



Occupational Health and Safety Program

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Reviewed by leadership:

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Section 1 - Safety and Health Policies

1.0 Company Health and Safety Policy

Purpose:

At Xradar, we are dedicated to fostering a safe, healthy, and supportive workplace environment for all our employees. It is the responsibility of every member of our workforce to uphold safety standards, promptly report any incidents, and contribute towards the continual enhancement of the health and safety program. Through a commitment to work in the spirit of consultation and collaboration with workers, we strive to mitigate the adverse effects of our operations and activities to our workforce and stakeholders.

Policy:

Our overarching goal is ZERO incidents and to instill a comprehensive culture of health and safety awareness throughout Xradar. Extending to every individual within our organization, including: employees, supervisors, managers, subcontractors, suppliers, and clients. We recognize the right of every worker to work in a healthy and safe working environment. We firmly believe that everyone shares the responsibility for ensuring a secure and safe work environment. Everyone is responsible and accountable for working safety, which includes, but is not limited to:

- Reporting accidents, incidents, occupational disease, psychological incidents, and near misses.
- Complying with applicable OHS legislation and other regulatory or legal requirements.
- Cooperate in and complete investigations as per the policy and local legislation.
- Cooperate with the Joint Occupational Health and Safety Committee and/or the Excellence Committee.
- Ensuring understanding of and exercising of the three workers rights when required.
- Ensuring all workers are properly trained for the work they perform.
- Complying with all Xradar policies, processes, and procedures.

Management Team:

Senior management and management is committed to providing a safe and healthy work environment and leading by example in matters of OHS. We advocate for collaborative engagement across all levels of the organization during management reviews, revisions, and the implementation of OHS policies, various systems, and Xradar work processes. Additionally, we continuously strive to enhance the effectiveness of our management systems by promoting a culture of risk assessment and management. Through ongoing professional developmental initiatives, we empower our employees to foster continual motivation and encouragement in achieving our safety objectives. Moreover, we are dedicated to ensuring compliance with legal requirements and regulatory bodies. Management regularly conducts reviews annually to assess the performance of our health and safety programs. Management reviews and incorporates internal and external audits, action plans derived from these audits, and through transparent communication of outcomes and subsequent actions.

Goal:

Xradar is firmly committed to maintaining a secure and healthy work environment, with a focus on minimizing, reducing, or eliminating any potential health and safety risk. By prioritizing occupational health and safety, we aim to safeguard the well-being of our employees and stakeholders now and in the future.

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

Nicolas Kruse

Nicolas Kruse
National Manager

Note: *if the Company Health and Safety Policy is signed, it means that ALL policies and procedures in this OHS manual have been signed/approved by the above.*

1.1 Assignment of Responsibility for Safety

1.1.1 Management:

1. Create, collaborate, implement, and maintain company policies.
2. Review effectiveness of OHS program annually or as per the *Management Review and Management of Change Policy*.
3. Ensure all employees are aware of and conform to the OHS program and its policies and procedures.
4. Provide information, instruction, and assistance to all supervisory staff in order to protect the health and safety of all employees.
5. Provide all employees the proper tools and equipment for the scope of work. Including personal protective equipment required by local legislation.
6. Ensure all employees wear PPE as per the *Personal Protective Equipment Policy* and hazard assessments.
7. Ensure all employees are issued required specialized PPE as per hazard assessments and regulatory requirements.
8. Provide support for the ongoing training process and educational programs.
9. Collaborate with clients, health and safety lead, supervisors, workers, and other workplace parties to ensure a safe working environment for all employees.
10. Investigate accidents, incidents, and near misses as per the *Investigation Policy* and regulatory and/or legal requirements.
11. Lead by example by always directing and performing work in a safe manner.
12. Enforce progressive disciplinary process to ensure compliance with Xradar OHS program and regulatory and/or legal requirements.
13. Communicate in a way that can be understood: updates to policies, procedures, processes, and general updates that may affect work being completed.

1.1.2 Health and Safety Lead:

1. Create, collaborate, implement, and maintain company policies.
2. Create, collaborate, implement, and maintain procedures, processes and forms.
3. Review effectiveness of OHS program annually or as per the *Management Review and Management of Change Policy*.
4. Ensure all employees are aware of and conform to the OHS program and its policies and procedures.
5. Ensure and maintain compliance with applicable Municipal, Provincial and Federal OHS regulations, legislation, law and/or applicable acts.
6. Advise managers on matters of OHS regulations, legislations, and any applicable acts or laws.
7. Provide information, instruction, and assistance to all staff in order to protect the health and safety of all employees.
8. Provide all employees the proper tools and equipment for the scope of work. Including personal protective equipment required by local legislation.
9. Ensure all employees wear PPE as per the *Personal Protective Equipment Policy* and hazard assessments.
10. Ensure all employees are issued required specialized PPE as per hazard assessments and regulatory requirements.

11. Ensure that all workers are properly trained for the scope of work as per the *Safety Training Policy* and ensure records are kept of training and development as per the policy.
12. Collaborate with clients, health and safety lead, supervisors, workers, and other workplace parties to ensure a safe working environment for all employees.
13. Investigate accidents, incidents, and near misses as per the *Investigation Policy* and regulatory and/or legal requirements.
14. Lead by example by always directing and performing work in a safe manner.
15. Enforce progressive disciplinary process to ensure compliance with Xradar OHS program and regulatory and/or legal requirements.
16. Communicate in a way that can be understood: updates to policies, procedures, processes, and general updates that may affect work being completed.
17. Perform routine site and warehouse safety audits as per the *Inspections Policy*.
18. Create, maintain and conduct New hire orientation.
19. Create and maintain Trainual modules or other training material as required.
20. Perform audits as required by COR standards and the *Management Review and Management of Change Policy*.
21. Coordinate with external auditors when required.
22. Ensure records of previous audits are maintained and their action plans recorded.
23. Promote employee engagement in the OHS Program and its ongoing maintenance and development.
24. Facilitate and attend JOHSC meetings. Record minutes, maintain files and disseminate as needed.
25. Complete prequalification, annual renewals and any other safety documentation requested by both external clients and internal stakeholders.
26. Tracks monthly statistics to monitor success and performance of the OHS Program as per the *Records and Statistics Policy*.
27. Assess subcontractors on an ongoing basis as per the *Subcontractor Management and Procurement Policy*.

1.1.3 Supervisors:

1. Assist management with ensuring employees adhere to the OHS program.
2. Collaborate with clients, health and safety lead, other supervisors, managers, workers, and other workplace parties to ensure a safe working environment for all employees.
3. Lead by example by always directing and performing work in a safe manner.
4. Assist management to ensure compliance with all OHS regulations and Xradar policies, processes, and procedures.

1.1.4 Employees:

1. Carry out all work in a responsible and safe manner in accordance with Xradar OHS program and applicable regulations, legislation and acts.
2. Collaborate with clients, health and safety lead, supervisors, managers, other workers, and other workplace parties to ensure a safe working environment for all

employees.

3. Participate and conduct hazard assessments as per the *Hazard Assessment and Control Policy* and procedure.
4. Apply hazard controls to identified hazards within Xradar scope of work. If it is not, inform the client or General contractor of the description of hazards.
5. Report any accidents, incidents, near misses, and/or injuries immediately to management, supervisors, and/or the Health and Safety Lead.
6. Report any unsafe acts/work conditions to supervisors, management, or Health and Safety Lead immediately.
7. Complete Incident notification reports when required.
8. Follow up and report any potential lost time to the Health and Safety Lead, when it is safe to do so.
9. Comply with all implemented OHS company rules, policies, processes, safe work practices and procedures, and applicable regulations, legislations and acts.
10. Wear all basic and specialized PPE as required by the *Personal Protective Equipment Policy* and/or regulatory requirements.
11. Supplying of Basic PPE as required by the *Personal Protective Equipment Policy* and/or regulatory requirements.
12. Promote safety on all jobsites. Fellow employees not following safety rules should be reminded of what the safety rules are. Safety is everyone's responsibility.

1.2 OHS Manual Access

1. A copy of this safety program will be kept at Xradar's office.
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 available electronically on BambooHR or Google Drive.

Note: *Wherever discrepancies occur between this document and OHS regulation. Provincial or Federal regulation will take precedence. Appendix A has list variances of OHS regulations/acts/code between provinces be sure to review as some regulations may change how work must be done.*

1.3 Document and Record Control Policy

Purpose

The purpose of this procedure is to ensure that all Occupational Health and Safety Management System (OHSMS) documents and records at Xradar are properly created, reviewed, approved, distributed, maintained, and retained in compliance with the applicable standards and OHS legislation. Effective document control ensures that all personnel have access to current, accurate, and relevant safety information while obsolete materials are removed to prevent misuse.

Scope

This procedure applies to all controlled OHS documentation, including but not limited to:

- Policies, procedures, manuals, and safe work practices
- Forms, checklists, meeting minutes, and reports
- Training records, inspection reports, and incident investigations
- Legal and regulatory documents (legislation, standards, certificates)
- Records of internal and external audits
- Electronic files and physical documents used to support the OHSMS

Policy Statement

Xradar shall establish, implement, monitor, and maintain procedures for the control of documents and records related to the Occupational Health and Safety Management System (OHSMS).

All documents shall be:

- Current, accurate, and legible;
- Reviewed and approved by authorized personnel prior to issue;
- Accessible to all workers who require them for safe work performance; and
- Protected from unauthorized modification, loss, or destruction.

Roles and Responsibilities

Senior Management

- Approve OHS documents;
- Ensure resources and compliance;
- Review annually

Health and Safety Lead

- Manage document system, control revisions, archive records, ensure access and confidentiality.

Supervisors

- Maintain current copies at worksites; ensure workers use the latest versions.

Employees

- Access and use the latest documents; report missing or outdated materials.

JHSC

- Participate in document review and provide recommendations for improvement.

Document Control Procedure

1. Document Creation and Approval

- 1.1. All OHSMS documents (policies, procedures, forms) shall be developed by the Health and Safety Lead in consultation with management, supervisors, and the JOHSC.
- 1.2. Draft documents must be reviewed and approved by Senior Management prior to release.
- 1.3. Each document will have a unique title, document number, revision number, and date of issue for tracking.
- 1.4. Approval is indicated by digital signature or dated sign-off on the document master list.

2. Document Review and Revision

- 2.1. All controlled documents shall be reviewed at least annually, or sooner if:
 - 2.1.1. Legislation changes
 - 2.1.2. New processes, materials, or equipment are introduced
 - 2.1.3. Audit findings or incidents indicate updates are required
- 2.2. The Health and Safety Lead is responsible for initiating the review process and maintaining a Document Revision Log.
- 2.3. Revisions must include:
 - 2.3.1. Version number (e.g., Rev 1.0 → Rev 1.1)
 - 2.3.2. Description of changes
 - 2.3.3. Reviewer and approval date

3. Document Distribution and Accessibility

- 3.1. Current and approved versions of OHS documents are stored electronically in the Google Drive organized by province (e.g., XCA, XBC, XAB), inside of the Health & Safety Folder.
- 3.2. Policies and forms are accessible through BambooHR, Slack (#health-safety channel), and internal company drives.
- 3.3. Only the Health and Safety Lead or authorized manager may upload or modify controlled documents.
- 3.4. Printed copies, if used on worksites, must be stamped or watermarked as “Controlled Copy” and include the current revision date.

4. Obsolete and Superseded Documents

- 4.1. When new revisions are issued, the previous versions must be removed from active circulation immediately.
- 4.2. Obsolete documents shall be:
 - 4.2.1. Marked as “Superseded”, and
 - 4.2.2. Archived in a restricted folder for recordkeeping (minimum 3 years).

- 4.3. Field supervisors are responsible for ensuring outdated materials are replaced on site.

Record Control Procedure

1. Record Creation

- 1.1. Records are created as evidence of activities performed (e.g., inspections, incidents, training, meetings).
- 1.2. Each record shall be legible, dated, and signed by the responsible person.
- 1.3. Electronic records must be maintained in a readable and secure format (e.g., PDF, spreadsheet, scanned forms).

Record Type	Retention Period
OHS Policies and Procedures	Current + 3 years
Incident and Investigation Reports	10 years or as per WSIB/WCB
Training and Competency Records	Duration of employment + 3 years
Inspection Reports and Corrective Actions	7 years
JHSC Meeting Minutes	7 years
Audit Reports (Internal & External)	7 years
Management Review Records	7 years
Hazard Assessments and FLHAs	7 years
Medical or Confidential Records	As per privacy laws (minimum 10 years)

2. Record Identification and Retention

- 2.1. Records must be clearly identified by:
 - 2.1.1. Document title and type; (e.g., “Monthly Inspection Report”)
 - 2.1.2. Date of creation;
 - 2.1.3. Responsible department or individual;
 - 2.1.4. Job number or job identifier if applicable.
- 2.2. Minimum retention periods shall meet legislative and COR™ requirements, including: **Record Protection and Confidentiality**
- 2.3. All records are protected from damage, loss, or unauthorized access.
- 2.4. Access to confidential or personal information (e.g., incident reports, medical data) is restricted to authorized personnel only.
- 2.5. Backups are performed 3 times daily by GAM Tech, Shared drive backups begin at 5:59 AM MST, and user data backups begin at 1:09 AM MST. The backup process runs continuously, so a specific end time cannot be provided.

2.6. Daily backups are retained for three months before being consolidated into weekly backups. These weekly backups are retained indefinitely.

3. Record Retrieval and Disposal

3.1. Records must be retrievable within 24 hours upon request by management, auditors, or regulatory authorities.

3.2. Disposal of records after their retention period must be:

3.2.1. Authorized by the Health and Safety Lead, and

3.2.2. Conducted securely (e.g., shredding paper copies, permanently deleting digital files).

Monitoring and Evaluation

- Internal COR™ audits and management reviews will assess compliance with this procedure.
- Audit results and feedback will drive continual improvement of the document control system.
- KPI: 100% of OHS documents current and controlled at time of audit.

1.4 Management Review and Management of Change Policy

Purpose

The purpose of this policy is to ensure Xradar maintains a proactive and continuous improvement approach to occupational health and safety. Regular management reviews confirm that the Occupational Health and Safety Management System (OHSMS) remains effective, compliant, and aligned with organizational goals.

The Management of Change (MOC) process ensures that any changes to operations, equipment, personnel, or legislation are assessed and managed to prevent new or increased risks.

Scope

This policy applies to all Xradar operations, departments, and personnel involved in the management, supervision, and implementation of the OHSMS across Canada.

Policy Statement

Xradar senior management is committed to:

- Continually improving its OHSMS and overall safety performance.
- Conducting formal Management Reviews at least annually, and following any significant operational, organizational, or legislative change.
- Implementing a structured Management of Change (MOC) procedure to assess, document, and control risks associated with changes to people, processes, or equipment.
- Ensuring that decisions, outcomes, and improvement actions from both management reviews and change processes are documented, communicated, and implemented effectively.

Part A – Management Review

Objective

To systematically evaluate the performance and effectiveness of the OHSMS and ensure continual improvement.

Procedure

1. Frequency

- a. A formal Management Review will be conducted at least once per year by the Senior Management Team.
- b. Additional reviews will be initiated following significant incidents, audits, or regulatory updates.

2. Inputs to the Review

- a. The Management Review shall include:
 - i. Results of internal and external COR™ audits
 - ii. Evaluation of compliance with OHS legislation and other requirements
 - iii. Status of corrective and preventive actions
 - iv. Results of worker participation and consultation (including JOHSC feedback)
 - v. Performance statistics, leading and lagging indicators
 - vi. Review of incidents, near misses, and trends
 - vii. Results of inspections, hazard assessments, and training evaluations
 - viii. Status of actions from previous management reviews
 - ix. Changes in legislation, technology, or work processes
 - x. External communications and stakeholder feedback

3. Outputs of the Review

- a. The review shall produce:
 - i. Updated OHS policy and measurable objectives
 - ii. Revised action plans and resource allocations
 - iii. Assignments of responsibility for implementation
 - iv. Identification of improvement opportunities
 - v. Confirmation of compliance or corrective measures
 - vi. Communication of key outcomes to all staff through email, BambooHR, and meetings

4. Documentation

- a. All Management Reviews shall be documented using the Management Review Record Form, including date, attendees, agenda, discussion points, and action items.
- b. Documentation is retained in the Health and Safety Drive for the province (Google Drive) for a minimum of 7 years.

5. Responsibility

- a. Senior Management leads the review process.
- b. Health and Safety Lead prepares inputs, records outcomes, and tracks action items.
- c. Managers, supervisors, and JOHSC provide feedback and performance data.

Part B – Management of Change (MOC)

Objective

To ensure all changes that could impact health and safety are assessed and controlled before implementation.

Procedure

1. When to Apply

- a. The MOC process must be initiated for:
 - i. Changes in legislation, regulation, or standards
 - ii. New or modified equipment, materials, or processes
 - iii. Organizational or staffing changes affecting health and safety roles
 - iv. New worksites, office relocations, or expansions
 - v. Introduction of new technologies or procedures
 - vi. Incident learnings or corrective action requirements

2. Steps

- a. **Initiation:** The responsible manager or supervisor identifies and reports the proposed change to the Health and Safety Lead.
- b. **Risk Assessment:** Conduct a hazard and risk assessment to identify potential impacts.
- c. **Consultation:** Engage affected workers, supervisors, and the JHSC to review proposed changes and control measures.
- d. **Approval:** Senior Management must approve the change prior to implementation.
- e. **Implementation:** Communicate the change through appropriate channels (email, Slack, toolbox talks).
- f. **Training:** Provide necessary instruction or retraining to affected employees.
- g. **Verification:** Monitor and evaluate the effectiveness of implemented changes.

3. Documentation

- a. All changes are recorded on the Management of Change Form, detailing the description, risk assessment, approvals, and outcomes.
- b. Records are maintained in the Health and Safety drive for your province in Google Drive.

4. Responsibilities

- a. **Senior Management:** Approves significant changes and allocates resources.
- b. **Health and Safety Lead:** Coordinates assessments, documentation, and training.
- c. **Managers/Supervisors:** Implement controls and monitor for unintended consequences.
- d. **Workers:** Participate in assessments and provide feedback on safety implications.

Monitoring and Evaluation

- The Health and Safety Lead will track completion of corrective actions from management reviews and MOC activities.
- Effectiveness will be verified during internal COR™ audits and annual Management Reviews.
- Lessons learned will be shared during monthly OHS meetings and toolbox talks.

Date:	Revision:	Revised by:	Section:	Description:	Approved by:
2020-07-30	4	Kelly Bradley	2, 7, 8, 3, 5, appendix.	Updated manual for 2020.	Josh Cook
2021-10-21	5	Jesse Mitchell	5, 9, 2, 3, 4	Updated manual for 2021. Added SWP.	Josh Cook
2023-09-23	6	Hannah Smith	1, 2, 3, 4, 6, 7, 8, 9, 10, 11	Yearly update in response to COR audit. Digitization of processes.	Josh Cook
2025-03-22	7	Simon Low	3, 6, 7	Updated manual for 2025. Added new Safe work procedures	Nicolas Kruse
2025-08-07	8	Simon Low	5 and 2	Added Progressive Disciplinary Program, Added New Risk Assessment Chart	Nicolas Kruse
2025-10-09	9	Simon Low	8 and 9	Revamped policy, added in roles and responsibilities.	Nicolas Kruse
2025-10-20	10	Simon Low	1, 10, 12, 13	Added New policy for document and record control, records and statistics, legislation, updated previous policies to align with ONT COR.	Nicolas Kruse
2025-10-29	11	Simon Low	5, 7, 10	Updated Rules of conduct to align with the rest of the OHS program. Updated/revamped policies. Added the excellence committee and incident procedures.	Nicolas Kruse
2025-11-14	12	Simon Low	1, 11, 12, 13	Added Document record and control policy, Management review and management of change policy, updated section 11.	Nicolas Kruse
2026-01-06	13	Simon Low	OHS Manual	Updated manual for new information/policies/procedures for 2026.	Nicolas Kruse

Section 2 - Workplace Hazard Assessment and Control

2.0 Hazard Assessment and Control Policy

Hazard Identification and Control are key components in maintaining a safe and healthy workplace. Health hazards, occupational factors or illnesses, arising in and from the workplace, which may cause impaired health and wellbeing, sickness, or significant discomfort and inefficiency must be identified, monitored, and controlled. All appropriate workplace parties, including: workers, supervisors, managers, and senior management must be involved in the hazard assessment and control process.

Ongoing hazard(s) and control(s) will be addressed by ongoing training, safe work practices, safe work procedures, safety rules, equipment maintenance and tag out policy, department and JOHSC meetings/toolbox talks, site audits, equipment Inspections, Job Hazard Assessments (FLHA), and Field Level Hazard Assessments (FLHA).

2.2 Roles and Responsibilities:

Senior Management

- Must approve all of all control measures to be used by the company for operations.
- Support the ongoing hazard assessment process.

Managers

- Ensure effective control measures are in place and Field Level Hazard Assessments (FLHA) are being completed and conducted as per the policy.
- Review/revise Job Hazard Assessments (JHA) annually to ensure accuracy and improvement of standards due to:
 - Updates to regulations
 - As a result of an incident and/or investigation
 - Industry trends
- Enact the progressive disciplinary program to address individuals that do not meet the requirements of this policy.

Supervisors

- Ensure Field Level Hazard Assessments (FLHA) are conducted/reviewed/signed and proper controls are given and enacted.
- Ensure that workers onsite have reviewed/signed off on Job Hazard Assessments (JHA).

Health and Safety Lead

- Monitor the effectiveness of the Hazard Assessment and Control policy and procedure.
- Must review and/or update a list of identified critical tasks based on the risk rating system annually.
- Must review and/or update Job Hazard Assessments (JHA) at least annually.

- Conduct monthly or as needed, site audits to ensure that proper controls and documentation are in place to identify and control hazards.
- Review/revise Job Hazard Assessments (JHA) to ensure accuracy and improvement of standards due to:
 - Updates to regulations
 - As a result of an incident and/or investigation
 - Industry trends
- Ensure effective control measures are in place and Field Level Hazard Assessments (FLHA) are being completed and conducted as per the policy.

Workers

- Workers are to conduct Field Level Hazard Assessments (FLHA) as per the policy and the procedure.
- Must review and sign off on Job Hazard Assessments (JHA) at least annually.
- JOHSC members to review/revise Job Hazard Assessments (JHA) annually to ensure accuracy and improvement of standards due to:
 - Updates to regulations
 - As a result of an incident and/or investigation
 - Industry trends

Policy Requirements

1. Hazard assessments must be completed for all operations: including routine and non-routine operations, and human factors, where work is performed.
2. Hazard assessments must identify hazards originating outside of the workplace that may impact OHS within the workplace for which the organization has control.
3. Hazard assessments must take the hierarchy of controls into account:
 - a. *Elimination*
 - b. *Substitution*
 - c. *Engineering controls*
 - d. *Administrative controls*
 - e. *Personal Protective Equipment (PPE)*
4. Hazard assessments must take into account applicable legal and regulatory requirements such as, but not limited to:
 - a. *Federal Labour Code*
 - b. *Provincial regulatory body (WSIB/OHSA/WCB AB/WCB BC/WCB NS)*
 - c. *Applicable Acts, regulations, and guidelines*
 - d. *Manufacturers instructions*
5. Hazard assessments must identify required PPE. Specialized and/or Basic.
6. Job Hazard Assessments (JHA) must be reviewed and updated after:
 - a. *After an incident or quality control investigation*
 - b. *When the phase of a project or jobscope changes.*
 - c. *Must be reviewed and/or updated at least annually by management, Health and Safety Lead and JOHSC.*

7. Hazard assessments will utilize a standardized risk rating system to prioritize hazards and their risk before and after controls. Anytime a hazard assessment is conducted, a risk rating will be documented using the following criteria:

		Severity				
		1. Insignificant	2. Minor	3. Moderate	4. Severe	5. Fatal
Likelihood	A. Almost Certain	Low Medium	Medium	High	Extreme	Extreme
	B. Likely	Low	Low Medium	High	High	Extreme
	C. Possible	Low	Low Medium	Medium	High	High
	D. Unlikely	Low	Low Medium	Low Medium	Medium	Medium
	E. Very Unlikely	Low	Low	Low Medium	Medium	Medium

		Frequency: How often might/will it happen?	
A. Almost Certain		Will undoubtedly happen/reoccur, possibly frequently.	
B. Likely		Will probably happen/reoccur, but it is not a persisting issue/circumstance.	
C. Possible		Might happen/reoccur occasionally.	
D. Unlikely		Do not expect it to happen/reoccur, but it is possible it may happen.	
E. Very Unlikely		This will probably not happen/reoccur.	

		Risk Level / Impact	
Low		Proceed. Ensure identified control measures are applied as required.	
Low Medium		Competent person allowed to proceed. Ensure identified control measures are applied as required.	
Medium		Competent person allowed to proceed. Ensure identified control measures are applied as required.	
High		Do not proceed, inform manager/Health and Safety Lead.	
Extreme		Stop Work. Inform Manager/Health and Safety Lead.	

		Severity: How much damage/trauma could this cause?	
1. Insignificant		Hardly any injury or property damage.	
2. Minor		Minor injury or property damage.	
3. Moderate		Injuries that are potentially serious, but not life threatening. Property damage is moderate.	
4. Severe		Potential for broken bones, traumatic injury and life changing injuries. Extensive damage to property, potentially unrepairable.	
5. Fatal		Death, structural collapse, complete loss of property.	

8. Hazards are generally divided into five categories, which include:
- Chemical hazards;
 - Physical hazards;
 - Biological hazards;
 - Psychological hazards; and
 - Ergonomic hazards.
9. The controls shall be developed:
- Following the hierarchy of controls,
 - To accurately reflect the organization's activities,
 - Take into account applicable legal and other requirements such as standards, guidelines or manufacturer instructions.
10. Control measures shall be documented, communicated, and made readily available to the affected workplace parties at the point of use as required.
11. Xradar will implement strategies to reduce the risk of identified hazards. Xradar will monitor and continually improve control strategies to ensure that controls chosen are implemented and effective.
12. In addition to the Field Level Hazard Assessments (FLHA) and Job Hazard Assessment (JHA), the following areas of our safety program are geared toward hazard assessment and control:
- Safe Work Practices and Safe Work Procedures
 - Company rules
 - Equipment maintenance and Tag out policy
 - Ongoing Training
 - Department and JOHSC meetings/Toolbox talks
 - Site Audits
 - Equipment Inspections

Job Hazard Analysis (JHA)

The completion of a Job Hazard Analysis (JHA) is required to verify that hazards and risks associated with a specific task are identified and appropriate controls are implemented prior to execution of the task. All hazards identified must be prioritized.

Field Level Hazard Assessments (FLHA) Procedure

1. Field Level Hazard Assessments (FLHA) should always include an assessment/inspection of the work location, identifying hazards of the workplace, stating controls for identified hazards, enacting those controls or informing parties who can enact the identified controls, prioritizing and ranking hazards before and after controls, and a review/sign-off of the FLHA with Xradar employees and other trades related to or near work activities.
2. Considerations must be made to account for the design and layout of the work area, ergonomics, machinery, and internal/site processes and procedures.
3. FLHAs must be updated/conducted/completed when coming back to a site from a break and/or if any conditions change.
4. Ensure that the risk and severity rating after hazard controls have been put in place are lowered. If it is not, inform your manager.
5. FLHAs must not be submitted through Device Magic until a worker has completed activities on a jobsite for the day in order to keep the FLHA a working document that can be updated as conditions change.

Note: *Field Level Hazard Assessments (FLHA) are electronically created, reviewed, and stored through Device Magic and Google Drive.*

High Risk Field Level Hazard Assessments (FLHA) procedure

1. All Field Level Hazard Assessments (FLHA) that are flagged as high or extreme risk will be sent via email to the worker's Manager as soon as the FLHA is submitted, if a worker recognizes the work as high risk they will stop work and inform their manager.
2. The Manager will then make contact with the worker to ensure controls are put in place to reduce the risk to the employee.
3. All Field Level Hazard Assessments (FLHA) that are flagged as high or extremely high risk due to appropriate hazard controls not being in place or sites with inadequate safety standards will be reported to the workers manager (Via text/call/slack) and the General Contractor as soon as possible. *It is also automatically flagged by Device Magic and emailed to the workers manager, the National Manager, and the Health and Safety Lead.*
4. If the General Contractor does not mitigate the identified hazards, the worker must 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.
5. The Manager and/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.
6. All High risk Field Level Hazard Assessments (FLHA) will be documented within "High Risk FLHA Manager's Notes/sign off" for the associated province and/or territory.

2.1 Xradar Critical Task List

- 3.1 Fall Protection
- 3.2 Confined Space
- 3.6 Ladder Procedure
- 3.10 Coring
- 3.12 Core Catching
- 3.16 Safe Driving Procedure
- 3.17 Working on Construction Sites Around Other Trades
- 3.18 Working with Lead - Coring

2.2 Subcontractor Management and Procurement Policy

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.

Policy:

Xradar will:

- Evaluate, select and monitor contractors that meet our criteria stated in this policy.
- Evaluate, select and monitor service providers that meet our criteria stated in this policy.
- Consider the impact to safety and health when selecting products. Equipment and materials will be sourced through reputable companies. Hazards associated with the procured product will be identified and controlled through guidelines set out in our health and safety manual such as WHMIS, worker training, Hazard Assessments, etc.

Criteria for Selection and Evaluation of Contractors and Service Providers

- The ability and competency of the contractor to be able to assess, analyze and control hazards arising from their own work that may impact the organization's workers
- The ability and competency of the contractor to be able to assess, analyze and control hazards arising from the organization's work that may impact the contractor's workers
- Communication with workplace parties when there are changes affecting the health and safety of the work

Roles and Responsibilities:

Xradar will:

- Require contractors in the selection process to complete the "Contractor Pre-Qualification Checklist".
- Subcontractors will sign off on the "Xradar Statement of Safe Work for Subcontractors" and this will be filed in Zoho.
- Hire reputable service providers.

Health and Safety Lead:

- Monitor and evaluate safety activities of contractors. (I.e. Site inspections, hazard assessments, review of documentation, collection of documentation.)
- Notify service providers of potential hazards and required PPE.
- Procure products from reputable suppliers.
- Ensure products purchased that introduce new hazards are controlled as part of the ongoing hazard assessment process in accordance with WHMIS.
- Give Subcontractors an annual performance review.

Dispatch Coordinator will:

- Obtain required documentation from potential subcontractors.
- Issue *Contractor Pre-Qualification Checklist*.
- Put prequalification documentation in ZOHO.
- Inform the Health and Safety Lead of new Subcontractors.

JOHSC will:

- Discuss Subcontractor's performance and compliance to be evaluated at Joint Health and Safety Meetings monthly.

The Subcontractor will and is responsible for:

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. Have toolbox meetings as required by the Prime Contractor/Constructor.
3. Attend site safety meetings if requested.

Accidents and Emergencies

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

Safety Regulations

1. Use and provide personal protective equipment (specialized or basic) 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. Complete a hazard assessment and safe job procedures/practices prior to commencing hazardous work such as working at heights, confined spaces, demolitions, or excavations and make it available to Xradar personnel upon request.
6. Ensure compliance to local, provincial and federal law and regulations.
7. 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.
8. Subcontractors must adhere to the short service/ new employee program as per Section 8.1. of Xradar's OHS Manual.

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, CS team, the project coordinator, 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 must be added to Zoho and appropriate documentation will need to be collected prior to being allowed onsite.

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.

2.3 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 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:			

Contractor Pre-Qualification Checklist			
Company name:			
Address:		City & Province:	
Email Address:		Postal Code:	
Phone Number:		Fax:	
Type of business/ Service provided:			
Contact Information			
Primary Contact		Phone Number:	
Supervisor		Phone Number:	
Safety Designate		Phone Number:	
Insurance Information			
Current Liability Insurance Certificate Provided?			<input type="checkbox"/> Yes <input type="checkbox"/> No
Are there any current claims pending or outstanding against the organization?			<input type="checkbox"/> Yes <input type="checkbox"/> No
Workers Compensation Board			
Current WCB Coverage in place?			<input type="checkbox"/> Yes <input type="checkbox"/> No
WCB Letter of Good Standing? (current within 30 days)			<input type="checkbox"/> Yes <input type="checkbox"/> No
Safety, Health, and Environmental Information			
COR/ SECOR Certified?		<input type="checkbox"/> Yes <input type="checkbox"/> No	COR/ SECOR Certificate Number:
Certificate attached?		<input type="checkbox"/> Yes <input type="checkbox"/> No	COR/ SECOR Expiry:
If not COR/ SECOR do you have a Safety Program?			<input type="checkbox"/> Yes <input type="checkbox"/> No
Check off the policies & processes the company has in place (if not COR/ SECOR certified)			
A written safety policy		Incident reporting & Investigation Process	
Hazard assessment process		Jobsite inspection Process	
Toolbox/ safety meeting process		PPE Policy	
Company Rules			
Check off the written Safe job Procedures that may be required for this project (SJP)			
<input type="checkbox"/>	Asbestos	<input type="checkbox"/>	Hydrogen Sulfide (H2S)
<input type="checkbox"/>	Fall Protection Plan	<input type="checkbox"/>	Silica
<input type="checkbox"/>	Emergency Evacuation	<input type="checkbox"/>	Working Alone
<input type="checkbox"/>	Other (Specify)	<input type="checkbox"/>	Respiratory Protection
<input type="checkbox"/>		<input type="checkbox"/>	Confined/Restricted Space
<input type="checkbox"/>		<input type="checkbox"/>	Powered Mobile Equipment
Training Information			
Supervisors trained in their legislated roles & responsibilities?			<input type="checkbox"/> Yes <input type="checkbox"/> No
Required safety training completed? I.e. Fall protection, PME, Confined Space, Etc.			<input type="checkbox"/> Yes <input type="checkbox"/> No
Other			
Contractor agrees to keep readily available, and provide upon request, copies of your tool box meetings, hazard assessments, inspections, training certificates, and/or any other safety documents pertinent to this site.			<input type="checkbox"/> Yes <input type="checkbox"/> No
Signature of Contractor:		Signature:	

2.4 WHMIS Policy

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 keep 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



Section 3 - Safe Work Procedures

3.0 Safe Work Procedure Policy

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 is 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.

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 FLHA shall be completed.

As per regulations, fall protection must be used when a worker may be exposed to any of the following hazards:

- when employees could fall from a height of 3m (10ft),
- fall from a height more than 2.5 meters if work area is used as a path
- working above operating machinery
- working above water or another liquid
- working above a hazardous substance or object
- fall from an opening in a work surface

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

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 or horizontal lines
 - a. Limit or eliminate pendulum effect if a fall occurs
5. Hook personal harness and lanyard onto lifelines
 - a. Wear gloves

Fall Protection Plan

As per regulation, the employer must have a written fall protection plan for a workplace if:

- A) Work is being done at a location where workers are not protected by permanent guardrails. And from which a fall of 7.5 m(25ft) or more may occur
- B) If fall arrest or rope access system was not used or nor practicable

Refer to Appendix B: 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

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.

No worker shall enter a confined space when working alone. A standby worker must always be available to monitor workers and the atmosphere within the confined space.

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
5. Administrative controls
6. Safe work plan
 - a. Rescue procedure outline
7. Engineering controls
 - a. Mechanical ventilation
 - b. Lock out all mechanical equipment – including electrical, mechanical,

-
- steam, gas, hydraulic, wind and radiation devices
8. Personal protective equipment to minimize the hazards
 - a. Respirator with Supplied air and full-face mask
 - b. Gloves
 - c. Ear plugs
 - d. Glasses
 9. Ensure the atmosphere is tested for presence of hazardous materials, such as gases and oxygen levels.
 10. Testing of the atmosphere should be undertaken by a worker with the appropriate training.
 - a. Training must include instrument calibration, maintenance, and interpretation of readings and warnings.
 - b. Testing equipment service logbooks must be maintained for all pieces of monitoring equipment.
 - c. Results of the atmosphere testing must be recorded, along with the equipment used to perform the tests.
 - d. Ongoing testing may be required depending on the nature of the space.
 - e. 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).

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.*

3.2.1 Hydrogen Sulphide (H₂S)

H₂S is a lethal toxic gas. It has no color, but it smells like rotten eggs. In larger amounts, H₂S quickly blocks the sense of smell. H₂S dissolves in water and oil, and it may be released when these liquids are heated, depressurized, or agitated. Because H₂S 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). H₂S burns and explodes easily. When it burns it gives off Sulphur Dioxide (SO₂), another dangerous gas that is toxic, strong smelling, and irritating.

PPE Required:

- Safety glasses
- Four Head Gas Clip (H₂S, CO, O₂ 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 H₂S that are wearing contact lenses may have the lenses absorb irritants and hold irritants such as H₂S 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 H₂S, or if they are so used to working with H₂S 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.
 - a. These monitors will continually detect and warn the wearer of potential exposure to H₂S, CO, O₂ and combustible gases.
 - b. 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.
 - c. 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 H₂S.
 - a. Sewage Systems
 - i. Anywhere organic material is left to break down

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

Chart 3.2.1 - Hydrogen Sulphide (H₂S) – 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 Ontario workers must not be exposed to H ₂ S 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, collapsing 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!

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 H₂S, >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 H₂S.
 - 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.
 - 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 H₂S 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 H₂S.

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

3.3 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
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.*

3.4 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

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.

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.*

3.5 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

3.6 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.*

3.7 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 FLHA 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.

3.8 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:

12. Arrive at site and meet site contact.
13. 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
14. 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 FLHA if required by following Xradar's protocol
15. 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.
16. Ensure not to block any important access egress routes when setting up.
17. If using a ladder use safe work ladder procedures and tightly strap the monitor to the paint tray or top, if necessary.
18. 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.
19. 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.
20. 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.

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21. 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.
 22. Ensure to take all equipment away and leave the site clean and tidy.

3.9 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 inform 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.
 - 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.

3.10 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:

- 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.
- 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.
- When possible, always have a spotter below also, ensuring people are clear of the area.
- 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.
- 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.

3.11 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:

- 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.
- 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).
- 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.*

- 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.
- 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.
- 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.

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

- 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.

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

3.12 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:

- 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
- Ensure clothing is dry and without defects
- Take short breaks indoors whenever possible
- Constant observation (supervisor or buddy system)
- Maintain movement to increase circulation, especially to hands and feet
- Pace yourself as to not create sweat
- 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

3.13 Working in Hot Temperatures

PPE Required: Safety boots

Hazards associated: heat exhaustion, heat stroke, heat stress

Procedure:

- 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
- Ensure clothing is dry and without defects
- Take short breaks whenever possible
- Bring and drink lots of water, stay hydrated
- 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

3.14 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:

- Conduct a “visual pre-trip” inspection prior to use, for tire pressure and vehicle damage.
- Report deficiencies and do not use it if equipment is in unsafe condition.
- Drive defensively at all times.
- Ensure all vehicle occupants are wearing seatbelts. You are responsible for your passengers.
- Do not exceed posted speed limits.
- On resource roads do not exceed 80kph or posted speed limits.
- 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.
- Use vehicles for intended use only (purpose and weight limitations).
- Drive with vehicle lights on at all times.
- Secure all heavy or sharp objects in the cab of the vehicle.
- Respect that loaded logging trucks have the right of way on single lane roads.
- Do not tailgate other vehicles.
- Never chase a runaway vehicle.
- Stay on your side of the road.
- 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.
- Complete a monthly vehicle inspection electronically via Device Magic-Vehicle Inspection Checklist

3.15 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 FLHA 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 FLHA 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.
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.

3.16 Working with Lead-Coring-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, hearing protection, gloves, full facepiece respirator with P100 HEPA Cartridges (if needed, extra protection or engineering control is not available)

Equipment Required: HEPA Vac with dust control 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. If lead paint is suspected use test kit to verify presence of lead paint
3. If lead paint is detected, stop work and fill out "Refusal of Unsafe Work" Form. "Refusal of Unsafe Work" Form will be delivered to the client and management via Device Magic
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 client has completed removal of lead/abatement, technicians can carry on with work
7. When coring, ensure that HEPA Vac is being used at all times when drilling into concrete
8. OHS Lead to investigate if hazard is still present

3.17 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 FLHA 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

3.18 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 FLHA 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 lightning 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 has stopped or moved away
10. If injured, please report to supervisor/manager and fill out an Health & Safety Incident Report Form

3.19 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****

3.20 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 inform 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

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- they aren't laying in any water.
- 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.
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 the core bit from the drill and remove the 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 vehicles before driving.

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

3.21 Hammer Drilling

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, strains from vibrations of the tool, electrical shock (if using a corded device), silica dust exposure, noise during hammer drilling, pinch points, falling debris

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 hammer drilling 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. When hammer drilling informs 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. However be aware that the core will most likely be broken and in many pieces or may be small dust particles. Prepare a control zone if the debris may fall below onto other workers, a spotter is preferred.
5. Set up power leads for the vacuum and the hammer drill (if it is corded)
 - 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 simultaneously. Use sockets on separate circuits to avoid tripping breakers.
6. Begin by setting up the HEPA Vacuum with the ring wall attachment around the drilling location. set the hammer drill up and mark the drilling location, careful to stay within the scanning boundaries.
 - a. Wear a respirator mask with HEPA filter whilst drilling
 - b. Inform others around you of the drilling and have them leave the area for the duration to allow the dust to settle, be ventilated or vacuumed.
 - c. Ensure HEPA Vacuum is running throughout the drilling process to help manage any dust particles & maintain a clean working environment.
7. Set up the hammer drill with the appropriate size bit & proceed to drill through the wall.
 - a. Drilling can be done from only one side of the wall/slab, or from both sides depending on preference of a “clean drill hole.” Drilling from only one side can lead to “blowout” on the backside of the wall, which can be problematic aesthetically. To help prevent this, hammer drilling from both sides & matching up in the middle makes a much cleaner hole.
 - b. If hammer drilling through hollow-block walls, make sure you are following our SOP for hollowblock wall coring. (See SOP-Hollowblock)
 - c. Keep in constant communication with the core catcher or spotter with progress (See Core Catching Safe Work Practices.)
 - d. Keep any loose items of clothing, hair and fingers away from the drill bit and all pinch points whilst the drill is running.
8. Once finished hammer drilling, ensure to vacuum up all dust and debris and leave the area clean and tidy.
 - a. When finished drilling, avoid touching the drill 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. Take extra care with power cables and water when coring through a wall as water will flow down the wall.
10. Safely pack up equipment. Do not attempt to carry too much at once to avoid injury.
11. Securely strap equipment in vehicles before driving.

3.22 Jackhammer drilling or chipping

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

Hazards associated: Strains from lifting equipment or cores, strains from vibrations of the tool, electrical shock (if using a corded device), silica dust exposure, noise during hammer drilling, pinch points, falling debris

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 Jackhammering, you should **always** be wearing safety glasses, gloves, hearing protection as well as a respirator when using a jackhammer.
 - 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. When Jackhammering informs 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 trench 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 trench. Make sure they are aware of the limitations and keep the trench location a ‘safe’ distance (at the scanning technicians’ discretion) from any conduits or targets which needs to be avoided.
5. Set up power leads for the vacuum and the Jackhammer (if it is corded)
 - 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 simultaneously. Use sockets on separate circuits to avoid tripping breakers.
6. Begin by setting up the HEPA Vacuum with the LEV attachment and attaching it to the jackhammer.
 - a. Wear a respirator mask with HEPA filter whilst drilling/chipping
 - b. Inform others around you of the drilling and have them leave the area for the

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- duration to allow the dust to settle, be ventilated or vacuumed.
- c. Ensure HEPA Vacuum is running throughout the drilling process to help manage any dust particles & maintain a clean working environment.
7. Set up the Jackhammer with the appropriate size bit & proceed to drill/chip the surface.
 - a. Keep any loose items of clothing, hair and fingers away from the drill bit and all pinch points whilst the drill is running.
 8. Once finished hammer drilling, ensure to vacuum up all dust and debris and leave the area clean and tidy.
 - a. When finished drilling/chipping, avoid touching the drill 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. Take extra care with power cables and water when coring through a wall as water will flow down the wall.
 10. Safely pack up equipment. Do not attempt to carry too much at once to avoid injury.
 11. Securely strap equipment in vehicles before driving.
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3.23 Operation of a SLS Fuse 1 3D Printer

PPE Required: N95 Mask or Respirator with P100 filters, eye protection, nitrile gloves,

Hazards associated: Inhalation of dust, combustible dust particles, burns from printing chamber

General:

- A dust mask (N95 or half mask respiratory protection) must be worn whenever exposed powder is being moved and for 15 minutes after movement.
- The extraction system must be turned on when working in the Printing room. It must remain on for at least 15 minutes after work has finished.

Printing Procedure:

1. Prepare the model and send to printer with Preform (Printer name is CandidKit)
2. Check if there is sufficient material in the hopper. (This printer uses Nylon 12)
 - a. To add Material to the printer, open the hopper door (top right) and pour in the powder. A N95 or a respirator with P100 must be used for this process.
3. Insert an empty build chamber and plug it into the printer.
 - a. To do this, open the printer door and slide the build chamber into the rails, then plug the connecting lead into the printer.
4. Clean the IR Sensor.
 - a. Open the top hatch and lift the sensor and wipe it with a wet polyester swab with ethanol and use it to clean the lens.
 - b. Place it back into position once cleaned. It is installed correctly if you are unable to rotate it.
5. Follow instructions onscreen to start the printing process.

Post Processing Procedure:

1. A dust mask is required for all post processing activities.
2. Unplug and remove the build chamber from the printer. It will be hot, allow it to cool after the print has finished. Wear insulated gloves for any removal of the build chamber, unless it is fully cooled off.
3. Move the build chamber to the post processing tray for removal of excess printing compound.
4. Tip the build chamber into the large post processing tray and remove the material puck.
5. Once the puck is removed, clean the build chamber of any remaining material (It does not need to be perfect, use the vacuum cleaner).
 - a. Return the empty chamber to the printer and plug in the connecting lead.
 - b. To do this, open the printer door and slide the build chamber into the rails, then plug the connecting lead into the printer.
6. Clean printed parts in the post processing tray using brushes and tools.
 - a. Do not use tools that are not made of Nylon.

7. Once printer parts are cleaned of excess material remove them from the tray, move material over to the sifter.
8. Pour reclaimed powder through the sifter with 30% of it being fresh powder.
9. Once it has been sifted, pour the powder back into the printer hopper.
 - a. To add Material to the printer, open the hopper door (top right) and pour in the powder. A N95 or a respirator must be used for this process.
10. Follow the instructions on screen to prime the printer and get it ready for the next build.

Section 4 - Safe Work Practices

4.0 Safe Work Practice Policy

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.

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

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.

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 7

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 in motion.

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.

4.6 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.

4.7 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).

4.8 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

4.9 Concrete Scanning

Inspect the area to be surveyed and gather as much information about the slab to be investigated. Complete a FLHA (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.

4.10 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.

4.11 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 transponder 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!

4.12 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:

7. 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.
8. 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.
9. 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.
10. 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.
11. 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.

4.13 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

4.14 Power and Hand Tools

Xradar endeavors 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.

4.15 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:

- 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.
- Inspect all extinguishers at annual intervals. They should be tagged with the date of inspection and/or refill.
- Promptly refilled after use
- Projected on a fire from the windward side and directed at its base or outer edge of fire with a sweeping motion.
- Recharged and maintained as per manufacturer's specifications

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

4.16 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.

4.17 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

Section 5 - Rules of Conduct

5.0 Rules of Conduct

Purpose

Xradar shall establish, implement, monitor, and maintain a documented policy and procedure for company rules. The purpose is to ensure that all workers follow Xradar policy and procedure to ensure a safe working environment. Additionally, if any actions require disciplinary action, such as: drug abuse, bullying or harassment, or gross violation of safety rules. Xradar reserves the right to discipline its employees to ensure compliance with legal requirements and Xradar policy and procedure using a progressive disciplinary actions.

Policy

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

1. Employees must:

- a. Reporting defective equipment or personal protective equipment.
- b. Not use tagged out equipment and equipment or tools for any purpose other than its intended use.
- c. Returning all equipment and tools to the shop or its associated vehicle at the end of every shift.
- d. Reporting accidents, injuries, or near misses, regardless of their nature/severity and properly documenting them.
- e. Complete FLHA as per *Section 2 Hazard and Control*.
- f. Provide accurate testimony during investigations and audits.
- g. Reporting any driving infraction or ticketed offence.
- h. Reporting any vehicle, property or equipment concerns to your manager.
- i. Ensure all vehicles and workspaces are free of debris and garbage at the end of the shift.
- j. Complete all inspections required by *Section 7 Preventative maintenance* and *Section 9 Inspections*.
- k. Carry out all work in accordance with company safe work practices, safe job procedures and your manager's direction.
- l. Report unsafe working conditions to relevant parties. (General Contractor / Manager / Health and Safety Lead)
- m. Only smoke or vape in designated areas (not company vehicles).
- n. Wearing any applicable Personal Protective Equipment (including Specialized) when required.
- o. Reporting any expired certifications and if uncertified refusing unsafe work.
- p. Comply with work location specific rules.

2. Employees are in gross violation of company rules if:

- 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. Violation of the Fit for Duty and Drug and Alcohol Policy.
- i. Repairing or altering equipment without proper qualifications or permission.
- j. Violation of the bullying and harassment and workplace violence policy.
- k. Violation of provincial or federal law.

Roles and responsibilities

Senior Management:

1. Establishing, implementing, and approving company rules that must take into account applicable legal and regulatory requirements such as, but not limited to:
 - a. *Federal Labour Code;*
 - b. *Provincial regulatory body; (WSIB/OHSA/WCB AB/WCB BC/WCB NS)*
 - c. *Applicable Acts, regulations, and guidelines;*
 - d. *Xradar Policy and Procedure;*
 - e. *Manufacturers instructions.*
2. Ensure workplace and company rules are to be written and/or explained in a way that can be clearly understood.

Managers:

1. Ensuring company rules are applied and constantly enforced throughout the organization.
2. Engage progressive disciplinary action when required.
3. Educate and train employees on an ongoing basis.
4. Maintain records of employees' disciplinary notices or verbal warnings on BambooHR.
5. Conduct investigations as required.
6. Ensure that company rules are posted in the office/warehouse.

Health and Safety Lead and HR:

1. Monitor compliance to the program.
2. Conduct investigations as required.
3. Monitor disciplinary process and ensure disciplinary recording process.
4. Educate and train employees on an ongoing basis
5. Establishing and implementing company rules must take into account applicable legal and regulatory requirements such as, but not limited to:
 - a. *Federal Labour Code;*
 - b. *Provincial regulatory body; (WSIB/OHSA/WCB AB/WCB BC/WCB NS)*
 - c. *Applicable Acts, regulations, and guidelines;*
 - d. *Xradar Policy and Procedure;*
 - e. *Manufacturers instructions.*

6. Ensure workplace and company rules are to be written and/or explained in a way that can be clearly understood.

Supervisors:

1. Report violations of safety rules and regulations to the manager.
2. Enforce company rules and regulations and report any deviations to management.
3. Educate and train employees on an ongoing basis.

Workers:

1. Adhere to the Xradar policy and procedures.
2. Adhere to worksite, general contractor, or company rules.
3. Adhere to local, provincial and federal law and regulations.
4. Report violations of safety rules and regulations to the manager or supervisor.

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 Progressive Discipline Policy

Overview

The purpose of this policy is to clarify guidelines for employee conduct and to outline appropriate disciplinary steps for supervisors and management. It is the duty and the responsibility of every Xradar employee to be aware of and to abide by existing policies and work rules.

Process

Xradar operates a 3 stage progressive disciplinary process. After each of the first 2 stages the employee will be given an opportunity to correct the problem or the behavior. If they do not correct the behavior, the type of discipline increases in severity and eventually leads to termination.

Xradar reserves the right to combine or skip stages depending on the facts of each situation and severity of the offense. Warnings, both verbal and written, will remain on the employees record for a period of 12-24 months. The specific timeframe will be communicated to the employee in writing.

Disciplinary processes and outcomes are confidential and should not be shared in the workplace by the supervisor or manager. Below is the general process:

Stage 1: Verbal warning

Supervisor verbally counsels an employee about an issue of concern. A written record of the discussion noting the issue, the date, and recommended actions discussed, is placed in the employee's HR Profile.

Stage 2: Written warning

A written warning is used for behavior or performance that a supervisor considers serious or when a verbal warning has not helped change unacceptable behavior or performance.

The manager, in consultation with Human Resources, will provide the employee with a written warning and may place the employee on a performance improvement plan (PIP) for a maximum of 90 days. This will outline the level of performance required to perform the job to a satisfactory level, schedule for additional training if required, timeframe for improvement, and the consequences for failing to correct the problem.

The supervisor and employee should meet regularly to assess the progress of the PIP. If the employee has met the goals and expectations described in the PIP, the supervisor will document that he or she has successfully completed the PIP.

During this time the employee may lose Company privileges including personal use of Company vehicles, education allowances, Bucketlist recognition program awards and points, employee referral bonuses or ESOP participation.

Stage 3: Termination of employment

Progressive disciplinary action can eventually result in termination if the employee persists in committing offending behavior or unacceptable work performance in spite of progressive discipline and performance improvement plan.

Progressive Disciplinary - Examples

Below are some examples of employee conduct that would lead to progressive discipline depending on the severity and impact of the infraction. No list of rules can include all instances of conduct that can result in discipline, and the list of examples below is not exhaustive.

- Creating conflict with co-workers, supervisors, visitors or volunteers.
- Failing to follow practices or procedures as needed for the specific job assignment.
- Contributing to unsafe conditions.
- Failing to report injuries regardless of the severity.
- Failing to report near misses regardless of severity.
- Failing to report damage or an accident involving company equipment.
- Failing to report any driving infraction or ticketed offense.
- Acting negligently. Including acts that results in damage to property and/or equipment both owned and not owned by the company
- Engaging in horseplay that results in personal injury.
- Spreading malicious rumors.
- Continued poor performance in the employee's daily responsibilities

Immediate Termination - Examples

Behavior that is illegal may result in immediate termination and be reported to local law enforcement. Similarly, the examples below may also be grounds for immediate termination. Please note this list is not exhaustive.

Examples:

- Being absent for three or more days without notification or permission (also referred to as a voluntary quit or job abandonment).
- Fighting.
- Engaging in bullying or harassment.
- Engaging in vulgar, discriminatory or abusive language or conduct toward others.
- Dishonesty, including deception, fraud, lying, cheating or theft.
- Sabotaging the facility, grounds or equipment of Xradar.
- Possessing, being under the influence of or using intoxicating substances on the job, including both legal and illegal drugs Please inform your supervisor if you are required to take a prescription drug that may impact your work performance.
- Concealing defective work.

- Using a company vehicle for personal use without permission or driving without a valid driving license.
- Carrying a weapon on company property, client property or to company events, including in the parking lot and within company vehicles.

Appeals Process

Employees will have the opportunity to present new information to dispute the disciplinary action. The purpose of this process is to provide insight into extenuating circumstances that may have contributed to the employee's performance or conduct issues while allowing for an equitable solution.

If the employee does not present this information during any of the step meetings, he or she will have five business days after each of those meetings to present such information.

5.2 Fit for Duty 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:

- Prescription drugs
- Medications and over the counter drugs
- Alcohol
- Cannabis
- Medical conditions
- Illicit drugs
- Fatigue
- Personal, mental or physical health concerns causing inability to concentrate or perform work tasks

Fit for duty Definition

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.

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:

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

- Read, understand and comply with the Fit for Duty Policy as it applies to your workplace and recognize signs of impairment.
- Report if you may be impaired or not Fit for Duty to your supervisor.
- Report if you observe an employee who may not be fit for duty.
- 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

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.

Employees Responsibilities:

- Inform manager 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 local regulations.

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.

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 or 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:
 - a. Ensure that any unsafe condition is remedied without delay and is discussed at the next safety meeting, or
 - b. 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 tool, 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 is 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.

Policy

A person must not remain at a workplace if the person's behavior is affected by alcohol, a drug or other substances and is an undue risk to workers. Workers that may be under the influence of drugs or alcohol will be subject to disciplinary actions as outlined in Section 5.0 will be carried out.

Roles and Responsibilities:

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.
3. If required by an investigation or a worker is suspected of use, conduct a drug and alcohol test.

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, work at, or remain at any workplace while the person's ability to work is affected by alcohol, a drug (prescription, non-prescription, or illegal/legal drugs.) 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 manager/supervisor right away.

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.

***Important Note:** This policy is not intended to discourage or prevent the complainant from exercising any other legal right pursuant to any other law or police intervention.*

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

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.

1. 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
2. Actions that are **NOT** considered harassment include:
 - a. Reasonable day-to-day actions by a manager or supervisor that help manage, guide or direct worker
 - 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 WSIB. An independent third party will then investigate the complaint and produce a written report to management.

Important Note: *That the management, supervisory staff, and any other persons 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.
2. 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.
3. 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.

Roles and Responsibilities

Senior Management

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 by province:

British Columbia

To report workplace harassment to WorkSafeBC, go to:

<https://www.worksafebc.com/en/contact-us/departments-and-services/health-safety-prevention>

Alberta

To report workplace harassment to Alberta Human Rights Commission, go to:

<https://albertahumanrights.ab.ca/complaints/am-i-in-the-right-place/self-assessment/>

Ontario

To report workplace harassment to Ontario Human Rights Commission, go to:

<http://www.ohrc.on.ca/en/filing-claims-discrimination>

Nova Scotia

To report workplace harassment to WCB Nova Scotia, go to:

<https://forms.cloud.novascotia.ca/NewSubmission/d25c03b7-6dee-4d8c-89ca-527a4f5c0fdc>

**For More information on this policy, please refer to BambooHR.

5.7 Workplace Violence Policy and Procedure

Definition of Violence:

“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.

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 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.

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

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.

5.8 Return to Work Policy

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;
- Federal Labour Code;
- Provincial regulatory body; (WSIB/OHSA/WCB AB/WCB BC/WCB NS)
- Applicable Acts, regulations, and guidelines.

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

Training

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

Return to Work Form

Please refer to Appendix B for the Return to Work forms.
Return to Work Policy and Procedure (see Section 8.3)

5.9 Medical Aid/Return to Work Procedure

Purpose: A guideline for management to follow after an incident that requires medical aid occurs. As well as if a worker requires a Return to Work plan following an injury that requires modifications to a worker's normal work to accommodate for illness/injury. All of these forms and their variations are in the associated folder in BambooHR or in Health and Safety; 5. Rules of Conduct; Return to Work of the associated division.

If in any case a worker is rushed to the hospital or medical aid in an urgent manner, follow up with the worker once they are in a stable condition or have been cleared from the hospital. A worker in these conditions will often have to follow up with a Doctor. Wherever possible, the Health and Safety Lead and/or the workers manager will issue the Return to Work package once it is feasible to do so. The package is to be filled out by the worker and their physician as soon as feasibly possible and returned to Xradar.

ALL MEDICAL AIDS REQUIRE A FULL INCIDENT INVESTIGATION.

*****Anything below that is **bolded** refers to a specific document that must be completed or issued.*****

Must be completed:

Please ensure workers complete a **H&S Injury and Near Miss report** on Device Magic immediately following an incident. Advise them to collect the **First Aid Report** from the General Contractor/On-site First Aid Attendant. If they give themselves First Aid via Vehicle First Aid Kit, they must also fill out a **H&S First Aid Treatment Records** in DM. If they cannot collect the First Aid report, reach out to the Site Safety person or Site Superintendent for a copy. Make sure to file the First aid Report with the Investigation Report for the incident. **Documentation does NOT take precedence over seeking medical aid.**

Procedure:

1. A worker receives a workplace injury or gets an occupational illness that requires medical aid. Any worker that goes to medical aid must get the Return to Work package in case they cannot return to previous duties.

The Return to Work Package includes:

- **Return to Work - Letter to the Worker** (For your province) {needs manual editing}
- **Return to Work - Letter to the Physician** (For your province) {needs manual editing}
- A functional abilities form for your province:

XBC: **Functional Abilities Form WorksafeBC (BC)**

XAB: **Notice to Health Care Provider Fitness for Work WCB Alberta (AB)**

XCA: **Functional Abilities Form WSIB (ONT)**

2. As soon as a Worker goes to medical aid an **Employer's Report of Injury or Disease (Form 7)** must be filled out and submitted to your province's Workplace Compensation Board within 48 hours. Either through the website portal, email, or by faxing it. **Remember to also give a copy of the Form 7 to the worker.**
3. The Worker must fill out a **Worker's Report of Injury or Occupational Disease to Employer (Form 6)** within 48 hours of seeing a doctor/health care provider and return it to Xradar. Issue them the form, either by email, slack, or by printing it out.

Ensure the **Form 6** and the **Form 7** is for your province/compensation board as there are 3 versions of each form.

BC = WorksafeBC (WCB BC)

AB = WCB Alberta (WCB AB)

ONT = Workplace Safety and Insurance Board (WSIB)

NS = WCB Nova Scotia (WCB NS)

4. A **Preliminary Investigation Report** must be completed within 48 hours of the incident. A **Full Investigation Report** must be completed within 30 days of the incident and is submitted to your province's Workplace Compensation Board. Through the website portal, email, or by faxing it.
5. **ONTARIO ONLY:** The Worker must return page 3 of the Physician's **WSIB-Health Professional Report (Form 8)** for the Return to Work Plan form. Additionally, a **Report of a workplace fatality, injury, illness or incident (OHS s. 51, 52, 53)** form must be submitted to WSIB in the place of a Full Incident Investigation. A Full Incident Investigation must still be conducted as per the policy/regulation, but a **Report of a workplace fatality, injury, illness or incident (OHS s. 51, 52, 53)** form must be sent to WSIB.
6. If a worker requires Return to work/modified duties due to the inability to return to normal duties as per the restrictions given by the Physician and therefore requires accommodated, modified, or alternative duties. A worker **MUST** be offered a **Return to Work Plan** for the estimated duration of the injury. Ensure that worker restrictions are taken into account and reasonable work is given to the worker. Training courses, administrative tasks, and other options are available if workers cannot commence field activities.
7. IF the Worker requires physiotherapy, kinesiology, massage, chiropract, acupuncture, or other trauma therapy services it must be scheduled for **OUTSIDE** scheduled work hours. If a worker requires medical procedures, further medical testing, or other scheduled appointments, they must let their manager and dispatch know of these appointment times and dates. If there are conflicts, this must be discussed with the workers manager and dispatch.

8. **Lost Time Cases:** the manager of the worker is responsible for logging communications between themselves and the worker. This is recorded on the **Return to Work Contact Log**.

9. Return to work will then be monitored by the workers manager and the Health and Safety Lead, with check in's occurring on a weekly basis until the resolution of the Return to work plan. This can be recorded in the **Return to Work Progress Report**. Once the Return to Work Plan is coming to an end, fill out a **Return to Work Closure/Evaluation Report** to mark the end of the plan and a workers return to normal duties.

Links to Documentation:

(Please do not overwrite the templates, make copies!)

XBC: [Return to Work Folder \(WorksafeBC\)](#)

XAB: [Return to Work Folder \(WCB AB\)](#)

XCA: [Return to Work Folder \(WSIB\)](#)

Section 6 - Personal Protective Equipment

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:

- 6 inch minimum ankle support, Steel toed boots
- Work pants (carpenter style pants or rain pants)
- Long-sleeved shirts appropriate for work
- Kneepads

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 oNTARIO 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 *WSIB/OHSA/WCB AB/WCB BC/WCB NS* concerning the selection of personal protective items.

Note: *The safety information in this policy does not take precedence over regulations or manufacturers instructions.*

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	

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

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

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	<ul style="list-style-type: none"> • Reinforced heavy rubber, staple-reinforced heavy leather • Rubber, plastic, leather, polyester, nylon, cotton
Sharp Edges	Severe Less Severe Mild w/ delicate work	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Dependent on chemical job-rated rubber or synthetic of the following material • Natural rubber, neoprene, nitrite butyl rubber, Viton, polyvinyl chloride, polyvinyl alcohol
Cold		<ul style="list-style-type: none"> • Leather, insulated plastic or rubber, wool, cotton
Electricity		<ul style="list-style-type: none"> • 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)	<ul style="list-style-type: none"> • 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

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

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

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

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 the brim or peak of Class B headwear.

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.

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.

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 sound-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.

Comparison of Hearing Protection

Ear Plugs	Earmuffs
<p>Advantages:</p> <ul style="list-style-type: none"> - 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. 	<p>Advantages:</p> <ul style="list-style-type: none"> - 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.
<p>Disadvantages:</p> <ul style="list-style-type: none"> - 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 	<p>Disadvantages:</p> <ul style="list-style-type: none"> - 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

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)
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: *a Respiratory is required on Device Magic one a month.*

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.

GRADE I (green)	GRADE II (Yellow)	GRADE III (Red)
Grade I 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.
 <p>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.</p>		 <p>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.</p>
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

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.

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	<p>Stronger than glass More choice of tints than polycarbonate</p> <p>Lightweight – 40% lighter than glass</p> <p>Sheds metal splash and splatter the best</p>	<p>Scratches easier than polycarbonate</p> <p>Weaker on impact than polycarbonate</p>
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NOTE: Polycarbonate and plastic are the only two lenses which are CSA-certified

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.
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.
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

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?

Section 7 - Preventative Maintenance

7.0 Preventative Maintenance 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.

- The company must maintain an inventory of all items to be maintained.
- Employees must follow requirements of preventive maintenance schedules, such as the *Personal Protective Equipment Inspection Schedule* and *Equipment Inspection and Maintenance Schedule*.
- Xradar's preventative maintenance program must take into account applicable legal and regulatory requirements such as, but not limited to:
 - *Federal Labour Code*;
 - *Provincial regulatory body; (WSIB/OHSA/WCB AB/WCB BC/WCB NS)*
 - *Applicable Acts, regulations, and guidelines*;
 - *Manufacturers instructions*.
- Xradar must keep records of maintenance for at least 3 years.
- Ensure that In-house repairs are being performed by qualified personnel and ensure records are maintained for the certifications of R&D Technicians.
- Workers must be trained on the inspection and maintenance of equipment.
- All equipment that is found to be defective or grossly overdue must be removed from service and disposed of properly.
- All employees must do an undocumented pre-use inspection of PPE and equipment before use to check for any deficiencies.

Roles and Responsibilities

Management:

- Comply with Xradar's system of regular inspections to ensure all equipment and tools are in good working condition and safe to use.
- Ensure that all required qualified personnel perform maintenance on tagged equipment in a timely manner.
- The safety committee will help establish parameters for equipment and tool inspections and review any safety issue pertaining to tool/equipment maintenance.
- Reviewing the tagout report, and using this information to reduce the amount and cost of equipment repairs.
- Approving invoices for repair costs through Beanworks and recording the associated costs on the spreadsheet.

Health and Safety Lead:

- Monitor the effectiveness of the program and its adherence to requirements such as, but not limited to:
 - *Federal Labour Code;*
 - *Provincial regulatory body; (WSIB/OHSA/WCB AB/WCB BC/WCB NS)*
 - *Applicable Acts, regulations;*
 - *Manufacturers instructions.*

Dispatch Lead:

- Make equipment unavailable and available on Lucy.
- Coordinate with R&D when required.

Technicians:

- Ensure all equipment is inspected as per the *Personal Protective Equipment Inspection Schedule* and *Equipment Inspection and Maintenance Schedule*.
- Before use, check all tools and equipment they are working with and tag any tools and/or equipment that pose a hazard/issue due to a need for repair.
- Ensure equipment is tested and all options exhausted before tagging out
- Obtain a tag out label and move the equipment to the tag out area of the warehouse or inform a manager if shipping is needed.
- Notify @tagout on slack that equipment has been tagged out
- Complete a digital tag out form.

Warehouse person and/or R&D Technicians:

- Provide a tag out number and label.
- Maintain and update the tag out spreadsheet throughout the process.
- Filing/tracking of corresponding paperwork and forms.
- Shipping and delivery of equipment.
- Notifying relevant personnel of returns, updates or delays via @tagout.
- Repair/removal of tagged out equipment.

7.1 Tag-Out Procedure

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

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?

Procedure:

1. Inspect all equipment before use and/or at the companies required frequency.
2. Ensure the equipment actually needs repair. IE. trying different screens and set ups. Try to get more information on the type of damage, through photos or videos of the issue.
3. Ask your supervisor, manager, or a senior technician for advice prior to tagging out. Advice can also be sought using the #equipmentmaintenance channel on slack or by contacting your manager.
4. Request a Tag-Out Reference Number via slack on the #equipmentmaintenance channel using "@tagout" to notify the necessary personnel. The R&D Technicians or Warehouse Person will provide the tag out number via slack.

Note: "@tagout" group on slack includes Field Technicians, Lead Dispatch, Manager(s), R&D Technicians, warehouse person, Health and Safety Lead, and National Manager.

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.

Note: This form is automatically emailed to the Warehouse Person, R&D Technicians, Health and Safety Lead, and managers. It is also automatically filed away in: G:\Shared drives\5.2-Device Magic-Health & Safety/Tag-Out Forms

6. Collect a Tag Out Label from the warehouse, 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. Alternatively, Red Danger tape can be used as an indicator.

Note: If equipment is shipped to the head office for repairs, the R&D technician or warehouse person will bring it to the tagout area and apply a tag out tag.

7. Put the equipment you are tagging out in the “Tag out” equipment area in the warehouse with the tag out label. 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.
8. 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
9. The Warehouse Person or an R&D Technician (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.
10. The warehouse person or an R&D Technician (or Division Manager in their absence) is responsible for arranging in house repairs or shipping as required.

Repair Vendors

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 Xradar include:

1. Spatial - Leica Camera
2. DDT - coring equipment
3. Hoskins - Proceq
4. Vivax - Linestar

Shipping Equipment

Equipment should be shipped using the “Secureship” shipping platform. The warehouse person or Division Manager will do this or designate someone to ship the product.

Packaging

Care should be taken to ensure the equipment is properly packaged with bubble wrap, styrofoam, or other packing materials to ensure no damage to equipment when shipping. A shipping label should be created using “Secureship”. 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 is ready to be 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.
2. The Warehouse Person or an R&D Technician should then notify @tagout on the #equipmentmaintenance slack channel that the equipment has been fixed returned and is ready for testing.
3. The Warehouse Person or an R&D Technician will test (Manager or lead dispatcher in their absence) or assign a technician the device to test on site. If the equipment passes the testing phase it can be returned to service and moved back into the equipment room.

Note: *GPR devices are tested against another in-service GRP device to ensure it is calibrated and to ensure accuracy.*

4. The Warehouse Person or an R&D Technician (or the division manager in their absence) is responsible for updating the tag out spreadsheet including the invoice number and cost, as well as its repair status.
5. The Dispatch Lead must make the equipment available on “Lucy.”
6. 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.

7.2 Calibrating the Survey Wheel

Calibrate the survey wheel when you change wheels or the ground surface changes.

Quadrature Mode is intended for dual channel encoders and will track rotations and the direction the encoder turns. This means that data are collected in forward and reverse directions.

Procedure:

1. Begin by selecting a Survey Wheel Mode: Quadrature, and then follow the instructions.
2. Select calibration distance – The standard distance for Xradar is 1 meter, but this distance can be increased. The longer the calibration distance the more accurate the calibration should be.
3. Measure out a meter on the ground, mark the starting point and ending point.
4. Position antenna on the Start mark – Press the Start button – This is the green Start button located on the keypad of the SIR 4000.
5. Move the antenna across the surface to the stop mark.
6. Press the Stop button – This is the red Stop button located on the keypad of the SIR 4000.
7. After calibration select Apply to save the New Calibration Value or cancel to exit the Calibrate SW menu without saving.

7.3 Personal Protective Equipment Inspection Schedule

Item to be Maintained	Schedule of Completion				
	Daily Before use	Weekly	Monthly	Quarterly	Yearly
Eye and Face Protection	X				
Gloves	X				
Steel Toe Boots	X				X
Head Protection	X				X
Hearing Protection	X				
Lanyards, Harnesses and Life-lines	X		X		
Respiratory Protective Equipment	X		X		

7.4 Equipment Inspection and Maintenance Schedule

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

Section 8 - Training and Communication

8.0 Safety Training Policy

Policy

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

Employees will receive documented training of the following. This training includes, but is not limited to:

- Hazard Assessment and Control policy and procedure.
- Practical hands-on demonstration of the FLHA form on DM.
- New hire safety orientation.
- Job specific training.
- Task and trade specific training and certification.
- Specialized safety and related training.
- Provincially or federally mandated training.
- Training on WHMIS, Scissor/Boom Lift, Supervisor training (applicable to province), Fall Protection, First aid, H2S Alive, and Confined Space (when applicable) as per Training Analysis Matrix.
- Safety meetings (held every month; to be attended by all Xradar personnel).
- Department Meetings are conducted for each division of Xradar: Office, R&D, Concrete Scanning and Concrete Coring.
- Monthly Joint Health and Safety committee meeting is held once a month with a representative from each division and management.

Roles and responsibilities

Senior Management

- Ensure that in-house trainers are competent.
- Monitor the effectiveness of the policy.

Human Resources Manager:

- Coordinate with employees to begin the onboarding process.
- Follow up on the training process.
- Coordinate with other departments to ensure all parties are aware of a new worker.
- Assign onboarding responsibilities to relevant employees.

Health and Safety Lead:

- Coordinate with employees to ensure they are aware of the onboarding process before start day.
- Conduct New and Young workers orientation.
- Follow up with employees on completion of Training modules.
- Follow up with Training manager and supervisors to ensure on-the-job training is

being completed.

- Determine training needs by:
 - Conducting training needs analysis.
 - Reviewing legislated and other training requirements.
 - Taking into consideration different levels of responsibilities, abilities, language skills and literacy.
- Maintain records of any training conducted by the organization or its employees. This is to be captured within a Training Matrix and certifications are to be uploaded to BambooHR.
- Book employees into required training and coordinate with dispatch for scheduling.

Managers:

- Monitor and Conduct evaluations on employees to determine the training needs of employees.
- Confirm for Health and Safety Lead if an employee requires specialized training such as, but not limited to:
 - EWP/Boom lift and Fall protection after probationary period or at the request of a manager.
 - Confined Space
 - Swing Stage
- Ensure field supervisors and the Training manager have sufficient support for training new employees.

Supervisors:

- Assist managers and the Health and Safety Lead in ongoing training.
- Answer questions and teach new employees the company's processes and procedures.

Workers:

- Be compliant with policies and procedures laid out by this policy.
- Be respectful and ask questions.
- Come to work ready to learn and improve.

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 **BambooHR** within *Employee files* and will be tracked through **BambooHR** and a companywide **Training Matrix**.

8.1 New and Young Workers / Short Service Workers

Definitions

New Worker means any worker who is:

- New to the workplace, jobscope, or company.
- Returning to the workforce after an extended period of absence.
- Relocated to a new workplace if the hazards in that workplace are different from the hazards in the worker's previous workplace.

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

Short Service Employee means a temporary worker, either from a subcontractor or a labourer from a Temporary workforce employer or a union helper. They are workers who:

1. are not Competent to perform such work in accordance with Contractor's OHS program or its equivalent; or
2. in the case where Contractor does not have an established training competency program and has:
 - a. Less than six (6) months experience in the Position; or
 - b. Not performed work required in the Position for six (6) months or more; or
 - c. Less than six (6) months working experience with the Contractor and must not work alone.

***Note:** When Short Service Employees are used: the client will be notified prior to commencement of work they will also be only paired with senior technicians.*

Short Service Employee will:

- Work closely with Xradar employees.
- Comply with Xradar policy, practices, and procedures.

8.2 Orientations

All new workers will receive Xradar's New Hire Safety Orientation upon signing of the new worker's contract at the beginning of their first shift. Including information on the organization's OHS program, including but not limited to:

- Company policies and their purpose.
- Company roles, responsibilities and workers rights.
- Importance of conformity to the program.
- Potential consequences for deviations or noncompliance.
- Importance of workers' participation within the OHS program.
- Hazards and hazardous substances of the workplace.

Workers will also receive a site orientation when arriving at a new jobsite.

Workers will undertake onboarding training process which includes:

- Modules on Trainual, the company's online training platform.
- Silica, Lead, and Asbestos awareness training.
- GPR Theory and Introduction to the science behind scanning.
- Coring procedures and Exposure Control Plans for Hazardous Substances.
- Rights under WorksafeBC/WCBAB/WCBNS/WSIB
- In-House on the job training relating to specific job scope.
- In-house New and Young Worker orientation if required.
- In-house HR and Safety orientation.

***Note:** Workers must sign a New Hire Orientation acknowledgement form on completion of Onboarding Process and company HR and Safety Orientation.*

Equipment Training Certification

Refer to Appendix B for the Equipment Training Certification Form.

8.3 Communication Policy

Purpose

Effective communication is essential to the success of Xradar's Occupational Health and Safety Management System (OHSMS). This policy ensures that all employees, contractors, and visitors receive, understand, and can respond to information related to health and safety.

The purpose of this policy is to:

- Ensure clear, timely, and accurate exchange of health and safety information across all levels of the organization.
- Encourage active participation and feedback from workers in the OHSMS.
- Promote compliance with legislative and COR™ standards.
- Support continuous improvement in workplace health and safety performance.

Policy

Xradar will maintain open, effective, and inclusive communication regarding health and safety matters.

Senior Management is committed to ensuring that:

- Health and safety information is communicated in a manner that is understood by all receivers, considering language, literacy, and ability.
- Workers are provided opportunities for input and feedback into health and safety matters, including meetings, inspections, and reviews.
- The company documents and responds to all internal and external OHS communications in a timely manner.
- Regular OHS meetings, toolbox talks, and joint health and safety committee (JOHSC) meetings are held and recorded.
- Confidential or personal information shared in communications is protected and managed in compliance with applicable privacy legislation.

Roles and Responsibilities

Senior Management

- Demonstrate leadership and commitment to OHS communication.
- Ensure OHS information is up to date, accessible, and effectively distributed.
- Approve and review OHS communications and meeting summaries.
- Provide resources for translation, literacy support, or accessibility as required.

Managers/Supervisors:

- Schedule and document departmental and toolbox meetings.
- Ensure attendance, agenda, and minutes are recorded.
- Facilitate open dialogue and encourage worker input.
- Communicate incidents, corrective actions, and policy changes promptly.

Health and Safety Lead:

- Oversee OHS communication practices and ensure compliance with COR™ standards.
- Maintain documentation of meetings, bulletins, and other communications.
- Review feedback from workers and identify communication improvements.
- Issue and distribute safety alerts and updates.

Workers:

- Participate in OHS communications and meetings.
- Report hazards, incidents, and safety concerns immediately.
- Engage in discussions and provide feedback to supervisors and the JHSC.

Joint Occupational Health and Safety Committee (JOHSC)

- Review communications regarding incidents, inspections, and corrective actions.
- Ensure that worker feedback is reviewed and addressed.

Guidelines

The primary and official communications at Xradar are directed through the company email. Here are some of the most common and general sources of information and communication channels for the organization.

Type of Communication	Channel / Method	Frequency	Purpose
Company-Wide Townhall Meetings	In-person or virtual (Google Meet)	Quarterly	Communicate updates to the company and its departments and its divisions, OHSMS, incident trends, policy changes, statistics, performance results
Department meetings / Toolbox Talks	In-person or virtual (Google Meet) Minutes recorded in Google Docs	Monthly or as needed	Review job-specific hazards, incidents, safe work procedures, company updates, changes to OHS, go over trends, and statistics.
Joint Health and Safety Committee (JHSC) Meetings	In-person or virtual	Monthly	Review workplace inspections, incidents, policy/procedure, and employee feedback
Safety Alerts and Bulletins	Email, Slack #Health-safety channel, BambooHR	As required	Share urgent safety information or legislative updates
Incident Reporting and Notifications	Phone call or Slack to manager/H&S Lead	Immediate	Ensure timely reporting of incidents or near misses
Policy and Procedure Updates	BambooHR and Google Drive OHS Folder	Ongoing	Maintain current access to OHS documentation
Worker Feedback and Consultation	Toolbox talks, surveys, JOHSC, direct communication	Continuous	Ensure workers contribute to the OHSMS and its improvement

Meeting Minutes

Xradar has monthly Department Meetings that discuss health and safety, business and admin items. It is a requirement to record these meetings as minutes. Attendance is to be recorded and employees must be allowed to contribute to discussions.

Documentation and Recordkeeping

All OHS communications (meeting minutes, toolbox talks, alerts, etc.) shall be documented and retained according to record retention procedures. Documentation must include: date, participants, topics discussed, and follow-up actions. Records are stored in Google Drive (H&S folder) and BambooHR.

Confidentiality and Privacy

Xradar will ensure that any personal or sensitive health and safety information communicated is handled confidentially and in compliance with applicable privacy laws (e.g., PIPEDA and the Freedom of Information and Protection of Privacy Act).

Review and Evaluation

This policy will be reviewed annually or following significant organizational or legislative changes. Effectiveness will be assessed during the Management Review and internal COR audits. Revisions will be communicated company-wide through email, BambooHR, and Slack.

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:

- Promote safe work practices.
- Assist in creating a safe and healthy workplace.
- Recommend actions which will improve effectiveness of the occupational health and safety program.
- Promote compliance with WSIB Ontario 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

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.
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 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

Section 9 - Inspections

9.0 Inspection Policy

Purpose

It is Xradar's policy to maintain a comprehensive program of safety inspections in both shop and field environments. Our vehicles, machines, tools and equipment must be inspected and maintained in accordance with local, provincial and federal regulations and manufacturer requirements. Site inspections are required to determine compliance to the OHS program. The purpose of this policy is to control losses of human and material resources by identifying and correcting unsafe acts and conditions.

Policy

- Xradar is to conduct and keep records for workplace inspections including identifying and preventing potential non-conformities and corrective actions
- Xradar is to conduct and keep records for inspections of vehicles, machines, tools and equipment including corrective actions
- Inspections and their frequency must take into account applicable legal and regulatory requirements such as, but not limited to:
 - *Federal Labour Code*
 - *Provincial regulatory body (WSIB/OHSA/WCB AB/WCB BC/WCB NS)*
 - *Applicable Acts, regulations, and guidelines*
 - *Manufacturers instructions*
- Informal inspections shall be conducted by workers on an ongoing basis in their areas of responsibility.
- Before a Field Level Hazard assessment can be completed an inspection of the work area must be completed.
- Any vehicles, machines, tools and equipment that is found to be defective must be tagged out as per *Section 7 Preventative Maintenance*.
- All "tagged out" machinery/equipment will be examined and repaired by a qualified individual.
- Ensure that the information gathered by the inspections are communicated to all relevant workplace parties. Such as: Facilities Manager, R&D Technicians, Managers, Health and Safety Lead, etc.

Roles and Responsibilities

Managers

- Monitor the effectiveness of this policy.
- Enforce compliance with the policy.
- Encourage workforce participation.

Health and Safety Lead

- Monitor the effectiveness of this policy.
- Enforce compliance with the policy.
- Provide statistics and records to managers for enforcement and tracking.
- Encourage workforce participation.

Supervisors/Workers

- Conduct inspections as per the policy.
- Ensure that all assigned equipment is inspected as per the frequency chart.
- If any deficiencies are identified, inform relevant parties of the deficiencies.

9.1 Boom Lift / Scissor Lift Pre-Operation Inspection Checklist

Boom Lifts and Scissor Lifts shall be **inspected 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.

Note: "Boom Lift / Scissor Lift Pre-Operation Inspection Checklist" is form done digitally in Device Magic.

9.2 Tag Out Form

A Tag out form is to follow every tag out of equipment as per Tag out Procedure

Note: "Tag out Form" is a form done digitally in Device Magic.

9.3 Office and Warehouse Inspection

Formal Office and warehouse inspections will be conducted once per month or as required.

Note: "Office and Warehouse Inspection Report" is a form done digitally in Device Magic.

9.4 Job Site Audit

Formal job site audits shall be conducted monthly by managers or the Health and Safety Lead.

Note: "Job Site Audit Report" form is a form done digitally in Device Magic.

9.5 Personal Protective Equipment Inspection Schedule

Item to be Maintained	Schedule of Completion				
	Daily Before use	Weekly	Monthly	Quarterly	Yearly
Eye and Face Protection	X				
Gloves	X				
Steel Toe Boots					X
Head Protection					X
Hearing Protection					
Lanyards, Harnesses and Life-lines			X		
Respiratory Protective Equipment			X		

9.6 Equipment Inspection and Maintenance Schedule

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

Section 10 - Investigations

10.0 Investigation Policy

Purpose

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

Policy

Xradar is committed to maintaining a safe and healthy work environment through the prompt and thorough investigation of all workplace incidents, including injuries, illnesses, property damage, near misses, and environmental releases.

The objective of incident investigation is not to assign blame, but to identify root causes, eliminate hazards, and prevent recurrence. By learning from each event, Xradar strengthens its safety culture and continuously improves its Occupational Health and Safety Management System (OHSMS).

All incidents—no matter how minor—must be reported immediately to a supervisor or manager and investigated according to company procedures. Investigations shall determine what happened, why it happened, and what can be done to prevent it from happening again.

Xradar will:

- Conduct investigations in accordance with applicable federal and provincial OHS legislation and COR™ requirements.
- Ensure investigations are led by trained supervisors, managers, and/or safety representatives, with participation from the Joint Health and Safety Committee (JHSC) or Health and Safety Representative, as required by law.
- Identify immediate, underlying, and root causes of incidents and document all findings using the company's standardized investigation form.
- Develop, implement, and track corrective and preventive actions, verifying their effectiveness.
- Communicate investigation outcomes and lessons learned to all affected workers.
- Retain all investigation records in accordance with the company's Records and Statistics Policy for a minimum of seven (7) years.

Xradar's investigation process meets or exceeds the requirements of:

- Ontario Occupational Health and Safety Act (OHSA) – Sections 51–53 (Notice and Investigation of Accidents)
- WorkSafeBC OHS Regulation, Part 3, Division 10 – Incident Investigations
- Alberta OHS Act, Part 5 – Reporting and Investigations
- Nova Scotia OHS Act, Section 31 – Investigation and Reporting of Accidents
- Canada Labour Code, Part II – Sections 125(1)(c) and 135(7)

Management shall provide the necessary resources, training, and authority to ensure investigations are carried out promptly, effectively, and without interference. Employees must cooperate fully in any investigation and support the corrective measures that result.

Through this commitment, Xradar demonstrates due diligence and continuous improvement in protecting the health and safety of all workers, clients, and the public.

Roles and Responsibilities:

Management:

- Assess if the incident meets the investigation criteria and determine if an investigation is needed
- Determine which manager is to conduct an investigation as per the policy and procedure
- Review all investigation reports.
- 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.
- Conduct hit target or property damage investigations as per the policy

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 worker representative and supervisor/manager will be present during investigations and will sign off on investigations, if possible, a JHSC Committee representative.

Health and Safety Lead:

- Assist Supervisors/managers in conducting initial investigations as per the procedure.
- Assess if the incident meets the Investigation Criteria and determine if an investigation is needed.
- Conduct investigations for Health and Safety incidents as per the policy.
- Notifying management, employee`s family and WSIB/WCBAB/WorksafeBC/WCBNS as required.
- Ensure investigators are trained on incident investigation.
- Assist workers in completing initial reporting.
- Work with the worker/supervisor/manager to determine the need for and, if necessary, direct a detailed investigation using investigation criteria.
- Determine causes, recommend corrective actions, and report to the National Manager or board director.
- Ensure of investigations, incidents, accidents, and near misses are kept as per the Document Record and Control Policy

Human Resources:

- Notify the employee`s family of the incident if medical aid or higher is required.
- Investigate potential bullying, harassment, and/or violence in the workplace incidents.

10.1 Investigation Criteria (by province):

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

British Columbia:

- A. Serious injury to a worker or a worker's death
- B. Injury requiring medical treatment
- C. Minor injury, or no injury, but had the potential for causing serious injury
- D. Major structural failure or collapse
- E. Major release of hazardous substances
- F. Diving incident, as defined by the Occupational Health and Safety (OHS) Regulation
- G. Dangerous incident involving explosive materials
- H. Blasting incident causing personal injury

Alberta:

- A. An injury, illness or incident that results in the death of a worker;
- B. An injury, illness or incident in which there is 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, and;
- E. The collapse or failure of any component of a building structure necessary for the structural integrity of the building or structure;
- F. Any worker exposure to radiation in excess of the maximum limits prescribed in the OHS Code.

Ontario:

- A. When there is a fatality or critical injury;
- B. When a worker requires medical aid, misses the next shift, disabled from their usual work;
- C. Worker falling a vertical distance of 3m or more;
- D. Worker whose fall is arrested by a fall arrest system;
- E. Worker becoming unconscious for any reason;
- F. Overturning or structural failure of crane or similar hoisting device;
- G. Worker becomes in contact with energized electrical equipment, installation, and a conductor.

Nova Scotia:

- A. An accidental explosion;
- B. A major structural failure or collapse of a building or other structure;
- C. A major release of a hazardous substance;
- D. A fall from a work area in circumstances where fall protection is required by the regulations, at the workplace, whether any person is injured or not; or
- E. A fire, flood or accident that causes:
 - a. Unconsciousness;
 - b. A fracture of the skull, spine, pelvis, arm, leg, ankle, wrist or a major part of the hand or foot;
 - c. Loss or amputation of a leg, arm, hand, foot, finger or toe;
 - d. A third-degree burn to any part of the body;
 - e. Loss of sight in one or both eyes;

- f. Asphyxiation or poisoning;
- g. Any injury that requires the admission to hospital; or,
- h. Any injury that endangers the life of an employee, unless the injury can be treated by immediate first aid or medical treatment and the person can return to work the following day.

10.2 Preliminary and Full incident Investigations: Preliminary Incident Investigations

Preliminary investigations must be completed within 48 hours, unless the incident occurs outside of regular work hours on the weekend, then the investigation must be completed within 48 hours from the start of the following week. Copies of the preliminary investigation must be provided to JoHSC 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.

Full Incident Investigations

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 the OHS Program. 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 the JOHSC, Health & Safety Lead.

Ontario variance:

All Full Investigation reports must be submitted to the Ministry of Labor in addition to WSIB within the 30 days.

10.3 Incident and Investigation Reports

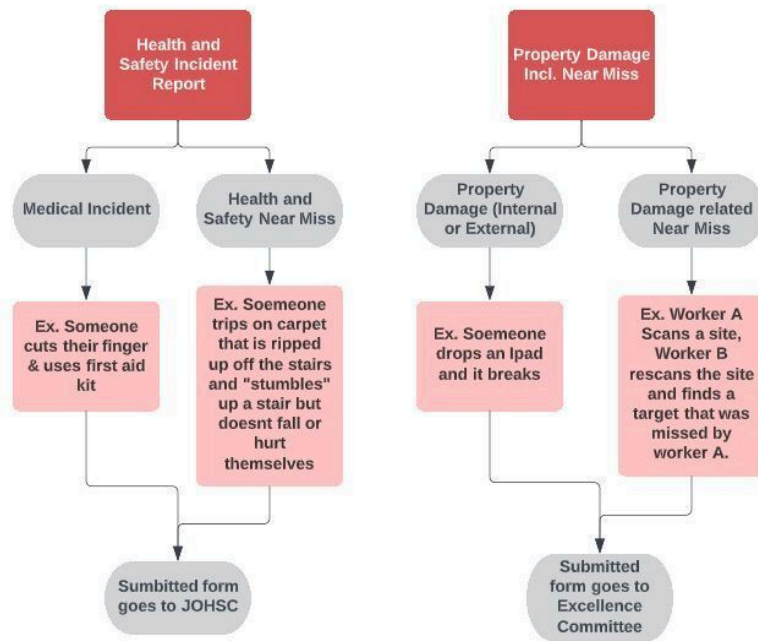
Incidents, accidents, and near misses are to be recorded digitally via a Device Magic form.

- For Health and Safety incidents or near misses Technicians are to use “**H&S Injury and Near Miss (Xradar)**” for recording incidents that have an inherent chance for physical harm or occupational health risk.
- For any property damage incidents or near misses technicians are to use “**Property Damage Incl. Near Miss (Xradar)**” for recording property damage, motor vehicle accidents, theft, or scanning/coring related incidents.
- Investigations will be documented through Device Magic “**Health & Safety Incident Investigation,**” “**Xradar Incident Investigation Form,**” “**Incident Investigation Report V1 Feb 2025,**” or through online forms and documents.

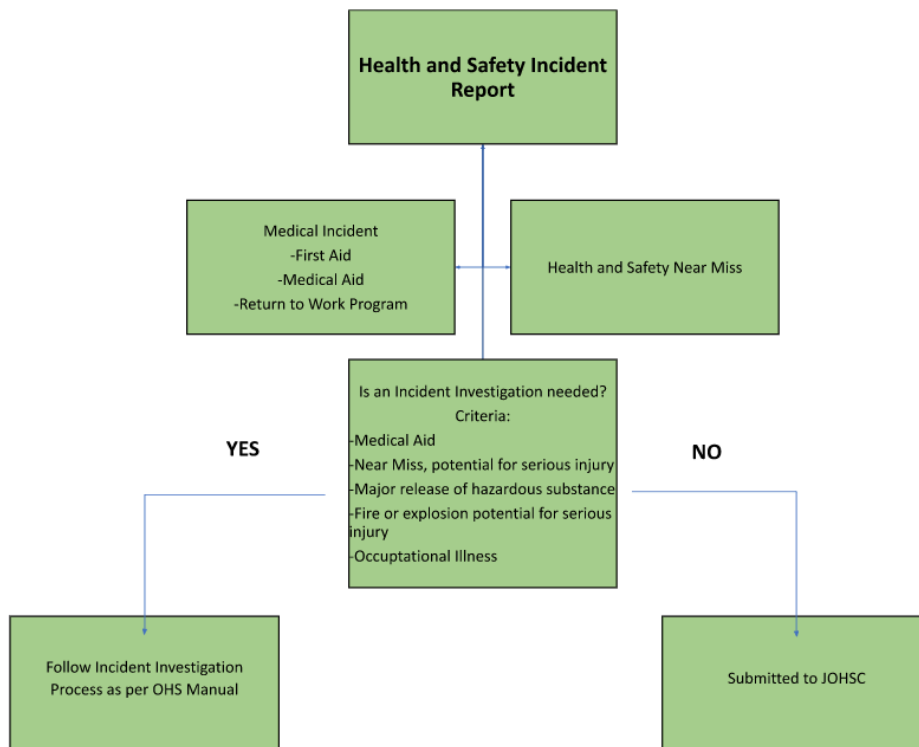
Refer to Section 10.4 & 10.5 for Incident Report Form Flowchart & Health and Safety Incident Investigation Process Flowchart

10.4 Incident Forms Flowchart

2 New Incident Forms and When to Use them:



10.5 Health and Safety Incident Investigation Process Flowchart



10.6 Xradar Incident Procedure:

Steps to follow if an incident, accident, or near miss occurs or is reported that includes, but is not limited to: property damage, first aid, medical aid, or a near miss. In any instance, a worker must prioritize getting first or medical aid. Completing an incident report if it is safe and reasonable to do so at their earliest opportunity.

Important Note: Do not claim fault for any incidents until a full investigation has been completed, as it could potentially void Xradar's insurance policy. This includes incident reports and internal or external communications. When completing incident report forms, be objective and clearly display the information. Express what happened before, during, after, any leading elements that could've affected the outcome, as well as anything relevant that could've been said between client and technician prior to the incident.

If required, an Xradar Excellence Committee member, manager, or Health and Safety Lead will contact you within 24-48 hours of the incident to set up an internal interview about the incident. You are required to complete this interview within 48 hours of the incident occurring. Unless the incident occurs outside of regular work on the weekend, then the interview must be completed within 48 hours from the start of the following week.

Note: All forms completed are sent electronically to either the #JOHSC or #Xradar-excellence in Slack for review by members of the committees as soon as they're submitted through Device Magic. They are also automatically emailed to managers and the Health and Safety Lead.

Section (1): Technician Procedures

(1.1) **The incident is discovered by or occurs while the technician is working on-site.**

- A. Stop Work! Ensure the area is safe and hazard free. **DO NOT DISTURB THE SCENE.**
- B. **Inform your manager or the Health and Safety Lead of the incident** by calling them. If you receive no answer, slack or text your manager or the Health and Safety Lead and wait for them to call you back.
 - a. Scanning technicians should inform the Scanning Manager for Concrete Scanning.
 - b. Coring technicians should inform the Coring Manager for Coring.
 - c. If it is a property damage related to scanning, the relevant Field Supervisor will immediately inform the Xradar Excellence Committee.
- C. Management will decide if any special steps need to be taken by the on-site technician based on the type and severity of the incident.
- D. Inform site contact of incident.
- E. Complete the **Xradar Incident Report** form on Device Magic for your province. Include relevant information which includes but is not limited to the following:
 - i. Be objective and clearly display the information.
 - ii. Express what happened before, during, after, any leading elements that could've affected the outcome, as well as anything relevant that could've been said between client and technician prior to the incident.
 - iii. Date and time, name of technician(s) involved.
 - iv. Job identifiers, job number and site address.
 - v. Photo of the incident location and any damage that occurred.

- F. Depending on the type/severity of incident an on-site investigation by an independent Xradar technician, manager, or health and safety lead may occur.
- (1.2) **The technician is informed of the incident by a site contact.**
- A. Stop Work! Have the site contact show you the location of the incident.
 - B. Ensure the area is safe and hazard free. **DO NOT DISTURB THE SCENE.**
 - C. **Inform your manager or the Health and Safety Lead of the incident** by calling them. If you receive no answer, slack or text your manager and wait for them to call you back.
 - a. Scanning technicians should inform the Scanning Manager for Concrete Scanning.
 - b. Coring technicians should inform the Coring Manager for Coring.
 - c. If it is a property damage related to scanning, the relevant manager will immediately inform the Xradar Excellence Committee.
 - D. Management will decide if any special steps need to be taken by the on-site technician based on the type and severity of the incident.
 - E. Complete the **Xradar Incident Report** form on Device Magic for your province. Include relevant information which includes but is not limited to the following:
 - i. Be objective and clearly display the information.
 - ii. Express what happened before, during, after, any leading elements that could've affected the outcome, as well as anything relevant that could've been said between client and technician prior to the incident.
 - iii. Date and time, name of technician(s) involved.
 - iv. Job identifiers, job number and site address.
 - v. Photo of the incident location and any damage that occurred.
 - F. Depending on the type/severity of incident an on-site investigation by an independent Xradar senior technician, manager, or health and safety lead may occur.

Section (2): Dispatch Procedures

- (2.1) **Dispatch is informed of an incident via an email from a client.**
- A. Forward the initial email from the client stating that there has been an incident to the Health and Safety Lead, relevant manager, or Incident Manager in the Excellence Committee.
 - B. Write a follow up email to the client stating that the report of the incident has been received and that an internal investigation is being conducted.
 - C. This email states that a senior Xradar technician will be sent to site to further investigate the incident.
 - D. If the client has not provided enough information about the incident, request that this information be sent in a follow up email or call. Relevant information required includes but is not limited to the following:
 - a. Ensure objectivity and focus on the clear display of the information.
 - b. Ask to express what happened before, during, after, any leading elements that could've affected the outcome, as well as anything relevant that could've been said between client and technician prior to the incident.
 - c. Date and time, name of technician(s) involved.
 - d. Job identifiers, job number and site address.
 - e. Photo of the incident location and any damage that occurred.

- E. Once this information has been gathered from the client it is to be forwarded to the Health and Safety Lead, relevant manager, or Incident Manager in the Excellence Committee.
 - F. An Excellence committee member, relevant manager, or Health and Safety Lead will respond and inform you if one or both of the following are required:
 - a. An Excellence committee member, relevant manager, or Health and Safety Lead will be sent to site to investigate the incident. This investigation must occur within 24-48 hours of the initial reporting of the incident.
 - b. Book in a follow up interview with the technician(s) who was involved in the incident and an Incident Investigator. This interview is to be booked within 48 hours of the initial record of the incident.
 - G. Wait to hear from an Excellence committee member, relevant manager, or Health and Safety Lead as additional tasks may be required of you.
- (2.2) **Dispatch is informed of an incident via the phone from a client.**
- A. Record all information that the client provides about the incident during this initial call.
 - B. If the client does not provide enough information, ask for the following information to be provided to you.
 - a. Ensure objectivity and focus on the clear display of the information.
 - b. Ask to express what happened before, during, after, any leading elements that could've affected the outcome, as well as anything relevant that could've been said between client and technician prior to the incident.
 - c. Date and time, name of technician(s) involved.
 - d. Job identifiers, job number and site address.
 - e. Photo of the incident location and any damage that occurred.
 - C. Inform the client that an internal investigation into the incident will be conducted by Xradar.
 - D. Inform the client that a senior scanning technician, An Excellence committee member, relevant manager, or Health and Safety Lead will be sent to site to further investigate the incident.
 - E. Once this information has been gathered from the client it is to be forwarded to the Health and Safety Lead, relevant manager, or Incident Manager in the Excellence Committee.
 - F. An Excellence committee member, relevant manager, or Health and Safety Lead will respond and inform you if one or both of the following are required:
 - a. An Excellence committee member, relevant manager, or Health and Safety Lead will be sent to site to investigate the incident. This investigation must occur within 24-48 hours of the initial reporting of the incident.
 - b. Book in a follow up interview with the technician(s) who was involved in the incident and an Incident Investigator. This interview is to be booked within 48 hours of the initial record of the incident.
 - G. Wait to hear from an Excellence committee member, relevant manager, or Health and Safety Lead as additional tasks may be required of you.

Section (3): Management Procedures

(3.1) You, the Manager, are informed of an incident by the Technician on site.

- A. Gather as much information as possible from the technician during this initial contact. Direct the technician to complete the **Xradar Incident Report** form on Device Magic for your province. Relevant information to gather includes but is not limited to the following:
 - a. Ensure objectivity and focus on the clear display of the information.
 - b. Ask to express what happened before, during, after, any leading elements that could've affected the outcome, as well as anything relevant that could've been said between client and technician prior to the incident.
 - c. Date and time, name of technician(s) involved.
 - d. Job identifiers, job number and site address.
 - e. Photo of the incident location and any damage that occurred.
- B. Decide if any special steps outside of the Standard Operating Procedures (SOP) need to be enacted by you or an on-site technician. Relay this information to the on-site technician as you deem necessary.
- C. Inform the Incident Manager from the Excellence Committee that an incident has occurred via phone, text, slack or e-mail. Communicate all relevant information you were able to gather from the technician.
- D. Wait to hear back from the Incident Manager as to what (if any) further actions by you are required.
- E. Later, an Xradar Investigation Report will be sent to you. This report should be read over by the manager for approval. This report is then to be sent by (The Incident Manager or Xradar Department head) to the client whose site / project the hit occurred on.

(3.2) You, the Manager, are informed of an incident by a client.

- A. Gather as much information as possible from the client during this initial contact. Relevant information to gather includes but is not limited to the following.
 - a. Ensure objectivity and focus on the clear display of the information.
 - b. Ask to express what happened before, during, after, any leading elements that could've affected the outcome, as well as anything relevant that could've been said between client and technician prior to the incident.
 - c. Date and time, name of technician(s) involved.
 - d. Job identifiers, job number and site address.
 - e. Photo of the incident location and any damage that occurred.
- B. Reassure the client that a full investigation into the incident will be conducted by Xradar.
- C. Inform the Health and Safety Lead or Incident Manager in the Excellence Committee that an incident has occurred via phone, text, slack or e-mail. Communicate all relevant information you were able to gather from the client.
- D. Wait to hear back from the Health and Safety Lead or Incident Manager in the Excellence Committee as to what (if any) further actions by you are required.

-
- E. Later, an Xradar Investigation Report will be sent to you. This report should be read over by the manager for approval. This report is then to be sent by The Incident Manager, Health and Safety Lead, or relevant manager to the client whose site / project the hit occurred on.

10.7 Xradar Excellence Committee Policy:

The Xradar Excellence committee exists in hopes of continually reducing the number of incidents, hits, and near misses related to property damage. By monitoring, evaluating and investigating the root causes of incidents directly related to our GPR scanning and coring work. The committee is one component of Xradar's commitment to quality control and maintaining a high level of service to our customers.

Specifically, the committee meets to discuss incidents that arise directly from our work scanning & coring such as struck embeddings, misidentified targets within scans, misinterpreted scan markings or transferred marks. Through committee meetings, scanning and coring policies and procedures as well as equipment limitations are reviewed. Wherever possible and relevant, new ones may be recommended to senior management. Knowledge gained from past incidents also provides good learning experiences for our workforce which is disseminated in department meetings and one-on-one meetings with staff and managers.

Excellence Committee Members and Rolls:	
Co-Chairs:	Owen Parrott, Phil Bowden
Incident Manager:	Nicolas Kruse
Incident Investigators:	Owen Parrott
On Site Investigators:	Mike Neale, Adam Kirk, Phil Bowden
Record Keepers:	Owen Parrott, Zach Gabel
Quality & Communications Representatives:	Mike Neale, Phil Bowden

Frequency of Meetings

The Excellence Committee is to meet monthly. To discuss and determine the root cause of the incident and whether Xradar is deemed to be at fault. If an incident is determined to be high consequence and requires immediate action, emergency meetings of the Excellence Committee may occur to discuss and determine the root cause of the incident and whether Xradar is at fault. During these meetings any new procedural recommendations to reduce/ prevent similar incidents from occurring in the future should be discussed and brought forward to the department head and board of directors if deemed pertinent.

Excellence Committee Procedures:

- A. The Incident Manager is informed of an incident by either: dispatch, a client or manager.
 - a. Gather as much information as possible in this initial interaction about the incident.

-
- b. Direct the technician to complete the **Xradar Incident Report** form on Device Magic for your province.
 - B. Report that there has been a new incident to the Excellence Committee via Slack. Include as much information as possible in this message or forward the correspondence about the incident.
 - C. An available Committee member is to:
 - a. Create a new folder for every new incident. This folder should be stored in: *G/Shared Drives/Xradar BC - MASTER/07. Health and Safety/Incidents/XBC Excellence/Xradar Incidents- Hits and Near Hits/ Year of Incident/Month/ New incident Folder.*
 - i. The name of this incident folder should include the job number for the original job and the initials of the technician(s) involved.
 - b. Retrieve the original Xradar Summary Report for the location/job that corresponds to the incident and store this in the relevant incident folder in the work order subfolder.
 - D. A Senior Technician member of the Excellence Committee is to be dispatched to the site of the incident and complete a thorough investigation to determine the root cause of the incident. This on-site investigation is to occur within 24-48 hours of the initial record of the incident. The information gathered in this on-site investigation should include:
 - a. Scans showing the target in both Normal and Xradar both perpendicular to; and along the target.
 - b. Photos of the location from both sides (if applicable).
 - c. Photos of the surrounding area of the location.
 - d. Any other information deemed pertinent by the Senior Technician.
 - E. The Xradar department head is to be made aware of this incident by the Incident Manager.
 - F. Within 48 hours of the initial record of the incident, an interview with any technician(s) involved in the incident is to occur.
 - a. This is to be scheduled by Dispatch either after all scheduled jobs for the day are complete or in the morning before leaving for site.
 - b. These interviews are to be conducted by an Incident investigator and are based on the Internal Interview template.
 - c. **A PDF of the template** can be found within each new incident folder under the Internal interview subfolder.
 - G. The Incident Manager who conducts the interview is to record the interview and fill out the Internal Interview form. The completed Internal Interview should be named corresponding to the job number of the incident and stored in the corresponding folder and subfolder on The Drive.
 - H. The Incident Investigator is to fill out the **Xradar Incident Investigation** Form on Device Magic documenting all information gathered. This form is to be stored in the corresponding incident folder outlined above, and shared with the Excellence Committee by e-mail or Slack.

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- I. Once the Incident Investigation is finished whoever completed the report is responsible for sending it to the Excellence Committee, the relevant manager, and/or the Health and Safety Lead. The Excellence Committee will give the report one last look over before sending it to the client.
 - J. Whoever creates/completes the finalized incident investigation is to save the most up to date version of the report in the corresponding incident folder on the drive the day it is created.

Section 11 - Emergency Preparedness

11.0 Emergency Planning Policy

Purpose

The purpose of this policy is to ensure Xradar is fully prepared to respond effectively to any foreseeable emergency that may affect employees, contractors, clients, or the public. This policy establishes procedures to prevent, prepare for, respond to, and recover from emergencies that could arise in the company's operations, field activities, or facilities.

Scope

This policy applies to all Xradar employees, contractors, and visitors at all company offices, field projects, and client sites across Canada. It covers all potential emergencies, including but not limited to:

- Fire and explosions;
- Earthquakes; (BC)
- Medical emergencies;
- Hazardous materials releases;
- Severe weather and natural disasters;
- Vehicle accidents;
- Workplace violence;
- Communication failures.

Policy

Xradar is committed to protecting the health, safety, and welfare of all employees and others who may be affected by its operations by maintaining effective emergency preparedness and response systems. The company shall identify foreseeable emergencies, develop and maintain Emergency Response Plans (ERP), train employees, conduct drills, ensure prompt response, and maintain coordination with external services.

Xradar has 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.

Roles and Responsibilities

Senior Management:

- Provide leadership and resources for emergency preparedness.

- 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.

Health and Safety Lead:

- Maintain a corporate emergency program, coordinate training, and ensure compliance.
- Develop, post, and communicate Office ERPs and lead drills.
- Maintaining an updated list of all qualified first aid employees and posting it on the Xradar Safety board in the office.
- Documenting all illness/injury suffered by Xradar employees during work activities.

Employees:

- Participate in training and drills;
- follow emergency procedures.
- Tag out any fire extinguisher that is discharged or overcharged.
- In the case of an injury, report to a location where first aid is readily available; and
- If first aid is not required, they should report their injury to the Health and Safety Lead.

First Aid and Fire Wardens:

- Maintain certifications, lead response efforts, and support post-incident reviews.

Procedures

1. **Identification of Potential Emergencies:** Each Xradar location and project site shall assess foreseeable emergencies and document controls in an Emergency Preparedness Plan.
2. **Emergency Response Plans (ERPs):** Each office shall maintain an ERP with contact numbers, roles, maps, evacuation routes, closest clinic/hospital, and communication protocols.
3. **Training and Drills:** Employees shall receive emergency training during orientation and annually. Drills are conducted annually for offices and when required by the general contractor.
4. **Communication and Coordination:** Managers ensure communication procedures are known. Notify emergency services, managers, and the HSE Lead in any emergency. In some cases, notify government agencies and/or the community.
5. **Medical and First Aid:** Maintain adequate supplies and trained attendants at all office locations. Ensure sites have first aid, or workers are certified in first aid. Report all injuries immediately.
6. **Emergency Equipment and Resources:** Inspect and maintain equipment monthly; correct deficiencies immediately.

7. **Post-Emergency Review:** Conduct debriefs and update plans after each incident or drill.
8. **Continuous Improvement:** Review annually and during Management Review to ensure effectiveness.

Records and Documentation

Maintain ERPs, training logs, inspection records, incident reports, and communication logs for a minimum of seven years per the Records and Statistics Policy (Element 12).

Review and Audit

Review this policy annually, after major emergencies, or when operations or legislation change. Audit as part of the COR internal audit process.

11.1 General Emergency Response Procedure:

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 your manager or the Health and Safety Lead.

First Aid Level 1 kits will be located in all Xradar vehicles and workers will have Level 1 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 medical facility in a Xradar vehicle or ambulance. 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.

11.2 General 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/WSIB 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

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.

11.3 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.

11.4 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.

11.5 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.
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.

Section 12 - Records and Statistics

12.0 Records and Statistics Policy

Purpose

To ensure Xradar maintains complete, accurate, and secure occupational health and safety (OHS) records and statistics in compliance with:

- Federal Labour Code;
- Provincial regulatory body; (WSIB/OHSA/WCB AB/WCB BC/WCB NS)
- Applicable Acts, regulations, and guidelines;
- Manufacturers instructions;
- COR standards;
- Applicable privacy legislation. (PIPEDA)

The purpose of this policy is to monitor and measure OHS performance, identify trends, and ensure continuous improvement of the health and safety management system.

Scope

This policy applies to all Xradar offices, project sites, and employees, including subcontractors and visitors engaged in company operations.

Policy Statement

Xradar shall establish, implement, monitor, and maintain an effective system for recording, retaining, and analyzing OHS information to:

- Demonstrate compliance with COR™ and legislative requirements
- Provide management and workers with accurate health and safety performance data
- Support evidence-based decisions for incident prevention and program improvement

Roles and Responsibilities

Senior Management

- Ensure adequate resources and oversight for accurate record management and performance analysis.
- Review OHS statistics and trends during Management Review meetings.

Health and Safety Lead

- Maintain, secure, and analyze all OHS records and statistics.
- Prepare and distribute monthly and annual OHS performance reports.
- Ensure compliance with retention and privacy requirements.

Supervisors

- Submit incident reports, inspection forms, and training documentation promptly.
- Support data accuracy by verifying information completeness.

Workers

- Report all incidents, near misses, unsafe conditions, and injuries immediately.
- Participate in investigations and cooperate with data collection processes.

Procedures

1. Record Keeping and Documentation

Records shall be maintained in digital format within Zoho or Google Drive (or other approved OHS software) and in secure hard copy files where required.

The following records shall be created and maintained:

- Worker safety orientation forms and job-specific training records
- Certificates for OHS training and competency
- Safety meeting minutes and JOHSC records
- Workplace inspection reports
- Hazard assessments
- Incident, injury, and near-miss investigation reports
- First aid treatment records
- Preventative maintenance schedules and equipment inspection forms
- Emergency response and drill reports
- Records of internal and external audits and management reviews

Records shall be:

- Legible, identifiable, and traceable to the related activity or worker
- Retained for a minimum of seven (7) years, or as otherwise required by law
- Protected against loss, damage, and unauthorized access
- Disposed of securely once retention periods expire

2. Statistical Reporting

OHS performance shall be measured and analyzed at a minimum monthly and annually to include both leading and lagging indicators.

Measurements will include:

- Leading indicators: inspection frequency, corrective action closure, participation in safety meetings
- Lagging indicators: number and type of injuries, lost-time frequency rate (LTFR), total recordable incident frequency (TRIF), and injury severity rate (ISR).

The Health and Safety Lead will:

- Compile Monthly Safety Summaries and Year-End Reports
- Analyze statistics to identify trends and recommend corrective actions
- Communicate findings to management, the JOHSC, and all workers
- Review data during annual Management Review meetings

3. Privacy and Confidentiality

- All personal and medical information shall be collected and used only for legitimate OHS purposes.
- Information shall be handled in accordance with PIPEDA and company privacy policies.
- Access to records shall be restricted to authorized personnel (H&S Lead, Managers, or regulatory authorities).

4. Continuous Improvement

Trends and performance indicators identified through statistical analysis shall inform:

- Hazard identification and risk assessments
- Training and awareness programs
- Preventive and corrective action planning
- Management review and strategic OHS goals

Review and Audit

This policy shall be reviewed annually or upon significant change in legislation, operations, or COR requirements. Compliance will be verified through internal COR audits and management review.

Section 13 - Occupational Health and Safety Regulation

13.0 Legislation and Other Requirements Policy

Purpose

To ensure Xradar identifies, accesses, evaluates, and complies with all applicable occupational health and safety (OHS) legislation, standards, codes of practice, and other requirements across federal and provincial jurisdictions (BC, AB, NS, ON, QC). This policy supports legal compliance, continuous improvement, and alignment with national standards.

Scope

This policy applies to all Xradar locations, divisions, employees, subcontractors, and visitors affected by our operations.

Policy:

Xradar shall establish, implement, and maintain processes to:

- Identify and maintain access to all applicable OHS legislation, codes, and standards;
- Ensure timely review of updates or amendments and communicate them;
- Integrate legal requirements into company procedures and training;
- Demonstrate compliance through documentation, audits, and records;
- Support continual improvement of our OHSMS.

Roles and Responsibilities

Senior Management:

- Provide leadership and resources to ensure compliance.
- Approve required changes to policy and resourcing.

Health and Safety Lead:

- Maintain and populate the Legislation & Standards Register.
- Communicate legislative changes and integrate into procedures.
- Coordinate compliance evaluations and maintain records.

Supervisors:

- Ensure operational compliance and report gaps.
- Support implementation of changes and training.

Workers:

- Comply with legislation and company procedures.
- Report incidents, hazards, and non-conformances.

Legislative Framework

This policy covers applicable Federal and Provincial legislation, including but not limited to: Canada (Federal), British Columbia, Alberta, Nova Scotia, Ontario and Quebec.

Procedures

1. Identification and Access

The Health and Safety Lead shall maintain a Legislation and Standards Register that lists relevant acts, regulations, standards, guidance documents, and client-specific requirements. The register will be reviewed quarterly and updated at least annually or when significant legislative changes occur. Current legislation shall be accessible via government e-law websites and the company H&S Drive.

2. Evaluation of Compliance

Compliance shall be monitored through internal audits, inspections, and management review. Non-conformities will generate corrective action plans with assigned responsibilities and target dates. Evidence of compliance will be retained in accordance with the Records and Statistics policy.

3. Communication and Training

Legislative updates will be communicated to management, supervisors, the Joint Health and Safety Committee (JHSC), and workers using toolbox talks, bulletins, and training. Supervisors must ensure workers understand changes relevant to their work.

4. Integration with Management Review

During the annual Management Review, applicable legislation and compliance status will be reviewed, including recommendations for resources or changes.

Review and Audit

This policy will be reviewed annually or upon major legislative change. Compliance will be verified during internal COR audits and external audits as required.

References

- Provincial and Federal Acts, Regulations and Standards referenced in the Legislation & Standards Register.
- CSA and COR OHS management standards where applicable.

13.0 Regulations Governing Health and Safety

Ontario Occupational Health and Safety Act, R.S.O. 1990, c. O.1

Available at: <https://www.ontario.ca/laws/statute/90o01>

WSIB Website: <https://www.wsib.ca/en>

Appendix A - OHS Program Provincial Regulation Variations

Provincial Variance Matrix (ON/BC/AB/NS)

This appendix summarizes key differences in Occupational Health & Safety (OHS) legislation, regulatory duties, training requirements, definitions, and reporting expectations across Ontario, British Columbia, Alberta, and Nova Scotia. Use this matrix to ensure your national OHS program reflects all applicable provincial requirements.

1. Governing Legislation & Regulators

Topic	Ontario	BC	Alberta	Nova Scotia
Primary OHS Act	Occupational Health and Safety Act (OHSA)	Workers Compensation Act & OHS Regulation	OHS Act, OHS Code, OHS Regulation	OHS Act & OHS Regulations
Primary Regulator and Enforcer	Ministry of Labour, Immigration, Training & Skills Development (MLITSD)	WorkSafeBC	Alberta Labour & Immigration	Nova Scotia Labour, Skills & Immigration
Workers' compensation	WSIB	WorkSafeBC	WCB Alberta	WCB Nova Scotia

2. Employer / Supervisor / Worker Duties

Duty Area	Ontario	BC	Alberta	Nova Scotia
General Duty Clause	Employers must take "every precaution reasonable" for protection of workers.	Employers must ensure the health and safety of workers; workers must follow regulations.	Employers must ensure health and safety; workers must protect themselves/others.	Employers must maintain a safe workplace; workers must comply with safe practices.
Supervisor Duties Defined	Yes, explicit definition & duties under OHSA.	Yes, defined under the Act.	Yes, defined under OHS Act.	Yes, defined under NS OHS Act.
Prime Contractor / Constructor Role	"Constructor" responsible for the project.	"Prime Contractor" for multi-employer worksites.	"Prime Contractor" required for construction.	"Constructor" role exists similar to Ontario.

3. Committee / Representative Requirements

Requirement	Ontario	BC	Alberta	Nova Scotia
JHSC Required At:	20+ workers, or designated	20+ workers.	20+ workers.	20+ workers.

	high-risk workplaces.			
Health & Safety Representative Required At:	5–19 workers.	9–19 workers.	5–19 workers.	5–19 workers.
JHSC Certification Requirements	Mandatory certification (Part 1 & Part 2).	No certification, but mandatory training for reps.	No certification; training recommended.	No certification; training recommended.

4. Required Training (Provincial Variances)

Training Type	Ontario	BC	Alberta	Nova Scotia
Working at Heights	Mandatory MOL-approved WAH for construction.	Fall Protection training required (not MOL style).	Fall Protection training required.	Fall Protection training required.
Joint Committee Training	Certified JHSC course required.	Mandatory 8-hour training for committee members.	No mandatory but strongly recommended.	Mandatory training for committee/representatives.
First Aid	CSA standards via WSIB.	WorkSafeBC specific OFA levels.	CSA-based; approved providers.	CSA-based; recognized NS providers.
Supervisor Competency	Mandatory competency requirement.	Supervisors must be "competent," training required.	Supervisors must be competent.	Supervisors must be competent.

5. Reporting Requirements

Report Type	Ontario	BC	Alberta	Nova Scotia
Critical Injury / Serious Incident	Must report immediate fatalities & critical injuries.	Must immediately report serious incidents, injuries, major failures.	Must report potentially serious & serious incidents.	Must report serious incidents immediately.
Near Miss Reporting	Required internally; not mandated to regulator.	Some near misses must be reported if high-risk.	Potentially serious near misses must be reported.	Report if it had potential for serious injury.
Work Refusals	Formal process defined in OHSA.	Formal process defined; joint investigation.	Defined process; right to refuse unsafe work.	Defined process similar to Ontario.

6. Hazard-Specific Regulations (Examples)

Hazard / Topic	Ontario	BC	Alberta	Nova Scotia
Violence & Harassment	Mandatory program & training.	Policies required; less prescribed.	Required reasonable steps; less prescriptive.	Required policies; similar to Ontario but simpler.
Confined Space	Specific regulations + entry program requirements.	Detailed requirements under OHS Regulation.	Detailed under OHS Code.	Similar requirements; Code of Practice recommended.
Lockout / Tagout	Separate LOTO requirements under regs.	Extremely detailed in regulations.	Detailed under OHS Code Part 15.	Required policies and procedures.
Asbestos	Designated Substance Regulation.	Very prescriptive asbestos regulation.	Part of OHS Code.	Separate Asbestos Abatement Regulation.

7. Enforcement & Penalties

Enforcement Area	Ontario	BC	Alberta	Nova Scotia
Orders on Site	Inspectors issue orders with compliance deadlines.	Officers issue orders; immediate correction is often required.	OHS Officers issue compliance orders.	Officers issue directives and orders.
Monetary Penalties	Administrative penalties + prosecution.	Significant administrative penalties possible.	Administrative penalties available.	Penalties + potential prosecution.
Ticketing System	Yes.	Yes.	Yes (Peace Officer enforcement).	Limited ticketing; standard penalties.

8. Summary of Key Provincial Differences

Category	Major Variance Notes
Construction Roles	ON/NS use "Constructor"; BC/AB use "Prime Contractor."
Training	ON has the most prescriptive training (WAH, JHSC certification). BC has unique OFA First Aid levels.
Asbestos & Hazard Regs	BC has the most detailed hazard-specific regulations.
Reporting	Alberta requires reporting of Potentially Serious Incidents (PSIs).
Regulator Powers	BC has the most aggressive administrative penalty structure.

Provincial OHS Legislative Variances (ON/BC/AB/NS)

Provincial OHS Legislative Variances this appendix (Appendix B) provides a standalone reference of provincial OHS law and regulatory differences applicable to Xradar's national Health & Safety Program. It is cross-linked to **Appendix A: Provincial Variance Matrix** for quick comparison of provincial OHS law and regulatory differences applicable to Xradar's nationwide Health & Safety Program. It is designed for use in COR audits, management reviews, and program updates.

1. Governing Legislation & Regulators

Ontario (ON)

- **Act:** Occupational Health and Safety Act (OHSA), R.S.O. 1990, c. O.1
- **Key Regulations:**
 - Construction Projects: O. Reg. 213/91
 - WHMIS: O. Reg. 860
 - Designated Substances: O. Reg. 490/09
 - Critical Injury: O. Reg. 834
- **Regulator:** MLITSD

British Columbia (BC)

- **Act:** Workers Compensation Act (Part 2 – OHS)
- **Regulations:** OHS Regulation (BC Reg. 296/97)
- **Regulator:** WorkSafeBC

Alberta (AB)

- **Act:** Occupational Health and Safety Act (2021)
- **Regulations:** OHS Regulation; OHS Code (Parts 1–41)
- **Regulator:** Alberta Labour & Immigration

Nova Scotia (NS)

- **Act:** Occupational Health and Safety Act (S.N.S. 1996, c. 7)
- **Regulations:** OHS General Regulations, Fall Protection, First Aid, WHMIS
- **Regulator:** Nova Scotia Labour, Skills & Immigration

2. Definitions & Roles

Constructor / Prime Contractor

- **Ontario:** Constructor (OHSA s.1, s.23)

- **Nova Scotia:** Constructor (NS OHS Act)
- **BC:** Prime Contractor (WCA s.24; OHSR 20.3–20.6)
- **Alberta:** Prime Contractor (OHS Act s.10)

3. JHSC / H&S Representative Requirements

Requirement	Ontario	BC	Alberta	Nova Scotia
JHSC Required	OHSA s.9 (20+ workers)	WCA s.31 (20+)	OHS Act s.16 (20+)	NS OHS Act s.29 (20+)
H&S Rep	5–19 workers	9–19 workers	5–19 workers	5–19 workers
JHSC Certification	Mandatory (Reg. 297/13)	Mandatory 8-hour	Recommended	Required (OHS Reg.)

4. Training Requirements With Citations

Working at Heights

- **ON:** O. Reg. 297/13 – CPO-approved training required
- **BC:** OHSR Part 11 – Fall Protection
- **AB:** OHS Code Part 9 – Fall Protection
- **NS:** Fall Protection Regulations (N.S. Reg. 112/2020)

First Aid

- **ON:** Reg. 1101
- **BC:** OHSR Part 3 – OFA Levels
- **AB:** OHS Code Part 11
- **NS:** First Aid Regulations

WHMIS (GHS)

- **ON:** O. Reg. 860
- **BC:** OHSR Part 5
- **AB:** OHS Code Part 29
- **NS:** WHMIS Regulations

5. Incident Reporting Requirements

Ontario

- Critical and fatality reporting: OHSA s.51–52
- Critical injury definition: O. Reg. 834

BC

- Serious incident reporting: WCA s.172
- Site preservation: WCA s.174

Alberta

- Reporting “Potentially Serious Incidents”: OHS Act s.17

Nova Scotia

- Serious injury notification: NS OHS Act s.63

6. Hazard-Specific Regulatory Variances

Confined Space

- **ON:** O. Reg. 632/05
- **BC:** OHSR Part 9
- **AB:** OHS Code Part 5
- **NS:** Confined Space Regulations

Asbestos

- **ON:** O. Reg. 490/09
- **BC:** Asbestos Abatement Regulation (2024); OHSR Part 6
- **AB:** OHS Code (Part 4, Part 20)
- **NS:** Asbestos Abatement Requirements under OHS General Regs

Fall Protection Requirements

- **ON:** O. Reg. 213/91 s.26
- **BC:** OHSR Part 11
- **AB:** OHS Code Part 9
- **NS:** Fall Protection Regulations

7. Enforcement Structures

Ontario

- Penalties under OHSA Part VII; Provincial Offences Act ticketing

BC

- Administrative Penalties (WCA s.95–102)

Alberta

- Stop Work Orders & administrative penalties (OHS Act s.59–60)

Nova Scotia

- Offences under OHS Act Part III

8. Summary of Major Variances

Topic	Ontario	BC	Alberta	Nova Scotia
Fall Threshold	3m (O. Reg. 213/91)	3m (OHSR 11.2)	3m (Code Part 9)	3m (NS Regs)
Role	Constructor	Prime Contractor	Prime Contractor	Constructor
Reporting	Critical Injury (O. Reg. 834)	Serious Injury (WCA 172)	PSI Reporting	Serious Injury (NS Act 63)
JHSC	Certified Required	8-hr Required	Advisory	Mandatory (varies)

9. Application to Xradar OHS Program

This appendix supports:

- MOC updates (Section 1.5)
- Hazard assessment (Section 2)
- Training requirements (Section 8)
- JHSC administration (Section 8.4)
- Investigation and reporting (Section 10)
- Legal compliance (Section 13)

Xradar Operational Variances by Province (ON/BC/AB/NS)

This appendix outlines province-specific requirements, restrictions, and expectations applicable to Xradar’s core operations, including:

- Ground Penetrating Radar (GPR) scanning
- Concrete coring & cutting support
- Site access & hazard communication
- Work planning and client coordination
- High-risk work notifications

This appendix integrates:

- Provincial legal requirements (linked to Appendices A & B)
- Xradar Safe Work Procedures (SWPs)
- Jurisdictional notes for field teams and project managers
- Cross-references to COR elements

1. Scope of Xradar Operations Across Provinces

Xradar works primarily in construction, industrial, commercial, and institutional settings. The following work activities may trigger provincial variances:

- Scanning floors, walls, ceilings, foundations
- Drilling/coring support and layout
- Working near energized systems or restricted areas
- Confined spaces (vaults, mechanical rooms, crawl spaces)
- Working at heights (elevated slabs, rooftops)
- Working around silica, asbestos, or designated substances
- Excavation scanning & underground locating support

2. Provincial Variances Impacting Xradar Work

This section summarizes operational differences that directly affect Xradar crews.

2.1. Pre-Work Notifications & Site Access

Requirement	Ontario	BC	Alberta	Nova Scotia
Constructor / Prime Contractor Role	“Constructor” must coordinate all work (OHSA s.23). Xradar must check in with the constructor.	Prime Contractor (WCA s.24) controls the site; Xradar must follow PC safety systems.	Prime Contractor required for construction projects; ensure site orientation aligns with OHS Act s.10.	Constructor role (NS OHS Act). Xradar must follow a site-specific OHS plan.

High-Risk Work Notifications	May require client notification for coring near structural elements.	WorkSafeBC may require notification for asbestos-related areas.	PSI-triggered notifications if hazards present.	Serious-injury-risk tasks may require additional oversight.
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2.2. Training Requirements for Xradar Technicians (By Province)

Training	Ontario	BC	Alberta	Nova Scotia
Working at Heights	Mandatory MOL-approved WAH (Reg. 297/13) for elevated slab access.	Required under OHSR Part 11.	Required under OHS Code Part 9.	Required under Fall Protection Regs.
First Aid	Reg. 1101 – Level A or C as required.	OFA Level 1 mandatory for most sites.	OHS Code Part 11.	First Aid Regulations.
Asbestos Awareness	Required under O. Reg. 490/09 if scanning older buildings.	Required under OHSR Part 6; WorkSafeBC Certified Contractors may be needed nearby.	Required when risk of disturbance exists (Code Part 4).	Required under NS OHS General Regs.

2.3. Hazard Assessment & Scanning Operations

Ontario

- Designated Substance Surveys may be required before scanning/coring.
- Structural interference scanning must follow client’s Constructor protocols.
- Lockout/tagout is required when near electrical panels (O. Reg. 851).

British Columbia

- Extremely prescriptive asbestos rules (Part 6 & 2024 Abatement Regs). Xradar must confirm clearance certificates for older sites.
- WorkSafeBC requires detailed risk assessment before any scanning near energized systems (OHSR 19.10).

Alberta

- PSI reporting (Potentially Serious Incidents) may affect Xradar work with clients if hazards are identified (OHS Act s.17).
- Additional energy isolation requirements (OHS Code Part 15).

Nova Scotia

- Fall protection requirements closely mirror Ontario but with different harness standards.
- Asbestos requirements may be less prescriptive but still require client confirmation prior to work.

3. Xradar Safe Work Procedure (SWP) Variances by Province

3.1. SWP – GPR Scanning

- **ON:** Verify structural drawings or engineering input when scanning load-bearing members.
- **BC:** Requires enhanced silica and asbestos verification in older concrete.
AB: Emphasis on PSI prevention—near-misses involving hidden utilities must be escalated.
- **NS:** Must confirm presence of engineered fall protection on elevated decks.

3.2. SWP – Drilling & Coring Support

- **ON:** “Constructor” may require a Notice of Structural Modification.
- **BC:** When assisting near asbestos-containing walls/slabs, WorkSafeBC compliance applies.
- **AB:** Electrical proximity must follow Code Part 19.
- **NS:** Must follow provincial Fall Protection Regulations for elevated coring.

3.3. SWP – Underground Locating & Surveying

- **ON:** Must comply with Ontario Underground Infrastructure Notification System Act (Ontario One Call).
- **BC:** BC 1 Call not legislated but widely required; utility owners may have extra requirements.
- **AB:** Alberta One Call is mandatory.
- **NS:** NS One Call system used but not legislated.

4. Incident Reporting Variances Relevant to Xradar

Province	Reporting Impact
ON	Critical injury triggers immediate MOL notification; coring incidents may qualify.
BC	Serious equipment failure during scanning must be reported (WCA s.172).
AB	“Potentially Serious Incidents” (PSI) threshold may include locating or drilling near misses.
NS	Serious injury reporting applies if client or Xradar staff are injured due to scanning-related hazards.

5. Client Coordination Requirements by Province

Ontario

- Coordinate with the Constructor for all coring and scanning work.
- Obtain Designated Substance Surveys when applicable.

British Columbia

- Asbestos and silica controls are mandatory for nearly all older structures.

Alberta

- PSI-based site controls may require additional documentation.

Nova Scotia

- Expect more variance in contractor safety maturity; Xradar often becomes the competent party.

6. Application to COR Elements

This appendix supports:

- **Element 2: Hazard Assessment**
- **Element 5: Training & Competency**
- **Element 7: Emergency Response**
- **Element 10: Investigations & Reporting**
- **Element 12: Legislation Review & Compliance**

Appendix B - Forms

Employee Disciplinary Notice

EMPLOYEE NAME	
DATE	
TIME	

Type of Warning:

	FIRST WARNING		SECOND WARNING		THIRD WARNING
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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:	

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

Employee Name:		Signature:		Date:	
Manager Name:		Signature:		Date:	

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

 <p style="margin: 0;">Occupational Health & Safety Management System</p>	
Owner: Xradar BC Issue Date: 2025/04/15 Approved by: Simon Low	Xradar Fall Protection Plan Template Revision #: 3 Revision date: 2025/06/05
<i>If this manual is a hard copy, it is not considered a controlled document and may not be the most current version. Please refer to the Safety Advisor for the most current version.</i>	

Project Name:
Client:
Fall Hazards
Identify all existing and potential fall hazards associated with the work
•
•
Fall Protection System to Be Used
<p>Check one: <input type="checkbox"/> Guardrails <input type="checkbox"/> Fall Restraint <input type="checkbox"/> Fall Arrest <input type="checkbox"/> Control Zone</p> <p>Equipment:</p> <ul style="list-style-type: none"> - Full Body Harness, approved to CSA Standard CAN/CSA Z259.10-M90 (R1998) - Shock Absorbers for Personal Fall-Arrest Systems, approved to CSA Standard CAN/CSA-Z259.11-M92 (R1998) - Connecting Components for Personal Fall Arrest Systems (PFAS), approved to CSA Standard Z259.12-01 - 6' (1.22m) lanyards and/or Self Retractable lanyard (SRL) 8' (2.43m) will be used. - 25' (7.62m) or 50' (15.24m) nylon lifeline will be used. - General Contractor installed anchors with an ultimate load capacity of 3.5 kN (800 lbs), or (b) four times the weight of the worker to be connected to the system.
<p>Anchor Points:</p> <ul style="list-style-type: none"> - An anchor for fall arrest must have an ultimate load capacity of 3.5 kN (800 lbs), or (b) four times the weight of the worker to be connected to the system. - Proper Engineered Anchor points inside of the basket of the EWP/AWP. Utilizing a Full body harness, lanyard or SRL.
<p>IMPORTANT: Minimum Clearance Requirement for Fall Arrest is 16 ft. Maximum allowable free fall is 6 ft.</p>
Procedures
General Notes

- 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
- Workers must be trained in the use of fall protection equipment and must be familiar with the risks of working at heights. All workers must hold a fall protection certification.
- Experienced workers should mentor new and/or inexperienced workers until they are comfortable with working at heights

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 FLHA shall be completed.

PPE Required: Hardhat, safety boots, harness, work gloves, high visibility vest, 5 point harness, 6’ lanyard.

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

Procedure:

12. Visually Inspect and test all fall protection devices for any defects prior to use.
 - a. Inspect the lanyard, harness, and lifeline.
 - b. Check for any cuts in the fabric, corrosion, damage or loose strings
13. Plan area for fall protection equipment and anchorage
 - a. Anchor must be capable of holding 5000lbs
 - b. Anchor should be above or directly behind the work location.
 - c. Do not tie the lifeline around columns, it must be connected to an anchor point.
14. Attach lifeline to anchor
 - a. Limit or eliminate pendulum effect if a fall occurs
 - b. One lifeline/connection per anchor point
15. Hook personal harness/lanyard to the lifeline then enter the fall hazard.
 - a. Shorted rope to restrict the amount of slack available.
 - b. A worker should not at any point be able to go past the edge due to fall restraint.

Who will be responsible for inspecting and maintaining the system? City of Vancouver and Xradar BC

Alternate:	Name (print)	Position
	Name (print)	Position

Rescue Plan

Describe the procedure that will be followed if a worker falls and needs to be rescued.

There are two potential situations that could occur from a fall:

In all instances City of Vancouver will be notified and workers shall attempt to self-rescue if the situation allows. If they cannot do so themselves, they will be assisted by a worker or two workers to aid in their rescue. This can be done by using an EWP/AWP or being pulled back onto the wall or slab they are anchored to.

The local Fire Department will be called if these rescue attempts fail.

Worker on Ground

7. Emergency Services will be accessed. All work will be stopped in the area.
8. Workers will be immobilized in positions found.
9. The Site Emergency Plan to be followed – City of Vancouver to be notified and Site First aid called, then a worker will call emergency services.
10. Site nurse and/or qualified first aider will be provided until Emergency Services arrives.

Worker Suspended

11. Workers will attempt self-rescue if it is safe to do so.
12. The Site Emergency Plan to be followed – City of Vancouver to be notified and Site First aid called, then a worker will call emergency services if determined necessary by the qualified first aider.
13. Rescue calls identify the type of rescue required to avoid wasting valuable time.
14. Workers will be immobilized in the position found if it is safe to do so.
15. Emergency Services will be accessed, and the City of Vancouver rep will be notified.
16. If the suspended worker can be pulled back onto the slab or wall by other workers proceed with a rescue attempt if it is safe to do so.
17. A worker or two will operate an EWP/AWP and will drive the lift over, place the boom/basket under, and elevate the lift to the worker to rescue if it is safe to do so.

This fall protection plan was developed by:

Name (print)	Signature	Position	Date

Project Management Review. (Superintendent or HSE)

Name (print)	Signature	Position	Date

Workers signing this form acknowledge that they have reviewed and understand this fall protection plan.

Date	Print Name	Signature	Trained in the safe use of the fall protection equipment?
			Yes <input type="checkbox"/>
			Yes <input type="checkbox"/>
			Yes <input type="checkbox"/>
			Yes <input type="checkbox"/>
			Yes <input type="checkbox"/>
			Yes <input type="checkbox"/>
			Yes <input type="checkbox"/>
			Yes <input type="checkbox"/>
			Yes <input type="checkbox"/>
			Yes <input type="checkbox"/>
			Yes <input type="checkbox"/>

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 Aids 3/4x3	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 5 1/2"	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 3/4 x3	50			
Plastic Strip 1x3	40			
Knuckle	5			
Fingertip	5			
Safety Pins	12			
Forms	4			

Return to Work Plan

Worker Name:	Claim #:	
Pre-Injury Job (attach job description):	Injury Date:	
Pre-injury Workplace Location:		
Return to Work Goal		
Plan Start Date:	Plan End Date:	
Return to Work Plan Goal (Select One):		
<ul style="list-style-type: none"> ● Pre-injury job ● Pre-injury job, accommodated/modified ● Alternate work 		
If alternate work, provide job title or description of work: 5.		
Health Recovery		
Area(s) of injury:		
Is there an active treatment plan that impacts return to work?		
18. No		
19. Yes, provide details:		
Does the worker need to be on any prescription or non-prescription medication that may affect their ability to work?		
20. No		
21. Yes, provide details:		
Health Care Provider(s):	Phone Number(s):	
Functional Abilities		
List functional abilities (what the worker can do):		
-		
List precautions, if any:		
16.		
Source of Functional Abilities:	Date Received:	
4. Page 3 of Form 8	If not received, when will functional abilities information be made available?	
5. Functional Abilities Form (FAF)		
6. Other (Specify):		
Pre-injury Job Duties		
	YES	NO
Are the physical demands of the job within the worker`s functional abilities?		
Are the essential duties of the job within the worker`s functional abilities?		
List job duties the worker can perform:		
17.		
List job duties the worker is unable to perform:		
8.		
Accommodations/Solutions		
	YES	NO

Are accommodations/modifications to the job duties required?								
Are accommodations/modifications to the workplace/workstation required?								
Is training required?								
Provide details on the type of accommodation/solution required Attach additional pages if needed	Date to be implemented		Expected Duration					
Work Schedule								
Work Period (from/to)		Days scheduled each week and number of hours per day						Additional comments on Work Schedule
Date From	Date To	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
How will the worker be paid for the duration of the Return-to-Work Plan?								
Rate of pay (e.g., hourly):								
9. Worker will be paid for hours work only (or)								
10. Employer will pay regular wages								
Follow-up Schedule								
Outline follow-up dates to monitor plan progress:								
-								

If there are any concerns during the course of the Return-to-Work Plan, please discuss immediately and contact the WSIB/WCB Case Manager if you are unable to resolve.

Consider providing a copy of the approved Return to Work Plan to the WSIB/WCB Case Manager if this is a work-related injury/illness.

I have agreed to this plan:

Worker Name: _____

Worker Signature: _____ Date: _____

Supervisor Name: _____

Supervisor Signature: _____ Date: _____

Plan approved (if approval required):



XR-OHS-MAN-001

Manager Name: _____

Manager Signature: _____ Date: _____

Return to Work Progress Report

Date:
Claim #:
Worker:
Manager/Supervisor:

Return to Work Goal: (as written in the Return to Work (RTW) Plan)

- Pre-injury job
- Pre-injury job, accommodated
- Alternate work. If alternate work, provide job title

WEEK 1
Review Period (From/To Date):
Precautions:
Duties:
Date and Hours Worked:
WEEK 1 REVIEW
Supervisor/Manager Observations:
Worker Comments/Concerns
Supervisor/Manager Comments & Concerns:
Action (s) to Address Concerns:
Date Review Completed:
Review Completed by:

WEEK 2
Review Period (From/To Date):
Precautions:
Duties:
Date and Hours Worked:
WEEK 2 REVIEW
Supervisor/Manager Observations:
Worker Comments/Concerns
Supervisor/Manager Comments & Concerns:
Action (s) to Address Concerns:
Date Review Completed:
Review Completed by:

Are the accommodations/solutions identified in the Return-to-Work Plan resulting in the anticipated return to work goal(s)?

- Yes
- No, why?

Is the Return-to-Work Plan still current?

- Yes
- No, why?

Next Steps:

- Continue with current Return to Work Plan
- Revise existing Return to Work Plan
- Close Return to Work Plan. Return to work goal achieved

Next follow up date:

Completed by:

Employee Name:		Signature:		Date:	
Manager Name:		Signature:		Date:	

Return to Work Closure/Evaluation Report

Date:	Claim#:
Worker`s Name:	
Supervisor`s Name:	

RETURN TO WORK PLAN OUTCOMES	
What was the duration from the time of the injury/illness report to the final return to work?	
What was the planned RTW goal?	What was the actual RTW goal achieved?
<ul style="list-style-type: none"> - Pre-injury job - Pre-injury job, accommodated - Alternate work 	<ul style="list-style-type: none"> - Pre-injury job - Pre-injury, accommodated - Alternate work - Retraining
Comments:	

What worked well in the return-to-work process?

-

What are the opportunities for improvements? (Ex. What would you change about the process if you could?)

-

Completed by:

Name:

Date:

Appendix C - Emergency Response Plan & Safe Work Plan

General Emergency Response Plan

Emergency Contact Information			
Nationwide Emergency Services:		Nationwide Contact Information:	
Police, Fire, or Ambulance	911	Nic Kruse National Manager	Cell: 778.321.0728 Office: 604.305.2818
Poison Treatment	1.844.764.7669	Simon Low Health and Safety Lead	Cell: 778.877.4370 Office: 604.305.2818
Suicide Crisis Helpline	988	Stephan Walsh Customer Service Manager	Cell: 778.872.3831 Office: 604.305.2818
Ontario Emergency Services:		Xradar Canada Contact Information:	
Alectra	1.833.253.2872	Morgan Carman Sales Director	Cell: 514.970.2799 Office: 604.305.2818
Enbridge	1.877.362.7434	Simon Thorpe TOR Regional Manager	Cell: 416.688.4320 Office: 604.305.2818
WSIB	1.800.387.0750	Jesse Hodgins OTT Regional Manager	Cell: 613.266.6984 Office: 613.325.5260
Alberta Emergency Services:		Xradar Alberta Contact Information:	
Enmax	310.2010	Madhu Khan-Thakuri Regional Manager	Cell: 367.9993.5115 Office: 403.900.1502
Fortis Alberta	604.576.7000		
WCB Alberta	1.888.922.9221		
BC Emergency Services:		Xradar BC Contact Information:	
BC Hydro	604.224.9376	Phil Bowden Regional Manager	Cell: 604.698.6225 Office: 604.305.2818
Fortis BC	604.576.7000	Joe Salazar Sales Director	Cell: 778.991.346 Office: 604.305.2818 Ext 105
Work Safe BC	1.888.621.7233		
NS Emergency Services:		Xradar NS Contact Information:	
Nova Scotia Power	1.800.428.6230	Anthony Vieira Regional Lead	Cell: 416.937.9770
Eastward Energy	1.877.836.7427		
WCB Nova Scotia	1.877.836.7427		

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 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.

Appendix D - Ladder Policy and Compliance

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.

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.