Occupational Health and Safety Program

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Reviewed by leadership:

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National Operations Director

On Behalf of Joseph Salazar, Will Meredith, Julie Meredith and Morgan Carman

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Fire Police Ambulance Poison Treatment	**911**

Enmax	310.2010
Fortis Alberta	604.576.7000
WCB Alberta	1.888.922.9221

Xradar

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Section 1 - Safety and Health Policy

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1.1 Company Health and Safety Policy

The management at Xradar are committed to ensuring the safety, health, and well-being of all employees. In fulfilling this commitment, Xradar will provide and maintain a safe and healthy work environment for all employees in compliance with legislative requirements and industry standards. Xradar recognizes workers' rights and is committed to providing a safe and healthy work environment.

To the best of our ability and understanding Xradar's objective is to conduct all of our business activities in accordance with the applicable safety and health regulations and to strive toward the control of foreseeable hazards and/or unsafe working conditions, therefore eliminating them whenever possible.

We believe that all incidents are preventable, so our goal is ZERO incidents. Xradar's management is committed to work in the spirit of consultation and co-operation with employees. Active participation at all levels will ensure that our goal can be achieved, as both leadership and our employees equally share the responsibility.

Our safety program includes:

- Providing mechanical and physical safeguards to the maximum extent possible.
- Conducting safety and health inspections to find and eliminate unsafe working conditions and practices.
- To control health hazards, and to comply fully with the safety and health standards of each and every job.
- Training all employees in workplace health and safety practices.
- Providing necessary personal protective equipment and instruction.
- Developing and enforcing safety and health rules and enforcing these rules as a condition of employment.
- Investigating every accident promptly and thoroughly and taking corrective action to ensure similar accidents do not occur.

The company will develop, implement, and maintain an up-to-date safety and health program, and will update our safety program on a yearly basis to adapt to industry changes, trends and requirements.

Accident prevention is a shared responsibility which means that:

- Xradar accepts the responsibility for leadership of the safety and health program for its effectiveness and improvement, and for providing the safeguards and necessary information required to ensure safe conditions at work.
- Xradar supervisors are responsible for developing the proper attitudes towards safety and health, and for ensuring all operations are performed with the utmost regard for the safety and

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health of all personnel involved.

- Xradar employees, contractors and contractor employees are responsible for genuine cooperation with all aspects of the safety and health program, including the Workers Compensation Act and the OHS Regulation, and for co-operating with management in the implementation of the health and safety program, worksite inspections, incident investigations and the continuous improvement of this program.

  All employees are required to do their work as safely as possible. A person who repeatedly violates safety rules may be subject to discipline, including discharge. No one wants to be injured, but carelessness can cause injury.

  Compromising safety for the sake of expediency is not acceptable under any circumstance and safety and well-being must be preserved before all else.

  The company continuously strives to improve the safety in all worksites, but it is up to each individual employee to make this program work.

  On Behalf of Will Meredith, Joseph Salazar, Julie Meredith and Morgan Carman.

  _____

  Nicolas Kruse – National Operations Director

Note: Wherever discrepancies occur between this document and government regulation, government regulation will take precedence.

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1.2 Assignment of Responsibility for Safety

1.2.1 Management / Supervisor

1. Provide a statement of policy relative to the safety program. The statement provides a commitment and philosophy setting the levels of safety performance throughout the organization.
2. Maintain overall control of the safety and loss prevention program.
3. Ensure all established safety policies are enforced and preserved.
4. Ensure all employees are aware of and effectively practice the policies and procedures set out in the safety program.
5. Provide information, instruction, and assistance to all supervisory staff in order to protect the health and safety of all employees.
6. Provide all employees with proper, well-maintained tools and equipment, plus any other special protective devices that may be required, including but not limited to specialized PPE.
7. Understand and enforce our accident prevention policy as well as the occupational health and safety legislation.
8. Accompany government safety inspectors during project inspections.
9. Ensure all new employees receive detailed safety instructions before starting work.
10. Provide ongoing safety educational programs and approved first aid training courses as required.
11. Provide safe work conditions for all employees.
12. Ensure that all workers are wearing appropriate personal protective equipment at all times.
13. Correct any physical conditions which are liable to cause or have caused accidents.
14. Investigate accidents, incidents, or near misses and determine underlying causes.
15. Lead by example by always directing and performing work in a safe manner.
16. Conduct regular inspections for unsafe practices and ensure prompt corrective action.
17. Enforce all established safety regulations and work methods.
18. Take corrective action as necessary to ensure consistent compliance with safety rules.

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1.2.2 Employees

1. Carry out all work in a responsible and safe manner by learning and practicing the policies and procedures set out in the safety program.
2. Participate in all applicable safety training and instruction before starting work.
3. Assist supervisors in the reduction and control of accident producing conditions and unsafe acts on the work site.
4. Report any accidents, incidents, near misses, and/or injuries immediately to the supervisor.
5. Report any anticipated loss of work time to a supervisor as soon as possible after being treated by a physician following an injury.
6. Comply with all implemented safety rules, safe work practices, procedures, and legislation.
7. Wear all safety equipment and PPE required by regulation and Xradar. This includes supplying your own basic PPE.
8. Report any unsafe acts/work conditions to supervisors or company Health and Safety Lead immediately.
9. Promote safety on all jobsites. Fellow employees not following general safety rules should be reminded of what the safety rules are. Safety is everyone's responsibility.

1.2.3 Health and Safety Lead

1. Performs routine site and warehouse safety audits
2. Answers questions from employees regarding health and safety policies
3. Maintains records of training and development activities, attendance, results of tests and assessments and retaining requirements
4. Aids with organization and booking of training required for all staff as it relates to safety
5. Preserves the integrity and confidentiality of employee files and records
6. Performs periodic audits of Health and Safety files and records to ensure that all required documents are collected and filed appropriately
7. Conduct new hire health and safety orientation, including maintenance of the Trainual module
8. Promotes employee engagement in the OHS Program and its ongoing maintenance and development
9. Attends a monthly JOHSC Meeting records minutes, file and disseminate as needed
10. Complete prequalification, annual renewals and any other safety documentation requested by both external clients and internal stakeholders
11. Tracks monthly statistics to monitor success and performance of the OHS Program and provide to directors
12. Maintain an inventory of safety equipment and distribute as needed
13. Performs internal COR audits for all companies yearly, engages an external auditor as needed by the program
14. Creates new procedures, processes and forms as required
15. Completed incident and other investigations with filing with WCB in conjunction with HR as required
16. Creates and maintains training materials as required by the company
17. Assesses subcontractors on an annual basis and keep records as required

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1.3 Occupational Health and Safety Program Availability

1. A copy of this safety program will be kept at Xradar's office and made available to all Xradar personnel.
2. A digital copy of this document will also be shared with all employees.
3. A copy of this Health and Safety Program will be kept in each of the company vehicles.

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Section 2 - Workplace Hazard Assessment and Control

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2.1 Employees

Employees are expected to take all reasonable measures to ensure workplace hazards are identified, quantified, controlled, communicated, and corrected as necessary to prevent injuries from occurring at the workplace.

Employees will receive documented training of the following:

1. Job Hazard Analysis (JHA) policy and procedure.
2. Practical hands-on demonstration of the JHA.
3. New hire safety orientation.
4. Job specific training.
5. Task and trade specific training and certification.
6. Specialized safety and related training.
7. Training on WHMIS, Boom Lift, Fall Protection and Confined Space (when applicable).
8. Safety meetings (held every month; to be attended by all Xradar personnel). Meetings are conducted for each division of Xradar: Office, Concrete Scanning and Coring. As well a monthly Joint Health and Safety committee meeting is held once a month with a representative from each division and management.

2.2 Subcontractors

Xradar expects that subcontractors will follow regulations and guidelines in providing for the safety and health of their employees, protection of property and the environment. This policy outlines the safety and health requirements of any contractor subcontracted to Xradar.

Safety Representatives and Meetings

1. Cooperate with site safety coordinator, workplace inspectors, site safety and health committee, and project manager or supervisor in correcting any safety deficiencies.
2. Attend site safety meetings if requested.

Accidents and Emergencies

1. Report all incidents, injuries, and unsafe conditions or equipment to the Xradar project manager or safety officer on site.
2. Provide emergency transportation for their injured employees.
3. Provide first aid supplies and fire extinguishers as required.

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Safety Regulations

1. Provide to their workers and use personal protective equipment as required.
2. Have any applicable Safety Data Sheets (SDS) available.
3. Ensure workers are trained in the safe use of tools and equipment.
4. Provide proof of the subcontractor's safety policies, training, procedures upon request.
5. If applicable, provide an orientation to the site.
6. Complete a hazard assessment and job procedures prior to commencing hazardous work such as working at height, confined spaces, demolitions, or excavations and make it available to Xradar personnel upon request.
7. Ensure compliance to AB Occupational Health and Safety Policies by their workers
8. Pre-access drug and alcohol screening may be required on some sites from a hiring client; this will be communicated at the time of hiring the Subcontractor.

Xradar recognizes and respects worker's rights:

1. The right to refuse unsafe work.
2. The right to know any hazards associated with work.
3. The right to participate in their safety program.
4. The right not to be discriminated against for exercising workers' rights.

Enforcement of Safety Rules

1. First offence: Shall be given a verbal warning.
2. Second offence: Shall be given a written warning.
3. Third offence: Shall be suspended/dismissed at the discretion of the supervisor.

Subcontractor Management

Prior to a subcontractor being allowed onsite, the dispatch team, the project manager or estimating team must confirm that the subcontractor is in Zoho and that all required documents are available and within date. The Health and Safety Lead will manage and upkeep the subcontractor documents in Zoho. An annual refresh of subcontractor documentation will also be completed.

If subcontractors are not in Zoho, they cannot be used onsite. They will have to be added to Zoho an appropriate documentation will need to be collected prior to being allowed onsite.

Subcontractors will sign off on the "Xradar Statement of Safe Work for Subcontractors" and this will be filed in Zoho.

Note: A subcontractor worker may be dismissed or suspended immediately if the violation is of gross or serious nature including insubordination, assault, use of drugs or alcohol, or reckless endangerment. Subcontractors must adhere to the short service/ new employee program as per Section 8.1.

Subcontractor's performance and compliance will be evaluated and discussed at Joint Health and Safety Meetings monthly.

Subcontractors will be given a post-job performance review when used or required

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2.3 Xradar's Statement of Safe Work for Subcontractors

Compliance with Government Regulations

All applicable government acts, regulations, laws and codes shall be followed, including licensing of all applicable workers, inspections, and certifications of equipment when required. Violation of these regulations is subject to penalties by law. Contracting and inspection supervisors shall become familiar with these regulations and ensure that their workers follow them.

Subcontractor

Subcontractors that are contracted by Xradar will comply with all British Columbia Provincial Regulations as well as the Xradar Safety Rules and Policies. Any non-compliance may result in disciplinary action.

SAFETY COMPLIANCE AGREEMENT

Company Name: _____

Address: _____

Name (print) _____Signature _____

Date _____

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2.4 **Job Hazard Analysis (JHA**)

Purpose

To Identify the hazards and/or potential hazards that are present in the workplace so that we can work toward reducing and eliminating the frequency and severity of accidents.

Policy

1. Job Hazard Analysis Checklists should always be Conducted/Completed when going to a new site, coming back to a site from a break and/or if conditions change. Xradar employees will be working on a site where specialized PPE is required. The digital version is now completed through Device Magic.
2. Jobs with the highest injury or illness rates.
3. Jobs where there have been "Near Miss" - where an incident occurred but no one got hurt; IE Ladders
4. Jobs where you have identified violations of WCBAB/OSHA standards
5. Jobs that are new to your operation or have been changed, and jobs complex enough to require written instruction
6. Jobs with the potential to cause serious injuries or illness, even if there is no history of such problems.
7. Jobs in which one simple human mistake could lead to severe injury
8. Any jobsite operated by an environmental consulting company requires a completed JHA. For jobs lasting more than 5 days, 1 Safe Work Plan will be required.
9. JHAs are not to be submitted through Device Magic until a worker has completed activities on a job for the day in order to keep the JHA a working document.
10. These Job Hazard Analysis Checklists will help identify hazards and assess the level of risk for each hazard identified.
11. Xradar will implement strategies to reduce the risk of identified hazards and will monitor and follow up to ensure that the control strategies chosen are implemented and effective.
12. In addition to the Job Hazard Analysis Checklist and Workplace Hazard Assessment Corrective Action Report, the following areas of our safety program are geared toward hazard assessment and control:
    a. Safe Work Practices and Safe Work Procedures
    b. Safety rules
    c. Equipment maintenance policy
    d. Training/Toolbox talks
    e. Inspections

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Procedure

1. Anytime a Job Hazard Analysis is conducted, a severity and risk rating will be documented using the following criteria:

Severity
1. Insignificant
2. Minor
3. Moderate
4. Severe
5. Fatal

Risk
A. Almost Certain = Extremely likely to occur/ recur
B. Likely to Occur/ recur
C. Possible Somewhat likely to occur/ recur
D. Unlikely to occur/ recur
E. Very Unlikely to occur/recur

2. Anytime a Job Hazard Analysis is completed, a method of controlling the hazard will be established that includes responsibility and timelines for completion.
3. Ensure that the risk and severity rating after controls have been put in place are lowered
4. All results will be documented on the JHA form and filed at the office in the H&S safety records on the google drive.

Note: JHA form which will be completed through Device Magic.

JHAs are electronically reviewed and stored through Device Magic. All JHAs that are flagged as high or extreme risk will be sent via email to the worker's Manager as soon as the JHA is submitted. The Manager will then make contact with the worker to ensure controls are put in place to reduce the risk to the employee.

All JHAs that are flagged as high or extremely high risk due to appropriate hazard controls not being in place or inadequate safety standards will be reported to the workers manager (Via text/call/slack) and the General Contractor as soon as possible. If the General Contractor does not mitigate the identified hazards, the worker will submit a Refusal of Unsafe Work form through device magic which will be sent to the workers manager and the Health and Safety Lead as soon as it is submitted. The Manager or the Health and Safety Lead will then make contact with the worker and/or the General Contractor to ensure controls are put in place to reduce the risk to the employee.

2.5 Xradar Critical Task List

1. 3.1 Fall Protection
2. 3.2 Confined Space
3. 3.6 Ladder Procedure
4. 3.10 Critical Tasks – Coring
5. 3.12 Core Catching
6. 3.16 Safe Driving Procedure
7. 3.17 Working on Construction Sites Around Other Trades
8. 3.18 Working with Lead-Coring

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2.6 WHMIS

Purpose

Workplace Hazardous Material Information System (GHS WHMIS 2015) is a system of hazard communication, which tells us whether a chemical is hazardous, the type of the hazard and how to handle the chemicals safely. Xradar staff will be given a copy of all SDS (Safety Data Sheets) sheets for review and WHMIS training on their first day as part of the onboarding process

Policy

1. Training will be provided to all new staff during their first day and renewal of the WHMIS (GHS WHMIS 2015) certificate will be handed in, an annual refresh will be conducted yearly
2. Supplier labels (A label, which is provided by the supplier and is recognizable by its unique broken border) will remain on all relevant equipment and consumables.
3. If a workplace label is created, it must be affixed to the container being used or written clearly in permanent marker.
4. All SDS sheets will be provided on your first day and stored on the Xradar Google drive under #6 health and safety for review at any time or via the link: SDS - Safety Data Sheets
5. Xradar will obtain all SDS's for hazardous materials we use, and kept current and up to date.
6. Any hazardous materials that have been transferred to another container must have a workplace label affixed to the container.
7. SDS Sheets will be maintained and updated every year

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Section 3 - Safe Work Procedures

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3.0 Safe Work Procedures

Purpose

Safe Work Procedures are tools used to control hazards and do jobs with a minimum of risk to people and property. Xradar is committed to the development and implementation of Safe Work Procedures.

Policy

Xradar are committed to the development of Safe Work Procedures that either meet or exceed legislation for all critical tasks undertaken by our organization. Xradar is dedicated to performing and developing job hazard analysis for jobs that have the potential to cause harm to any Xradar employee, client or other trades.

We have developed a list of critical tasks for Safe Work Practices, Safe Job Procedures, and Job Hazard Analysis, and have been prioritized based on:

- Potential to cause harm
- Potential to incur loss
- Frequency of accidents associated with these tasks

The list of critical tasks will be continually reviewed, modified, and updated. The development of these practices and procedures will also follow suit accordingly.

Responsibilities

All employees at Xradar will be responsible for participating in the development and review of these practices and procedures.

The health and safety lead will review Safe Work Procedures. Safe Work Procedures will be approved by the management prior to implementation and on an annual basis thereafter to ensure they are up to date.

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3.1 Fall Protection – Critical Task

Fall Protection is mandatory when employees could fall from a height of 3m (10ft) or more, or a fall from height of less than 3m (10ft) involves a risk of injury greater than the risk of injury from the impact on a flat surface. Any time fall protection is used, a JHA shall be completed.

Fall Protection is mandatory when employees could fall:

- From a height of 3m (10ft) at a temporary or permanent work area, a vertical distance.
- At a temporary or permanent work area, a vertical distance of less than 3m (10ft) if there is an unusual possibility of injury.
- At a temporary or permanent work area, into or onto a hazardous substance or object, or through an opening in a work surface.
- At a permanent work area, a vertical distance of more than 1.2m and less than 3m.

PPE Required: Hardhat, safety boots, harness, work gloves, high visibility vest, lifeline (Fall restraint), Fall arrest system

Hazards associated: pinch points, slips, falls, and overhead hazards

Procedure:

1. Visually Inspect and test all fall protection devices for any defects prior to use.
    a. Test lanyard retraction and tension
    b. Check for any cuts in the fabric, or loose strings
2. Plan area for fall protection equipment and anchorage
    a. Anchor must be capable of holding 5000lbs
    b. Test with a firm tug
3. Seat anchorage connection with the anchor point
4. Install overhead of horizontal lines
    a. Limit or eliminate pendulum effect if a fall occurs
5. Hook personal harness onto lifelines
    a. Wear gloves

Fall Protection Plan

As per regulation, the employer must prepare a fall protection plan when working at heights situations meet both of these criteria:

- A worker may fall three meters or more (10ft)
- The worker is not protected by guardrails

Refer to Appendix D for Fall Protection Plan

Note: Once per month Fall protection devices must be inspected as per the Equipment Inspection and Maintenance Schedule. This shall be documented electronically on the Harness Inspection Checklist documented in Device Magic

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Workers must be trained in the use of fall protection equipment and must be familiar with the risks of working at heights

Experienced workers should mentor new and/or inexperienced workers until they are comfortable with working at heights

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3.2 Confined Space Entry- Critical Task

Confined spaces are a high risk for personal injury. Many workers are killed or injured in confined spaces. If the confined space cannot be made safe for the worker by taking precautions, then the worker must NOT enter the space until it is made safe by additional means. Confined spaces can be above or below ground and can be found in almost any workspace. A confined space, despite its name, is not necessarily small.

PPE Required: Safety eyewear/face shield, safety boots, gloves, hardhat, respirator/self-contained breathing apparatus, body harness, atmosphere monitoring equipment, retrieval equipment, communication device, first aid kit.

Hazards associated: Suffocation/asphyxia, drowning, musculoskeletal injuries, poisoning, illness or disease, temperature extremes, burial or crushing.

Procedure:

1) Determine whether the space is considered a confined space, it may have one or more of the following:
   a) A space which is not primarily designed or intended for human occupancy.
      i) Its design
      ii) Construction type
      iii) Location
      iv) Atmosphere
   b) Has a restricted entrance or exit by way of location, size or means which may lead to entrapment of the entrant(s)
   c) Contains harmful or potentially harmful substances or materials within
   d) Harmful mechanical or other process and safety hazards present
   e) Self-rescue is difficult, or rescuing a victim is difficult
   f) The interior configuration of a space does not allow easy movement of people or equipment within

2) Assess the hazards – prior to entry
   a) All confined spaces must be identified – controls and safe work procedures must be developed in writing prior to entry

3) Complete a hazard assessment
   a) Take into consideration the atmosphere
   b) All actual and potential hazards
   c) Type of work to be performed
   d) Any human factors which might affect the work or rescue

4) Assess the controls
   a) Are protective measures in place

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1. Administrative controls
2. Safe work plan
    1. Rescue procedure outline
3. Engineering controls
    1. Mechanical ventilation
    2. Lock out all mechanical equipment – including electrical, mechanical, steam, gas, hydraulic, wind and radiation devices
4. Personal protective equipment to minimize the hazards
    1. Respirator with Supplied air and full-face mask
    2. Gloves
    3. Ear plugs
    4. Glasses

5) Ensure the atmosphere is tested for presence of hazardous materials, such as gases and oxygen levels.

a. Testing of the atmosphere should be undertaken by a worker with the appropriate training.

1. Training must include instrument calibration, maintenance, and interpretation of readings and warnings.
2. Testing equipment service logbooks must be maintained for all pieces of monitoring equipment.
3. Results of the atmosphere testing must be recorded, along with the equipment used to perform the tests.
4. Ongoing testing may be required depending on the nature of the space.
5. When the atmosphere tests indicate the presence of hazardous materials such as explosive and toxic gases or abnormal oxygen levels, workers are PROHIBITED from proceeding with work until further action is taken (such as engineering controls).

No worker shall enter a confined space when working alone.

A standby worker must always be available to monitor workers within the confined space.

Please note: A permit must be pulled to enter a confined space with a rescue plan. This is the responsibility of the hiring client. Xradar will supply trained and qualified employees to enter the confined space.

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3.2.1 Hydrogen Sulphide (H_2S)

H_2S is a lethal toxic gas. It has no color, but it smells like rotten eggs. In larger amounts, H_2S quickly blocks the sense of smell. H_2S dissolves in water and oil, and it may be released when these liquids are heated, depressurized, or agitated. Because H_2S is heavier than air, it may settle in low spots. This can pose risks when entering areas where the gas may be present (I.E., confined space, sewer accesses). H_2S burns and explodes easily. When it burns it gives off Sulphur Dioxide (SO_2), another dangerous gas that is toxic, strong smelling, and irritating.

PPE Required:

- Safety glasses
- Four Head Gas Clip (H_2S, CO, O_2 and combustible gases (LEL))
- Protective fire-resistant clothing.
- Local exhaust ventilation (to control amount in the air)
- Full-face positive pressure respirator masks (>10ppm)

Hazards associated: Hydrogen sulfide gas causes a wide range of health effects. Employees are primarily exposed to hydrogen sulfide by breathing it. The effects depend on how much hydrogen sulfide you breathe and for how long. Exposure to high concentrations can quickly lead to death.

Hydrogen sulfide is a highly flammable, explosive gas, and can cause possible life-threatening situations if not properly handled. Hydrogen sulfide gas burns and produces other toxic vapors and gases, such as sulfur dioxide. The explosive range of hydrogen sulfide in air is 4.5% (LEL) to 45.5% (UEL).

The effect called knockdown (rapid unconsciousness) often results in falls that can seriously injure an employee.

Employees who are exposed to H_2S that are wearing contact lenses may have the lenses absorb irritants and hold irritants such as H_2S against their eyes.

Procedure:

1. Employees will attend education training sessions provided by Xradar Safety or Management. Employees are more likely to be harmed if they do not know the hazards of H_2S, or if they are so used to working with H_2S they become lax about safety.
2. Test before leaving the shop that the gas monitor heads are functional (Bump test), and batteries are fully charged.
    1. These monitors will continually detect and warn the wearer of potential exposure to H_2S, CO, O_2 and combustible gases.
    2. If you are unfamiliar with a gas monitor, ask your supervisor on the operation of it, ask as many questions as needed until you fully understand its use and function.
    3. If the monitor is overloaded on site it will need to be tested or replaced before it may be used again.
3. Determine whether any areas have the potential for the release or presence of H_2S.
    1. Sewage Systems

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1. Anywhere organic material is left to break down
2. Wastewater treatment facilities
3. Manholes

2. Agriculture
    1. Compost piles
    2. Manure pits
3. Restoration, renovation & demolition
    1. Excavations in landfills or swamps
4. Mining
    1. In tunnels or pits where mineral rock contains hydrogen sulphide
    2. In tunnels or pits after an earthquake
5. Oil & Gas
    1. Seismic exploration
    2. Well drilling (Environmental, Water, Oil & Gas)
    3. Well services
    4. Oil & Gas Production, Construction, Refining
6. Pulp & Paper
    1. By-product of wood and pulp breaking down by bacteria

3.2.2 Muster Location & Escape

- Know the Muster location on site, this will be marked and will be explained in site orientation.
- Know the wind direction (windsocks or lathe flagging).
- Always have an escape route, do not muster down wind
- Ensure the atmosphere is tested for presence of H2S, CO, O2 and combustible gases
- Testing of the atmosphere should be undertaken by a worker with the appropriate training.
    - Training must include instrument calibration, maintenance, and interpretation of readings and warnings.
    - Testing equipment service logbooks must be maintained for all pieces of monitoring equipment.
    - Results of the atmosphere testing must be recorded, along with the equipment used to perform the tests.
    - Ongoing testing may be required depending on the nature of the space.
    - When the atmosphere tests indicate the presence of hazardous materials such as explosive and toxic gases above safe limits (>10ppm H_2S, >100ppm CO) or abnormal oxygen levels, workers are PROHIBITED from proceeding with work until further action is taken (such as engineering controls).
- No worker shall work alone on any site that may contain H_2S.
    - Workers should always remain in contact with each other while on site.
- Alarms; If your four head gas monitor alarms or a site-specific alarm sounds.
    - IMMEDIATELY leave the area, and muster.
    - Ensure everyone is accounted for.
    - Inform your supervisor or onsite representative.

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- Only return to the area after the situation has been assessed and cleared by the appropriate site authority.

Note: No Xradar employee will smoke or vape on any site that may contain any LEL's or H_2S except at designated smoking areas, or off site.

Note: Scanning or Coring is not intrinsically safe and should never be operated when conditions that would expose the equipment or the employee to levels above 10ppm of H_2S.

Note: All workers working near or around H_2S must be trained and pass a H_2S Alive certification course.

Note: Xradar does not enter areas that will require SCBAs or enter spaces that are immediately dangerous to health or life.

Chart 3.2.1 - Hydrogen Sulphide (H_2S) – Warning Signs Chart

Concentration (PPM)	Symptoms / Health effects
0.00011 – 0.00033	Typical background concentrations
0.01 – 1.5	Odor threshold (when rotten egg smell is first noticeable to some).
3-5	Odor becomes more offensive at 3-5 ppm.
>10	In British Columbia workers must not be exposed to H_2S that exceeds the ceiling limit of 10 ppm.
20 - 100	Nose, throat and lung irritation; digestive upset and loss of appetite; sense of smell starts to become fatigued; acute conjunctivitis may occur (pain, tearing and light sensitivity) >30 ppm, odor described as sweet or sickeningly sweet.
100 - 250	Coughing, eye irritation, Loss of smell (olfactory fatigue or paralysis). Altered breathing, drowsiness after 15-30 minutes. Marked conjunctivitis and respiratory tract irritation after 1 hour. Gradual increase in severity of symptoms over several hours. Death may occur after 48 hours.
250 - 500	Pulmonary edema (buildup of fluid in lungs). Staggering, collapse in 5 minutes. Serious damage to the eyes in 30 minutes. Death after 30-60 minutes.
500 - 1000	Rapid unconsciousness, "knockdown" or immediate collapse within 1 to 2 breaths, breathing stops, death within minutes without rescue.
>1000	Near instant death!

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3.3 Defective Tools (Tag-Out)

Defective tools can cause serious and painful injuries. If a tool is defective in some way, DON'T USE IT, TAG IT OUT.

PPE Required: Hardhat, safety boots, gloves, safety glasses

Hazards associated: Property or material damage, personal injury or death, injury or death of other trades, or the public in the area.

Procedure:

1. Ensure the equipment needs repair. IE. trying different screens and set ups. Advice can also be sought using the #equipmentmaintenance channel on slack.

2. Ask the department field supervisor or a senior technician for advice prior to tagging out.

3. Request a Tag-Out Reference Number via slack on the #equipmentmaintenance channel using "@tagout" to notify the necessary personnel. This should include whether it is likely the equipment will need to be sent away or can be fixed in house. The warehouse person will provide the tag out number via slack.

"@tagout" group on slack includes Lead Dispatch, Division Manager(s), warehouse person and Director of Operations.

4. Collect a Tag Out Label, writing the tag out number provided in step 3 on the label. Attach this securely in a visible place on the equipment using a cable tie or other secure method.

5. Fill out a digital Tag-Out form on Device Magic, including the Tag-Out Reference Number, indicating what is wrong with the equipment, what steps you have taken to ensure it needs to be fixed. Email this form to the Warehouse Person and the Division Manager

6. Put the equipment you are tagging out in the "Tag out" equipment area in the warehouse with the tag out label. clearly shown. This ensures another employee doesn't take it and that all broken equipment is easily identifiable when the label is cross referenced with the tag out spreadsheet.

7. The Dispatch Lead (or Division Manager in their absence) is responsible for ensuring that the tagged-out piece of equipment is made unavailable on Lucy. The lead dispatcher is responsible for notifying other members of the dispatch team.

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8. The Warehouse Person (or Division Manager in their absence) is responsible for updating the tag out spreadsheet with the status of the tagged-out equipment throughout the process.

9. The Warehouse Person (or division manager in their absence) should file the device magic report in the Tagout Forms Folder on the Drive:
G:\Shared drives\5.2-Device Magic-Health & Safety/Tag-Out Forms

10. The warehouse person (or Division Manager in their absence) is responsible for arranging in house repairs or shipping as required. When contacting the external repair company, the warehouse person should relay the equipment issue and that we will be shipping the equipment to them for repair. Current suppliers who repair equipment for us include:

XAB

1. Radartech - all GPR Units from GSSI
2. Spatial - Leica Camera
3. Cyclone - coring equipment
4. Hoskins - Proceq
5. Vivax - Linestar

Shipping Equipment

Equipment should be shipped using our Secureship account by the warehouse person or Division Manager.

Care should be taken to ensure the equipment is properly packaged with bubble wrap, Styrofoam etc. to ensure no damage to equipment when shipping. A shipping label should be created using the corporate Secureship login. A shipping label should be printed, affixed to the package and a pick up should be scheduled. Whoever schedules the pickup is responsible to ensure the equipment is picked up.

Return to action of repaired equipment:

1. Once the equipment is repaired or returned, the warehouse person should, if the equipment was shipped from an external source, inspect the box/packaging noting any damage and packing/shipping documents. The warehouse person should then notify @tagout on the #equipmentmaintenance slack channel that the equipment has been fixed returned and is ready for testing.

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2. The division manager will test, or assign (or lead dispatcher in their absence) a technician via the #equipmentmaintenance channel on slack to ensure that the equipment is now working properly. The technician assigned the task is to confirm via the #equipmentmaintenance channel on slack that the equipment is working correctly using @tagout. At this point the Tag out, label can be removed and the equipment moved back to the available for use area in the warehouse

3. The Warehouse Person (or the division manager in their absence) is responsible for updating the tag out spreadsheet including the invoice number and cost, with the Dispatch Lead making the equipment available on “Lucy”

4. The Device Magic “Tag out form” should be moved from the “Out of service” folder on the drive to a folder titled by the Tag Out number in the Completed Tag out folder. This is to be done by the Warehouse Person.

G:\Shared drives\5.2 Device Magic-Health & Safety/Tag-Out Forms

5. The Division Manager is responsible for approving invoices for the cost of repair through Beanworks and updating the tag out spreadsheet with the associated costs.

Responsibilities

Technicians

1. Ensure equipment is tested and all options exhausted before tagging out
2. Obtain a tag out label and move the equipment to the tag out area of the warehouse
3. Notify @tagout on slack that equipment has been tagged out
4. Complete a digital tag out form and email this to the relevant personnel

Warehouse person

1. Provide a tag out number and label
2. Maintain and update the tag out spreadsheet throughout the process
3. Filing/tracking of corresponding paperwork and forms
4. Shipping and delivery of equipment
5. Notifying relevant personnel of returns, updates or delays via @tagout
6. Submit a monthly report to the division manager on equipment breakdown and maintenance

Office (Division Manager)

1. Overseeing the process
2. Reviewing the monthly report, and using this information to reduce the amount and cost of equipment repairs

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3. Approving invoices for repair costs through Beanworks and recording the associated costs on the spreadsheet

Dispatch Lead

1. Make equipment unavailable and available on Lucy

3.4 Mobile Equipment – Moving

Mobile equipment includes but is not limited to boom lifts, scissor lifts, company vehicles, forklifts, and any other mobile equipment. The purpose of this procedure is to ensure there is no personal injury or property damage sustained through the improper use of mobile equipment.

PPE Required: Hardhat, safety boots, high visibility vest and harness

Hazards associated: Property or material damage, personal injury or death, injury or death of other trades, or the public in the area**.** Vehicles could roll while moving, vehicles could roll while being loaded, load could fall resulting in injury to workers, vehicle could flip, or tip, damage to load and vehicle could result, accidents with another vehicle could occur.

Procedure:

1. Ensure a clear unobstructed view of the entire space into which the vehicle is moving
    a. Do a walk around of the workspace, move obstructions and ensure there are no hazards
    b. Communicate your intentions to other workers
    c. Ensure area is clear of all workers before proceeding
2. Inspect the equipment for any faults, or issues
    a. Ensure the vehicle is in park or neutral with the emergency brake on while inspecting and mounting vehicle
    b. Use the inspection form found in Device Magic
    c. No flat tires, loose wheels, or other moving parts
    d. Ensure back up beepers are working
3. Do not overload trailers or lifting equipment
    a. Refer to instruction manual for equipment if load bearing capability is not known
4. Ensure loads are adequately secured
5. Stop moving if reverse beeper does not sound when in reverse (if applicable)
    a. Tag equipment for repair and inform a supervisor immediately, DO NOT USE
6. Have a fellow employee or the client act as a backup guide or signal person if necessary
    a. Use a signal person in areas of high traffic
    b. Use a signal person where vision is limited

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7. Do not exceed speed limits, always maintain a safe and steady speed, try to avoid excessive braking

Note: Workers in the vicinity of mobile equipment must be aware of procedures and must maintain eye contact with operators. Workers must stay clear of equipment being loaded/unloaded.

Note: All operators of mobile equipment must first be trained and pass testing by a certifying body to be certified and eligible to use any mobile equipment.

3.5 Mobile Equipment – Mounting and Dismounting

Includes boom lifts, scissor lifts, fork lifts, company vehicles and any other mobile equipment

PPE Required: Safety boots, high visibility vest, safety glasses, hearing protection

Hazards associated: Slips, trips, falls, and sprains/strains

Procedure:

1. Ensure boots are clean and have sufficient grip on the soles
2. Ensure vehicle is not in motion
    a. In park or neutral with the emergency brake on
3. Face the entrance when getting on or off
4. Use grab rails and steps
    a. Refrain from jumping on or off the equipment
5. Use 3-points of contact at all times (2 hands and 1 foot, 2 feet and 1 hand)
6. Take extra caution in wet or icy conditions

Note: Workers in the vicinity of mobile equipment must be aware of procedures and must maintain eye contact with operators. Workers must stay clear of equipment being loaded/unloaded.

Note: All operators of mobile equipment must first be trained and pass testing by a certifying body to be certified and eligible to use any mobile equipment.

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3.6 Ladder Procedure – Critical Task

PPE Required: Hardhat, safety boots, high visibility vest, safety glasses and hearing protection

Hazards associated: falls, slips, toppled ladder, rock and/or roll of ladder

Procedure:

1. Choose the correct ladder for the job
    a. Step ladders should be used for reaching a height of up to 14ft
    b. Extension ladders should be used for heights exceeding 14ft
    c. Max Height for grade of ladder: grade 3 (light duty) 2m/6.5ft, grade 2 (medium duty) 3.6m/12ft, grade 1 (heavy duty) 6m/20ft grade 1A (extra heavy duty) 6m/20ft, grade 1AA (super duty) 6m/20ft
2. Inspect the ladder for:
    a. Bent or damaged parts
    b. Loose steps
    c. Rubbers stoppers missing
        i. Any concerns tag-out the ladder
3. Check the duty rating
    a. Working with heavier equipment than the ladder rating can topple the ladder
        i. 200lb (light duty) grade 3, 225lb (med duty) grade 2, 250lb (heavy duty) grade 1, 300lb (extra duty) grade 1A, 375lb (super duty) grade 1AA
4. Ensure ladder is correct length for job - Incorrect ladder size could result in accident
        i. Step ladders – do not step on top step or paint tray
        ii. Extension ladders – must overlap top of building or support by:
        iii. 3 rungs for under 32’, 4 rungs for 32’ – 36’, 5 rungs for 36’ – 48’, 6 rungs for 48’+
5. Position ladder correctly
    a. Steel ladder could conduct electricity
    b. Extension ladders should be positioned at a 4 to 1 ratio thus if you are placing a 16ft ladder up a wall the base should be 4ft away from the wall.
    c. Improperly positioned ladder could rock and/or roll
        i. Stay away from power lines; otherwise use fiberglass ladder
        ii. Lean at a 75-degree angle with the ground
        iii. Do not overload the ladder
6. Tie extension ladder with a secure device to a fixed object at the top
    a. An untied ladder could rock and/or roll
    b. Ensure ladder is anchored at top and bottom
7. Climb ladder
    a. Ensure boots are clean and have sufficient grips on soles
    b. always maintain 3-points of contact
    c. Only one person on a ladder at a time
    d. You receive the right to refuse ladder work for heights above 8ft.

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3.7 Task: Manual Lifting

PPE Required: Hardhat, safety boots, and gloves

Hazards associated: Strained back or arm muscles, slips, falls, overexertion or twisting resulting in musculoskeletal injury

Procedure:

1. Size up the load to be lifted and seek assistance if necessary
    a. Clear the area around the load and in the path of movement
2. Use legs to lift the load, ensure back is straight and not bent
3. Keep the load close to your body
4. Lift in a smooth and fluid motion
    a. Ensure breathing is regular, if overexerting get help
5. Turn feet to move, do not twist or move away from the load
    a. Ensure only your feet move, not your back
6. If possible, push, pull, roll or slide the load rather than lifting
7. Use levers or other lifting equipment when possible

Note: It is the individual's responsibility to determine their ability to lift loads.

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3.8 Concrete Scanning

PPE Required: Safety boots, kneepads or foam pad, hardhat, safety glasses, hearing protection, high visibility vest, half mask and fall protection if required

Hazards associated: Strains from repetitive motions, working for long time on knees or with equipment overhead, exposure to dust and silica dust, exposure to spray fiberglass insulation

Procedure:

1. Arrive at site and meet site contact.
2. Undergo any site safety orientations and use appropriate PPE for the areas you will be working in.
    a. Working at heights, ensure proper fall protection system and gear is in place
    b. Removing insulation, ensure you have appropriate eye wear, respirator and coveralls
    c. Working from a ladder or scaffold, review safe work procedures
3. Undergo a walkthrough with the client of the areas that require concrete scanning.
    a. Determine any hazardous areas and discuss with the site supervisor or client a way to mitigate injury or damage
    b. Fill out a JHA if required by following Xradar's protocol
4. Make the client aware of the scanning process and what they will be responsible for clearing near the scan areas. For example, if the slab is quite thick the underside will need scanning and a technician will need safe access.
    a) Be sure to highlight what will be needed to achieve this, e.g. A working platform/ lift/ ladder.
    b) Discuss the safe practice of doing so, will fall restraint be required
    c) Highlight any materials or obstacles that will be required to be moved or cleaned in order to scan.
5. Ensure not to block any important access egress routes when setting up.
6. If using a ladder use safe work ladder procedures and tightly strap the monitor to the paint tray or top if necessary.
7. Clean scanning locations to remove dirt/dust and hazardous objects.
8. Use clear coat or spray paint for all markings to avoid them coming off (unless the client specifies otherwise), ensure to spray cans away from the body and face.
9. Walk clients through all locations and clearly explain all limitations and details for each location. Submit "**Black Boundary Checklist**", if necessary and explain we will not be able to core until the checklist is signed & completed and the client has done all their due diligence to make the coring safe.
10. Create a digital report on site which contains all the limitations and details of each scan including photographs in order to not lose vital information which could result in mistakes.
11. Ensure to take all equipment away and leave the site clean and tidy.

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3.9 Pre-Design Concrete Scanning

PPE Required: Safety boots, kneepads (preferably rubber), hardhat, safety glasses, high visibility vest. Additional hearing protection, half mask and fall protection if required

Hazards associated: Strains from repetitive motions, working for long time on knees or with equipment overhead, exposure to dust and silica dust, exposure to spray fiberglass insulation, dangers of working alone

Procedure:

1. Arrive at site and meet site contact.
2. Undergo any site safety orientations and use appropriate PPE for the areas you will be working in.
    a. Working at heights, ensure proper fall protection system and gear is in place
    b. Removing insulation, ensure you have appropriate eye wear, respirator and coveralls
    c. Working from a ladder or scaffold, review safe work procedures
3. Undergo a walkthrough with the client of the areas that require concrete scanning.
    a. Determine any hazardous areas and discuss with the site supervisor or client a way to mitigate injury or damage
    b. Fill out a JHA if required by following Xradar's protocol
4. Make the client aware of the scanning process and what they will be responsible for clearing near the scan areas. For example, if the slab is quite thick the underside will need scanning and a technician will need safe access.
    d) Be sure to highlight what will be needed to achieve this, e.g., a working platform/ lift/ ladder.
    e) Discuss the safe practice of doing so, will fall restraint be required
    f) Highlight any materials or obstacles that will be required to be moved or cleaned in order to scan.
5. Ensure not to block any important access egress routes when setting up.
6. If using a ladder use safe work ladder procedures and tightly strap the monitor to the paint tray or top, if necessary.
7. Clean scanning locations to remove dirt/dust and other hazardous objects. For dusty areas, don a respirator with minimum P95 filters. If dust/dirt is minimal, use a soft horsehair brush being sure to avoid agitating the dust particles and making them airborne. If the area contains thick dust use a portable hepa vacuum. For additional protection, set up a suitable air mover or fan for extra ventilation.
8. Use clear coat or spray paint for all markings to avoid them coming off (unless the client specifies otherwise), ensure to spray cans away from the body and face. Wear a respirator with P100 filters when spraying due to the high quantity of paint required.
9. Walk clients through all locations and clearly explain all limitations and details for each location. Submit "**Black Boundary Checklist**", if necessary and explain we will not be

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able to core until the checklist is signed & completed and the client has done all their due diligence to make the coring safe.

10. Create a digital report on site which contains all the limitations and details of each scan including photographs to not lose vital information which could result in mistakes.
11. Ensure to take all equipment away and leave the site clean and tidy.

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3.10 Critical Tasks Coring – Critical Task

PPE Required: Hi-Vis Vest, Gloves, Hard Hat, Respirator

Please refer to below Safe Work Procedures before commencing

1. Wear appropriate PPE for the job and fill out a JHA.
2. Only core locations that have been scanned by a qualified Xradar concrete scanning technician.
3. Read the Xradar Scanning Report. Confirm that the core layout matches what you see in the report.
4. Ensure all markings are visible and that you understand all the marks on the slab and all the limitations highlighted by the scanning technician.
5. Inspect the underside of the slab or backside of the wall you are about to core and make sure there are no obstructions or conflicts before you core.
6. Confirm that the core location has been approved by all parties involved in the project. If your client is a subtrade, confirm the general contractor or a structural engineer has approved the cores.
7. Set up a safety zone if you are unable to catch the core.
8. Be safe. Do not work off a ladder or platform higher than 8’. Remember you have the right to refuse unsafe work!
9. The coring machine must be anchored within the yellow boundary and a minimum of 1” away from any targets except PT where you have to be a minimum of 2” away.
10. Have adequate slurry protection in place (slurry ring, poly sheeting, other holes in slab covered or stuffed with insulation).
11. Fill out a work order with all the important details.
12. Record any damage to property or tools on site. Do not leave the site without documentation of all incidents.

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3.11 Concrete Coring

PPE Required: Safety boots, hardhat, eye protection, hearing protection, gloves (mandatory), fall protection, if necessary, half mask and P100 filters if silica dust will be created.

Hazards associated: Strains from lifting equipment or cores, electrical shock, silica dust exposure, noise during hammer drilling

Procedure:

1. Arrive at site and meet site contact.
2. Undergo any site safety orientations and use appropriate PPE for the areas you will be working in.
    a. Working at heights, ensure proper fall protection system and gear is in place
    b. Removing insulation, ensure you have appropriate eye wear, respirator and coveralls
    c. Working from a ladder or scaffold, review safe work procedures
    d. For coring work, you should **always** be wearing safety glasses, gloves, hearing protection as well as a respirator when dry drilling or coring.
    e. Inform other trades working in your area that you will be drilling and they should be wearing hearing protection if they are in the area.
    f. If you are hammer drilling or dry coring information trades in the area of this and that they will be exposed to silica dust and should wear a respirator or leave the area during the drilling/coring.
3. Inspect equipment and ensure it is in proper working order.
    a. Any concerns tag out and inform a supervisor.
4. Ensure location has been completely scanned and the client has confirmed the location of the core. Refer to the "**Coring Approval**" file in the job folder and check the "**Black Boundary Checklist**" has been signed and completed before coring and locations with black scan boundaries.
    a. During the core location selection, take every effort to avoid as many targets as possible. Review any application scan locations and work orders.
    b. The client is to select the exact location of the core. Make sure they are aware of the limitations and keep the core location a 'safe' distance (at the scanning technicians' discretion) from any conduits or targets which needs to be avoided.
    c. Spot the location from the underside of the slab, so you know where the core will come out below.
    d. If core catching is required see 'Core Catching Safe Work Procedures' document.
5. Set up power leads for the coring machine; always try to obtain power from a 20A socket. For use with the petrol generator see "Generator Safe Work Procedures"
    a. Ensure power cables do not create a tripping hazard and ALWAYS ensure they aren't laying in any water.

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   b. If necessary, run two cables in order to power both the vacuum and drill simultaneously. Use sockets on separate circuits to avoid tripping breakers.

6. Begin by drilling the anchor in place, careful to stay within the scanning boundaries.
   a. Wear a respirator mask with HEPA filter whilst drilling the anchor
   b. Inform others around you of the drilling and have them leave the area for at least 10 minutes to allow the dust to settle, be ventilated or vacuumed.
   c. Set anchor and tightly fix coring rig in place.
7. When beginning coring make sure the water is on before cutting to keep heat down and stop airborne dust from forming.
   a. Control the water flow, make sure water is not leaking or dripping down existing holes into other areas, if necessary, run the vacuum at the same time.
   b. Keep in constant communication with the core catcher or spotter with progress (See Core Catching Safe Work Practices.)
   c. Keep any loose items of clothing, hair and fingers away from the coring bit and all pinch points whilst the drill is running.
8. Once finished coring ensure to vacuum up all slurry and leave the area clean and tidy.
   a. When finished coring avoid touching the core or core bit as it will be hot.
   b. Cover any holes greater than 4” with a piece of wood with a circle and X over it. Indicating floor opening below.
9. When coring through a wall, always reduce the weight of the rig whilst setting up.
   a. Remove the core bit from the drill and remove drill from the stand.
   b. Tightly attach stand on to wall before sliding drill on and finally screwing coring bit on.
10. If above shoulder height always have a helper to raise the rig and drill and mount on to the wall.
11. If above 6 feet ensure the client has provided a safe work platform, AWP/EWP, or step ladder.
12. Take extra care with power cables and water when coring through a wall as water will flow down the wall.
13. Safely pack up equipment, break down equipment in reverse order for wall cores. Do not attempt to carry too much at once to avoid injury.
14. Securely strap equipment in vehicles before driving.

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3.12 Core Catching – Critical Task

PPE Required: Safety boots, eye protection, hearing protection, gloves, half mask and P100 filter

Hazards associated: Falling from a ladder or safe work platform, hit by a falling core or other object, slurry splatter hitting body or face

Procedure:

1. Spot the location of the core from below using the transpointer
    a. Ensure the slab thickness is known.
    b. Ensure to check for items hanging below the slab that can be damaged when a core drops (e.g., a sprinkler pipe) and find an appropriate bucket or shield to prevent this. If not possible then the core must be relocated.
2. Determine the safest way to drop the core when coring.
    a. With slabs thicker than 14” the core will need to be broken into pieces from the top of the slab and then cored with an extension meaning the concrete falling will be much smaller.
    b. Decide if the core will be caught in a bucket by a person. Or left to drop into a bucket, on to the floor, or work platform.
    c. For finished spaces below always catch the core with a bucket flush to the ceiling. Use poly to protect the space from slurry.
    d. Often a ladder or platform will be needed to safely reach the appropriate core catching height. Discuss the safe practice of doing so with the client; always use a lift or platform if the catcher is to be above 6ft.
    e. If letting the core drop, set up a control zone below using delineators and red ‘Danger’ tape; ensure to put a notice on it exclaiming that concrete coring is happening and the day’s date, so others are aware of the hazard.
    f. For large diameter cores and heavy cores, never catch them by hand, set up a safe platform or bin for it to fall into.
3. When possible, always have a spotter below also, ensuring people are clear of the area.
4. The core catcher must keep communication with the corer.
    a. A clear signal must be made when the core is close to being through. This can be achieved with a text to their phone or even the banging of a hammer on the slab, especially if there is no phone reception.
    b. A clear plan between catcher and corer must be communicated prior to coring so both can be sure each person is aware when and where the core will drop.
5. Be aware cores sometimes get caught inside the coring bit, so if the core does not fall, make sure the coring technician has acknowledged this and blocked it. Do not remove the control zone until the core has dropped or been removed from above.

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3.13 Spotters

PPE Required: Insulated boots or thick socks, winter coat/pants, gloves, as well as head, face, or neck coverings UVA/UVB protective sunglasses if workers are going to be operating in snow/ice conditions for long period

Hazards associated: Falling Dust in eyes, working at heights

Procedure:

1. Before utilizing your hole spotter first ensure it is functioning and has adequate batteries. Turning it on and off and checking that all lights/indicators are working. You can do this by pressing the power buttons and holding the spotters together. Low battery can affect spotter accuracy so please replace batteries frequently.

2. Once you have identified a location that you require, to confirm its location on the other side of the slab or confirm the thickness, you will place a marking on the slab in the location you have selected (a small visible X works well for this).

3. Now that you have an X placed on the slab. You will position the “sender” spotter on the X and line up 3 of the 4 corners of the X with the 3 indentations on the top of the “sender” spotter centering the X in the middle of the circular opening. The spotter should be level and flush to the concrete or your location on the other side may not be accurate. Turn the spotter on when in position. You can identify the “sender” spotter easily as it does not have the 4 indicator arrows on it and it is shorter than the “receiver” end.

Tip: The spotter will remain on for approximately 15 mins and will shut off automatically after this amount of time.

4. Now that you have positioned the spotter on the location you require, you must now identify the approximate location on the other side of the slab. This can be more confusing than it seems. To improve efficiency, it is recommended to measure off a known object (example: an existing pipe that runs through the slab) to identify an approximate area to utilize the “receiver” end.

5. Now that you have a rough area to look for on the other side of the slab, you will turn on the “receiver” end of the spotter and wand it around close to the slab surface in the area you anticipate your location to be.

6. Once you are close to the location the “receiver” spotter will begin to light up the 4 indicator lights on the spotter. They will light up either green or orange. Orange indicates the direction you are required to move the spotter. You will continue to slide the spotter around till all 4 lights turn green. This indicates your “receiver” spotter is in the correct position.

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Tip: If your spotter is too far away from the slab/receiver spotter it will not light up.

7. Now that you have positioned the “receiver” spotter and all 4 indicators have lit up green you can now use your marking device of choice to mark the center of the circular opening and take note of the slab thickness displayed in inches. Best practice is to rotate the spotter 45 degrees 4 times and marking the center when all indicators are green. If these 4 markings are not in the same position, find the center of the 4 marks and use that as your exact location. Place an X on this location.

8. You have now identified your location on both sides of the slab and approximate slab thickness.

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3.14 Working in Cold Temperatures

PPE Required: Insulated boots or thick socks, winter coat/pants, gloves, as well as head, face, or neck coverings UVA/UVB protective sunglasses if workers are going to be operating in snow/ice conditions for long period

Hazards associated: hypothermia, frostbite

Procedure:

1. Be aware of weather conditions for the duration of the work period
    a. Plan for and wear appropriate clothing
    b. Keep a spare set of dry clean clothes
    c. Dress in layers so that clothing can easily be removed or added
2. Ensure clothing is dry and without defects
3. Take short breaks indoors whenever possible
4. Constant observation (supervisor or buddy system)
5. Maintain movement to increase circulation, especially to hands and feet
6. Pace yourself as to not create sweat
7. Be aware of early signs of hypothermia – if you suspect you or a colleague has hypothermia go inside and **call your supervisor**!
    a. Shivering
    b. Muscle tension
    c. Fatigue
    d. Slurred speech and slowed motor skills
    e. Erratic behavior and irritability

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3.15 Working in Hot Temperatures

PPE Required: Safety boots

Hazards associated: heat exhaustion, heat stroke, heat stress

Procedure:

1. Be aware of weather conditions for the duration of the work period
    a. Plan for and wear appropriate clothing
    b. Keep a spare set of dry clean clothes
    c. Dress in layers so that clothing can easily be removed or added
2. Ensure clothing is dry and without defects
3. Take short breaks whenever possible
4. Bring and drink lots of water, stay hydrated
5. Be aware of early signs of heat exhaustion – if you suspect you or a colleague has heat exhaustion, move into a cool area and **call your supervisor**!
    a. High body temperature
    b. Excessive sweating
    c. Altered mental state or behavior
    d. Nausea or vomiting
    e. Rapid breathing
    f. Rapid heart rate
    g. Headache

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3.16 Safe Driving Procedure – Critical Task

PPE/ Equipment Required: Driver's License, First Aid Kit, Cell phone for emergencies, Safety vest (exiting vehicle on a roadway), Hard hat (exiting vehicle on a roadway).

Hazards associated:
Awkward/sustained postures, Repetitive movements, Compression, Vibration, Pinch points - fingers caught, Chemicals, Extreme heat/cold, Noise, Combustibles/flammables, Risk of falling/accident.
Common signs and symptoms of a musculoskeletal injury (MSI) can include pain, burning, swelling, stiffness, numbness/tingling, and/or loss of movement or strength in a body part. Report any of these to your supervisor.

Procedure:

1. Conduct a "pre-trip" vehicle prior to use, for tire pressure and vehicle damage.
2. Report deficiencies and do not use it if equipment is in unsafe condition.
3. Drive defensively at all times.
4. Ensure all vehicle occupants are wearing seatbelts. You are responsible for your passengers.
5. Do not exceed posted speed limits.
6. On resource roads do not exceed 80kph or posted speed limits.
7. Drive safely and drive to the existing road conditions. Lower speed as required. Be aware of:
    a. Visibility reduced by dust, fog, rain and snow;
    b. Narrow roads with over width vehicles;
    c. Steep favorable and adverse gradients;
    d. Slippery and variable road surface conditions due to loose gravel, snow, ice or mud;
    e. Other users.
8. Use vehicles for intended use only (purpose and weight limitations).
9. Drive with vehicle lights on at all times.
10. Secure all heavy or sharp objects in the cab of the vehicle.
11. Respect that loaded logging trucks have the right of way on single lane roads.
12. Do not tailgate other vehicles.
13. Never chase a runaway vehicle.
14. Stay on your side of the road.
15. In the event of an incident, collect all necessary information from the involved parties (including driver's license, license plate number, name and type of vehicle) , write down your recollection of events, and contact your supervisor immediately.
16. Complete a monthly vehicle inspection electronically via Device Magic-Vehicle Inspection Checklist

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3.17 Working on Construction Sites with Other Trades – Critical Task

Working around other trades in your workplace means new hazards will be present. Even if you are experienced in your position, the unfamiliarity of the work environment can make work more dangerous. Take the time up front to address work plans, concerns, hazards and mitigation actions to help to ensure the job goes smoothly. If conditions change where people are at risk for injury or property can be damaged, always use stop-work authority to get the situation corrected before proceeding.

PPE Required: Hardhat, safety boots, high visibility vest, safety glasses, gloves and hearing protection.

Hazards associated: Including but limited to: Moving objects, Slips, trips, and falls, Noise, Hand Arm Vibration Syndrome, Material and manual handling, Falling materials, Electricity, Burns, Exposure to lead, wood dust, asbestos, paints, solvents, airborne fibers and other toxic materials.

Procedure:

1. Get the site orientation from the General Contractor before entering the site so you are familiar with the site rules and with the site safety plan.
2. Always wear all your PPE.
3. Once you are done with your orientation and are shown the location on site you will be working at, look around and analyze who is working in the area where you are working. Take special note if there are trades working with steel studs, welding equipment and concrete grinding equipment. Also of note are plumbers soldering copper pipes.
4. Fill out a JHA taking into consideration the observation you just made about other trades. Also go through the hazards associated with your work (ladders, dust, sharp stud walls to scan around etc.). Stop your work and update your JHA if new trades enter the work area or if any other factor is changing on site, for example if you need to work in a different area of the building.
5. Communicate with the other workers around you, let them know what you will be doing and where you will be working.
6. Make sure no one is working above you, falling tools or hot sparks from welding can pose a life-threatening danger.
7. Set up a safety zone if you are unsure other trades will see you. Remember you might be working on your knees down low, and others might not see you.
8. Try, if possible, to work with your back against a wall so you can observe the space in front of you. Avoid turning your back towards other trades.
9. Be courteous towards other trades, if you are working with coring gear offer them hearing protection as you will be generating noise.

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10. If there is mobile equipment working in your vicinity make sure you are making eye contact with the equipment operator when crossing their path. If you are working on your knees in an area with mobile equipment going by, stop the operator and talk with them, explaining what you do and where you will be working. Use cones and danger tape, if possible, to create a barrier between yourself and the mobile equipment
11. Keep your work area neat and tidy, pack away tools and clean up after yourself to minimize risk to you and others.
12. Speak up to a supervisor if the subcontractor's employees are not following site-specific safety rules or procedures.
13. Always stop work whenever a hazard is created that could injure anyone in that work area.

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3.18 Working with Lead Paint-Critical Task

Lead can be found in a variety of consumer and industrial products; it is a highly toxic material. Lead paint has a yellowish/greenish color & elasticity with no odor. Main routes of exposure are if inhaled, skin contact, eye contact or ingested which can be very harmful to the worker`s health and safety. This safe work procedure provides information and minimum requirements to help workers protect themselves from exposure to lead in the workplace.

PPE Required: Hardhat, safety glasses, safety boots, high vis vest, gloves, full face mask respirator with P100 HEPA Cartridges (if needed, extra protection or engineering control is not available)

Equipment Required: Lead testing kit.

Hazards associated: Lead exposure if inhaled, comes in contact with skin/eyes or ingested

Procedure:

1. Document any potential hazards on the Job Hazard Analysis Form
2. Inspect the site for any lead containing materials that might be disturbed before the work begins. Ask a site representative if there is any documentation on hazardous material present on site and/or in the building. If not and if lead paint is suspected, use a test kit to verify the presence of lead paint.
3. If lead paint is detected, stop work and fill out “Refusal of Unsafe Work” Form.
4. Management to be informed of Refusal of Unsafe Work Form has been filled out
5. Notify dispatch to send “Refusal of Work-Lead Letter” to client
6. When a client has completed removal of lead/abatement, technicians can carry on with work if conditions are now deemed to be safe.
7. If technicians still do not feel safe to perform tasks, management should then be informed

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3.19 Working around Carbon Monoxide

Carbon monoxide is a colorless, odorless, and highly poisonous gas. It is produced by the incomplete burning of fuels such as engines powered gas, propane or diesel release carbon monoxide. Breathing in Carbon Monoxide gas interferes with your body`s ability to use oxygen, it ends up depriving the body tissues of the oxygen that it needs for survival.Main route of exposure is through inhalation. Workers shall not exceed 75 ppm for any period if 30 minutes and 125 ppm at any time. This safe work procedure provides information and minimum requirements to help workers protect themselves from exposure to carbon monoxide in the workplace

PPE Required: Hardhat, safety glasses, safety boots, high vis vest, gloves, supplied air respiratory protection

Equipment Required: Direct-reading instrument to test the air, equipment for scope of work

Hazards associated: Carbon Monoxide if inhaled is very toxic

Procedure:

1. Inspect the worksite and use direct reading instrument to test the air to see levels of carbon monoxide
2. Document any potential hazards on the Job Hazard Analysis Form
3. Inspect and maintain tools and equipment in accordance with manufacturer's instructions. Some rental equipment will have a warning label that states that the equipment can emit carbon monoxide and not to run in an enclosed area.
4. Use tools and equipment outside, if possible, for example generators. Run the leads or the pump into the building. If unable to use outside and has to be used inside avoid idling, racing the engine or braking erratically
5. Make sure the work area is well ventilated, such as keeping doors/windows open, using fans or if needed using an exhaust hose to draw the engine exhaust out of the work area
6. If needed, ensure an exposure control plan is in place and developed prior to the work commencing if carbon monoxide is known.
7. Ensure a supplied air respirator is used if carbon monoxide readings are up to 875 ppm (parts per million), if ventilation is unable to be used

****Do not work alone in places where carbon monoxide accumulates****

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3.20 Working Over or Near Water

PPE Required: Safety boots, hardhat, eye protection, hearing protection, gloves (mandatory), fall protection (if applicable), personal floatation device

Hazards associated: Drowning, hypothermia, falling, tripping, slippery surfaces

Procedure:

1. Arrive at site and meet site contact.
2. Undergo any site safety orientations and use appropriate PPE for the areas you will be working in. Obtain a personal floatation device
3. Perform a visual inspection of area noting on JHA potential overhead and other hazards
4. Ensure there is a spotter present to monitor
5. Ensure that an emergency preparedness plan or emergency procedures are in place in case of an emergency
6. Perform the work, but be aware of surroundings. When you are working near water it is important to stay aware of your surroundings. Paying attention to the water level, weather conditions and the presence of other people and objects

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3.21 Working in Lightning

PPE Required: Safety boots, hardhat, eye protection, hearing protection, gloves (mandatory), fall protection (if applicable), personal floatation device

Hazards associated: damage to equipment, electrocution, burns, fire, unconsciousness

Procedure:

1. Monitor weather conditions prior to work day
2. Arrive at site and meet site contact.
3. Undergo any site safety orientations and use appropriate PPE for the areas you will be working in.
4. Perform a visual inspection of area noting on JHA hazards and weather conditions
5. If lightning was to occur use the 30-30 Rule. Count the seconds between seeing the lightning flash and hearing the thunder clap. Each second represents about 300 meters
6. If lightning is close by put down your tools/equipment and seek shelter and contact dispatch or supervisor to inform safety. Seek shelter, preferably in a building, vehicle or low lying area
7. If outside, with no time to reach a safe shelter (building or vehicle) do not stand underneath a natural lighting rod (trees, towers, power lines, telephone poles). Avoid all unsafe shelters, wire fences, metal pipes. Get away from open water
8. Get into “Lightning Safety Crouch”. Crouch down on the balls of your feet with your feet close together. Keep your hands on your knees and lower your head. Make yourself the smallest target possible and minimize your contact with the ground
9. Wait 30 minutes before leaving shelter to ensure lightning as stopped or moved away
10. If injured, please report to supervisor/manager and fill out an Health & Safety Incident Report Form

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3.22 Operating Scissor Lift

PPE Required: Safety boots, hardhat, eye protection, hearing protection, gloves (mandatory), fall protection (if applicable)

Hazards associated: Falling objects, falling, equipment tips over, exceeding load restrictions, contact with electrical wires, unstable footing/uneven surface, falling of platform

Procedure:

1. Arrive at site and meet site contact.
2. Undergo any site safety orientations and use appropriate PPE for the areas you will be working in.
3. Check for obstacles around the work platform and in the path of travel such as holes, drop offs, debris, ditches and soft fill
4. Check for overhead clearances
5. Mark or barricade all hazards in the work area prior to operating the scissor lift
6. Cordon off the area in which you will be working in
7. Complete a Scissor Lift Inspection via Device Magic inspecting condition of all safety devices
8. Put on required personal protective equipment
9. Pull out the emergency stop button on the control panel, select the platform with off/platform/base select key switch
10. Enter the platform
11. Pull out the emergency stop button on the platform control panel
12. Proceed with the job using the required buttons, levers and controller located on the operator console
13. Ensure that all wheels are properly positioned and balanced on a solid base
14. Use outriggers if provided
15. Fully lower the platform
16. Push the emergency stop buttons-Operator Console & Base Control
17. Turn the base key switch to the off position
18. Clear all tools, debris, materials from the platform and put into work vehicle and vacate work area

****Only trained personnel should operate the scissor lift****

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3.23 Concrete Coring in a Scissor Lift

PPE Required: Safety boots, hardhat, eye protection, hearing protection, gloves (mandatory), if necessary, half mask and P100 filters if silica dust will be created, fall protection equipment (if applicable)

Hazards associated: Strains from lifting equipment or cores, electrical shock, silica dust exposure, noise during hammer drilling, pinch points

Procedure:

1. Arrive at site and meet site contact.
2. Undergo any site safety orientations and use appropriate PPE for the areas you will be working in.
    a. Working at heights, ensure proper fall protection system and gear is in place if applicable
    b. Removing insulation, ensure you have appropriate eye wear, respirator and coveralls
    c. For coring work, you should **always** be wearing safety glasses, gloves, hearing protection as well as a respirator when dry drilling or coring.
    d. Inform other trades working in your area that you will be drilling and they should be wearing hearing protection if they are in the area.
    e. If you are hammer drilling or dry coring information trades in the area of this and that they will be exposed to silica dust and should wear a respirator or leave the area during the drilling/coring.
3. Mark or barricade all hazards in the work area prior to operating the scissor lift
4. Complete a scissor lift inspection, fall protection equipment (if applicable) I via Device Magic
5. Inspect equipment and ensure it is in proper working order.
    a. Any concerns tag out and inform a supervisor.
6. Ensure location has been completely scanned and the client has confirmed the location of the core. Refer to the "**Coring Approval**" file in the job folder and check the "**Black Boundary Checklist**" has been signed and completed before coring and locations with black scan boundaries.
    a. During the core location selection, take every effort to avoid as many targets as possible. Review any application scan locations and work orders.
    b. The client is to select the exact location of the core. Make sure they are aware of the limitations and keep the core location a 'safe' distance (at the scanning technicians' discretion) from any conduits or targets which needs to be avoided.
    c. Spot the location from the underside of the slab, so you know where the core will come out below.
    d. If core catching is required see 'Core Catching Safe Work Procedures' document.
7. Set up power leads for the coring machine; always try to obtain power from a 20A socket. For use with the petrol generator see "Generator Safe Work Procedures"
    a. Ensure power cables do not create a tripping hazard and ALWAYS ensure they aren't laying in any water.
    b. If necessary, run two cables in order to power both the vacuum and drill

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simultaneously. Use sockets on separate circuits to avoid tripping breakers.

8. Begin by drilling the anchor in place, careful to stay within the scanning boundaries.
    a. Wear a respirator mask with HEPA filter whilst drilling the anchor
    b. Inform others around you of the drilling and have them leave the area for at least 10 minutes to allow the dust to settle, be ventilated or vacuumed.
    c. Set anchor and tightly fix coring rig in place.
9. When beginning coring make sure the water is on before cutting to keep heat down and stop airborne dust from forming.
    a. Control the water flow, make sure water is not leaking or dripping down existing holes into other areas, if necessary, run the vacuum at the same time.
    b. Keep in constant communication with the core catcher or spotter with progress (See Core Catching Safe Work Practices.)
    c. Keep any loose items of clothing, hair and fingers away from the coring bit and all pinch points whilst the drill is running.
10. Once finished coring ensure to vacuum up all slurry and leave the area clean and tidy.
    a. When finished coring avoid touching the core or core bit as it will be hot.
    b. Cover any holes greater than 4” with a piece of wood with a circle and X over it. Indicating floor opening below.
11. When coring through a wall, always reduce the weight of the rig whilst setting up.
    a. Remove core bit from the drill and remove drill from the stand.
    b. Tightly attach stand on to wall before sliding drill on and finally screwing coring bit on.
12. If above shoulder height always have a helper to raise the rig and drill and mount on to the wall.
13. Take extra care with power cables and water when coring through a wall as water will flow down the wall.
14. Fully lower the platform
15. Safely pack up equipment, break down equipment in reverse order for wall cores. Do not attempt to carry too much at once to avoid injury.
16. Securely strap equipment in vehicle before driving.

****Only trained personnel should operate the scissor lift****

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Section 4 - Safe Work Practices

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4.0 Safe Work Practices

Purpose

Safe Work Practices are tools used to control hazards and do jobs with a minimum of risk to people and property. Xradar is committed to the development and implementation of Safe Work Practices.

Policy

Xradar are committed to the development of Safe Work Practices that either meet or exceed legislation for all critical tasks undertaken by our organization. Xradar is dedicated to performing and developing Job Hazard Analysis for jobs that have the potential to cause harm to any Xradar employee. Job Hazard Analysis will be performed in cooperation with Xradar employees, the management, and the safety coordinator. We have developed a list of critical tasks for Safe Work Practices, Safe Job Procedures, and Job Hazard Analysis.

The list of critical tasks will be reviewed annually, modified, and updated. The development of these practices and procedures will also follow suit accordingly.

Responsibilities

All employees at Xradar will be responsible for participating in the development of these practices and procedures.

Safe Work Practices will be approved by the management prior to implementation and on an annual basis thereafter to ensure they are up to date.

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4.1 Fall Protection

Protecting workers from injuries associated by not utilizing proper fall arrest protection. Fall arrest protection shall be utilized where there is or may be a danger to workers falling.

No person shall use fall protection devices until they have received adequate training.

Do:

1. Be fully conversant with fall protection systems.
2. Ensure fall protection equipment is inspected prior to use and documented
3. Ensure you know the capabilities of fall protection equipment.
4. Ensure barricades, ribbons and signs identify restricted areas.
5. Ensure you understand the procedures for rescue of workers who may not be able to rescue themselves from an elevated work platform.
6. Ensure you know your anchor points.
7. Continually check your harness and D ring to ensure that your harness is not too loose, and the D ring has not slipped down your back
8. Ensure fall protection equipment is stored appropriately

Don't:

1. Wrap lanyards and/or ropes around beams, girders, pipes etc.
2. Use damaged fall protection gear (ripped, tears etc.).
3. Store fall protection equipment near direct heat, sunlight and corrosive materials
4. Work around unprotected openings

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4.2 Confined Space Entry

Protecting workers from injuries associated with working in confined spaces. Primary function is something other than human occupancy: and – has restricted entry and exit; and may contain potential or known hazards.

Do:

1. Ensure there is reasonable means to exit from all parts of the confined space
2. Ensure ventilation and purging is established and allows acceptable air levels to be achieved and maintained.
3. Establish a method of communication to allow immediate contact with necessary personnel if rescue or assistance is required. Confirm the system is working.
4. Be familiar with site rescue procedures
5. Ensure there is a confined space permit and that it is being followed
6. Vent the confined space and provide continuous ventilation
7. Trained personnel to enter confined space

Don't:

1. Enter without a confined space permit
2. Enter unless you have been trained in H2S Alive or equivalent (if required).
3. Enter the confined space until it has been tested for hydrogen sulphide.
4. Enter unless there is a system to continuously monitoring the confined space atmosphere
5. Eat, drink or smoke in the confined space
6. Use/operate any electrical equipment while in the confined space

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4.3 Defective Tools

Defective tools can cause serious and painful injuries. If a tool is defective in some way, DON'T USE IT.

Don't Use Equipment When:

1. Electrical cords with exposed wires or cuts in the sheath.
2. Split or cracked handles.
3. Chipped or broken drill bits.
4. Wrenches with worn-out jaws.
5. Worn out GPR skid plates.
6. Broken or inoperative guards.
7. Insufficient or improper grounding due to damage on double insulated tools.
8. No ground wire (on plug) or cords of standard tools.
9. The on/off switch is not in good working order.
10. The tool blade or bit is cracked.

Do:

1. Check equipment before each use
2. At the end of each day thoroughly clean the equipment and inspect
3. Immediately tag out and report any damaged equipment

To ensure safe use of hand tools, remember:

1. Never use a defective tool.
2. Double check all tools prior to use.
3. Ensure defective tools are repaired.

Tag-Out Defective Tools

When there is a defect found with a tool or a piece of equipment that item shall be removed from service, tagged as defective, the Tag Out Procedure shall be followed as in Section 3.3

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4.4 Mobile Equipment - Mounting and Dismounting

Getting on and off vehicles and equipment safely is often taken for granted unfortunately a variety of injuries including broken ribs, ankles and wrists have occurred through improper mounting and dismounting.

Do:

1. Clean boots of mud before climbing onto a machine or vehicle.
2. Use handrails and steps.
3. Always face the machine or vehicle when getting on or off.
4. Maintain 3 points of contact at all times. (2 hands and 1 foot, or 2 feet and 1 hand).
5. Be extra cautious under wet or icy conditions.
6. Remember only designated persons are authorized to operate or ride on equipment.

Don't:

1. Jump from the machine or vehicle
2. Get on or off the machine or vehicle while it is motion

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4.5 Mobile Equipment - Moving

Many injuries occur when mobile equipment is in use. Some of these include collisions with other vehicles, collision with bystanders, falling off equipment, and improper use of equipment. A large percentage of construction site accidents and injuries involve mobile equipment and trucks. Many accidents occur while machines are being backed up. Operators must be continually aware of people and traffic movements, and obstacles around them.

Do:

1. Check mirrors every 5 seconds or less
2. Advise bystanders in the area of your intentions
3. Ensure beeper mechanisms are functioning
4. Keep eye contact with those around you
5. Determine your path prior to driving
6. Check recent inspection reports and complete an inspection report for all unowned mobile equipment (boom lift, scissor lift, forklift etc.).
7. Circle your machine before mounting, particularly when in residential and commercial areas.
8. Always look back on both sides of the vehicle before backing up. Use backup cameras if applicable.
9. Where ground workers are involved, ensure all are clear of the machine and accounted for before moving.
10. Use a signal person to guide when:
    a. Backing up in high traffic areas, or in an area where vision is limited.
    b. You need assistance in judging distance between the machine and obstacles.
11. Try to keep the operator in your line of sight. If you can see them, they can see you. Make eye contact.
12. Stay clear of equipment when it is motion.
13. Stand clear of equipment being loaded or unloaded from trailers.

Don’t:

1. Jump from the machine or vehicle or get off while it is in motion.
2. Drive unless you are fully trained and qualified.
3. Drive on uneven ground.
4. Never walk directly behind moving equipment. The operator may not be able to see you as they prepare to back up.

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4.6.1 Extension Ladders

Ladders can be used safely if they are given the respect they deserve. Before using any ladder make sure that it is in good condition and is the right ladder for the job.

Do:

1. When setting up a ladder, secure the base and walk the ladder up into place.
2. Set the ladder (extension) up at the proper angle of 1:4 (1 ft horizontal for every 4 ft vertical).
3. Make sure the ladder is secured against movement at the top and bottom.
4. Ensure when in position the ladder (extension) protrudes 1 m (about 3 rungs) above the intended landing point.
5. Always face the ladder when using it. Grip it firmly and use the three points of contact method when moving up or down.
6. Check the minimum overlap of sections on an extension ladder (1 m) unless the manufacturer specifies the overlap differently.
7. Keep metal ladders away from electrical sources.

Don't:

1. Never work from the top two rungs of a ladder.
2. Overreach while on a ladder. It is easier and safer to climb down and move the ladder over a few feet to a new position.

Note: Any Xradar employee reserves the right to refuse ladder work they deem unsafe, if a practice or safe protocol cannot be put in place to remove the hazard (i.e., fall protection, or the use of an aerial lift).

Please refer to Xradar's Ladder Safe Work Procedure Xradar reserve the right to refuse unsafe ladder work.

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4.6.2 Step Ladders

As with all ladders, make sure that the step ladder is in good condition and is right for the job.

Do:

1. Use on clean and even surfaces.
2. Use when in the open position and the incline of the front step is positioned at 1:6 (1 foot horizontal for every 6 feet vertical).
3. Use when in the fully opened position with the spread bars locked.
4. Only CSA Standard ladders will be used.

Don't:

1. Use on even or messy surfaces with obstructions.
2. Use the ladder if the spread bars are not engaged.
3. Work from the top two steps of a step ladder (counting the top platform as a step).
4. Overreach while on a ladder. It is easier and safer to climb down and move the ladder over a few feet to a new position.
5. Use the tops of step ladders as a support for scaffolds.

Note: Any Xradar employee reserves the right to refuse ladder work that they deem unsafe, if a practice or safe protocol can't be put in place to remove the hazard (i.e., fall protection, or the use of an aerial lift).

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4.6.3 Scaffolding

It is important to protect workers from injuries associated with erecting and working with scaffolding. All scaffolding shall be erected, maintained and dismantled by a competent worker in accordance with manufacturer's specifications and legislation.

Do:

1. Ensure appropriate access to scaffolding
2. Inspect scaffold prior to use
3. Use a ladder to climb onto the scaffolding.
4. Ensure scaffold is on flat, level ground and the brakes are engaged when using the scaffold
5. Ensure the scaffold does not exceed height requirement and if it does, ensure guard rails are installed.
6. Ensure appropriate fall protection equipment is utilized for scaffolding exceeding 2m in height.
7. Report any damages noticed on the scaffold.

Don't:

1. Use a damaged scaffold
2. Use when on uneven ground
3. Overload the scaffold with equipment or materials
4. Use a ladder on top of scaffolding
5. Stand on guardrails

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4.7 Concrete Scanning

Inspect the area to be surveyed and gather as much information about the slab to be investigated. Complete a JHA (when necessary) before starting the survey. Look on both sides of the slab/wall whenever possible. Interact with other trades in the area to make sure that it is safe for you to be there.

Do:

1. Ensure you are properly orientated for the job site.
2. Ensure you are using appropriate PPE for the job at hand,
3. Confirm purpose of survey.
4. Confirm type of reporting required (paint, markers, tape, written etc.).
5. Review work areas with the customer.
6. Ensure a clean flat work area, remove physical obstructions and any water or dirt that may affect the quality of the scan or damage the equipment.
7. Inspect data collection unit, antenna and cables prior to use.
8. Connect cables to the power source prior to powering up.
9. Use knee pads to reduce strain on knees while scanning.
10. Always point spray paint cans downwards when using to avoid risk of getting paint in the eyes, replace the paint cap after every use.
11. Always use safe and appropriate methods of gaining access to scan locations.
12. Use scissor lifts, boom lifts or scaffolds to reach high ceilings when scanning the underside, never overreach or overextend!
    a. Only use a ladder for low ceiling heights. Never stand on the top two steps of a ladder.
13. Strap monitor tightly to the top of the ladder or to fold down the paint tray using bungee cords in order to clearly see the screen from the top of the ladder.
14. Ensure the client is aware of limitations.
15. Check the quality of data before leaving.

Don’t:

1. Work on hands and knees for extended periods of time or without kneepads. Take breaks and stretch out as needed when collecting data in awkward positions.
2. Leave equipment unattended.
3. Scan through puddles, on wet slabs or slabs covered in mud or dirt.
4. Overreach or overextend, always ensure 3 points of contact.
5. Partial clear scanned areas. If you cannot scan the entire depth of the slab and you are not able to scan it from the other side, ensure you record this on the work order and cross out the partially scanned area with red paint to ensure markings are not miss-interpreted.

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4.8 Concrete Coring

Inspect the area to be cored and gather as much information about the slab to be cored before starting. Look on both sides of the slab/wall whenever possible. Interact with other trades in the area to make sure that it is safe for you to be there and they are aware of what you will be doing.

Do:

1. Confirm the size and location of the hole(s) to be cored.
2. Determine whether scanning has been completed.
3. Wear appropriate PPE, especially hearing protection as coring is very loud.
    a. Always wear tight fitting clothing including safety gloves
4. Ensure proper dust control measures are in place or use water to mitigate the silica dust. Silica dust can have severe long-term consequences. It is important to ensure you use a vacuum with a HEPA filter when vacuuming dry concrete dust.
5. Inform the client of any limitations prior to coring.
6. Inspect equipment prior to use.
7. Use proper lifting techniques when lifting the coring equipment, use a hoist or a helper if available.
8. Connect cables to the power source prior to powering up. Ensure electrical cords and plugs stay dry. Ensure you consider slurry and coring water when positioning your electrical cords.
9. Set up a control zone or have a spotter keep people out of the area during the coring
10. Clean up slurry and any mess made.
11. Break out larger cores before letting them drop to prevent damage to the floor below. Do this for cores 5” or greater in diameter and 8” slab thickness or more.

Don’t:

1. Work on hands and knees for extended periods of time without knee pads.
    a. Take breaks and stretch out as needed when collecting data in awkward positions.
2. Cut through reinforcement, conduits or other targets unless explicitly told to by the client.
3. Core until the area below the slab or wall is cleared of all people and property and a control zone is set up or a core catcher is present.
4. Leave a mess, vacuum up any slurry; ensure cores are stored in the appropriate place, clear control zone after coring.
5. Wear jewelry like chains and necklaces, long hair must be tied back and underneath a hardhat or other head covering. Rotating equipment is very powerful and getting caught on moving parts can lead to serious injury or death.

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4.9 Core Catching

Inspect the area to be cored and gather as much information about the slab to be cored before starting. Look on both sides of the slab/wall whenever possible. Interact with other trades in the area to make sure that it is safe for you to be there and they are aware of what you will be doing. Ensure the core you are catching has been located from below either using a transpointer or via measuring off a fixed known object.

Do:

1. Use the safest means of accessing the ceiling from below.
2. Ensure if you are using a ladder, it is on solid, even ground.
3. Look around the area in which the cores will be dropping and cover any items or objects with poly prior to the core dropping.
    a. Take special care with electronic and electrical equipment which can be sensitive to water, and slurry spray. Prevent excess water from reaching these items by covering with poly.
4. Use buckets that are in good condition and don't have any cracks.
5. Ensure you know the 2" warning signal from the coring technician above.
6. Ensure you empty the bucket after each core drop.

Don't:

1. Reach or lean over on the ladder, the momentum of the falling core might result in the ladder tipping.
2. Stand on the top two rungs of a ladder.
3. Waste energy by holding up the empty bucket during the entire core, when you hear the 2" signal, ensure you are in place.
4. Be a hero, if something feels wrong most likely it is, know your rights and call your supervisor!

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4.10 Core Dropping

Inspect the area to be cored and gather as much information about the slab to be cored before starting. Look on both sides of the slab/wall whenever possible. Interact with other trades in the area to make sure that it is safe for you to be there and they are aware of what you will be doing. Ensure the core you are dropping has been located from below either using a drill spotter or via measuring off.

Do:

1. Set up a safety or control zone with red danger tape and clear signs stating overhead coring with company name, date of coring and phone number.
2. Allow 10ft/3m of taped off area around the center of your core location to minimize the risk of concrete fragments and slurry from hitting other workers.
3. When coring on a busy site or one with vehicle traffic ensure there is a person spotting next to your safety zone. Ensure the spotter has enough time to clear out workers within the area of the core.
4. Take down the safety zone as soon as the core has dropped to prevent “safety zone fatigue”. The longer a safety zone is set up with no imminent danger the higher likelihood that the people in the area will ignore your safety zone.
5. Communicate with the site safety officer about your core locations and safety zones.

Don’t:

1. Leave a mess; clean up after you are done. Remove safety zone, poly, slurry and any concrete or cores that may have dropped. Ask the client before leaving any debris on site.
2. Reach or lean over on the ladder, the momentum of the falling core might result in the ladder tipping.

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4.11 Manual Lifting and Carrying

Xradar endeavors to protect workers from injuries associated with material lifting and carrying. Most lifting accidents are due to improper lifting methods. All manual lifting should be planned, and safe lifting procedures followed.

Do:

1. Ensure you know your physical limitations and the weight of the material or equipment to be carried
2. Use of power equipment or lifting devices should be employed when possible
3. Obtain assistance if necessary
4. Ensure a good grip
5. Employ appropriate lifting techniques
6. Conductive materials should not be carried on the shoulder near exposed live electrical equipment
7. Be aware of hazardous or unsafe conditions

Don't:

1. Carry conductive materials on the shoulder near exposed live electrical equipment
2. Carry loads which are awkward or too heavy
3. Twist while lifting or carrying

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4.12 Power and Hand Tools

Xradar endeavor to protect workers from injuries associated with the use of power and hand tools. Power and hand tools are to be used and maintained in compliance with manufacturer's guidelines.

Do:

1. Ensure electrical tools have 3 wire (grounding) cord and plug (excluding double insulated tools).
2. Ensure proper functioning of on and off switches and the operator has direct access to them.
3. Use only accessories which are designed for the use with tools specified.
4. Clean tools after use and store properly
5. Tag out if repairs are needed.
6. Follow the manufacturer's instruction manual.

Don't:

1. Use tools with cracked or splintered handles.
2. Use broken or damaged equipment.
3. Repair tools unless you are qualified to do so.

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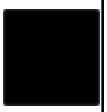
4.13 Use of Fire Extinguishers

Good housekeeping is essential in the prevention of fires. Fires can start anywhere and at any time; therefore, it is important to know which fire extinguisher to use and how to use it. Always keep fire extinguishers visible and easy to access. Fire extinguishers must be properly maintained to do the job correctly. Where temperature is a factor, ensure that care is taken in selecting the right extinguisher.

Types of Fires:

Class / Symbol	Materials	Recommended Extinguisher	Fighting the fire
A 	Wood, paper, rags, rubbish and other ordinary combustible materials	Water from a hose, pump type water or pressurized extinguisher and soda acid extinguishers.	Soak the fire completely – even the smoking embers
B 	Flammable liquids, oil and grease	ABC units, dry chemical, foam and carbon dioxide extinguishers	Start at the base of the fire and use a swinging motion from the left to the right, always keeping the fire in front of you.
C 	Electrical equipment	Carbon Dioxide and dry chemical (ABC units) extinguishers	Use short bursts on the fire. When electrical current is shut off on a Class C fire, it can become a Class A fire if the materials around the electric fire are ignited
D 	Combustible materials such as sodium, magnesium and potassium	Dry Powder	Follow the manufacturer's instructions

Do:

1. Purge chemical from the extinguisher hose after use, by holding the extinguisher upside down and squeezing control level. This will prevent clogs in the hose.
2. Inspect all extinguishers at annual intervals. They should be tagged with the date of inspection and/or refill.
3. Promptly refilled after use
4. Projected on a fire from the windward side and directed at its base or outer edge of fire with a sweeping motion.
5. Recharged and maintained as per manufacturer's specifications

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Don’t:

1. Interchange fire extinguisher caps.
2. Use water or water extinguishers on electrical fires
3. Place a straight stream of water on hot oil or steam lines or other normally hot surfaces

For further information, see the appropriate current Occupation Health and Safety Regulations

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4.14 Generators

Do:

1. Place the generator in a well-ventilated area outside when in use.
2. Keep any flame or spark generating objects far away from the generator.
3. Always use the nozzle on the fuel can when refueling and ensure the nozzle is fully in the fuel tank before pouring.
4. Take extra care not to spill any fuel, especially over the generator itself.
5. Use hearing protection around the generator.
6. Ensure it has fully cooled prior to refueling.

Don't:

1. Use any flame or spark generating item within the vicinity of the generator.
2. Refuel the generator while it is running or while it is hot.

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4.15 Office Administration and Office

Do:

1. Be aware of your posture (shoulders back, chest forward)
2. Follow proper ergonomics at your desk
   a) Proper keyboard length so the wrist is in a neutral position
   b) Screens positioned in the appropriate eye level
   c) Chair level and locked for falling backwards
   d) Feet rested flat on the ground to take pressure of your lower back
3. Take micro breaks to avoid strains
4. Stretches are key for keeping loose and relaxed
5. Reduce strain on your eyes by looking away from the screen in 20-minute intervals for 15 seconds
6. Maintain a clean work area including sanitizing after working in common areas.
7. Do not come to the office if feeling unfit for work or ill. See section “Fit for Duty” in the Rules of Conduct

Don’t:

1. Sit at desk for extended periods
2. Constantly look at your screen

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Section 5 - Rules of Conduct

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5.0 Rules of Conduct -Safety

Violation of the following rules is subject to disciplinary action and could result in immediate dismissal:

1. **Employees are responsible for:**
    a. Reporting defective equipment or personal protective equipment. Avoid using tagged out equipment and equipment or tools for any purpose other than that intended. Returning all equipment and tools to the shop at the end of every shift.
    b. Reporting accidents, injuries, or near misses, regardless of their nature/severity and properly documenting them. Employees also must provide accurate testimony during investigations.
    c. Reporting any driving infraction or ticketed offence.
    d. Reporting any vehicle, property or equipment concerns to your manager.
    e. Ensure all vehicles and workspaces are free of debris and garbage at the end of the shift.
    f. Carry out all work in accordance with company safe work practices, safe job procedures and your manager's direction and report unsafe working conditions.
    g. Only smoke or vape in designated areas (not company vehicles).
    h. Wearing any applicable Personal Protective Equipment (including Specialized) when required.

2. **Employees are in gross violation of company rules if they are found:**
    a. Removing or defacing any notice or other information posted in the workplace.
    b. Sleeping while on duty.
    c. Stealing or intentionally damaging company or other property.
    d. Using company vehicles or equipment for personal use without permission.
    e. Driving without a valid license.
    f. Loaning company equipment or tools to other trades or people unrelated to the company.
    g. Horse playing, fighting or in possession of weapons.
    h. Consuming alcohol, illegal or legal drugs that slow down response time, in or while operating company vehicles, equipment or while on job sites.
    i. Repairing or altering equipment without proper qualifications or permission.
    j. Partaking in gossip (whether malicious or not), regarding individual employee pay or other employee compensations.

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All employees have been provided with a copy of these rules. All employees are expected to read this policy in full and any confusion or lack of understanding must be brought up with the Office Manager or the Operations Manager immediately.
All employees must adhere to this Policy and understand that if they violate the rules/procedures outlined in this Policy, they may face disciplinary action, up to and including termination of employment.

5.1 Employee Disciplinary Notice

All employees have been provided with a copy of these rules. All employees are expected to read this policy in full and any confusion or lack of understanding must be brought up with the Office Manager or the Operations Manager immediately.
All employees must adhere to this Policy and understand that if they violate the rules/procedures outlined in this Policy, they may face disciplinary action, up to and including termination of employment.

5.2 Fit for Duty- Impairment in the Workplace Policy

Impairment in the Workplace Definition

Xradar promotes a safe and healthy workplace that supports employee well-being. Impairment in the workplace can affect workplace health, safety and operations and can come from many different sources, including but not limited to:

1. Prescription drugs
2. Medications and over the counter drugs
3. Alcohol
4. Cannabis
5. Medical conditions
6. Illicit drugs
7. Fatigue
8. Personal, mental or physical health concerns causing inability to concentrate or perform work tasks

“Fit for duty” is defined as a physical, mental and emotional state which enables employees to perform their job tasks competently and continuously in a manner which does not compromise the integrity of Xradar or create a safety hazard to themselves or others.

Policy

All Xradar employees must be fit for duty at all times during work.

In accordance with the Rules of Conduct, employees cannot be impaired and must be fit for duty when they commence work and anytime during their work including returning from breaks.

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Impairing substances or conditions affect individuals differently. Employees must be aware of how substances or conditions affect them specifically, including being aware of how long the effects of an impairing substance or condition may last for them, so they are not impaired while working. This includes ensuring that substances used during off work hours do not have any impairing effects while at work.

Supervisor Responsibilities

If you are a supervisor you are expected to:

i. Be knowledgeable and comply with Occupational Health and Safety Regulation (sections 4.19- 4.20)
ii. Understand 'Fit for Duty' as it applies to your workplace and recognize signs of impairment
iii. Ensure employees are aware of and understand the Fit for Duty policy
iv. Have timely conversations with employees if they show signs of impairment and/or substance use dependency
v. Take action when an employee reports impairment or you observe signs of impairment
vi. Be familiar with the resources and support available to assist you

Employee Responsibilities

Promoting workplace health and safety is a shared responsibility.

To ensure everyone's safety, all XRadar employees must:

1. Read, understand and comply with the Fit for Duty Policy as it applies to your workplace and recognize signs of impairment.
2. Report if you may be impaired or not Fit for Duty to your supervisor.
3. Report if you observe an employee who may not be fit for duty.
4. Be familiar with the resources and support available to assist you and if you have any questions about workplace impairment, talk to your supervisor or Human Resources.

5.3 Fatigue Management

Policy

The Fatigue Management Policy shall provide required and adequate guidelines to ensure knowledge of potential hazards which may be experienced due to excessive fatigue by employees. The Fatigue Management Procedure will be reviewed at a minimum of every three years as outlined in the Health, Safety and Environment review schedule.

This Policy shall supplement, but not supersede any regulatory Provincial / Federal legislation within the operational areas of responsibility of Xradar.

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Employees Responsibilities:

- Inform ITL of any personal fatigue related conditions which may affect reasonable work conditions from being completed.
- Attempt, where reasonably practicable, to ensure adequate periods of rest are received during normal working conditions.
- Be responsive, through adequate training, to minimize the risk of exposure to potential work environments which may be prone to fatigue related stressors.
- Immediately inform the supervisor of any violations or infractions of this code, which has or could result in an incident or injury to the worker, employees, contractors, or general public within the area.

Supervisor Responsibilities:

- Monitor through appropriate record keeping and systems, that workers are ensuring adequate periods of rest are received during normal working conditions.
- Ensure that an adequate and appropriate period of rest commensurate to the work being done is provided during the work process to ensure employees do not become excessively fatigued.
- Immediately correct any violations or infractions of this code which have been brought to the attention of the supervisor, which has or could result in an incident or injury to the worker, employees, contractors, or general public within the area.
- Provide in accordance with Xradar programs any corrective action or discipline required to ensure compliance with this code and document action appropriately.

Note: No worker, Supervisor, Manager, or any employee of Xradar should operate a motor vehicle or Heavy Equipment while excessively fatigued.

5.4 Right to Refuse Unsafe Work

Xradar will ensure all matters pertaining to the refusal of unsafe work are handled fairly and professionally in accordance with British Columbia OHS Regulation 3.12 and 3.13 and the Workers Compensation Act.

General

No employee will carry out (or cause to be carried out) and work they have reasonable cause to believe would create an undue hazard to the health and safety of themselves or anyone else at the work site.

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An employee who refuses unsafe work will not be subject to any form of discriminatory action including but not limited to:

1. Suspension, lay-off or dismissal
2. Demotion or loss of opportunity for promotion
3. Unreasonable transfer of duties, reduction in wages of change in hours
4. Coercion or intimidation
5. Imposition of any discipline, reprimand or other penalty
6. The discontinuation or elimination of the job of the worker

Process

1. An employee who refuses to carry out a work process or operate a tool, appliance or equipment will immediately report the circumstances of the unsafe condition to their supervisor or designate.
2. A supervisor or designate receiving a report under (1) will immediately investigate the matter and:
    b. Ensure that any unsafe condition is remedied without delay and is discussed at the next safety meeting, or
    c. If in their opinion the report is not valid, will inform the employee who made the report

3. If the matter is not resolved and the worker continues to refuse to carry out the work process or operate the toll, appliance or equipment, a trained Xradar health and safety representative will be notified and investigate the matter in the presence of the worker.

Training

All Employees will receive documented training of this procedure as part of the new employee orientation (8.3). Records of the new employee orientation will be kept and filed at Xradar offices in each employee's personnel file.

5.5 Drug and Alcohol Policy

General

Xradar are committed to maintaining a safe environment for all personnel as well as members of the public. Consumption or possession of alcohol, drugs that slow down response time or illegal drugs in or while operating company vehicles or equipment or on any job site is strictly forbidden. A person must not remain at a workplace if the person's behavior is affected by alcohol, a drug or other substance and is an undue risk to workers. Disciplinary actions as outlined in Section 5.2 will be carried out.

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Responsibilities of Management

1. A worker must not be assigned to activities where a reported or observed impairment may create an undue risk to the worker or anyone else.
2. The employer must not knowingly permit a person to remain at any workplace while the person's ability to work is affected by alcohol, a drug or other substance which could endanger the person or anyone else.

Responsibilities of Employees

1. A worker with a physical or mental impairment which may affect the worker's ability to safely perform assigned work must inform his or her supervisor or employer of the impairment, and must not knowingly do work where the impairment may create an undue risk to the worker or anyone else.
2. A person must not enter or remain at any workplace while the person's ability to work is affected by alcohol, a drug or other substance to endanger the person or anyone else.
3. If an employee suspects another worker, client or person on a jobsite to be under the influence of drugs, alcohol or any other form of mental impairment is to be reported to a supervisor right away.

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5.6 Workplace Bullying and Harassment Policy

Purpose

Every worker is entitled to work free of harassment. The management of Xradar is committed to ensuring a safe and healthy workplace that is free from harassment for all. Zero tolerance for discrimination, bullying and harassment will ensure that our workplace is a respectful and safe place for all, free from harassment. This policy includes all situations related to employment with Xradar including both employees and clients, during work and after working hours. It is everyone's responsibility to help prevent bullying and harassment in the workplace.

It is important to note that this policy is not intended to discourage or prevent the complainant from exercising any other legal right pursuant to any other law.

Policy

The management of Xradar shall ensure, so far as is reasonably practicable, that no worker is subject to harassment in the workplace. As such, we will take corrective action respecting any person under the employer's direction who subjects a worker to harassment.

Bullying and Harassment

1. Bullying and Harassment is defined as:

Any inappropriate conduct or comment by a person towards a worker that the person knew or reasonably ought to have known would cause that worker to be humiliated or intimidated.

This can include conduct, comments, displays, actions or gestures by a person that is made on the basis of race, creed, religion, color, sex, sexual orientation, gender determined characteristics, marital status, family status, source of income, political belief, political association, political activity, disability, physical size or weight, age, nationality, ancestry or place of origin.

2. Actions that could be construed as harassment include, but are not limited to:
    a. Verbal or written abuse or threats
    b. Insulting, derogatory comments, jokes or gestures
    c. Personal ridicule or malicious gossip
    d. Malicious or uncalled for interference with another's work
    e. Refusal to work or co-operate with others
    f. Interfering with or vandalizing property
3. Actions that are **NOT** considered harassment include:
    a. Reasonable day-to-day actions by a manager or supervisor that help manage, guide or direct workers

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b. Appropriate employee performance reviews or counselling
c. Appropriate disciplinary actions by supervisors and managers

Complaint Process

1. If you feel that you are being harassed at your work place the first thing to do is try and deal with the person directly. This can be done directly or indirectly depending on your level of comfort in confronting the individual.
2. If you feel unable to deal directly with the individual, or if you feel that this will not, or has not rectified the situation, you should speak to your direct supervisor.
3. If the situation has still not been dealt with appropriately or in a timely manner, the next step is to raise the issue with management. In such situations where management is involved, a third impartial party shall observe the meetings/ discussions at all times. It is important that all such discussions remain strictly confidential to protect the rights of those involved. It is management's responsibility to then address the issue in a time frame acceptable to the complainant.
4. If after all these measures have been unsuccessful in addressing the harassment, the last step is to file a written complaint (see below) with WCB Alberta. An independent third party will then investigate the complaint and produce a written report to management.

It is important to note that the management, supervisory staff, and any other person's privy to the complaint will not disclose the names of the complainants, alleged harassers, nor the circumstances related to the complaint, to any person except where disclosure is necessary to investigate the complaint or take corrective action with respect to the complaint or where required by law.

Disciplinary Action

1. Employees who bully or harass other employees will be subject to disciplinary action by the employer suitable to the nature of the harassment. All disciplinary action shall be documented and conducted in accordance with the Xradar "Rules of Conduct" disciplinary policy. A record of the incident will be recorded in the harasser's employee file.
2. Anyone who retaliates in any way against a person, who has complained about workplace harassment or given evidence in a harassment investigation, will be considered to have committed harassment and thus subject to disciplinary action.

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Roles and Responsibilities

Directors – It's the employer's responsibility to help prevent harassment in the workplace.

1. Developing and following a written policy and action plan to prevent or stop harassment in the workplace.
2. Taking corrective action to address any issues in the workplace, whether a complaint is made or not.
3. Making sure all workers know and follow the harassment prevention policy at all times.
4. Ensuring that the names of a complainant, alleged harasser, and circumstances of the complaint remain confidential, except where disclosure of information is necessary to investigate the complaint, take corrective action, or required by law.

Supervisors - It is the responsibility of supervisors to help prevent harassment in the workplace

1. Taking corrective action to address any issues in the workplace, whether a complaint is made or not.
2. Actively promoting a work environment that is free of harassment.
3. Ensuring that the names of a complainant, alleged harasser, and circumstances of the complaint remain confidential, except where disclosure of information is necessary to investigate the complaint, take corrective action, or required by law.

Employees - It is the responsibility of employees to help prevent harassment in the workplace

1. Acting in a reasonable manner in the workplace
2. Treating each other with respect
3. Reporting to their supervisor or manager if they feel that they have been harassed or if they see it happening to other workers.
4. Co-operating if there is an investigation into a harassment complaint.

Harassment Complaint Form

To report workplace harassment to WCB Alberta, go to:

https://www.alberta.ca/workplace-harassment-violence

For More information on this policy, please refer to Bamboo.

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5.7 Workplace Violence Policy and Procedure

Definition of Violence:

1. “Violence” means the attempted, threatened, or actual conduct of a person that causes or is likely to cause injury and includes any threatening statement or behavior that gives a worker reasonable cause to believe that the worker is at risk of injury.
2. The definition refers to the conduct of all people who come into contact with employees while performing their work duties. This includes fellow employees and any member of the public, and includes threats delivered by phone and e-mail, as well as those made in person. In the definition, “injury” refers to physical injury or mental trauma suffered as a result of violence.

Company Commitment:

1. Xradar recognizes that the potential exists for violent acts or threats of violence against its employees. Supervisors and management will make every effort to identify potential sources of violence and have implemented procedures to eliminate or minimize risk. Xradar acknowledges its responsibility to support and assist employees subjected to such violence.
2. All employees will be made aware of the potential hazards of violence and the appropriate action to protect themselves. In addition, management is responsible for training employees who are at higher risk of encountering hostile, angry, or potentially violent individuals on how to deal with the situations if they occur.

Employee Commitment:

1. All employees will take responsible steps to minimize risk for themselves and others. All employees will follow established procedures to minimize the risk of violence and will report incidents to their supervisor as soon as possible, as outlined in this policy.

Job Functions and Potential Risk

1. **Field Staff**
   a. There is potential for verbal threats and physical violence from irate customers that can occur at the office or remote worksites. Staff may be especially vulnerable at remote worksites as they are usually alone. These positions therefore carry a higher risk of violence.
2. **Administrative Staff**
   a. There is some potential for threats and physical violence from irate customers. Employees in these positions include persons who deal directly with the public and

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could potentially be exposed to violent situations, although they likely face a lower overall risk of physical violence.
   b. There is a greater risk of verbal violence or abuse for office staff from irate customers.
3. **Management**
   a. There is potential for threats or violence from irate clients as management may be required to assist in “mediating” an escalated situation.

Procedures to Inform/Train Staff

1. All staff shall be informed of the following:
   a. Procedures on how to minimize the risk of violence;
   b. Procedures on how to react appropriately to violent situations that may occur;
   c. Specifics on how to report incidents of violence;
   d. Details on how the follow-up investigation of a reported incident; and
   e. Details on the type of post-incident trauma assistance that is available to the victim.

Additional training for staff at greater risk:

1. Xradar management will be responsible for training staff in higher-risk positions and administrative support staff, including new employees or existing staff who are transferred to these positions, on how to deal with the situation. This will be conducted as part of the job-orientation process and will include:
2. Notifying them on the risk of violence related to their positions;
3. Specific company policy and procedures on how to minimize the risk of violence;
4. Procedures to diffuse hostility before it escalates into violence; and
5. Procedures to deal with threats or actual incidents of violence, including reporting
6. Xradar management will ensure that new employees entering these positions receive a copy of Xradar’s violence prevention procedures immediately. Staff beginning work in a higher risk position will be adequately supervised until the required violence prevention policy and procedure training is given.
7. Xradar management will ensure that no employee is missed, and that affected staff is updated on changes to the policy and procedures.

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Actions to Minimize Risk

1. Several preventative measures are in place on construction sites to minimize risks, including security equipment, controlled access to entrances. All staff working independently will be provided with mobile phones. Administrative controls include working alone provisions, money handling controls, and training. Xradar is looking for better ways to improve the security and the personal safety of all employees. Each employee must comply with existing security provisions to ensure the personal safety of all employees.

General Security Provisions and Principals

1. **Threats of Violence:**
    a. Threats of violence in person or on the phone are not acceptable.
2. **Telephone Security Procedures:**
    a. If an employee receives a threatening phone call, use the “Call Trace” feature once the call has ended.
3. **Incident of Violence:**
    a. Employees should take all reasonable steps to protect their personal safety and remove themselves from the situation.
    b. In the office, help should be summoned by calling for the appropriate supervisor in charge.
    c. If a supervisor is not available the dispatcher should call a manager immediately.
    d. If a physical assault occurs, the supervisor/manager must contact police (911). In the event a supervisor is not present an employee shall contact the police.
    e. If an incident occurs outside the workplace, the employee shall follow the specific company working alone plan.
4. **Notification of Employees at Risk:**
    a. When violence occurs, the following steps shall be taken.
    b. Management will advise staff who are at risk of violence and will review current security procedures to minimize risk.

Procedures to Report Violent Incidents

1. Report all incidents of threats and attempted or actual violence to your supervisor.

Recommendation to Seek Medical Aid

1. Any employee who has been a victim of physical assault or violence will be;
    a. Encouraged to seek medical attention;
2. Given the opportunity to be examined by their physician;
    a. Provided with transportation if needed.

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Investigating Violent Incidents

1. Xradar management will review all incidents that are reasonably expected to escalate into violence. The current procedures in place will be reviewed and additional steps will be taken to prevent the escalation to violence.
2. Management will investigate all reported incidents of violence. The existing procedures will be reviewed and revised as necessary to prevent a reoccurrence.

Review of the Violence Prevention Policy:

1. The policy statement must be reviewed and, where necessary, revised every three (3) years or whenever there is a change of circumstances that may affect health or safety of the employees.
2. The Health and Safety Lead will co-ordinate a review and regular subsequent reviews of the violence prevention policy. Recommendations will be presented to the Xradar management for review and action. In addition to the guidelines outlined in the review policy, any employee may at any time bring forward recommendations to the Xradar Head Management.

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5.8 Return to Work

Policy

Xradar will make all reasonable attempts to provide employees, who have been injured as a result of work, with alternate, modified and/or light duty work as a means of ensuring they are given a fair opportunity to return to work in a safe, meaningful and timely manner.

Procedure

Employees injured as a result of work-related injury/disease are required to report their injury as soon as practicable in accordance with established company policy / procedure.

Injured persons are required to stay in regular contact with the employer, make themselves available for return to work and participate in all reasonable return to work plans offered by the employer.

Return to Work Plans

Xradar will assist in the design, communication and implementation of each return-to-work plan in consultation with the:

- Injured person
- Site Supervisor
- Relevant Medical Practitioners
- WCB Alberta

The plan described above will be documented and signed by the site supervisor, the injured person and the employer representative prior to the injured person commencing any work at the job site.

Responsibilities

Injured persons will not perform any duties that are restricted, beyond their limitations and/or cause excessive pain to their affected area of injury

Anytime an injured worker experiences difficulty performing a task, duty or function of the job they will immediately notify their supervisor or designate.

Injured persons will not receive any form of reprimand for refusing work based on their medical condition; anytime a discrepancy between the injured person and their site supervisor, a company director will be consulted immediately.

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Training

As part of the new employee orientations, employees will receive documented training of the following:

- Return to Work Policy and Procedure (see Section 8.3)

Return to Work Form

Please refer to Appendix B for the Return to Work form.

5.9 Distracted Driving Policy

XRadar is committed to ensuring the health and safety of our employees when they drive or ride in a vehicle used for work. Applying this policy will help out management team, supervisors and employees work together to avoid distracted driving. Our goal is to reduce the likelihood that any of us is involved in a distracted driving crash.

This policy will apply to all Xradar employees when they are driving a vehicle owned, leased by Xradar,

As part of our responsibilities to ensure the health and safety of our employees. Xradar will support all our employees to implement this policy and reduce road safety risks.

Supervisors should have a copy of this policy or be able to reference this policy if employees have any questions and make sure that this policy is being adhered to

Employees will:

- Comply with the Motor Vehicle Act for use of electronic devices while driving
- Not operate an electronic device while driving (phone, laptop, smart-watch etc)
- Program any navigation, music system or other electronic devices before getting underway
- Find a safe place to pull over to make any calls or texts

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Section 6 - Personal Protective Equipment

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6.0 Personal Protective Equipment Policy

Purpose

The purpose of this policy is to minimize injuries to employees through the use of proper personal protective equipment.

Policy

XRadar employees will follow the policy to use approved personal protective equipment (PPE) ‘as required’. In other words, if a certain job requires the use of a certain type of PPE, then it must be used.

The following pieces of personal protective equipment will be provided by Xradar at no cost to the employee:

- Hardhat
- Eye protection
- Dust masks and respirators
- Hearing protection
- Gloves
- Safety vest
- Fall protection gear

All personal protective equipment provided by Xradar shall conform to occupational health and safety regulations and applicable standards reference to them.

The following pieces of personal protective equipment will be required to be provided by the employee at no cost to Xradar:

- Steel toed boots
- Work pants (carpenter style pants or rain pants)
- Long-sleeved shirts appropriate for work
- Kneepads

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It is each employee's responsibility to wear all personal protective equipment outlined by this policy, by our clients, by MSDS sheets, by equipment user manuals, and by AB regulations.

- CSA approved hardhats are required where there is danger overhead or in areas designated "Hardhat required."
- Footwear must be CSA approved for sole puncture protection and grade 1 toe protection (Green Triangle), as well as resistance to electrical shock (Whiter Rectangle with Orange Lettering).
- CSA Certified safety glasses with side shield must be worn where there is the potential for injury or irritation from flying debris.
- Ear protection must be worn when ambient noise exceeds 85 db.
- Breathing protection must be worn where there is the potential for injury or irritation.
- Cut-off pants or shorts are not allowed.

It is the responsibility of all Xradar personnel to wear the items of PPE as required as each job and task may dictate. It is the shared responsibility of the employee and supervisor to assure that the PPE to be used is in good condition, and if not to have it repaired or replaced.

Standard and job specific PPE adopted for general use should conform to occupational health and safety (OHS) regulations and applicable standards. However, Xradar reserves the right to sample new equipment that it believes is equivalent to the equipment currently available or in use, provided that it meets the equivalent standards in the country of origin and is in the process of being certified for use in Canada.

Furthermore, Xradar will consult with WCB Alberta concerning the selection of personal protective items.

Note: the safety information in this policy does not take precedence over WCB Alberta Regulations.

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6.1 Personal Protective Equipment Inspection Schedule

Item to be Maintained	Schedule of Completion					
	Notes	Visually Before Each Use	Daily	Weekly	Monthly	Yearly
Eye and Face Protection	Ensure that there are no cracks or deep scratches and no loose parts	X				
Gloves	Ensure that there are no holes or defects	X				
Steel Toe Boots	Ensure that boots are in good condition with no steel showing	X				
Head Protection	Ensure that there are no cracks or defects in the suspension system	X				X
Hearing Protection	Ensure that all hearing protection is clean	X				
Lanyards, Harnesses and Life-lines	Ensure that all parts are in good working condition	X			X	
Respiratory Protective Equipment	Ensure that the filters are correct and clean. Make sure there is a good seal around the face	X			X	

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6.2 Personal Protective Equipment (PPE) – Program

Designing a PPE Program

1. ENSURE engineering controls are considered first. PPE is the last line of defense.
2. SECURE active participation of all parties.
3. ENSURE a program coordinator has been appointed.
4. OBSERVE the gradual phasing in of the PPE program on a pre-arranged time schedule.
5. RE-EVALUATE program on an ongoing basis.

Promotional Strategy

1. PUBLICIZE commitment to the program.
2. ENSURE a clear, concise company policy has been formulated.
3. EXAMINE the education program.

Workplace Survey

1. REVIEW work practices, job procedures, equipment, and office/shop layout.
2. USE job hazard analysis techniques to integrate accepted safety and health principals into specific operations.

Selection

1. CHOOSE PPE to match the hazard
2. OBTAIN advice on proper selection
3. INSTITUTE workplace trials
4. CONSIDER the physical comfort of PPE
5. EVALUATE cost considerations of PPE usage
6. ENSURE PPE meets standard/certification (CSA, CGSB, NIOSH, ANSI)

Fitting and Wearing

1. ENSURE program includes the individual fitting of PPE
2. SURVEY users to ensure PPE is worn properly

Maintenance

1. INSPECT PPE before and after each use
2. TAKE care of PPE at all times
3. CLEAN all PPE after each use
4. REPAIR or REPLACE damaged or broken PPE
5. STORE PPE in clean dry air, free from exposure to sunlight or contaminants

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Training

1. ENSURE you have been trained in how to fit, wear, and maintain PPE
2. ENSURE training program includes information that explains when and what PPE should be worn and why it should be worn
3. VERIFY that all users, supervisors are trained

Support /Auditing the Program

1. ENSURE education programs are ongoing
2. REVIEW the program annually
3. REVIEW and compare production and safety performance records

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6.3 Hand Protection

Hand protection is designed to protect hands against a wide variety of hazards. The protection can be provided in several different ways: barrier creams, finger guards, cots and thimbles, hand pads, mitts and gloves.

1. CHOOSE hand protection that adequately protects from the hazard.
2. FOLLOW manufacturer's instructions for care and maintenance of gloves.
3. ENSURE gloves fit properly.
    a. ENSURE all exposed skin is covered by gloves. Gloves should be long enough so that there is no gap between the glove and sleeve.
4. DO NOT WEAR gloves with metal parts near electrical equipment.
5. DO NOT USE worn or torn gloves.
6. DO NOT WEAR gloves while working on moving equipment; they can become caught.
7. WASH off all chemical-protective gloves with water before removing them.
8. INSPECT and test gloves for defects before using them.
9. TEST all rubber or synthetic gloves for leaks by inflating them.

GUIDE TO THE SELECTION OF HAND PROTECTION		
Hazard	**Degree of Hazard**	**Protective Material**
Abrasion	Severe Less Severe	- Reinforced heavy rubber, staple-reinforced heavy leather - Rubber, plastic, leather, polyester, nylon, cotton
Sharp Edges	Severe Less Severe Mild w/ delicate work	- Metal Mesh, staple-reinforced heavy leather, Kevlar-steel - Leather, terry cloth (Aramid fiber) - Lightweight leather, polyester, nylon, cotton
Chemicals and Fluids	Refer to CCOHS guidelines for the selection of chemical protective clothing, the manufacturer MSDS	- Dependent on chemical job-rated rubber or synthetic of the following material - Natural rubber, neoprene, nitrite butyl rubber, Viton, polyvinyl chloride, polyvinyl alcohol
Cold		- Leather, insulated plastic or rubber, wool, cotton
Electricity		- Rubber insulated gloves tested to appropriate voltage with leather outer glove
Heat	Higher temps (+350C) Med High (up to 350C) Warm (up to 200C) Less warm (up to 100C)	- Asbestos neoprene-coated asbestos - Nomex, Kevlar, neoprene-coated asbestos, heat resistant leather with linings - Nomex, Kevlar, heat-resistant leather, terry cloth (Aramid fiber) - Chrome tanned leather, terry cloth

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Hazard	Degree of Hazard	Protective Material
General Duty		- Cotton, terry cloth, leather
Product Contamination		- Thin film plastic, lightweight leather, cotton, polyester, nylon
Radiation		- Lead-lined rubber, plastic or leather

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6.4 Care of Safety Belts, Harnesses and Lanyards

Equipment

1. INSPECT your equipment before each use and document it electronically via Device Magic- Harness Inspection Form
2. REPLACE defective equipment
3. REPLACE any equipment involved in a fall.
4. REFER any questionable defects to a trained supervisor.

Webbing (Body of belt, harness, or lanyard)

1. INSPECT the entire surface of webbing for damage. Beginning at one end, bend the webbing in an inverted “U”. Holding the body side of the belt towards you, grasp the belt with your hands six to eight inches apart.
2. WATCH for frayed edges, broken fibers, pulled stitches, cuts or chemical damage. Broken webbing strands generally appear as tufts on the webbing surface.
3. REPLACE according to manufacturer’s guidelines.

Buckle

1. INSPECT for loose, distorted or broken grommets. Do not cut or pinch additional holes in waist strap or strength members.
2. CHECK belt without grommets for torn or elongated holes which could cause the buckle tongue to slip.
3. INSPECT the buckle for distortions and sharp edges. The outer and center bars must be straight. Carefully check corners and attachment points of the center bar. They should overlap the buckle frame and move freely back and forth in their sockets. The roller should turn freely on the frame.
4. CHECK that rivets are tight and cannot be moved. The body side of the rivet base and outside rivet burr should be flat against the material.
5. INSPECT for pitted or cracked rivets which indicate chemical corrosion.

Rope

1. ROTATE the rope lanyard and inspect from end to end for fuzzy, worn, broken, or cut fibers. Weakened areas have noticeable changes in the original rope diameter.
2. REPLACE when rope diameter is not uniform throughout, following a short break-in period

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Hardware (Forged steel snaps, “D” rings)

1. INSPECT hardware for cracks or other defects. Replace the belt if the “D” ring is not at a 90-degree angle and does not move vertically independent of the body pad or “D” saddle.
2. INSPECT tool loops and belt sewing for broken or stretched loops.
3. CHECK bag rings and knife snaps to see that they are secure and working properly. Check tool loop rivets. Check for thread separation or rotting, both inside and outside the body pad belt.
4. INSPECT snaps for hook and eye distortions, cracks, corrosion, or pitted surfaces. The keeper (latch) should be seated into the snap nose without binding and should not be distorted or obstructed. The keeper spring should exert sufficient force to close the keeper firmly.

Safety Strap Inspection

1. INSPECT for cut fibers, or damaged stitches inch by inch by flexing the strap in an inverted “U”. Note cuts, frayed areas or corrosion damage.
2. CHECK friction buckle for slippage and sharp buckle edges.
3. REPLACE when tongue buckle holes are excessively worn or elongated.

Cleaning

1. Basic care prolongs the life of the unit and contributes to its performance.
2. DRY belt and other equipment away from heat, steam, and out of long periods of sunlight
3. STORE in a clean, dry area, free from fumes, sunlight, or corrosive materials.
4. For specialized materials consult the manufacturers recommendations

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6.5 Selection and Care of Headwear

Headwear consists of a shell and the suspension. These work together as a system and both need regular inspection and maintenance.

Selecting Headwear

1. CHOOSE the correct headwear for the job. Refer to CSA Standard Z94.1 “Industrial Protective Headwear”
    a. Type I – Hat (full Brim)
    b. Type II – Cap (with or without peak)
    c. Class A – General use, Limited voltage protection
    d. Class B – High voltage protection
    e. Class C – General use, metallic no voltage protection
2. INSPECT headwear before each use

Shell

The shell is rigid and light and is shaped to deflect falling objects. Correct maintenance is important.

Do:

1. INSPECT and replace a shell that shows signs of wear, scratches or gouges. Shells exposed to heat, sunlight and chemicals can become stiff or brittle. There can be a visible pattern of tiny cracks. Hats can be dull in color or have a chalky appearance.
2. REPLACE headwear when hairline cracks start to appear. These cracks will spread and widen.
3. REPLACE headwear that has been struck, even if no damage is visible.
4. REMOVE and destroy any headwear if its protective abilities are in doubt

Do Not:

1. DO NOT DRILL holes, alter, or modify the shell. Alterations may reduce the protection provided by the headwear.
2. DO NOT PAINT the plastic shell. Paint solvents can make plastic headwear brittle and more susceptible to cracks. Instead, use reflective marking tape to make numbers or symbols for identification purposes. Metal headwear may be painted.
3. DO NOT USE winter liners that contain metal or electrically conductive material.
4. DO NOT USE metal labels on Class B headwear.
5. DO NOT DRAW chin strap over brim or peak of Class B headwear.

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Suspension

The suspension system is as important as the shell. It holds the shell away from the head and acts as a shock absorber. It also holds the shell in place on the head and allows air to flow freely.

1. ADJUST headband size so that headwear will stay on when the wearer is bending over, but not so tight that it leaves a mark on the forehead.
2. ENSURE that the suspension is in good condition. The main purpose of the suspension is to absorb energy.
3. LOOK for cracked or torn adjustment slots, frayed material or other signs of wear.
4. CHECK suspension lugs carefully. Perspiration and hair oils can cause wear. Long periods of normal use can damage the suspension.
5. REPLACE suspension that has torn or broken treads.
6. DO NOT PUT anything inside headwear. There must be a clearance inside the headwear while it is being worn. In the event of a blow to the head, that space helps absorb the shock.

Maintenance and Inspection

The care and maintenance of headwear is needed if the headwear is to protect as designed. Its lifespan is affected by normal use and by heat, cold, chemicals, and ultraviolet rays.

1. CLEAN the suspension and shell regularly
2. USE a wet sponge or soft brush with mild dish detergent and thoroughly rinse with water to remove dirt and stains.

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6.6 Hearing Protection

Hearing protection reduces the amount of sound energy reaching the ears. Improper fit and low percentage of time worn greatly reduces the effectiveness of hearing protection.

Recommended to use hearing protection where workers will be exposed to noise that equals or exceeds 85 dBA.

Technician`s will have audiometric testing (hearing tests) completed on an annual basis

Select hearing protection that is:

- Correct for the job. Refer to CSA Standard Z94.2, “Hearing Protectors”
- Capable of adequately reducing sound frequencies. Check manufacturer’s literature.
- Comfortable enough to be accepted and worn during all exposure to noise.

Ear plugs are inserted to block the ear canal. They may be pre-molded (preformed) or moldable (such as glass down, foam plastic, waxed cotton)

Earmuffs are composed of sounds-attenuating material and soft ear cushions which fit around the ear and have hard outer cups. They are held together by a head band.

- DO NOT USE radio headsets as a substitute for hearing protectors.
- DO NOT MODIFY hearing protectors.

Care

1. REFER to manufacturer’s instructions.
2. CHECK hearing protection regularly for wear and tear.
3. REPLACE ear cushions or plugs that are no longer pliable.
4. REPLACE unit when head bands are so stretched that they do not keep ear cushions snug against the head.
5. DISASSEMBLE earmuffs to clean.
6. WASH hearing protectors with a mild liquid detergent in warm water, and then rinse in clear warm water.
7. ENSURE that sound-attenuating material inside cushions does not get wet.
8. USE a soft brush to remove skin oil and dirt which can harden ear cushions.
9. SQUEEZE excess moisture from the plugs or cushions and then place on a clean surface to air dry.

Fit

1. FOLLOW manufacturer’s instructions.
2. ENSURE hearing protector tightly seals within the ear canal or against the head.

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Comparison of Hearing Protection

Ear Plugs	Earmuffs
Advantages: - Small and easily carried - Convenient to use with other personal protective equipment (can be worn with earmuffs) - More comfortable in hot, humid work areas. - Convenient for use in confined work areas.	**Advantages:** - Less attenuation variability among users. - Designed so that one size fits most head sizes. - Easily seen at a distance to assist in the monitoring of their use. - Not easily misplaced or lost. - May be worn with minor ear infections.
Disadvantages: - Require more time to fit - More difficult to insert and remove - Require good hygiene practices - May irritate the ear canal - Easily misplaced - More difficult to see and monitor usage	**Disadvantages:** - Less portable and heavier - More inconvenient for use with other personal protective equipment - More uncomfortable in hot, humid work areas - More inconvenient for use in confined work areas

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6.7 Care/ Check of Respirators

Respirators to only be used by trained personnel who have been respirator fi tested

General

1. INSPECT before and after each use and during cleaning
2. REPLACE all parts that are cracked, torn, broken, missing or worn
3. FOLLOW manufacturer's instruction and CSA Standard Z94.4 for care and maintenance

Face Piece

1. ENSURE that there are no holes or tears
2. INSPECT for cracked, scratched or loose-fitting lenses. For full face piece, check for missing mounting clips
3. ENSURE that metal nose clip forms easily over the bridge of the nose on disposable respirators

Head strap/Harness

1. CHECK webbing for breaks
2. LOOK for deterioration of elasticity
3. TEST excessively worn head harness

Inhalation and Exhalation Valves

1. ENSURE valve and valve seat are free of detergent residue, dust particles, or dirt which may cause a poor seal or reduce efficiency
2. REPLACE missing or defective valve cover

Filter Element

1. ENSURE that filter and mask are certified for use together
2. CHECK filters to see that they are approved for the hazard
3. INSPECT both filter threads and face piece threads for wear
4. CHECK filter housing for cracks and dents
5. CHECK end of service life indicator for gas masks. Check expiration date

Repair Cleaning and Storage

1. DO NOT clean with solvents
2. FOLLOW manufacturer's instructions
3. WASH with a mild dish detergent or a combination of detergent and disinfectant. Use a brush and warm water (49-60 degrees)

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4. RINSE with clean water, or rinse once with a disinfectant and once with clean water. The clean water rinse removes excess detergent or disinfectant that can cause skin irritation or dermatitis
5. DRY on a rack, clean surface or hang from a clothesline. Position the respirator so that the face piece rubber will not “set” crookedly as it dries
6. STORE respirator at the end of each shift to protect it from dust, sunlight, heat, extreme cold, excessive moisture, and chemicals
7. CLEAN and disinfect shared respirators after each use
8. PERMIT only trained and qualified personnel to repair respirators
9. DO NOT MIX parts from different manufacturers
10. RECORD repairs and/or inspections
11. REMOVE dirt
12. CHECK for distortion caused by improper storage

Note: Please complete the Respiratory checklist on Device Magic prior to using your mask!

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6.8 Safety Footwear

Safety footwear is designed to protect feet against a wide variety of injuries. Impact, compression and puncture are the most common types of foot injury.

Selection of Safety Footwear

1. CHOOSE footwear according to the hazard. Refer to CSA Standard Z195 “Protective Footwear”.
2. SELECT CSA-certified footwear. Ensure that it has the proper rating for the hazard and the proper sole for the working condition.
3. WALK in new footwear to ensure it is comfortable.
4. LACE up boots fully. High-cut boots provide support against ankle injury.
5. USE a protective coating to make footwear water-resistant.
6. USE metatarsal protection (top of the foot between the toes and ankle) where there is a potential for injury.
7. INSPECT footwear regularly for damage.
8. REPAIR or replace worn or defective footwear.

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GRADE I (green)	GRADE II (Yellow)	GRADE III (Red)
Grade 1 will withstand 125 joules or 93ft lbs.: A 50lb weight dropped from a height of 22 inches	Grade II will withstand 90 joules or 65ft lbs.: A 50lb weight dropped at a height of 16 inches.	Grade III will withstand 60 joules or 45ft lbs.: A 50lb weight dropped at a height of 10.5 inches.

ELECTRIC SHOCK RESISTANT FOOTWEAR carries this CSA marking tag. Footwear must withstand (under dry conditions) a test potential of 18kV (18,000 volts), 60 Hz for a period of one minute, without discharge to ground of more than one mill ampere (1 mA).
Use where there is danger of high voltage.

Designates a puncture resistant sole able to withstand 135kg of pressure, (300ft lbs.) without being punctured by a 5cm nail.
Use where there is a danger of punctures.

GRADE I Applications	GRADE II Applications	GRADE III Applications
Freight companies Steel Mills Construction Mining Auto Industries Paper Mills Lumbering	Warehousing Machine Shops Auto Industries Aircraft Industries Paint Companies Home Appliance Co Fire Departments	Light Manufacturing Retail Stores Supervisors Office Staff Hospitals Service Stations Security Ambulance Staff

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6.9 Safety Glasses

How to Recognize Safety Glasses

1. Lenses: CSA-certified glasses have plastic or polycarbonate lenses. They are stronger than regular lenses, are impact-resistant and come in prescription and non-prescription (Plano) forms.
2. Lens Marking: The manufacturer's logo is marked (or etched) on all approved safety lenses
3. Frames: Safety frames are stronger than streetwear frames and often heat resistant. They are designed to prevent lenses from being pushed into the eyes.
4. Frame Imprint: All CSA-certified safety frames have the imprint "Z94-3" stamped on them and may have CSA logo imprinted on the temple.

Fit

1. ENSURE your safety glasses fit properly. Eye size, bridge size, and temple length all vary, so safety glasses need to be individually assigned and fitted.
2. WEAR safety glasses so that the temples fit comfortably over the ears. The frame should be as close to the face as possible and supported by the bridge of the nose.

Care

1. CLEAN your safety glasses before each use. Follow the manufacturer's instructions. Avoid rough handling which can scratch lenses. Scratches impair vision and can weaken glass lenses.
2. STORE your safety glasses in a clean, dry place where they cannot fall or be stepped on. Keep them in a case when they are not being worn.
3. REPLACE scratched, pitted, broken, bent or ill-fitting glasses. Damaged glasses interfere with vision and do not provide adequate protection.

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Comparison of Lens Materials

MATERIAL	ADVANTAGES	DISADVANTAGES
Glass	Scratch resistant Superior visual transmission Superior infra-red/ultraviolet filter Greatest number of special-purpose lenses available	Does not meet impact criteria as set by CSA Pits weaken impact resistance Heavier than polycarbonate or plastic
Polycarbonate	Strongest material for impact resistance Lightweight – 37% lighter than glass More flexible than glass; lenses easier to change High Visual transmission (91 percent)	Scratches easier than glass Limited choices in tints
Plastic	Stronger than glass More choice of tints than polycarbonate Lightweight – 40% lighter than glass Sheds metal splash and splatter the best	Scratches easier than polycarbonate Weaker on impact than polycarbonate

NOTE: Polycarbonate and plastic are the only two lenses which are CSA-certified

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6.10 High Visibility Safety Apparel

High-visibility safety apparel (HVSA) is clothing (e.g., vests, bibs or coveralls) that workers can wear to improve how well other people "see" them (their visibility). Most often, high-visibility clothing is worn to alert drivers and other vehicle operators of a worker's presence, especially in low light and dark conditions. Requirements for high-visibility safety clothing for Canadian workers are found in the CSA Standard Z96-09 "High-Visibility Safety Apparel" and in the related guideline "CSA Z96.1.

Size/Coverage:

1. Large, bright garments are more visible than small ones. Coverage all around the body (360° full body coverage) provides better visibility in all viewing directions.
2. Stripes of colors that contrast (have a distinct color difference) with the background material to provide good visibility. Stripes on the arms and legs can provide visual clues about the motion of the person wearing the garment.
3. When the background material is bright-colored or fluorescent material, it is intended to be highly visible, but is not intended to provide reflective performance.
4. Other requirements such as flame resistance, thermal performance, water resistance, durability, comfort, tear-away features, material breathability and flexibility that are applicable to the job.

Fit:

1. For safety and best performance, garments should be fitted to the person. Don't forget to consider the bulk of clothing that might be worn underneath the garments, and how the garment should be worn (i.e., done up properly around the body with no loose or dangling components). The garments should sit correctly on your body and stay in place during your work.
2. The apparel should be comfortable to wear - the parts of the apparel that come into direct contact with the worker should not be rough, have sharp edges, or projections that could cause excessive irritation or injuries. The apparel should also be lightweight.
3. Garments should be selected and worn so that no other clothing or equipment covers the high-visibility materials (e.g., glove gauntlets, equipment belts, and high-cut boots).

Brightness:

1. Daylight - Bright colors are more visible than dull colors under daylight conditions (e.g., fluorescent materials are suitable for daylight).
2. Low light conditions - fluorescent colors are more effective than bright colors under low light (e.g., dawn and dusk). Under these conditions, reflective materials are also suggested.

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3. Dark conditions/worksites - Greater reflectivity provides greater visibility under low light conditions. Reflective materials provide high-visibility conditions and are preferred over bright colors. Fluorescent materials are ineffective at night and less visible than white fabrics.

Design: To comply with the CSA Standard, the HVSA should meet the following criteria:

1. Stripes/bands are to be in a distinctive, standardized pattern:
    a. Symmetric "X" on the back extending from the shoulders to the waist,
    b. Two vertical stripes on the front passing over the shoulders and down to the waist;
    c. Waist-level horizontal stripe extending entirely around the back to the bottom of the vertical stripes on the front. This horizontal stripe may continue between the front vertical stripes (optional). For Class 3 apparel, stripes/bands encircling both arms and both legs are added.
    d. The stripes/bands are to be displayed in a way to ensure that some part of them is visible from all angles around the body (i.e., 360° visibility).
    e. For all classes, the total width of stripes/bands must be at least 50 mm (1.96") throughout. Stripes/bands near the bottom edge of a garment, sleeve or pant leg must be at least 50 mm (1.96") away from the edge.
    f. Stripes/bands may be made up entirely of combined-performance or reflective material.

Color:

The CSA Z96-09 High-Visibility Safety Apparel Standard specifies three colors for background materials and contrasting-color stripes to provide options that are intended to create visibility against most work environments. The stripes should be either reflective or combined performance.

1. **Background material:** should be fluorescent yellow-green, fluorescent orange-red or fluorescent red, or bright yellow-green, bright orange-red or bright red.
2. **Combined-performance reflective material** (i.e., the stripes): should be fluorescent yellow-green, fluorescent orange-red or fluorescent red - and must be in contrast (that is, have a distinct color difference) to the background material.

Care/Maintenance:

1. Keep your high-visibility apparel clean and well-maintained. Contaminated or dirty reflective materials provide lower visibility.
2. Replace garments that show signs of wear and tear, soiling, or contamination as it will no longer be able to provide acceptable levels of visibility.

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3. Purchasers of HVSA should get proof that the materials used, and the design of the garment meet the requirements of the CSA Z96-09 Standard.

More Information

http://www.ccohs.ca/oshanswers/prevention/ppe/high_visibility.html

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6.11 Personal Protective Equipment Checklist

1. Do you know what PPE is required by government regulations for the jobs you perform?
2. Do you know Xradar's written policy or practice governing the proper use of PPE?
3. Do you know the written standards/rules governing the use of PPE for specific jobs?
4. Are you aware of management's commitment to the PPE program?
5. Do you review the PPE rules and procedures regularly?
6. Do you help identify the need for PPE?
7. Do you review MSDSs and labels when working with chemicals to find out what PPE is required?
8. Is your PPE certified for its intended use by a standards authority (CSA, CGSB, NIOSH or ANSI)?
9. Have you been properly instructed in the need for and use of PPE?
10. Have you been involved in discussions about usage?
11. Do you select the proper PPE?
12. Is the appropriate PPE available to you?
13. Does your PPE fit properly?
14. Have you been instructed on how to test that PPE is being worn properly?
15. Have you been instructed on how to properly care for and maintain your PPE?
16. Do you have proper storage and cleaning facilities?
17. Do you maintain PPE regularly?
18. Does the PPE program record usage of PPE?
19. Does your workplace annually review usage in order to re-evaluate the need for selection and use of PPE?

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Section 7 - Preventative Maintenance

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7.0 Maintenance Program Policy

Purpose

The purpose of this policy is to ensure that all Xradar tools, equipment and vehicles are maintained in a condition that will reduce and eliminate the risk of injuries, damage, and lost production.

Policy

Xradar has developed a system of regular inspections and checks for all equipment, systems and tools. Qualified personnel on a regularly scheduled basis will conduct the inspections.

Objective

To ensure that all Xradar's equipment, systems and tools are safe and without risk, Xradar documents the following information for all maintenance and repair work that is conducted on any of Xradar's equipment, systems and tools:

1. The date of inspection/repair
2. Who did the inspection/repair?
3. What, if anything, required repair or replacement?

Responsibilities of Management

Management will provide the tools to implement an integrated equipment maintenance program and document any repairs/maintenance performed on our equipment. The management will:

1. Comply with Xradar's system of regular inspections to ensure all equipment and tools are in good working condition and safe to use.
2. Ensure that all required qualified personnel perform maintenance on tagged equipment in a timely manner.
3. The safety committee will help establish parameters for equipment and tool inspections and review any safety issue pertaining to tool/equipment maintenance.

Responsibilities of Employees

Employees are responsible to check all tools and equipment they are working with and tag any tools and/or equipment that pose a hazard due to a need for repair.

1. Ensure all equipment is inspected as per the Equipment Inspection and Maintenance Schedule.
2. Ensure all equipment that is set to be inspected; daily, weekly, monthly, quarterly, and annually is documented and submitted through device magic.

Note: The safety information in this policy does not take precedence over the AB Workplace Safety and Health Regulations.

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7.1 Equipment Inspection and Maintenance Schedule

Items to be Inspected and/or Maintained	Schedule of Completion					
	Visually Before Each Use	Daily	Weekly	Monthly	Quarterly	Yearly
Vehicles	X			X		
Coring Van Inventory	X			X		
Power and Hand Tools	X					
Ladders	X					
Power Cables	X			X		
Lighting Equipment	X					
Fire Protection Equipment	X			X		
GPR Equipment	X		Clean			
EM Locators	X		Clean			
Thermal Camera	X			Clean		
First Aid Kits						X
Fall Protection	X			X		
Respirator	X			X		

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7.2 Defective Tools (Tag Out)

General

Defective tools can cause serious and painful injuries. If a tool is defective in some way, DON'T USE IT, TAG IT OUT.

Be aware of problems like:

1. Power cords with nicks or cuts.
2. Split or cracked handles.
3. Chipped or broken drill bits.
4. Wrenches with worn out jaws.
5. Tools, which are not complete, such as files without handles.

To ensure safe use of hand tools, remember:

1. Never use a defective tool.
2. Double check all tools prior to use.
3. Ensure defective tools are tagged out, and then repaired.

Watch for problems like:

1. Broken, or inoperative guards.
2. Insufficient or improper grounding due to damage on double insulated tools.
3. No ground wire (on plug) or cords of standard tools.
4. The on/off switch is not in good working order.
5. The tool blade is cracked.
6. Cords with damage.

Technician`s will receive Lockout/Tagout training through Trainual every 3 years

For further information see the applicable current Occupational Health and Safety Regulations.

Please note a Digital form is to be completed for the Tag Out Procedure.

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Section 8 - Training and Communication

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8.0 Safety Training Policy

Purpose

The purpose of this policy is to ensure that all employees receive proper safety and job specific training throughout all levels of the organization.

Policy

In order to help maintain the safe wellbeing of our employees, Xradar requires all employees to be trained in the safe and proper operation of all tools and equipment, and in the safe handling of any hazardous materials required by the job.

This training includes, but is not limited to:

1. New hire safety orientation
2. Job specific training
3. Safety training for supervisors and management
4. Task and trade specific training and certification
5. Specialized safety and related training
6. Training on WHMIS, First Aid, Boom Lift, and Confined Space
7. Safety meetings to be held every month; to be attended by all Xradar personnel, all not in attendance will receive an email of the meeting minutes and relevant documents)

Documentation

Records of all employees training will be kept and maintained for as long as the employee works for Xradar. Employee training records will be stored in Bamboo HR Employee files and will be tracked through Bamboo HR and training matrix.

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8.1 New and Young Workers/ Short Service Workers

Definitions

New Worker means any worker who is:

1. New to the workplace.
2. Returning to a workplace where hazards in that workplace have changed during the worker's absence.
3. Affected by a change in the hazards of a workplace.
4. Relocated to a new workplace if the hazards in that workplace are different from the hazards in the worker's previous workplace.

Short Service Employee means a worker, as of the date the worker is to perform work required in the Position, who (i) is not Competent to perform such work in accordance with Contractor's SSW competency program or its equivalent; or (ii) in the case where Contractor does not have an established SSW competency program, has: 1 less than six (6) months experience in the Position; or 2 not performed work required in the Position for six (6) months or more; or 3 less than six (6) months working experience with the Contractor and must not work alone.

They will only work with a senior technician; they will ensure they follow safe work practices/ Procedures.

If short service workers are used, the client will be notified prior to commencement of work, and the worker will be identified with a different color hard hat (other than white).

Young Worker means any worker who is under 25 years of age.

Orientations
All new workers will receive Xradar's New Hire Safety Orientation (8.3) upon signing of the new worker's contract. This orientation will be performed by Health and Safety Lead.

New Hire Orientation Form is located on Device Magic, also employee will sign off on the H&S Orientation Agreement that is located in Bamboo HR

Additional Orientation

Xradar will provide a new or young worker with additional orientation and training if:

1. Workplace observation reveals that the young or new worker is not able to perform work tasks or work processes safely.
2. Requested by the new or young worker

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8.2 Equipment Training Certification

Refer to Appendix A for the Equipment Training Certification Form.

8.3 Safety Meeting Minutes Form

XRADAR has monthly Department Meetings that discuss health and safety, business and admin items

8.4 Joint Health and Safety Committee Policy

Overview
Xradar strives to provide a healthy workplace that supports its workers. Any employer with more than 20 employees is required by law to have a Joint Occupational Health and Safety Committee (JOHSC). This document constitutes the committee rules of procedure or “Terms of Reference”.

Terms
JOHSC refers to Joint Occupational Health and Safety Committee
JOHSC sub-committee shall refer to a sub-committee formed by the JOHSC with a direct reporting relationship

Purpose
The purpose of the JOHSC is to work together in a cooperative spirit to:

1. Promote safe work practices.
2. Assist in creating a safe and healthy workplace.
3. Recommend actions which will improve effectiveness of the occupational health and safety program.
4. Promote compliance with WCB Alberta OH&S Regulation.

Responsibilities
The employer is ultimately responsible for the overall safety program. The JOHSC is responsible for identifying and recommending solutions to problems or issues that arise. The individual employee is responsible for reporting any problems involving OHS to their manager. However, if the problem cannot be solved or is not rectified by a manager the employee should approach a committee member.

Constituency

Employer Representative #1	Director
Employer Representative #2	Manager
Worker Representative #1	Concrete Coring Department
Worker Representative #2	Concrete Scanning Department
Worker Representative #3	Office Department
Worker Representative #4	Optional Additional Member

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Specific Duties of the JOHSC

1. To participate in the development, implementation and monitoring of OHS programs, policies and procedures.
2. To maintain, post and circulate meeting minutes and produce an annual report of the committee's activities
3. Assist the company with any outstanding issues raised by employees and issues raised by other committee members.
4. Host regular monthly meetings.
5. Post the names and departments of each committee member.
6. Review statistics related to OHS and make recommendations to the employer.

JOHSC Sub-committee Duties

A JOHSC sub-committee shall be formed when any item brought up in the JOHSC meeting is deemed to take too long to discuss in the allotted meeting time, if more research is needed, or if the task requires extensive work which will not be able to take place during the meeting. For example, writing new safe work procedures, developing a fire evacuation plan etc. Composition and scheduling of the sub-committee can be determined during a JOHSC meeting.

Electing Members

Each department shall ask for a volunteer to join the JOHSC, if there are no volunteers then each department shall nominate an employee to join JOHSC and the department should decide via vote who will be the employee representative for their department. Departments at Xradar include; Office, Concrete Scanning, and Concrete Coring. There shall be no fewer than 4 members of the JOHSC. A minimum of 50% of the JOHSC members must be worker representatives. Worker representatives cannot exercise managerial duties.

The directors of the company shall nominate 1 manager and 1 director to become members of the JOHSC who shall represent the company.

Elections to the JOHSC shall be done within the last month of each calendar year, for holding office in the following calendar year.

Roles - General Members

Duties of Members

1. Attend all meetings or a minimum of 9 meetings per year.
2. Set an example to other employees by following and observing all safe practices and procedures listed in the OHS manual.
3. Report any unsafe or unhealthy conditions to their managers and further to the JOHSC as needed.
4. Promote safety awareness and stay up to date with any changes in legislation.
5. Make suggestions to the committee to improve health and safety in the workplace.
6. Acquire a working knowledge of the WCB and OHS regulations and standards and promote compliance with these regulations and standards within the company.

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7. Receive JOHSC concerns and bring these to the Committee to be reviewed.
8. Ensure workplaces are inspected for health and safety hazards.
9. Ensure accidents, incidents and diseases are investigated.
10. Investigate complaints or refusals to work due to real or perceived hazards.
11. Determine education needs for themselves and other members based on a list of recommended courses.
12. Assess the effectiveness of the committee and improve committee procedures.
13. Keep accurate records on all matters that come before the committee, including any training records.

Roles - Co-chairpersons
There shall be 2 co-chairpersons elected by the committee during the first committee meeting of the year. The co-chairpersons shall be comprised of 1 worker representative and 1 employer representative. The term of the chairperson shall be no longer than 12 months or 1 year. A minimum of 1 co-chairperson must attend all meetings.

Duties of the Co-chair

1. All items listed under the “Duties of Members” section are also the responsibility of the co- chairperson.
2. Attend all meetings or a minimum of 9 meetings per year.
3. A co-chair must draft all agendas and distribute them to the JOHSC members.
    a. Date, time and place of meeting must be listed.
    b. Include all items the committee is to review and discuss during the meeting.
    c. Ensure members have the opportunity to study the items prior to the meeting.
4. Arrange the meeting, including any catering requirements.
    a. Schedule a meeting with both dispatch and create a google calendar invite.
5. Draft meeting minutes during the meeting and create a report after the meeting.
    a. After the meeting minutes are drafted and completed, the co-chair must provide a copy of the report to both the committee members as well as directors and managers.
    b. Post the meeting minutes on the OHS board for all employees to review.
6. Distribute responses from the directors to the committee.
7. Approach directors with recommendations for approval.
8. Review previous meeting minutes.
9. Ensure meetings do not get sidetracked, aka control the meeting.

Alternate Members
Due to the relatively small size of the company, there will be no alternative members in the event a member cannot attend. It is the responsibility of the absent member to inform another employee or employer representative of any issues brought up by an employee and to ensure they follow up post meeting to ensure the issue is dealt with accordingly.

Terms of Office for Members
Each member shall serve on the JOHSC for a 12 month or 1-year period. If a member can no longer complete their duties or resigns from the company another election shall take place and

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a new member shall be elected. Members may be a part of the JOHSC for no more than 3 years in a row.

Quorum
A quorum of a minimum of 60% is required to conduct regular business. Members of the JOHSC shall make an effort to attend all meetings and shall not miss 2 or more meetings in a row.

Scheduling Meetings
Meetings shall be held on a month basis. Committee members are encouraged to attend all meetings; however, each member must attend a minimum of 9 meetings in the year.

Education Requirements
An annual education plan for each committee member will depend on each person's individual education needs as well as the committee's needs as a whole. Each member is entitled to 8 hours paid training in OHS related courses. Each new member is entitled to 16 hours paid training in OHS related courses.

JOHSC Evaluation
As per regulation, annual evaluations will be completed to determine the compliance and improvement of the committee. This can be completed by committee co-chairs or designate(s), the employer, or a person retained by the employer

Recommended Educational Courses

1. Joint Occupational Health and Safety Committee Duties and Functions
2. Workplace inspections
3. Incident and accident investigations
4. Hazard recognition and control
5. Risk assessment
6. OHS Programs
7. OHS Program review
8. OHS Responsibilities
9. Due Diligence
10. Writing Effective Recommendations

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Section 9 - Inspections

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9.0 Inspection Policy

Purpose

The purpose of this policy is to control losses of human and material resources by identifying and correcting unsafe acts and conditions.

Policy

It is Xradar's policy to maintain a comprehensive program of safety inspections in the shop and on all job sites. Office & Warehouse Inspections will be completed on a monthly basis. Formal job site audits shall be conducted by the manager or designate on a regularly on a monthly basis or more. Informal inspections shall be conducted by supervisors on an ongoing basis in their areas of responsibility.

In cases where an employee reports an unsafe condition, an inspection and action necessary to remedy the dangerous condition will be taken immediately. The equipment manager will regularly inspect machinery and equipment daily that is being returned from job sites. All "tagged" machinery/equipment will be examined and repaired before it is used again.

Responsibilities of Management

Management is responsible for the overall operation of the program.

Responsibilities of Supervisors/ Workers

Supervisors and workers are jointly responsible for conducting and participating in formal and informal inspections on job sites.

Responsibilities of Equipment manager

The equipment manager will be responsible for scheduling repairs on broken/damaged equipment in a timely manner.

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9.1 Boom Lift / Scissor Lift Pre-Operation Inspection Checklist

Boom Lifts and Scissor Lifts shall be **checked prior to operating** for any problems or possible defects that might affect the safe operation of the equipment. All defective conditions and corrective action must be recorded via Device Magic Form.

If a safety checklist is provided by the rental company, please fill it out and email a copy of the form to alberta@xradar.ca and the Health and Safety Rep.

Note: the vehicle should not be used if conditions prevent it from being operated safely.

9.2 Tag Out Form

To be completed via Device Magic Form “Equipment Tag Out Form”

9.3 Office & Warehouse Inspection Report

To be completed on a monthly basis via Device Magic Form “Office and Warehouse Inspection Report”

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Section 10 - Investigations

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10.0 Investigation Policy

Purpose

To investigate incidents so that causes can be determined, and corrective actions can be implemented to prevent recurrence.

Policy

At Xradar, the following types of incidents will be fully investigated:

a) Serious injury to a worker or worker`s death
b) An injury, illness or incident in which there was reason to believe the worker has been or will be admitted to a hospital beyond treatment in an emergency room or urgent care facility
c) An unplanned or uncontrolled explosion, fire or flood that causes a serious injury or illness or that has the potential of causing a serious injury or illness
d) The collapse or upset of a crane, derrick or hoist
e) The collapse or failure of any component of a building or structure necessary for the structural integrity of the building or structure

Health & Safety Lead and management will assess if the incident meets the following criteria and will be determined if an investigation is needed, if so Health & Safety Lead will initiate the investigation.

Refer to Section 10.2 & 10.3 for Incident Report Form Flowchart & Health and Safety Incident Investigation Process Flowchart

Responsibilities of Management

Management will be involved with the investigation process and shall review all investigation reports to determine who should receive a copy of the report, decide what corrective action will be taken, and ensure that each action is implemented in a timely manner

Responsibilities of Supervisors / Workers

All employees shall report all accidents/incidents to their immediate supervisor. Trained Supervisors will be involved in and/or actively conduct the Initial Investigation. Worker (s) involved in the incident along with a
A worker representative and supervisor/manager will be present during investigations and will sign off on investigations, if possible, a JHSC Committee representative.

Responsibilities of Health and Safety Lead

The Health & Safety Lead shall assist Supervisors in conducting initial investigations and submit their reports to the Safety Committee within 48 hrs. (preliminary investigation) from the time that the incident is reported. If the incident occurs on a weekend, the report must be completed the first day after the weekend.

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Copies of the preliminary investigation must be provided to JHSC and posted at the workplace for everyone to read. Interim corrective actions will be created from the preliminary investigation until full investigation is completed, action must be taken reasonably to prevent a recurrence. Copy is not needed to be supplied to WCB Alberta unless requested.

A full incident investigation must be completed within 30 days after the preliminary investigation has been completed. A full incident investigation will determine the cause/causes of the incident, underlying factors that made the unsafe condition, act, or procedures possible and identify health and safety deficiencies in your OHS Program or other management system. Full Investigation reports must be submitted to WCB Alberta within the 30 days. A full corrective action report and full investigation report will be provided to JHSC and posted for everyone to read.

Less complex incident investigations, full investigation may be able to be completed within 48 hours. If done so within 48 hours, the report still needs to be sent to WCB Alberta.

The Health and Safety Lead and Human Resources will be responsible for notifying management, employee`s family and WCB Alberta.

The Health and Safety lead will work with the worker's supervisor to determine the need for and, if necessary, direct a detailed investigation. They will also determine cause, recommend corrective action and report to the Division Manager of XRADAR AB.

10.1 Incident and Injury Report

First aid records will be kept for 3 years for all injuries and illnesses that are reported or treated

First aid records are confidential and restricted to individuals who need access for reasons related to the workplace safety and health program.

Individual names in records will be removed where required by law, policy or regulation

These records must be available for inspection by WCB Alberta upon request

Employees are entitled to copies of their own first aid record. An employee may request or authorize access to their first aid records to others

Note: Form will be completed digitally through Device Magic "H&S Injury and Near Miss". Instructions on how to complete the form can be found on the form for Property damage, Near Misses and Injuries. Incident Investigation form will be completed digitally also.

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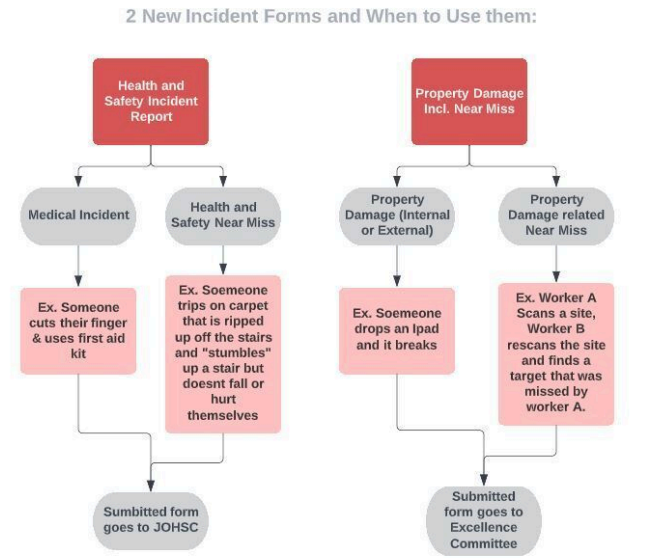
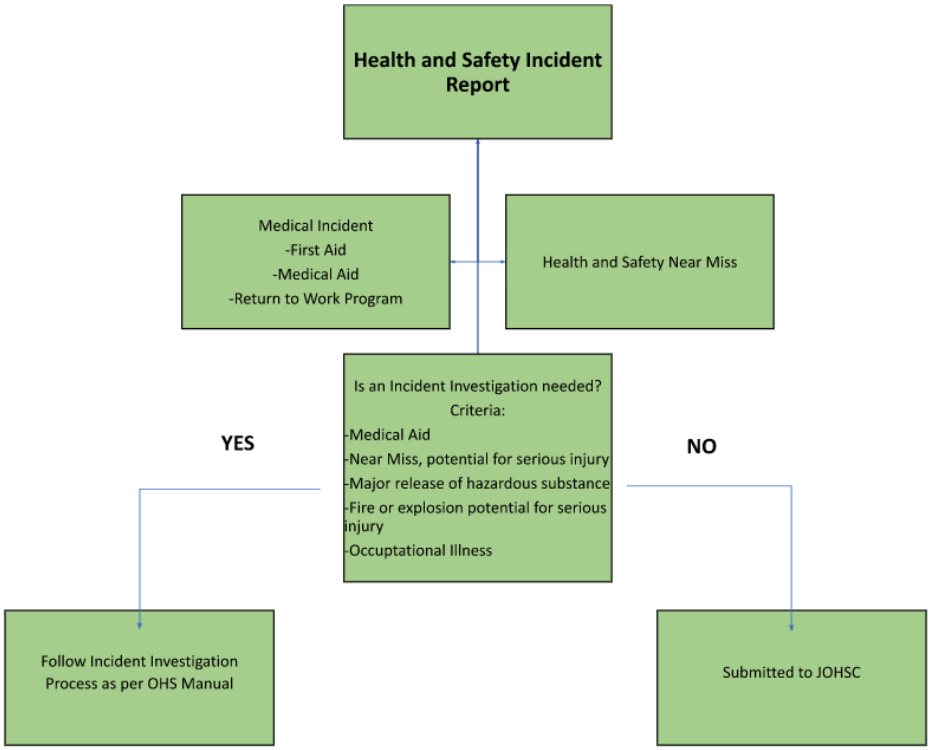
10.2 Incident Forms Flowchart



10.3 Health and Safety Incident Investigation Process Flowchart



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Section 11- Emergency Preparedness

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11.0 Emergency Planning Policy

Refer to Burnaby Office Emergency Procedures

Purpose

The purpose of this policy is to ensure that Xradar has implemented safe emergency planning procedures in case of an unplanned event.

Policy

Xradar has, as outlined in Occupational Health and Safety Regulation, AB Reg Part 1, a General Emergency Response Plan in place that:

1. Determines the conditions under which an evacuation would be necessary.
2. Establishes specific evacuation procedures.
3. Provides first aid to injured employees.
4. Provides transportation to a medical facility.
5. Summons outside agencies for assistance in any of the above matters.

Evacuation Conditions

Evacuation of a job site or Xradar offices will take place if conditions exist that present danger to Xradar personnel as well as any others on site. When operating as a subcontractor on another company's worksite, Xradar personnel will evacuate a site when given the order by the on-site contact or when a general evacuation order is given (for example: one long air horn blast on a construction site).

Evacuation Procedures

Evacuation of the job site will take place in an orderly fashion with workers' safety being the primary concern. All people on site will move off site to the nearest muster area upon receiving the order to evacuate the site. Entry back on to the site will only be permitted once supervisors and/ or authorities determine it is safe to do so.

Provide First aid to Injured Employees

All injuries, no matter how small, must be reported to the First Aid Attendant on site, if there is one. If no First Aid Attendant is on-site, all injuries must be reported to the immediate supervisor. Basic First Aid kits will be located in all XRADAR AB vehicles and workers will have Basic First Aid Training.

Provide Transportation to a Medical Facility

Any injured person that does not require specialized equipment to move or transport the person but is serious enough to require immediate medical attention will be taken to a hospital or

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medical facility in a Xradar vehicle. At any time, specialized equipment is required, an ambulance will be called to transport the injured or ill person to a medical facility.

Contact Outside Agencies for Assistance in an Emergency

Xradar will ensure that there is a means of communication to outside sources readily available on all our jobsites. To this end, Xradar will ensure that the following are posted on Xradar's Safety board in Xradar's office as well as in each first aid kit in every Xradar vehicle.

1. The general Emergency Response Plan.
2. A list of all Xradar employees who are qualified in First Aid.
3. A list of emergency telephone numbers.

Responsibilities of Management:

1. Management is responsible to ensure that fire extinguishers, first aid kits, and emergency response procedures are appropriate for their respective applications and are available to all employees on all of our job sites.
2. Maintaining an updated list of all qualified first aid employees and posting it on the Xradar Safety board in the office.
3. Documenting all illness/injury suffered by Xradar employees.

Responsibilities of Workers:

1. Tagging any fire extinguisher that is discharged or overcharged
2. In the case of an injury, report to a location where first aid is readily available; and
3. If first aid is not required, they should report their injury to their immediate supervisor.

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11.1 Emergency Response Plan

Hazard Identification Assessment – Identify and control imminent danger so nobody gets hurt.

Render First Aid - To be performed by qualified/trained personnel only.

Emergency Resources

Transport injured employee to medical facility. If an injury is severe, call for an ambulance.

1. Give clear and accurate directions.
2. Have someone at the project entrance guide the ambulance and/or EMS personnel.

Communication Systems

1. Call for help, call emergency services if deemed necessary
2. Notify senior management. They will contact:
   - Immediate family
   - Call police if necessary
   - Call fire department if necessary
   - Call utilities if necessary
   - WCB Alberta if necessary

Administration of the Plan/Emergency Response Procedure

1. Restrict immediate area of the accident scene to authorized personnel only.
2. Clear area if danger exists.
3. Do not disturb the accident scene except to preserve life.
4. Begin conducting formal investigation.
5. Send a management representative to determine the victim's condition and progress.

Investigation

1. Do not let any person leave the site until they are interviewed as to the knowledge of the situation that led to the accident. Testimony will be added to the incident report form
2. Obtain signed statements from witnesses
3. When accident-related items are found, have them tagged and identified before being removed or cleaned up
4. Document all information regarding the accident: take photographs

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Debriefing and Post-Traumatic Stress Procedure.

1. Talk to witnesses and people that were on site at the time of the accident/emergency.
2. Assist them in maintaining composure and resuming operations.

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11.2 First Aid Treatment Records

1. Reports are Conducted Digitally.
2. All first aid materials removed from the first aid kit MUST be recorded.

Please report all injuries to your supervisor immediately.

11.3 First Aid Kit Inventory

First Aid Kit Inventory checks to be completed every 12 months' (Jan/December) to resupply first aid kits that are missing certain first aid kit items. This will be completed via Device Magic "First Aid Kit Inventory Checklist" form.

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11.4 Emergency Response Plan – Workers Working Alone

Purpose

The purpose of this policy is to provide a safe environment for any Xradar employee working alone or in isolation. This means to work in circumstances where assistance would not be readily available to the worker:

1. in case of an emergency, or
2. in case the worker is injured or in ill health

Background

In compliance with Occupational Health and Safety Regulation, regarding workers working alone, we have established this procedure as a means of ensuring, as far as is reasonably possible, the health and safety of any employee working alone.

Scope:

This policy and procedures outlined herein apply to all employees working for Xradar.

Responsibility:

It is the responsibility of any individual working for Xradar to be aware of the procedures herein, and to ensure that these procedures are complied with. Xradar's Health and Safety Lead is responsible for the communication, administration, and interpretation of this policy.

Hazard identification, elimination and control

1. Before a worker is assigned to work alone or in isolation, the employer must identify any hazards to that worker.
2. Before a worker starts a work assignment with a hazard identified under subsection 11.5.5.1, the employer must take measures to eliminate the hazard, and if it is not practicable to eliminate the hazard, to minimize the risk from the hazard.

Procedures for checking well-being of worker

1. The time interval between checks will be every two hours unless otherwise arranged between the pre-arranged contact and the worker. Any changes to the check in time will be put in writing and signed by both parties to confirm understanding and agreement.

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2. The pre-arranged contact will establish contact with the worker at the predetermined intervals and the results will be recorded by them.
3. In addition to checks at regular intervals, a check at the end of the work shift must be done.

Workers Working Alone – Emergency Response Plan

1. A method of checking in with the worker has been established.
2. Check-in intervals are clearly understood.
3. The designated contact person is aware of the work schedule.
4. Any communication equipment used is in good working order.
5. No obstructions or interference may block phone or radio communications.

Plan of Action if Worker is Injured:

1. Advise Management/ supervisor and Health and Safety Lead of the accident.
2. Call for outside assistance. The following must be clarified:
   a. Construction project location and area;
   b. Nature of the emergency;
   c. Emergency meeting point. Xradar employees must meet emergency assistance personnel at this point. Direct emergency vehicle crew to the scene;
3. At the scene of the accident, ensure:
   a. No further damage or injury occurs;
   b. The injured person is properly cared for. One person will accompany the injured worker to a medical facility and advise the injured parties' family of the accident.
   c. Secure the scene of the accident to ensure physical evidence is not disturbed.

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Section 12 - Records and Statistics

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12.0 Records and Statistics Policy

Purpose

The purpose of this policy is to maintain a record of safety program activities and report these results to management on a continuous basis. These records will provide the information necessary to assess Xradar's safety program to make the necessary modifications and to plan for future activities.

Reports that will be kept on file and be readily available include:

1. Safety Orientation forms
2. Job Specific Training
3. Safety Courses/Seminars Taken
4. Violation of Safety Rules/PPE log
5. Minutes of Safety Meetings
6. Reports on Jobsite Audits
7. Incident Investigations reports
8. First Aid Treatment records
9. Preventative Maintenance Schedule Reports
10. Invoices on repairs done on machinery and tools
11. Report showing time frame between item tag and repair
12. Emergency Action taken
13. Job Hazard Analysis
14. Workers Working Alone Log
15. Emergency Response Plan

Summaries that will be kept on file include:

1. Monthly Injured Record: Nature of Injury/Incident
2. Monthly Injury Summary
3. Monthly Safety Summary
4. Monthly Incident Summary
5. Year End Injury Summary
6. Summary of lost time injuries

Xradar will use the information compiled in the summaries to make comparisons over different time periods. We will also document our Injury Frequency Rate and our Injury Severity Rate.

Note: Monthly/yearly Summaries, TRIF, and injury/incident logs are kept in Zoho.

Responsibilities of Management: It will be the Health and Safety Lead`s responsibility to maintain these documents and summaries up to date and easily accessible.

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Responsibilities of Supervisors:

It is the Health and Safety Lead`s responsibility to fill out the monthly summaries at the end of each month and the year-end injury summaries at the end of every calendar year, analyzed digitally.

End of Month	End of Year
12.5 MONTHLY SAFETY SUMMARY	12.2 Average Severity of Lost Time Incidents
	12.3 MONTHLY INJURY RECORD (Nature of Injury)
	12.4 MONTHLY INJURY RECORD (Type of Accident)

Responsibilities of Workers:

It is the employee’s responsibility to report all accidents and incidents, tag all equipment that requires repair, and report all unsafe conditions in order to ensure proper documentation is kept.

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Section 13 - Occupational Health and Safety Regulation

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13.0 Current Regulations Governing Health and Safety in AB

Occupational Health and Safety Regulation, Alberta Regulation 191/2021

Available at: https://search-ohs-laws.alberta.ca/legislation/

WCB Alberta Website:

https://www.wcb.ab.ca/

https://search-ohs-laws.alberta.ca/legislation/

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Appendix A - Forms

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Employee Disciplinary Notice

EMPLOYEE NAME	
DATE	
TIME	

Type of Warning:

	FIRST WARNING		**SECOND WARNING**		**THIRD WARNING**

Type of Offence:

	INSUBORDINATION		**ABSENTEEISM**		**FAILURE TO USE PPE**
	UNSAFE WORK		**POOR WORK**		**UNFIT FOR WORK**
	CONDUCT		**TARDINESS**		
	OTHER				

Description of Infraction:

Plan for Improvement:

Consequences of Further Infractions:

Employee's Statement

Check the appropriate statement:

☐ I agree with the manager's statement.

☐ I disagree with the manager's statement for the following reasons:

By signing this form, you confirm that you understand the information in this warning. You also confirm that you and your manager have discussed that warning and plan for improvement. Signing this form does not necessarily indicate that you agree with this warning.

Employee Name Signature Date

Manager Name Signature Date

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Equipment Training Certification

Date Trained: _____ Trainer: _____

Procedure Trained on: _____

___Introduction/Purpose

___Items to be checked prior to operating this equipment

___Steps for safe handling and operation of this equipment

___Associated Hazards

___Safe work practices (checklist of things to do and what not to do.)

___What to do in order to avoid associated hazards

___Cleaning, storage and handling of this equipment

___Review

___Skill test

My signature below indicates that I have been trained on the above piece of equipment. I have fully reviewed all the information provided to me and I feel confident in my abilities to perform tasks assigned to me using this piece of equipment.

EMPLOYEE NAME	SIGNATURE

Trainer's Signature: _____

Trainer's Name: (Please Print) _____

This form is now completed digitally on Device Magic - following the same steps.

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Appendix B - Safety and First Aid

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First Aid Kit Inventory

FIRST AID KIT INVENTORY Level I				
Contents	Qty	Indicate Supplies Used (Quantity, Date & Initial)		
Tension Bandage 3”	2			
Scissors	1			
Triangular Bandage	6			
Sanitary Wipes	24			
Abdominal Pads	4			
Tweezers	1			
Cotton Applicators	12			
Adhesive Tape 2”	1			
CPR Mask	1			
Gauze Pad 4X4	12			
Hand Cleanser	60			
6” Compress	4			
Disposable Gloves	6			
Pencil	1			
Plastic Band Aids3/4x3	50			
Plastic Band Aids 1x3	40			
Knuckle Band Aid	5			
Finger Tip Band Aid	5			
Safety Pins	12			
Forms	4			

FIRST AID KIT INVENTORY LEVEL II				
Contents	Qty	Indicate Supplies Used (Quantity, Date & Initial)		
1 Accident Record Book	1			
Tensor Bandage 3”	2			
Scissor 51/2”	1			
Triangular Bandage	6			
Benzalkonium	24			
Abdominal Pad 8x10	4			
Tweezer	1			
Cotton Applicators	12			
Adhesive Tape 1x5	1			
CPR Mask	1			
Gauze Pad 4x4	12			
Hand Cleanser	60			
Compress 6” Crepe Tie	4			
Disposable Glove	6			
Pencil	1			
Plastic Strip ¾ x3	50			
Plastic Strip 1x3	40			
Knuckle	5			
Fingertip	5			
Safety Pins	12			
Forms	4			

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Return to Work Form

Injured Worker:	Date of Injury:

Our employee suffered an injury at work on the date specified above while performing work related activities.

Description of Tasks:

Description of Injury:

The Injured worker sought medical attention on:	Date:
Medical attention was received on:	Date:
The injured worker was attended by:	Name of Doctor:

The attending doctor has provided us with documentation indicating the following:

Doctor's Findings & Recommendations:

Tasks That May be Performed:

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Tasks That May NOT be performed:

The injured worker is responsible for their actions at the worksite and will not perform any excluded tasks or tasks that cause excessive pain or discomfort to the injured area. Should our employee experience any difficulty performing a task, they will immediately notify their supervisor.

The injured worker will not receive any form of reprimand or disciplinary action for refusing work based on their medical condition. If any discrepancies occur between our employee and their supervisor, a company director will be consulted immediately.

This Return-to-Work Plan will be in effect:	From:	To:

All Parties agree to the terms and conditions of this Return-to-Work Plan as evidenced by signing this document.

Injured Worker	Signature	Date
Employer	Signature	Date

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Appendix C - Emergency Response Plan & Safe Work Plan

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Emergency Response Plan

Emergency Contact Information			
Fire Police Ambulance Poison Treatment	**911**	**Xradar**	
Enmax	310.2010	Joe Salazar	Cell: 778.991.3465 Office: 604.305.2818 Ext 105
Fortis Alberta	604.576.7000	Phil Bowden	Cell: 604.698.6225 Office: 604.305.2818
WCB Alberta	1.888.922.9221	Nic Kruse	Cell: 778.321.0728 Office: 604.305.2818
		Simon Low (Health and Safety Lead)	Cell: 778.877.4370 Office: 604.305.2818

1. Advise Supervisor and Health and Safety Lead of the accident.

2. Call for outside assistance. The following must be clarified:

    a. Construction project location and area;
    b. Nature of the emergency;
    c. Emergency meeting point. Xradar employees must meet emergency assistance personnel at this point. Direct emergency vehicle crew to the scene
    d. At the scene of the accident, ensure:
        a. No further damage or injury occurs;
        b. The injured person is properly cared for. One person will accompany the injured worker to a medical facility and advise the injured parties' family of the accident.
        c. Secure the scene of the accident to ensure physical evidence is not disturbed

ALL Xradar Vehicles are equipped with a Level 1 First Aid Kit and a A/B/C type Fire Extinguisher.

Evacuation of the job site will take place in an orderly fashion with worker safety being the

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primary concern. All people on site will move off site to the nearest muster area upon receiving the order to evacuate the site. Entry back on to the site will only be permitted once supervisors and/ or authorities say that it is safe.

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Safe Work Plan

Written By: _____ Date: _____

24 Hour Emergency Contact Name: _____

24 Hour Emergency Contact Phone Number: _____

Project Type:

New Construction _____ Renovation _____ Alterations/Upgrades _____ Demolition

1. Project Information	
Project Location:	
Company Name:	Xradar - Guaranteed Concrete Scanning & Coring
Contact On-site:	
Phone Number:	
Equipment Involved:	
Date(s) of Work:	

2. Scope of Work			
TASKS (List in order of sequence)	HAZARDS (How can people be injured?)	RISKS (Minor/Moderate/ Serious/Fatality)	CONTROL (Best way to prevent injury)

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3. On-Site Hazards (Possibly created by other trades)			
TASKS	HAZARDS	RISKS	CONTROL

4. Emergency Contacts	
Fire/Police/Medical:	**911**
Nearest Hospital:	
Directions to Nearest Hospital:	

5. Training Requirements and Qualifications	
First Aid:	Yes / No
WHMIS:	Yes / No
Fall Protection:	Yes / No
Other:	

6. Personal Protective Equipment (PPE)	
All on site Personnel:	
Area Specific:	
Task Specific:	

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7. Safety Equipment Required to Complete Work	
Activity:	Equipment:

8. Other Control Measures Identified Are:	
Hazard:	Control Measure:

DO NOT SIGN UNTIL YOU UNDERSTAND AND AGREE WITH THE SAFE WORK PLAN

Worker Name	Worker Signature
Supervisor Name	**Supervisor Signature**

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Appendix D - Fall Protection Plan

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Fall Protection Plan

Site:	Work Area
Job No.	Date:
Supervisor Name:	Safety Coordinator Name:

Workers must review and sign this document prior to starting work. This document must be kept on file for review by others. All workers working under this plan must have received fall protection training and understand the safe use and inspection of the equipment.

This plan is effective from: _____to: _____

Description of Tasks:

Fall Hazards:	
___Elevating work platforms (boom / scissor)	___Leading Edges
___Floor Openings / Sky Lights	___Scaffold Erection / Dismantling
___Stairways	___Fall less than 10’ but Over Other Hazards
___Swing Fall Hazards	___Fall Distance: _____
___Distance to Obstructions: _____	___Total Distance: _____
___Wall Openings / Balconies	___Ladders (Fixed / Portable, Extension / Step)
___Excavations, Pits or Banks	___Other: _____

Other Hazards:

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Equipment Used:	
___Full Body Harness	___Lanyard with Shock Absorber
___Vertical Lifelines	___Horizontal Lifeline
___Rope Grabs	___Carabineers
___Horizontal Tie Back Rope	___Slings (5000lbs Rating)
___Shackles	___Knots (Be specific): _____
Other:_____	

Work Procedures:
Describe procedures for handling, storing and securing tools and materials:

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Protection for Others Passing Below Work Activities:	
___Barrier Tape (Do Not Enter)	___Barricades
___Signage (Workers Overhead, Hardhats, etc.)	___Catch Nets or Platforms
___Toe Boards / Screens (On Platforms / Scaffolds)	___Toe Boards / Covers (On Floor Openings)
___Other:	

Rescue:	
___Agreement with others / client	___Employee Rescue Team (Attach Procedures)
___Mobile elevated work platforms	___Self-Rescue (Must Attach Procedures / Materials used)
___Crane Supported Work Platform	___Site First Aid / Rescue Team
___Platform	___Other: _____

Location & Adequacy of Anchor Points:	
___Evaluation by Professional Engineer	___Worker Evaluation of Structural Member (Workers Trained on What not to Use)
___Manufacturer's Data on Equipment	___Existing engineered Point (check documents)
___Other:	

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Inspection, Assembly, Maintenance & Disassembly:
Describe methods used (daily inspection of all equipment prior to use, reject any components with wear or defects, etc.)

Names of Workers:	
Print names of workers who received training and have workers initial beside (use back of page if necessary)	
1.	2.
3.	4.
5.	6.

The contents of this work plan have been conveyed to all the workers of GeoScan and Xradar and their subcontractors exposed to fall hazards where the use of a fall protection system is required.

Supervisor Name and Signature:	Date:

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Appendix E - Ladder Policy and Compliance

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Ladder Safety Policy

The management at Xradar is committed to ensuring the health, safety and well-being of all employees. Xradar recognizes workers' rights and is committed to providing a safe and healthy work environment. Xradar is committed to working in the spirit of consultation and cooperation with workers.

We sincerely believe that good safety performance is one of the leading factors in ensuring a well-managed, efficient, and profitable operation. We consider health and safety to be one of the most important responsibilities. Compromising it for the sake of expediency is not acceptable under any circumstance and must be preserved before all else.

To the best of our ability and understanding our objective is to conduct all our business activities in accordance with the applicable safety regulations and to strive toward the control of foreseeable hazards and/or unsafe working conditions, therefore eliminating them whenever possible.

We will develop, implement, and maintain an up-to-date ladder safety program specific to Xradar technicians' on-site activities which will adhere to all legal requirements as set out by *OHSR Part 13 Ladders, Scaffolds and Temporary Work Platforms.*

Accident prevention is a shared responsibility which means that:

- Xradar accepts the responsibility for leadership of the Health and Safety Program for its effectiveness and improvement, and for providing the safeguards and necessary information required to ensure safe conditions at work.
- Xradar supervisors are responsible for developing the proper attitudes towards health and safety, and for ensuring all operations are performed with the utmost regard for the safety and health of all personnel involved.
- Xradar employees are responsible for genuine cooperation with all aspects of the safety and health program, including compliance with all rules and regulations and for continually practicing safety while performing their duties.

Note: Wherever discrepancies occur between this document and government regulation, government regulation will take precedence.

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Ladder Policy Compliance with Law

Xradar Legal Policy for All Workers

It is company policy that a suitable work platform or scaffold be provided for the worker, by the client, for activities that cannot be performed from a ladder or activities requiring positioning at elevations 10ft above a floor or grade, as per *OHSR 13.6(1)*. As per *OHSR 20.4(1)* Xradar will provide all workers with suitable ladders on condition that the ladder fits safely in the workers' vehicle. The worker has the right to refuse any work he/she deems unsafe.

As above, and as per *OHSR 13.6(2)*, a worker must not carry up or down a ladder, heavy or bulky objects including equipment required for coring. An experienced helper must be provided, the expense of which will be covered by the client.

As per *WCA 115*, Xradar will provide all workers the information, instruction, training and supervision necessary to ensure the health and safety of those workers in carrying out their work.

All company ladders will be “heavy duty” Grade1/Type 1 (or higher) to cover the typical needs of the types of work activities undertaken by the worker, as per *OSHR G13.4*. Each ladder will be marked for the grade and the use for which the ladder is constructed.

All ladders must be inspected before each shift as per *OHSR 13.3*.

As per *OHSR 13.5(1)*, a ladder must be placed on a firm, level surface and sufficient length to enable the safe performance of work activity. If a worker is required to perform work inside existing T-bar ceilings/around areas busy with mechanical infrastructure, then a suitable work platform MUST be provided by the client for the work to be performed safely.