Severity | Probability | Priority | Controls                                                                                              | Severity | Probability | Priority |
|-------------------|----------------------|--------------------------------|----------|-------------|----------|-------------------------------------------------------------------------------------------------------|----------|-------------|----------|
| 1                 | Answering Telephones | Neck strain<br>Harassment      | 1<br>2   | 1<br>2      | 1<br>4   | Eng:<br>Admin: Hold the phone in your hand. Be calm and take notes if a caller is aggressive.<br>PPE: | 1<br>1   | 1<br>2      | 1<br>2   |

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

| Sequence of Steps |                         | Potential Accidents or Hazards                                      | Severity    | Probability | Priority    | Controls                                                     | Severity    | Probability | Priority    |
|-------------------|-------------------------|---------------------------------------------------------------------|-------------|-------------|-------------|--------------------------------------------------------------|-------------|-------------|-------------|
| 2                 | Working on the Computer | Eye strain,<br>Carpal Tunnel Syndrome<br>Fatigue                    | 1<br>1<br>1 | 1<br>1<br>1 | 1<br>1<br>1 | Eng:<br>Admin: Take breaks from typing<br>PPE:               | 1<br>1<br>1 | 1<br>1<br>1 | 1<br>1<br>1 |
| 3                 | Using the Photocopier   | Paper cuts, back issues                                             | 1           | 1           | 1           | Eng:<br>Admin: Use care, bend at the knees not back.<br>PPE: | 1           | 1           | 1           |
| 4                 | Using the Fax Machine   | Paper cuts                                                          | 1           | 1           | 1           | Eng:<br>Admin: Use care<br>PPE:                              | 1           | 1           | 1           |
| 5                 | Filing                  | Paper cuts,<br>injuring finger in cabinets,<br>cabinet tipping over | 1<br>1<br>1 | 1<br>1<br>2 | 1<br>1<br>2 | Eng:<br>Admin: Use care Open only 1 drawer at a time<br>PPE: | 1<br>1<br>1 | 1<br>1<br>1 | 1<br>1<br>1 |

#### Follow Up

|    | Outstanding Implementation | Assigned to | Expected Completion Date |
|----|----------------------------|-------------|--------------------------|
| 1. |                            |             |                          |
| 2. |                            |             |                          |
| 3. |                            |             |                          |
| 4. |                            |             |                          |
| 5. |                            |             |                          |

**\*\*The safety information in this program does not take precedence over any applicable legislation.**

### 10.2.3 Tire Changing Procedure

Frequency:    Daily    Weekly    Monthly    **Yearly**

| Sequence of Steps |                                                                | Potential Accidents or Hazards | Severity | Probability | Priority | Controls                                                                                                                                                                                                                                                                                                              | Severity | Probability | Priority |
|-------------------|----------------------------------------------------------------|--------------------------------|----------|-------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|----------|
| 1                 | Come to a complete stop in a safe location                     | Hit by other vehicles          | 2        | 1           | 2        | <i>Eng:</i><br><i>Admin:</i> When experiencing a flat tire while driving, do not heavily apply the brake. Gently apply the brake and move to the side of the road. Park on level ground and turn off the engine.<br><br>Turn on the hazard flashers and place flares as required.<br><i>PPE:</i> Wear reflective vest | 1        | 1           | 1        |
|                   |                                                                | Not being seen.                | 2        | 1           | 2        |                                                                                                                                                                                                                                                                                                                       | 1        | 1           | 1        |
| 2                 | Block the wheels, as to ensure that the vehicle will not roll. | Rolling vehicle.               | 3        | 1           | 3        | <i>Eng:</i><br><i>Admin:</i> Always set the parking brake prior to jacking up the vehicle.<br><i>PPE:</i> Wear reflective vest                                                                                                                                                                                        | 2        | 1           | 2        |
|                   |                                                                | Crush potential.               | 3        | 1           | 3        |                                                                                                                                                                                                                                                                                                                       | 2        | 1           | 2        |
| 3                 | Jack vehicle                                                   | Damage to vehicle.             | 3        | 1           | 3        | <i>Eng:</i><br><i>Admin:</i> Always place the jack in the specified front or back jacking points. Never use a Jack All for tire changing. Use the appropriate jack. Never place any part of your body underneath the vehicle.<br><i>PPE:</i> Wear reflective vest                                                     | 2        | 1           | 2        |
|                   |                                                                | Jack falling.                  | 3        | 1           | 3        |                                                                                                                                                                                                                                                                                                                       | 2        | 1           | 2        |

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

| Sequence of Steps |                                 | Potential Accidents or Hazards                      | Severity | Probability | Priority | Controls                                                                                                                                                                         | Severity | Probability | Priority |
|-------------------|---------------------------------|-----------------------------------------------------|----------|-------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|----------|
| 4                 | Remove tire                     | Tire might get stuck.                               | 2        | 1           | 2        | Eng:<br>Admin: Only loosen the wheel nuts. Never remove the lug nuts until the tire is raised off the ground.<br>PPE: Wear reflective vest                                       | 1        | 1           | 1        |
| 5                 | Put on new tire and lower Jack. | Tire falling off while driving.                     | 2        | 1           | 2        | Eng:<br>Admin: Always ensure the lug nuts are snug prior to lowering the tire. Fully tighten the lug nuts after lowering the vehicle to the ground.<br>PPE: Wear reflective vest | 1        | 1           | 1        |
| 6                 | Clean up and drive away         | Leaving your tools (not having them for next time). | 2        | 1           | 2        | Eng:<br>Admin: Always ensure that all tire changing equipment is put back to its original location<br>Retighten lug after 50 km of driving.<br>PPE: Wear reflective vest         | 1        | 1           | 1        |

#### Follow Up

|    | Outstanding Implementation | Assigned to | Expected Completion Date |
|----|----------------------------|-------------|--------------------------|
| 1. |                            |             |                          |
| 2. |                            |             |                          |
| 3. |                            |             |                          |
| 4. |                            |             |                          |
| 5. |                            |             |                          |
| 6. |                            |             |                          |

**\*\*The safety information in this program does not take precedence over any applicable legislation.**

### 10.2.4 Angle Grinder (Power Tools)

**Tools/Equipment Required:**

Angle Grinder, Wheel, Extension Cord

**Materials Required:**

Materials to be Ground

**Personal Protective Equipment:**

Safety Glasses, Face Shield, Hearing Protection, Foot Protection, Gloves

| Steps/Job Sequence                                              | Potential Hazards                         | Recommended Safe Job Procedure                                   |
|-----------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------------|
| 1. Inspect Grinder, Wheel and Cord                              | Faulty Equipment, Bad Wheel, Faulty Cord  | Review SWP Power Tools. Inspect and test equipment prior to use. |
| 2. Make sure all guards are in place.                           | Grinding Wheel shattering.                | Do not use Grinder without guards in place                       |
| 3. Flag or fence off work area. Warn others of work being done. | Flying debris, sparks, fire potential.    | Secure work area. Have fire extinguisher near by.                |
| 4. Wear all PPE needed.                                         | Personal injury.                          | Do not start grinding until all PPE is on.                       |
| 5. Engage trigger and direct sparks away from you.              | Sparks, burn potential.                   | Use of burn sleeves, and use of spark screens and shields.       |
| 6. Make sure tool stops before setting down.                    | Run away tool, personal injury potential. | Stop tool prior to setting down.                                 |

*\*\*The safety information in this program does not take precedence over any applicable legislation.*



|                                   |                    |                                                        |
|-----------------------------------|--------------------|--------------------------------------------------------|
| 7. Return tool to proper storage. | Loss of equipment. | Properly store tool and return to proper storage area. |
|                                   |                    |                                                        |
|                                   |                    |                                                        |
|                                   |                    |                                                        |
|                                   |                    |                                                        |

Developed by: 1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Reviewed by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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

Revised by: \_\_\_\_\_

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

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

### 10.2.5 Chop Saw Operation

**Tools/Equipment Required:**

Chop Saw

**Materials Required:**

Material to be cut

**Personal Protective Equipment:**

Face Shield, Safety Glasses, Hearing Protection, Gloves, Steel Toe Boots

| Steps/Job Sequence                                                                                | Potential Hazards                          | Recommended Safe Job Procedure |
|---------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------|
| 1. Inspect Saw and Cut Off wheel prior to use. Make sure Saw is operable and all guards in place. | Previous equipment damage, Shattered disc. | Review SWP Power Tools.        |
| 2. Ensure properly rated RPM cut off wheel is in use.                                             | Disc exploding during use                  |                                |
| 3. Ensure depth stop is set properly.                                                             | Possible equipment damage, disc explosion. |                                |
| 4. Wear appropriate PPE while using saw.                                                          | Personal injury. Flying debris, sparks     | Review SWP PPE.                |
| 5. Use of shields / screens in work area if other workers are present.                            | Sparks, flying debris.                     |                                |
| 6. Turn on saw and allow it to get to full speed before starting cut.                             | Equipment damage.                          |                                |

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

|                                                                                                         |                                      |  |
|---------------------------------------------------------------------------------------------------------|--------------------------------------|--|
| 7. Use clamp vise to hold material being cut. Don't use your hands to hold the piece being cut.         | Burnt fingers, hands, dismemberment. |  |
| 8. After done cutting, allow saw to come to a complete stop before removing material from cutting area. | Possible hand injury.                |  |

Developed by: 1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Reviewed by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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

Revised by: \_\_\_\_\_

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

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

### 10.2.6 Using Dry Chemical Fire Extinguishers

**Tools/Equipment Required:**

Dry Chemical Fire Extinguisher

**Materials Required:**
**Personal Protective Equipment:**

Hard Hat

Safety Glasses

| Steps/Job Sequence                                         | Potential Hazards                                                        | Recommended Safe Job Procedure                                                                                                                                                                                                                          |
|------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Remove extinguisher in upright position.                | Extinguisher may fall.                                                   | Grasp extinguisher securely.                                                                                                                                                                                                                            |
| 2. Carry extinguisher in upright position to fire.         | Fall by tripping or slipping.                                            | Observe walking areas, obstacles, and slippery surfaces.                                                                                                                                                                                                |
| 3. Pull pin, hold hose or horn in one hand. "Pass"         | Contact with contents.                                                   | Maintain control of extinguisher, avoid exposing individuals to contents.                                                                                                                                                                               |
| 4. Use the extinguisher.                                   | Caught in spread of fire.<br>Clothing catches fire.<br>Re-flash of fire. | <ul style="list-style-type: none"> <li>a. Use contents with rapid sweeping motion at base of flame.</li> <li>b. Keep proper distance.</li> <li>c. Move away when extinguisher empties. Never turn back to fire. Renew attach when indicated.</li> </ul> |
| 5. Promptly report use of extinguisher.                    | If not recharged, potential for serious fire.                            | Always check extinguisher after use and have it re-charged and put back in service immediately.                                                                                                                                                         |
| 6. Take extinguisher out of service and have it recharged. |                                                                          |                                                                                                                                                                                                                                                         |

*\*\*The safety information in this program does not take precedence over any applicable legislation.*



## Job Hazard Assessments (JHA's) / Job Procedures

Developed by: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_  
Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_  
Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

### 10.2.7 Hammer Drill (Power Tools)

**Tools/Equipment Required:**

Hammer Drill, Extension cord

**Materials Required:**
**Personal Protective Equipment:**

Safety Glasses, Hearing Protection, Dust Mask

| Steps/Job Sequence                                                     | Potential Hazards                 | Recommended Safe Job Procedure                      |
|------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------|
| 1. Inspect Drill and Cord prior to use.                                | Personal injury, possible shock.  | Review SWP Power Tools.<br>Test tools before using. |
| 2. Wear proper PPE for task.                                           | Flying debris, dust.              | Review SWP on Dust                                  |
| 3. Choose appropriate bit for task.                                    | Personal injury, equipment damage |                                                     |
| 4. Plug in Hammer Drill and appropriate extension cord                 | Equipment damage                  | Review SWP on extension cords                       |
| 5. Grasp firmly with both hands and squeeze trigger and safety switch. | Personal injury, tool torque.     |                                                     |
| 6. Wait until drill has stopped before setting down.                   | Personal injury                   |                                                     |

*\*\*The safety information in this program does not take precedence over any applicable legislation.*



|                                                          |                   |  |
|----------------------------------------------------------|-------------------|--|
| 7. Properly put away Drill and store tool when finished. | Equipment damage. |  |
|----------------------------------------------------------|-------------------|--|

Developed by: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_  
 Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

### 10.2.8 Lifting Heavy Objects

**Tools/Equipment Required:**
**Materials Required:**
**Personal Protective Equipment:**

|  |  |              |                |
|--|--|--------------|----------------|
|  |  | Hard Hat     | Safety Glasses |
|  |  | Safety Boots | Gloves         |

| Steps/Job Sequence                                                               | Potential Hazards                                                                                                                   | Recommended Safe Job Procedure                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Plan your lift.                                                               | Slips and falls.<br>Tripping and falls.<br>Cuts and slivers.<br>Strains or back injury.                                             | a. Inspect floor surface around object.<br>b. Inspect route over which object is to be carried.<br>c. Decide how an object are to be grasped avoiding sharp edges, slivers, etc.<br>d. Make sure load is easily within your lifting capacity. |
| 2. When lifting place yourself in the squat position facing object to be lifted. |                                                                                                                                     | a. Set feet solidly.<br>b. Squat in front of object as close to the load as possible.<br>c. Bend knees (legs at about 90 degree angle at the knee).                                                                                           |
| 3. Test weight of object.                                                        | Strain.                                                                                                                             | If too heavy get help.                                                                                                                                                                                                                        |
| 4. Grasp object firmly and straighten up legs to standing position.              | If your back is in a hunch position, and you try to lift with back muscles instead of heavy leg muscles, you will strain your back. | Keep back straight and stand up. Lift with weight close to the body using arm and heavy muscles or legs to lift, instead of back of muscles.                                                                                                  |

*\*\*The safety information in this program does not take precedence over any applicable legislation.*



|                              |                                  |                                                                                |
|------------------------------|----------------------------------|--------------------------------------------------------------------------------|
| 5. Place object in position. | Twisting causing spraining back. | Do not twist while lifting. Turn feet not body, as body is incorrect position. |
|------------------------------|----------------------------------|--------------------------------------------------------------------------------|

Developed by: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_  
 Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

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### 10.2.9 Lockout & Tag Out

**Tools/Equipment Required:**
**Materials Required:**
**Personal Protective Equipment:**

|                       |  |                |
|-----------------------|--|----------------|
| Padlock & Tag Lockout |  | Gloves         |
|                       |  | Eye Protection |
|                       |  |                |
|                       |  |                |

| Steps/Job Sequence                                                | Potential Hazards                                                                           | Recommended Safe Job Procedure                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Complete FLHA.                                                 | Missed hazards.<br>Miscommunication.                                                        | Discuss hazards and abatement measures with workers.<br>Documents all changes and additions.                                                                                                                                                                                                                |
| 2. Review SWP with all workers involved with or affected by task. | Missed steps.<br>Misunderstanding.<br>Workers not informed of hazards & abatement measures. | Ensure all workers involved with task attend meeting.<br>Review SWP with workers.<br>Ensure workers understand task and safe work procedure.<br>If a permit is required, review permit with workers to ensure workers understand the terms and condition of the permit and their specific responsibilities. |
| 3. Determine the required isolation provide safe work.            | Missed steps.                                                                               | Review safe work procedure for task.<br>Make sure all components of the system to be worked on are identified.<br>Ensure isolation point/points are identified.                                                                                                                                             |
| 4. Review procedure with client to ensure isolation is adequate.  | All sources of energy not identified.<br>Wrong information.                                 | Check drawings or equipment numbers.<br>Discuss with client to ensure isolation complete.<br>Appropriate personnel to complete review.                                                                                                                                                                      |
| 5. Make sure lockout does not affect                              | Other workers needing access to the                                                         | Communication.                                                                                                                                                                                                                                                                                              |

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

|                                                                                                                       |                                          |                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| other crafts or ensure they are aware of the need for and time of the lockout.                                        | work area/power to complete their tasks. | Old meeting to review work plan with other crafts.                                                                                                                            |
| 6. Submit a completed Lockout/Tagout request to the electrical authority.                                             | Missing or wrong information.            | Ensure form is complete and accurate.                                                                                                                                         |
| 7. Lockout authority issues appropriate locking device to task supervisor.                                            | Not enough locks.                        | Ensure you have enough locking devices and locks to lockout all sources of energy. Ensure locking device is working properly.                                                 |
| 8. Turn off energy sources. Task supervisor to lockout electrical box. Complete with tag and appropriate information. | Worker without lock on locking device.   | Turn off power.<br>Check to make sure energy source cannot be reactivated.                                                                                                    |
| 9. All workers involved with the task must then attach their lock's complete with tag and appropriate information.    | Worker without lock on locking device.   | Review lockout procedure with workers. Be sure all workers involved install a padlock and tag before work commences.                                                          |
| 10. Commence work.                                                                                                    |                                          | Use safe work practices.                                                                                                                                                      |
| 11. Workers to remove locks from lock out after task is complete (first on, last off).                                | Locks left on after task.                | Make sure tagging authority has information as to where and how you can be contacted. If lock has to be removed by someone other than the worker, refer to Lock Removal form. |

Developed by: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_  
 Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

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### 10.2.10 Operating Pipe Threader (Power Tools)

**Tools/Equipment Required:**

Pipe Threader

**Materials Required:**

Pipe to be threaded

**Personal Protective Equipment:**

Safety glasses, Gloves, Steel To Boots

| Steps/Job Sequence                                                                            | Potential Hazards                         | Recommended Safe Job Procedure   |
|-----------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------|
| 1. Inspect machine prior to use.                                                              | Previous equipment damage.                | Review SWP Power Tools           |
| 2. Give yourself enough space to set up and work safely. Flag or fence off work area.         | Injury to by standards. Flying debris.    |                                  |
| 3. Don the correct PPE prior to starting work. No loose or hanging clothes near moving parts. | Getting caught up in threader.            |                                  |
| 4. Place pipe in machine and tighten chuck, while maintaining awareness of pinch points.      | Pinched fingers.                          |                                  |
| 5. Cut pipe to desired lengths and remove excess pipe.                                        | Heavy objects. Back strain, sore muscles. | Review SWP Lifting Heavy Objects |
| 6. Ream Pipe. Be aware of moving parts.                                                       | Pinch Points                              |                                  |

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

|                                                                                                    |                                             |                         |
|----------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------|
| 7. Lock in threader head and thread pipe.                                                          | Rotating parts. Getting caught in machine.  |                         |
| 8. After pipe is finished being threaded. Stop machine. Wipe off excess oil and remove from chuck. | Excess oil on floor. Slip hazard potential. | Review SWP Housekeeping |

Developed by: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_  
Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_  
Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

### 10.2.11 Overhead Crane Operation

**Tools/Equipment Required:**
**Materials Required:**
**Personal Protective Equipment:**

|          |  |                |                    |
|----------|--|----------------|--------------------|
| Slings   |  | Hard Hat       | Hi-visibility Vest |
| Shackles |  | Safety Glasses | Hearing Protection |

| Steps/Job Sequence                                  | Potential Hazards                                                            | Recommended Safe Job Procedure                                                                                                                                                    |
|-----------------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Complete FLHA for task.                          | Missed information.<br>Missed hazards.                                       | Discuss hazards and control measures with all workers involved. Document all changes and additions.                                                                               |
| 2. Review SWP/FLHA and obtain necessary permits.    | Missed steps.<br>Misunderstanding.<br>Workers not informed of hazards.       | Ensure all workers involved with task attend pre-task meeting. Review SWP/FLHA and emergency procedures.<br>All involved in task to sign attendance sheet.                        |
| 3. Inspect tools and equipment to be used for task. | Damaged lifting device.<br>Defective or missing safety devices on equipment. | Carefully inspect all slings, straps, shackles, cables.<br>Complete Daily inspection on lifting unit.<br>Repair defective items.                                                  |
| 4. Prepare to lift materials.                       | Load too heavy for lift equipment.<br>Equipment.                             | Determine the weight of load to be lifted.<br>Ensure equipment is rated for the weight of lift.<br>Ensure slings, shackles, and cables are rated higher than weight being lifted. |
| 5. Rigging the load.                                | Unsecure load.                                                               | When lifting lugs are supplied on load, attach lifting device to lugs only.<br>When lugs are not present ensure lifting devices will not move when load is suspended.             |

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

|                                  |                                                                                              |                                                                                                                                                                                         |
|----------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6. Lifting and placing the load. | Load may shift or become unsecure.<br>Worker under load.<br>Load may fall over when lowered. | Make certain load is balanced. Ensure slings will not shift. Flag area around lift to keep workers out.<br>Use a tag line. Set load down on a solid level surface.                      |
| 7. Close out FLHA.               | Miscommunication.                                                                            | Ensure all workers involved or affected by the task are informed of its completion, including supervisor.<br>Remove all barricade tape and signage.<br>Ensure housekeeping is complete. |

Developed by: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_  
 Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

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### 10.2.12 Powered Mobile Equipment (Elevating Work Platforms)

**Tools/Equipment Required:**
**Materials Required:**
**Personal Protective Equipment:**

Elevating Work Platform

PPE, Fall Arrest/ Harness

| Steps/Job Sequence                                                                                                                                                                                           | Potential Hazards                                                                                                                           | Recommended Safe Job Procedure                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Visually Inspect Lift prior to use.<br>2. Fill Out Powered Mobile Equipment Checklist.<br>3. Don Safety Harness.<br>4. Function Test Lift.<br>5. Flag Off Work Area.<br>6. Shut off Lift when not in use. | Personal injury, Equipment Damage.<br>Possible equipment damage.<br><br>Falling out of Lift.<br><br>Danger to other workers, falling items. | Ensure equipment is in good mechanical condition.<br>Ensure mobile equipment has back-up alarms or designated signalman.<br>Never position yourself between a suspended load and another object.<br>Ensure equipment is operated at a safe speed.<br>Do not enter the Danger Zone unless you are an integral part of the operation.<br>Always get eye contact with the operator before entering the Danger Zone and inform him of your intentions. |

Developed by: 1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Reviewed by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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

Revised by: \_\_\_\_\_

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

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

### 10.2.13 Powered Mobile Equipment

Tools/Equipment Required:

Materials Required:

Personal Protective Equipment:

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

| Steps/Job Sequence                           | Potential Hazards   | Recommended Safe Job Procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Working around equipment and heavy loads. | Crush/Pinch points. | <p>Never position yourself under suspended loads.</p> <p>Ensure mobile equipment has back-up alarms or designated signalman.</p> <p>Never position yourself between a suspended load and another object.</p> <p>Ensure equipment is in good mechanical condition.</p> <p>Ensure skids are in good shape and pipe is properly chalked to prevent shifting.</p> <p>Ensure equipment is operated at a safe speed.</p> <p>Use tag lines where required.</p> <p>Never exceed lifting capacity of equipment or rigging.</p> <p>Inspect slings prior to use.</p> <p>No worker is to ride on any equipment or load unless in manufacture-installed seat.</p> <p>Do not enter the Danger Zone unless you are an integral part of the operation.</p> <p>Always get eye contact with the operator before entering the Danger Zone and inform him of your intentions.</p> |

Developed by: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

*\*\*The safety information in this program does not take precedence over any applicable legislation.*

### 10.2.14 Rigging (Working With Cranes)

**Tools/Equipment Required:**
**Materials Required:**
**Personal Protective Equipment:**

|          |  |                |                    |
|----------|--|----------------|--------------------|
| Slings   |  | Hard Hat       | Hi-visibility Vest |
| Shackles |  | Safety Glasses | Hearing Protection |

| Steps/Job Sequence                                  | Potential Hazards                                                            | Recommended Safe Job Procedure                                                                                                                                                    |
|-----------------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Complete FLHA for task.                          | Missed information.<br>Missed hazards.                                       | Discuss hazards and control measures with all workers involved. Document all changes and additions.                                                                               |
| 2. Review SWP/FLHA and obtain necessary permits.    | Missed steps.<br>Misunderstanding.<br>Workers not informed of hazards.       | Ensure all workers involved with task attend pre-task meeting. Review SWP/FLHA and emergency procedures.<br>All involved in task to sign attendance sheet.                        |
| 3. Inspect tools and equipment to be used for task. | Damaged lifting device.<br>Defective or missing safety devices on equipment. | Carefully inspect all slings, straps, shackles, cables.<br>Complete Daily inspection on lifting unit.<br>Repair defective items.                                                  |
| 4. Prepare to lift materials.                       | Load too heavy for lift equipment.<br>Equipment.                             | Determine the weight of load to be lifted.<br>Ensure equipment is rated for the weight of lift.<br>Ensure slings, shackles, and cables are rated higher than weight being lifted. |
| 5. Rigging the load.                                | Unsecure load.                                                               | When lifting lugs are supplied on load, attach lifting device to lugs only.<br>When lugs are not present ensure lifting devices will not move when load is suspended.             |

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|                                  |                                                                                              |                                                                                                                                                                                         |
|----------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6. Lifting and placing the load. | Load may shift or become unsecure.<br>Worker under load.<br>Load may fall over when lowered. | Make certain load is balanced. Ensure slings will not shift. Flag area around lift to keep workers out.<br>Use a tag line. Set load down on a solid level surface.                      |
| 7. Close out FLHA.               | Miscommunication.                                                                            | Ensure all workers involved or affected by the task are informed of its completion, including supervisor.<br>Remove all barricade tape and signage.<br>Ensure housekeeping is complete. |

Developed by: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_  
 Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

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**10.2.15 Roof Top Unit Dolly Jack**
**Tools/Equipment Required:**

Roof Top Unit Dolly Jack

**Materials Required:**

RTU's

**Personal Protective Equipment:**

Hard Hat, High Vis, Steel Toe Boots,  
Safety Glasses, Gloves

| Steps/Job Sequence                                                      | Potential Hazards                                                                      | Recommended Safe Job Procedure                                                         |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1. Only Designated, Qualified, Trained operators to operate Dolly Jack. | Unsafe Dolly Jack operation if untrained.                                              | Have 2 Designated, Qualified, trained operators using Dolly Jack.                      |
| 2. Review Dolly Jack Safe work Practice. Fill out FLHA.                 | Injury, equipment, or site damage.                                                     | Trained in use of equipment.                                                           |
| 3. Visually inspect Dolly Jack                                          | Cracked welds, damaged cables. Jack failure during operation.                          | Check all components of Dolly Jack prior to use.                                       |
| 4. Flag off work area.                                                  | Dust, debris may fall while lifting. Other workers etc.. are aware of the danger zone. | Have ground guy near danger zone while lifting.                                        |
| 5. Shut off electrical. Lock out breakers. Disconnect from RTU unit.    | Electrical shock, death, equipment damage.                                             | Lock out, Tag out, Test electrical.                                                    |
| 6. Connecting RTU Dolly Jack to RTU.                                    | Pinch points                                                                           | Clear communication while connecting. Ensure Dolly Jack is connected correctly to RTU. |

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|                                        |                                                  |                                                                                                       |
|----------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 7. Lifting RTU.                        | Pinch Points, Property Damage, Equipment Damage. | Do not get between Dolly Jack and RTU while lifting. Lift slowly. Clear communication.                |
| 8. Moving Dolly Jack and RTU.          | Pinch Points, Slips and Trips.                   | Be aware of hand placement. Clear path of travel. Protect roof.                                       |
| 9. Lowering RTU with Dolly Jack        | Property Damage. Pinch Points. Unsafe Operation. | Lower Unit Slowly and safely. Clear communication. Protection of roof. Use of dunnage to set unit on. |
| 10. Disconnecting RTU from Dolly Jack. | Pinch Points.                                    | Be aware of hand placement. Clear communication during operation.                                     |

Developed by: 1. Graham Belyea      2. Derek Haskey      3. \_\_\_\_\_  
 Reviewed by: Scott Pack      Date: Nov 01/2019  
 Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

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### 10.2.16 Working Alone

**Tools/Equipment Required:**

Radio/Cell Phone

**Materials Required:**

First Aid Kit

**Personal Protective Equipment:**

Task Specific

Task Specific PPE Requirements

| Steps/Job Sequence                                                  | Potential Hazards                                                                       | Recommended Safe Job Procedure                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identify Hazards perform a risk assessment before starting work. | Slips and falls.<br>Tripping and falls.<br>Cuts and slivers.<br>Strains or back injury. | Identify risks or hazards associated with the work to be performed or the environment where the work is to be done. Conduct and document risk/hazard assessment for each different type of work or work location that can be deemed to be working alone situation. Communicate the results of the risk assessment to all affected workers and others conducting similar work.                                                                                               |
| 2. Establish an effective communication system.                     |                                                                                         | Keep lines of communication open. Workers shall advise their supervisor when they plan to work alone or in isolation and shall conduct their work in accordance with the Safe Work Practices. Develop effective method of communication, depending on the specific work, location of the work, and nature of the work i.e. Cell phones, radio and pagers. Check-in procedures and periodic site visits requiring worker to check in after the completion of specific tasks. |

Developed by: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_  
 Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

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**10.2.17 Working at Heights**
**Tools/Equipment Required:**
**Materials Required:**
**Personal Protective Equipment:**

|                |                      |  |                 |                       |
|----------------|----------------------|--|-----------------|-----------------------|
| Ladder         | Body harness/Lanyard |  | Hard Hat        | Long Sleeve outerwear |
| Scaffold       | Retractable Harness  |  | Eye Protection  | Hearing Protection    |
| Rigging Cables |                      |  | Steel Toe Boots | Fall Arrest Equipment |
|                |                      |  | Reflective Vest | Work Gloves           |

| Steps/Job Sequence                                                  | Potential Hazards                                                                                                                                | Recommended Safe Job Procedure                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Complete Task Hazard Card.                                       | Missed Hazards.<br>Missed Information.                                                                                                           | Discuss hazards and abatement measures with workers.<br>Document all changes and additions.                                                                                                                                                                                   |
| 2. Review SWP with all workers involved with or affected by task.   | Missed steps.<br>Misunderstanding.<br>Workers not informed of hazards & abatement measures.                                                      | Ensure all workers involved in task attend meeting.<br>Review SWP & emergency response procedures with workers. If a permits is required, review permit with workers to ensure workers understand the terms and conditions of the permit and their specific responsibilities. |
| 3. Ensure proper fall protection system in place (restraint/arrest) | Ensure all workers have been trained in use of fall protection equipment's. And are competent in the use of the selected fall protection system. | Based on site hazard assessments, determine which fall protection system will be used, revise and review the fall protection plan with workers.                                                                                                                               |
| 4. Inspect PPE and Equipment, Ladder/scaffold. Set up equipment.    | Heavy objects.<br>Workers below.<br>Uneven ground.                                                                                               | Inspect equipment; replace/remove defective equipment from service.<br>Use proper lifting mechanics.<br>Get help if too heavy.                                                                                                                                                |

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|                        |                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        |                                                                                                                      | Ensure ground is firm and level, use timber if required.<br>Workers doing lift must wear gloves.                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5. Working at heights. | Awkward positioning.<br>Fall Protection.<br>Fall objects<br>Extendable ladders.<br>Work area clear of other hazards. | Take mini breaks often during awkward work.<br>If breaking the plane of the scaffold, ensure 100% tie off and use an appropriate anchor point above your head.<br>Tools to be secured using lanyards, material stored in canvas bags.<br>Ensure Ladders re correctly secured at the top.<br>Ensure your anchor will Support 5000lbs.<br>Compete hazard assessments of work are to check/control/eliminate other hazards.<br>Communicate to co-workers and other trades of overhead work or install barrier with tag. |

Developed by: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_  
 Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

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### 10.2.18 Working With Cranes

**Tools/Equipment Required:**
**Materials Required:**
**Personal Protective Equipment:**

|  |  |                                                                |
|--|--|----------------------------------------------------------------|
|  |  | Hard Hat, High Vis, Steel Toe Boots,<br>Safety Glasses, Gloves |
|--|--|----------------------------------------------------------------|

| Steps/Job Sequence                                         | Potential Hazards                    | Recommended Safe Job Procedure |
|------------------------------------------------------------|--------------------------------------|--------------------------------|
| 1. Flag Off and Tag Crane work area.                       | Personal injury, Falling items       |                                |
| 2. Discuss communication with Crane operator and signaler. | Miscommunication                     |                                |
| 3. Make sure everyone is clear of load prior to lifting.   | Personal injury, broken slings       | Review SWP Rigging             |
| 4. Nobody to walk under suspended loads.                   | Being crushed                        |                                |
| 5. Use of Taglines.                                        | Loads getting away                   |                                |
| 6. Never leave suspended loads unattended.                 | Equipment damage, Loads getting away |                                |

Developed by: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_  
 Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

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