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Rohl Enterprises Safety-Health Environment Policy

Rohl Enterprises Ltd. firmly believes that a safety-health-environmental program is essential to being one of the leaders in the industry. We take pride in promoting safety and quality on a daily basis along with providing efficient work. Our Company Safety-Health-Environment Policy reads as follows:

The personal safety, health, and well being of each employee at Rohl Enterprises Ltd. is considered to be one of our most important responsibilities. Our safety objective is to educate each employee through an ongoing safety program and provide the necessary information regarding safety standards.

We are committed to achieving our goals of providing excellent quality and efficient service with zero accidents or injuries. By promoting safety-health-environmental awareness our aim is to protect our employees, the public and the environment.

Every level of employment, including management is responsible and accountable for the company's safety-health-environment initiatives. Complete and active cooperation by everyone, everyday and in every job is necessary to uphold these standards.

We believe that with wholehearted support and cooperation of management and employees, we can achieve our safety goals and maintain our safety-health-environment standards.

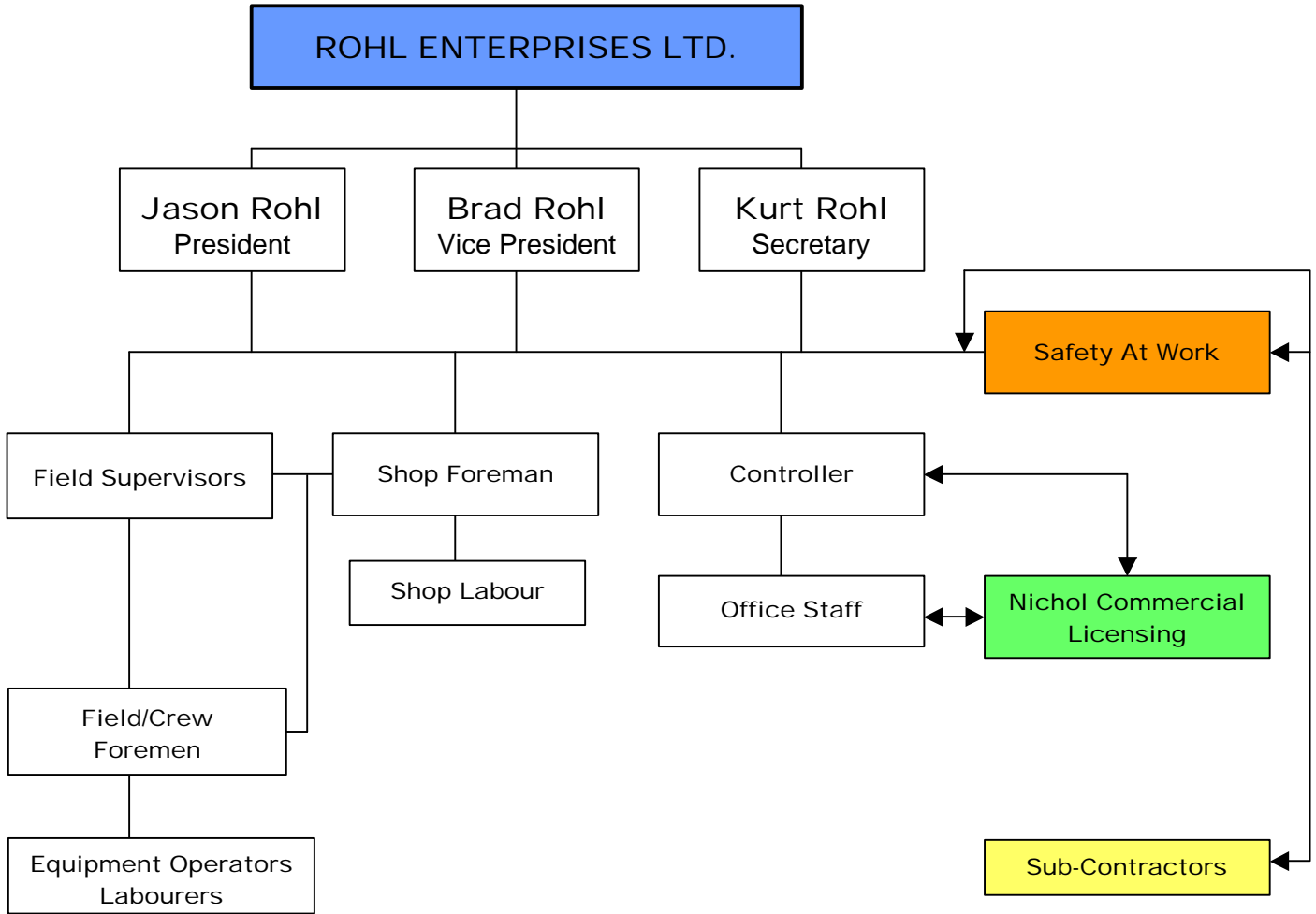
The information in this safety manual does not take precedence over any Workplace, Safety and Health Regulations, but supports our commitment to fully comply with all provincial and federal regulations as required.

Brad Rohl

Jason Rohl

Date: January 2006

Organizational Chart for Rohl Enterprises Ltd.



1.0 - RESPONSIBILITY AND ACCOUNTABILITY FOR SAFETY

1.1_ MANAGER'S RESPONSIBILITIES:

Managers are identified as the most senior individual in the organization, whom may be the owner/president/director/general manager, and this individual must accept ultimate responsibility for the company's safety program. Basic responsibilities include but are not limited to the following:

- ☞ Understand, enforce and comply with our Health, Safety and Environmental Program;
- ☞ Assist with the maintenance of the Safety Program;
- ☞ Provide and promote a safe workplace;
- ☞ Ensure proper training of workers;
- ☞ Review and assist with inspections, investigations, reports, annual audits;
- ☞ Maintain compliance with current Federal & Manitoba Workplace Safety & Health Regulations and Acts;
- ☞ Consult and co-operate with the Safety Officer, Safety & Health Committee/Worker Representative;
- ☞ Set a good example.

1.2 FOREMAN'S RESPONSIBILITIES:

Foremen are individuals who direct the day-to-day work activities of specific projects. Basic responsibilities include but are not limited to the following:

- ☞ Promote safety awareness;
- ☞ Prior to each new project, discuss any specific hazardous conditions and advise of any precautions to be taken;
- ☞ Provide on-the-job-training to new employees and those not familiar with their job procedure;
- ☞ Provide personal protective equipment and any other safety equipment deemed necessary to perform the work safely;
- ☞ Maintain a housekeeping standard and assign definite responsibilities to individuals for good housekeeping;
- ☞ Conduct regular inspections, with the safety officer, for unsafe practices and conditions and ensure prompt corrective action is taken to eliminate causes of accidents;
- ☞ Aid in the investigation of accidents, determine the cause and take corrective action where necessary;
- ☞ Maintain compliance with current Federal & Manitoba Workplace Safety & Health Regulations and Acts. Enforce all construction safety rules and take disciplinary action as necessary to ensure compliance with the rules.
- ☞ Consult and co-operate with the Safety Officer, Safety & Health Committee/Worker Representative;
- ☞ Set a good example.

1.3 WORKER'S RESPONSIBILITIES:

Workers are individuals who carry out day-to-day work activities in order to complete projects. Basic responsibilities include but are not limited to the following:

- ☞ Create a safe workplace;
- ☞ Know and comply with all construction safety rules and regulations;
- ☞ Maintain good housekeeping within your work area;
- ☞ Promptly report all accidents and injuries to his foreman and/or the Safety Officer no matter how slight, and obtain proper medical attention;
- ☞ Report any unsafe work conditions or unsafe practices to his foreman;
- ☞ Know and comply with any specific work procedures;
- ☞ Consult and co-operate with the Safety Officer, Safety & Health Committee and Worker Representative;
- ☞ Set a good example for fellow workers.

1.4 SAFETY OFFICER'S RESPONSIBILITIES:

The safety officer is the individual who oversees the daily management and administration of the Company Safety Program. Basic responsibilities include but are not limited to the following:

- ☞ Provide information, instructions and assistance to all supervisory staff in order to protect the health and safety of all workers;
- ☞ Maintain compliance and provide supervisory staff with an understanding of the current Federal and Manitoba Workplace Safety & Health Regulations and Acts;
- ☞ Provide ongoing safety education programs and approved First Aid and CPR training;
- ☞ Provide all required personal protective equipment;
- ☞ Assist with and review all accident reports to ensure corrective action is taken to prevent repeat accidents;
- ☞ Supply information for, or assist in the conduction of biweekly safety meetings and ensure that meaningful direction is provided to workers;
- ☞ Maintain company monthly and quarterly safety performance statistics in order to assess effectiveness of the company's current safety program;
- ☞ Ensure that the foreman frequently monitor working conditions and work practices of their workers;
- ☞ Ensure that a joint Safety & Health Committee is established and meets on a regular basis to exercise its duties and responsibilities to deal with workplace, safety and health concerns.

1.5 *SUBCONTRACTOR'S RESPONSIBILITIES:*

Subcontractors are the individuals who are employed by a main contractor to carry out certain aspects of the project. All subcontractors are expected to carry out their work in a manner that will ensure the safety and well-being of their workers as well as all others who may be affected by his actions and omissions at work. Basic responsibilities include but are not limited to the following:

- ☞ Understand and comply with the Safety, Health & Environmental Program requirements on site;
- ☞ Provide information, instruction and training to his supervisory staff in order to protect the health and safety of his employees;
- ☞ Bring to the attention of the Safety Officer any unsafe practice or condition that may result in accident, injury or loss of equipment or materials;
- ☞ Report all accidents immediately and to investigate all accidents fully and advise the Safety Officer on how he is to prevent similar accidents in the future;
- ☞ To carry out regular safety inspections of the work site to ensure a safe and healthy environment;
- ☞ To participate in safety meetings on site, re: Joint Safety & Health Committee or in conjunction with the Worker Safety Representatives.

1.6 *PROGRESSIVE DISCIPLINARY POLICY:*

The disciplinary policy herein described shall apply to all employees in response to a safety and health program violation. This policy is progressive and subject to the severity of the violation.

- ☞ Verbal warning for minor offenses. There will be two verbal warnings before a written warning must be given.
- ☞ Written warnings will be given for repeated or serious offenses.
- ☞ Two day suspension without pay for repeated offenses after third written warning.
- ☞ Five day suspension pending termination.
- ☞ Termination.

1.6.1 *PROGRESSIVE DISCIPLINARY POLICY*

PROGRESSIVE DISCIPLINARY POLICY

You, _____, as an employee of Rohl Enterprises, are hereby informed that this is your (1st, 2nd, 3rd) written warning for a serious or repeated offense (s). Upon

Upon receiving your 3rd warning, you will be suspended for two working days without pay. If there are repeated offenses, you will be suspended for five days without pay pending termination.

Authorized By: _____

Dated: _____

BRAD ROHL

JASON ROHL

KURT ROHL

2.0 - HAZARD ASSESSMENT

2.1 INTRODUCTION:

An important part of our safety program is to identify what hazards exist in the workplace. It is through the assessment and control of these hazards that the frequency and severity of accidents are reduced, resulting in a parallel reduction in human injury and financial costs.

2.2 DEFINITIONS:

Hazard: a condition or behavior that creates the potential for personal harm or undesired health effects, as well as loss to the environment, property and production.

Incident: any unplanned and unwanted event which results in damage or injury, or which had potential to result in damage or injury.

Job Briefing: a thorough examination of an operation (job site, shop, etc.) for the purpose of identifying what actual and potential hazards exist.

Loss: human injury/illness, damage or theft to materials, property and/or environment.

2.3 JOB BRIEFINGS:

Each foreman is responsible for filling out job briefing forms at the beginning of each day at every main job site. This is done to review the aspects of the job to be done that day, to identify hazards or potential hazards and to then note the steps that will be taken to reduce the risk or eliminate the concern of those hazards. When conducting the job briefing, all possible hazards originating with the environment, material, equipment and people should be considered.

2.3.1 JOB BRIEFING/HAZARD ASSESSMENT FORM

Rohl Enterprises Ltd. Job Briefing/Hazard Assessment	
Date: _____	Crew: _____
Location: _____	
Job To Be Done: _____	
Tools/Equipment Required: _____	
PPE/Protective Devices Required: _____	
Additional Protection (rail): _____	
Potential Hazards: _____	
Steps Taken To Eliminate/Correct Hazard: _____	
ERM: _____	
Questions/Comments: _____	
Signatures: _____	

2.4 *HAZARD CONTROLS:*

Once all hazards have been identified, this safety program will use 3 different methods for controlling these hazards.

2.4.1 Engineering Controls - this is the preferred method of control because they control the hazard at its source. These controls are presented in order of preference below:

a) Elimination: applied at design stage; guards, scaffolds, etc.

b) Substitution: purchase a non-flammable solvent, etc.

c) Isolation: barriers, shields, etc.

d) Ventilation: area fans, local exhaust, etc.

2.4.2 Administration Controls - providing policies, procedures, and training on related topics

2.4.3 Personal Protective Equipment - protective equipment is used for the prevention of injuries. This is the last option used to protect workers. Workers should be properly trained in its use, care, and limitations of the equipment.

3.0 - SAFETY INSPECTIONS

3.1 INTRODUCTION:

The identification of unsafe conditions and unsafe work practices by means of safety inspections during working hours is a major means of accident prevention. It is Rohl Enterprises's policy to maintain a program of safety inspections. Whereby the objective, is to control hazards in the workplace and help prevent accidents and injuries. All company facilities and job sites shall be included in the inspection program.

3.2 INSPECTIONS:

- 3.2.1 Informal Inspections: will be conducted by the foreman of their job sites, along with the safety officer. These will be done on an ongoing basis, with corrections of unsafe conditions or unsafe work practices given prompt attention.
- 3.2.2 Formal Inspections: shall be conducted by the safety officer and the worker safety representatives at each facility on a regularly scheduled basis.

3.3 INSPECTION POLICY

INSPECTION POLICY

It is the policy of Rohl Enterprises Ltd. to maintain a program of safety inspections to be conducted on a regularly scheduled basis. These scheduled inspections will take place at all job-sites and the workshop.

The manager (s) is responsible for the overall operation of the program and will assist and review all inspections.

The foreman for each jobsite will conduct inspections as follows:

Project Inspection Report: prior to job start and during job and forwarded to the Safety Officer for review.

Vehicle Maintenance/Repair List: monthly and forwarded to the Safety Officer for review.

Equipment Inspection Checklist: bi-weekly and forwarded to the Safety Officer for review.

The worker's per job site will participate and contribute to the inspection program.

The Safety Officer will conduct her own formal and informal inspections on a regular basis.

These inspections are documentation to help control and eliminate any unforeseen hazards.

BRAD ROHL

JASON ROHL

KURT ROHL

3.4 INSPECTION REPORTS:

PROJECT SAFETY INSPECTION REPORT		page 1
Project: _____ Location: _____		
Supervisor/Foreman: _____ Inspected By: _____		
Date: _____ Time: _____		
<hr/>		
<u>Equipment:</u>	<input type="checkbox"/> Condition <input type="checkbox"/> Operating Procedures <input type="checkbox"/> Lock Out Procedure <input type="checkbox"/> Refueling Precautions <input type="checkbox"/> R.O.P.S. <input type="checkbox"/> Warning Devices	<u>Facilities:</u>
<u>Personal Protective Equipment:</u>	<input type="checkbox"/> Adequacy <input type="checkbox"/> Availability <input type="checkbox"/> Condition <input type="checkbox"/> Used? <input type="checkbox"/> Hard Hats <input type="checkbox"/> Safety Footwear <input type="checkbox"/> Hearing Protection <input type="checkbox"/> Eye Protection <input type="checkbox"/> Fall Protection <input type="checkbox"/> Respiratory Protection <input type="checkbox"/> Life Preservers <input type="checkbox"/> Appropriate Clothing <input type="checkbox"/>	<input type="checkbox"/> Sanitation: <input type="checkbox"/> Drinking Water/Lunchroom <input type="checkbox"/> Temporary Heaters <input type="checkbox"/> Ventilation <input type="checkbox"/> Fire Protection <input type="checkbox"/> -extinguishers <input type="checkbox"/> -emergency plan <input type="checkbox"/> -flammable materials <input type="checkbox"/> First Aid Services <input type="checkbox"/> -supplies <input type="checkbox"/> -attendant
<u>Housekeeping:</u>	<input type="checkbox"/> Material Storage <input type="checkbox"/> Scrap Removal <input type="checkbox"/> Garbage	<u>Public Safety:</u>
<u>Safety Program:</u>	<input type="checkbox"/> Policy <input type="checkbox"/> Rules <input type="checkbox"/> Meetings	<input type="checkbox"/> Traffic Signage <input type="checkbox"/> Flagman Control <input type="checkbox"/> Barricades <input type="checkbox"/> Lighting <u>Welding Safety:</u> <input type="checkbox"/> Gas Storage & Transport Hoses & Connection <input type="checkbox"/> Flashback Protection <input type="checkbox"/> Fire Extinguisher <input type="checkbox"/> Personal Protective Equipment

PROJECT SAFETY INSPECTION REPORT

page 2

Excavation Safety:

- Correct Slope
- Adequate Shoring
- Ladders/Ramps
- Spoil Pile
- Barricaded
- Gas Test Equipment
- Utility Safety

Hoisting Equipment:

- Set Up
- Load Rating
- Operator Certification
- Rigging Safety
- Wire Rope
- Signals
- Electrical Clearance

Confined Entry Safety:

- Crew Training
- Barricades
- Gas Test Equipment
- Atmosphere Monitoring
- Ventilation Equipment
- Access/Egress
- Parachute Type Harness
- Supplied Air
- Retrieval Hoist
- Fall Protection
- Lock Outs - Blanking
- Top Man
- First Aid/CPR Training
- Rescue Procedures

Hand Tools Safety:

- Condition
- Grounded/Double Insulated
- Power Hook-Up
- Air Actuated
- Air Hose Connection Safety
- Wired
- Ram Set
- Pumps, Generators
- Compressors
- Personal Protective Equipment

Hazardous Materials:

- Storage
- Handling Precautions
- W.H.M.I.S.
 - Labels
 - M.S.D.S.
 - Worker Training

Workers - Unsafe Actions:

- Unsafe Practice
- Faulty Procedure

Rohl Enterprises Ltd. Health, Safety, and Environmental Program

VEHICLE MAINTENANCE/REPAIR LIST

Date: _____
 Job Name/Number: _____
 Unit #: _____ Kilometers: _____
 Type of Vehicle: _____ Next Oil Change Due: _____
 License Number: _____ Name of Operator: _____

	Have/In Good Condition	Work Required	Work Completed
Fire Extinguisher			
First Aid Kit			
Windshield Damage			
Mirrors			
Headlights			
Tail Lights			
Brake Lights			
Signal Lights			
Brakes			
Steering			
Suspension			
Transmission/Clutch			
Exhaust System			
Fluid Levels			
Tires			
Tire Jack/Accessories			
Flares/Reflectors			
Vehicle Housekeeping			
Engine (explain)			
Body work/paint (explain)			

Comments: _____

Operator's Signature: _____
 Reviewed By: _____
 Repairs By (if needed): _____

EQUIPMENT INSPECTION CHECKLIST

Date: _____
 Job Name (Number): _____
 Make: _____ Model: _____ Unit #: _____
 General Condition: _____ Hours: _____
 Next Oil Change Due At _____ hours.

	Have/In Good Condition	Work Required	Work Completed
Beacon			
Tires			
Climbing Ladders			
Handles			
Hydraulic Systems-Hoses			
Cylinders			
Lights			
Brakes			
Horn			
Exhaust Systems			
Back-up Alarm			
Fire Extinguishers			
Flares			
First Aid Kits			
Warning Stickers/Labels			

Repairs Required (if needed): _____

Inspected By: _____ Operator's Signature: _____
 Inspector's Signature: _____

4.0 - SAFE WORK PRACTICES:

4.1 SAFE WORK PRACTICE #1 - FIRE AND USE OF FIRE EXTINGUISHERS

Good housekeeping is essential in the prevention of fires. Fires can start anywhere and at any time. This is why it is important to know which fire extinguisher to use and where to use it. It is also important to remember to always keep the fire in front of you and in any event always have a line of retreat.

Always keep fire extinguishers visible and easy to get at. Fire extinguishers have to be properly maintained to do the job. Where temperature is a factor, ensure that care is taken in selecting the right fire extinguisher.

Types of Fires:

- 4.1.1 Class A: These fires consist of wood, paper, rags, rubbish, and other ordinary combustible materials.
Recommended Extinguishers:
Water from a hose
Pump-type water can
Pressurized extinguisher
Soda acid extinguisher
Fighting the Fire:
Soak the fire completely - even the smoking embers.
- 4.1.2 Class B: Flammable liquids, oil and grease.
Recommended Extinguishers:
ABC units
Dry chemical
Foam and carbon dioxide extinguishers
Fighting the Fire:
Start at the base of the fire and use a swinging motion from left to right, always keeping the fire in front of you.
- 4.1.3 Class C: Electrical equipment.
Recommended Extinguishers:
Carbon dioxide extinguisher
Dry chemical (ABC) extinguisher
Fighting the Fire:
Use short bursts on the fire. When the electrical current is shut off on a Class C fire, it can become a Class A fire if the materials around the fire are ignited.

4.2 SAFE WORK PRACTICE #2 - USE OF PROPANE

Since propane is heavier than air and invisible, it is a special concern when it is used on the job site.

All installations and use of this product on the job site must comply with the Government Legislation set out for its safe use.

Suppliers delivering the product or setting up the equipment at the site must be part of the safe work practice.

- 4.2.1 Transport cylinders in an upright position, secured on a vehicle or trolley when loading, off loading or lifting propane tanks.
- 4.2.2 "Lifting Lugs" provided on tanks are not to be used.
- 4.2.3 Tank valves and regulators are to be removed from the tank prior to any movement of the tank.
- 4.2.4 Crane hooks shall be equipped with a safety latch.
- 4.2.5 All trucks, cranes, or equipment used to handle propane tanks must be equipped with a fire extinguisher appropriate for the size and type of tank being handled.
- 4.2.6 Tanks are not to be heated to increase flow.
- 4.2.7 When in use, propane bottles are to be held securely in an upright position.
- 4.2.8 Tanks are not to be hooked up and used without proper regulators.

4.3 SAFE WORK PRACTICE #3 - USE OF CLEANING SOLVENTS AND FLAMMABLES

Cleaning solvents are used in the day to day construction work to clean tools and equipment. Special care must be taken to protect the worker from hazards which may be created from the use of these liquids. Wherever possible, solvents should be nonflammable and nontoxic.

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

- 4.3.1 Use nonflammable solvents for general cleaning.
- 4.3.2 When flammable liquids are used, no hot work is permitted in the area.
- 4.3.3 Store flammables and solvents in special storage areas.
- 4.3.4 Check toxic hazards of all solvents before use.
- 4.3.5 Provide adequate ventilation where all solvents and flammables are being used.
- 4.3.6 Use goggles or face shields to protect the face and eyes from splashes or sprays, rubber gloves to protect the hands and appropriate protective clothing.
- 4.3.7 When breathing hazards exist, use the appropriate respiratory protection.
- 4.3.8 Ensure that proper containers are used for transportation, storage, and field use of flammables.
- 4.3.9 Where solvents are controlled products, ensure all employees using or in the vicinity of use or storage are trained and certified in the Workplace Hazardous Materials Information System.

4.4 SAFE WORK PRACTICE #4 - POWER LINES

Extra caution should take place when work is being done around overhead power lines. Some of the following points should be taken into consideration.

- 4.4.1 Safe clearance distance should be observed.
- 4.4.2 When working beside hydro lines check for electrical induction and take precautionary measures.
- 4.4.3 Only qualified personnel should operate equipment around power lines.
- 4.4.4 Hydro towers may require fencing to prevent equipment from coming in close contact.

Operating Voltage	Minimum Safe Distance
Over 425 - 50,000 V	10 Feet (3m)
50,000 - 120,000 V	15 Feet (4.5 m)
120,000 - 250,000 V	20 Feet (6.1 m)
250,000 - 350,000 V	25 Feet (7.7 m)
Over 350,000 V	30 Feet (9.2 m)

Remember, you do not have to directly contact a power line to become seriously injured.

4.5 SAFE WORK PRACTICE #5 - COMPRESSED AIR TOOLS

- 4.5.1 Workers shall wear hearing protection when in close proximity to any air tools exceeding a noise level of 80 db.
- 4.5.2 Periodically check hoses and fittings for damage and ensure break-away cables are in place for hoses in excess of 1" diameter.
- 4.5.3 Air supply at the compressor should be shut off and all air should be expelled from the line before disconnecting a hose.
- 4.5.4 The line should be held securely and aimed away from all workers and the public when blowing out debris.
- 4.5.5 Tools should not be used if there are any missing guards, covers, or other safety devices.
- 4.5.6 Wear appropriate personal protective equipment such as safety glasses or face shields, work boots, hard hat and hearing protection.

4.6 SAFE WORK PRACTICE #6 - USE OF CHAIN SAWS

All employees must be trained in the safe use of a chain saw before working with it. This training should include a minimum of the following elements.

- 4.6.1 Workers should wear appropriate protective equipment including, work boots, hard hat, safety glasses or face shield, gloves, protective chaps appropriate clothing and hearing protection.
- 4.6.2 Fueling of the saw must be done in a well ventilated area and not while the saw is running or hot.
- 4.6.3 An approved safety container must be used to contain the fuel used, along with a proper spout or funnel for pouring.
- 4.6.4 The correct methods of starting, holding, carrying or storage and use of the saw as directed by the manufacturer must be used.
- 4.6.5 Ensure that the chain brake is functioning properly and able to stop the chain.
- 4.6.6 The chain must be sharp, have the correct tension, and be adequately lubricated.
- 4.6.7 When carrying/transporting a chain saw the bar guard must be in place, the chain bar must be toward the back and the motor must be shut off.
- 4.6.8 The chain saw must not be used for cutting above shoulder height.
- 4.6.9 Chain saws will comply with CSA standards Z62.1-M-77.

4.7 SAFE WORK PRACTICE # 7 - USE OF TIGER TORCHES

Tiger torches are only to be used for preheating of piping, etc. prior to welding.

- 4.7.1 When a torch is used, an adequate fire extinguisher must be present.
- 4.7.2 Torches are not to be used for heating of work areas or thawing of lines and equipment.
- 4.7.3 Ensure that the propane bottles are properly shut off.
- 4.7.4 Fuel lines are to have regulators.
- 4.7.5 Propane bottles shall be secured in an upright position.

4.8 SAFE WORK PRACTICE #8 - USE OF PORTABLE LADDERS

Before using any ladder, make sure that it is in good condition and is the right ladder for the job to be done.

- 4.8.1 When setting up a ladder, secure the base and “walk” the ladder up into place.
- 4.8.2 The ladder should be set at the proper angle of 1 horizontal to every 4 vertical.
- 4.8.3 Before using a ladder, make sure it is secured against movement.
- 4.8.4 When in position, the ladder should protrude 1 meter above the intended landing point.
- 4.8.5 Worker shall not work from the top two rungs of a ladder.
- 4.8.6 Do not overreach while on a ladder, climb down and move the ladder over to a new position.
- 4.8.7 Always face the ladder and use the three-point contact method when moving up or down.
- 4.8.8 The minimum overlap on an extension ladder should be 1 meter unless the manufacturer specifies the overlap.
- 4.8.9 Keep both metal and wood ladders away from electrical sources.

4.9 SAFE WORK PRACTICE #9 - FLAG PERSON

The control of traffic in construction zones shall be done in accordance with Provincial and/or Municipal Regulations. Where required, a traffic control plan must be submitted to local regulatory authorities.

The following steps will be adhered to when directing traffic.

- 4.9.1 To ensure high visibility by on-coming motorists, the flag person will wear the following:
 - a) Hard Hat
 - b) Florescent Vest
 - c) Florescent Stop/Slow Paddle
 - d) Work Boots
- 4.9.2 Stand on the edge of the shoulder of the road facing traffic or in a barricaded lane.
- 4.9.3 To stop traffic: Stand in a stationary position, facing traffic. Display the stop paddle or flag with extended arm over the traffic lane. Raise the free arm with the palm towards approaching traffic.
- 4.9.4 To slow traffic: Display the stop paddle with arm extended, held in a stationary position. Before the approaching vehicle comes to a stop, turn the paddle to display the slow sign, then give the hand signal to proceed.
- 4.9.5 Be prepared to answer any questions or concerns that motorists may have.
- 4.9.6 Guide traffic safely through the work area.
- 4.9.7 In high speed traffic conditions the retention of local police or RCMP may be used to ensure speed reductions.
- 4.9.8 During night operations, flag personnel should utilize a red flashlight or similar signaling device.

4.10 SAFE WORK PRACTICE #10 - PROPER LIFTING PRACTICES -
HOISTING

Determine the weight of the object or load prior to a lift to ensure that the lifting equipment can operate within its capabilities.

Estimate the center of gravity or point of balance. The lifting device should be positioned immediately above this point.

Prepare a place to land the load, lower the load gently and make sure it is stable before slackening the sling or chain.

4.10.1 Select only alloy chain slings and never exceed the working load limits.

4.10.2 Make sure the crane or hoist is directly over the load.

4.10.3 Never shorten a line by twisting or knotting and never use bolts or nuts with chain slings.

4.10.4 Never permit anyone to ride the lifting hook or the load.

4.10.5 Make sure all personnel stand clear from the load being lifted.

4.10.6 Never work under a suspended load.

4.10.7 Never leave a load suspended when the hoist or crane is unattended.

4.10.8 Inspect all slings and chains for rips, cuts, bent hooks, etc.

4.10.9 Ensure that safety latches on hooks are in good working condition.

4.10.10 Ensure that the person signaling is properly identified and knows the proper signals.

4.11 SAFE WORK PRACTICE #11 - USE OF PORTABLE ARC WELDERS

Portable arc welders are a piece of equipment that has to be treated as a vehicle. Do not operate them indoors.

- 4.11.1 Be sure the machine is fully attached to the transporting unit.
- 4.11.2 Check all fluid levels; water, oil and gas to be sure that they are at acceptable levels for operation.
- 4.11.3 When fueling, do not "top off" the gas tank - gasoline expands as the outside temperature rises, this may lead to seepage and result in fire.
- 4.11.4 Do not fuel the machine while it is running.
- 4.11.5 Be sure that the radiator and gas caps are in proper working order and securely attached.
- 4.11.6 Check equipment for damage and obvious leaks.
- 4.11.7 Any repairs should be done by qualified mechanics or technicians.
- 4.11.8 Make sure all cables are wound securely when transporting.
- 4.11.9 Ensure the side covers are kept closed to protect the machine from any damage from external objects and outside weather, as well as to protect the operator and others from the moving parts of the machine.

4.12 SAFE WORK PRACTICE #12 - WELDING OPERATIONS

Work involving welding, cutting and burning can increase the fire and breathing hazard on any job. The following should be considered prior to the start of work.

- 4.12.1 Always ensure that adequate ventilation is supplied since hazardous fumes can be created.
- 4.12.2 Check the work area for combustible material and possible flammable vapors before starting welding, cutting, or burning.
- 4.12.3 Always have fire fighting or prevention equipment on hand before starting any work.
- 4.12.4 Check cables and hoses to protect them from slag or sparks.
- 4.12.5 Never weld or cut lines, drums, tanks, etc. that have been in service without making sure that all precautions have been carried out and permits obtained.
- 4.12.6 Never enter, weld, or cut in a confined space without proper gas tests, a safety lookout and adequate ventilation.
- 4.12.7 When working overhead, use fire resistant materials (blankets, tarps) to control or contain sparks.
- 4.12.8 Compressed gas cylinders shall not be hoisted by slings or subjected to impact, they should be kept upright and should be secured during storage, transportation, or use.
- 4.12.9 Full and empty cylinders shall be kept separate and identified.
- 4.12.10 All cylinders shall have safety caps in place when not in use.

4.13 SAFE WORK PRACTICE #13 - BORING OPERATIONS

- 4.13.1 All underground cables and pipelines shall be accurately located prior to commencement of boring operations.
- 4.13.2 Bore pits must be adequately sloped or shored with approved trench support systems.
- 4.13.3 Chain sprocket and V-belt drives on boring machines shall be guarded.
- 4.13.4 Barricades, flashers, or warning signs should be used around excavation and on the roadside.
- 4.13.5 Adhere to all traffic signage regulations depending on the classification of the roadway (municipal, primary, or secondary) and the quantity of traffic that travels on the roadway.
- 4.13.6 Vehicles shall not be parked on the side of the road where warning devices have been placed. All vehicles shall have warning beacons installed so that they are easily observed by other motorists.
- 4.13.7 Flag-persons shall be stationed on each side of the road at an adequate distance to allow motorists to come to a complete stop when equipment is being moved across highways.
- 4.13.8 No cleated equipment shall be driven across hard surface highways without protecting the surface of the highway (tires).
- 4.13.9 Warning signs shall not be removed until road and highway crossings are properly leveled, shoulders repaired and ditches cleared.

4.14 SAFE WORK PRACTICE #14 - VEHICLE SAFETY

- 4.14.1 Each driver must obey posted speed limits.
- 4.14.2 Each driver must be familiar with and comply with the laws of the jurisdiction in which he operates.
- 4.14.3 Each driver must hold a valid driver's license.
- 4.14.4 All vehicles including powered mobile equipment shall have seat belts provided and worn when vehicle is in motion.
- 4.14.5 Refueling shall be confined to a designated area where smoking is prohibited and signs are posted.
- 4.14.6 Gasoline or diesel engines shall be shut down during the refueling operation.
- 4.14.7 Use only approved refueling equipment in the form of a pump and hose or gravity feed from an elevated storage tank which is properly grounded.
- 4.14.8 Fuel storage tanks should be properly labeled with a fire extinguisher located within 25 feet.
- 4.14.9 Each vehicle or piece of equipment must be inspected daily by the driver, checking for any defects, fuel levels, oil levels, etc.
- 4.14.10 No vehicle shall be operated when loaded in excess of maximum capacity.
- 4.14.11 Ensure vehicles are locked out overnight to prevent theft and vandalism and to ensure public safety.

4.15 SAFE WORK PRACTICE #15 - CRAWLER TRACTOR, SIDE BOOM, AND CABLE OPERATED CRANES

- 4.15.1 Only qualified employees shall operate equipment and will possess a valid operator's license for the equipment they are using.
- 4.15.2 Wire rope connection, boom pins and sheave blocks shall be of approved type and inspected daily by the operator and repaired or replaced if found defective.
- 4.15.3 When tractors are equipped with a winch the operator shall be protected from the danger of flying lines by a substantial cable guard.
- 4.15.4 No person shall be allowed to ride on any part of the tractor or crane except in the seats provided.
- 4.15.5 The operator shall have the swamper in sight before moving the machine or operating the side boom or crane.
- 4.15.6 Booms must be kept clear of overhead power lines.
- 4.15.7 Loads shall never be picked up or lowered when any workers are between the machine and the load, nor shall they be moved, carried or swung over the head or body of workers.
- 4.15.8 No operator shall be allowed to leave the controls of a machine while a section of pipe is suspended more than 6 inches off the ground unless the pipe is properly blocked to prevent movement and the controls are locked out.
- 4.15.9 No employee is to be in the ditch, on the pipe, or between the pipe and the ditch when lowering the pipe into the ditch.
- 4.15.10 When stopped for any reason the operator must dismount, the unit must be made inoperative by leaving the transmission in neutral, disengaging clutches and setting the brakes.
- 4.15.11 Ensure equipment is locked out overnight to prevent theft and vandalism and to ensure public safety.

4.16 SAFE WORK PRACTICE #16 - HYDRAULICALLY OPERATED CRANES, BACKHOES, ETC.

- 4.16.1 Only machines of proper rate capacity and type should be assigned to the job and the manufacturer's rating should never be exceeded.
- 4.16.2 All machine ratings are based on the machine being level in both directions and the operator should take this into account when loading and handling.
- 4.16.3 All equipment shall be inspected daily checking all hydraulic hoses, fittings, tubing and joints for leakage, blistering of hoses, evidence of abrasion, etc.
- 4.16.4 The operator shall be competent and qualified and shall be familiar with and apply established operating safety rules, along with having a valid operator's license.
- 4.16.5 The boom must be kept clear of overhead power transmission lines.
- 4.16.6 Whenever possible traveling with loads suspended should be avoided however, if this is not possible the boom should be carried in line with the direction of travel and tag lines should be incorporated.
- 4.16.7 Loads carried on a boom truck should be tied down independently and boom lines not used for steadying loads.
- 4.16.8 While loads are suspended, the operator should remain at the controls ready for emergency action at all times.
- 4.16.9 Before leaving his station, the operator should lower any suspended load, place controls in neutral position and set all locking and safety devices as necessary to safely secure the machine.
- 4.16.10 Ensure that equipment is locked out overnight to prevent theft and vandalism and to ensure public safety.

4.17 SAFE WORK PRACTICE #17 - DITCHING MACHINES

- 4.17.1 All power units should be shut down before engaging in repairs, adjustments or maintenance.
- 4.17.2 No machine shall be operated unless the machine guards are installed and properly maintained.
- 4.17.3 The ditching machine operators should always keep their swampers in sight or know where they are at all times.
- 4.17.4 No manual clearing of buckets shall be undertaken when the digging wheel is in operation.
- 4.17.5 Operators and swampers should not climb on the ditching machine when it is in motion.
- 4.17.6 The operator should not leave the control of the machine unless both the main transmission and digging wheel are out of gear and the traveling brakes set.
- 4.17.7 Ensure that equipment is locked out overnight to prevent theft and vandalism and to ensure public safety.

4.18 SAFE WORK PRACTICE #18 - SPARK ARRESTOR AND POSITIVE SHUT OFF

- 4.18.1 All diesel driven equipment (excluding turbo-charged equipment) which is used to perform work around tanks or in an area that may contain petroleum vapor, will have the exhaust system fitted with a spark arrestor.
- 4.18.2 The spark arrestor should be sized properly considering engine horsepower and manifold size.
- 4.18.3 All diesel powered equipment should have the air intake system fitted with a positive air shut off.

4.19 SAFE WORK PRACTICE #19 - ELECTRIC POWER CORDS

- 4.19.1 Cords should not be secured permanently to any structural member.
- 4.19.2 Cords should be of an approved three-wire type having conductor insulation and overall jacket not liable to damage at low temperatures.
- 4.19.3 Cords should not be used to support in suspension any weight in excess of 5 pounds (2.27 kg).
- 4.19.4 Check the area for the possibility of cords being run over by vehicles or being struck by falling objects.
- 4.19.5 Cords or plugs which show evidence of mechanical damage should be repaired or replaced immediately.

4.20 SAFE WORK PRACTICE #20 - GRINDING

- 4.20.1 Check the tool rest for the correct distance from the abrasive wheel, maximum 1/8" or 3mm, if this is not the case replace the grindstone.
- 4.20.2 If the wheel has been ground to an angle or is grooved, reface the wheel with the appropriate surfacing tool.
- 4.20.3 Protect your eyes with goggles or a face shield at all times when grinding.
- 4.20.4 Each time a grinding wheel is mounted, the maximum approved speed stamped on the wheel bladder should be checked against the shaft rotation speed of the machine to ensure the safe peripheral speed is not exceeded.
- 4.20.5 The flanges supporting the grinding wheel should be a maximum of 1/3 the diameter of the wheel, and must fit the shaft rotating speed according to the manufacturer's recommendation.
- 4.20.6 Bench grinders are designed for peripheral grinding; do not grind on the side of the wheel.
- 4.20.7 Do not stand directly in front of the grinding wheel when it is first started.

4.21 SAFE WORK PRACTICE #21 - USE OF PORTABLE GRINDERS

- 4.21.1 Familiarize yourself with the grinder operation before commencing work.
- 4.21.2 Ensure proper guards are in place and that safety glasses, face shields, gloves and work boots are worn when using portable grinders.
- 4.21.3 Never exceed the maximum wheel speed. Check the speed marked on the wheel and compare it to the speed on the grinder.
- 4.21.4 When mounting the wheels, check them for cracks and defects, ensure that the mounting flanges are clean and the mounting bottles are used.
- 4.21.5 Before grinding, run newly mounted wheels at operating speed to check for vibrations.
- 4.21.6 Do not use grinders near flammable materials.
- 4.21.7 Never use the grinder for jobs for which it is not designed, such as cutting.

4.22 SAFE WORK PRACTICE #22 - USE OF HAND-HELD POWER
CIRCULAR SAWS

- 4.22.1 Approved safety equipment such as safety glasses or a face shield is to be worn.
- 4.22.2 Where harmful vapors or dusts are created, approved breathing protection is to be used.
- 4.22.3 The proper sharp blade designed for the work to be done must be selected and used.
- 4.22.4 The power supply must be disconnected before making any adjustments to the saw or changing the blade.
- 4.22.5 Before the saw is set down be sure the retracting guard has fully returned to its down position.
- 4.22.6 Both hands must be used to hold the saw while ripping.
- 4.22.7 Maintenance is to be done according to the manufacture's specifications.
- 4.22.8 Ensure all cords are clear of the cutting area before commencing.
- 4.22.9 Before cutting, check the stock for foreign objects or any other obstruction which could cause the saw to "kick back".
- 4.22.10 When ripping, make sure that stock is held securely in place; use a wedge to keep the stock from closing and causing the saw to bind.

4.23 SAFE WORK PRACTICE #23 - EXCAVATIONS

- 4.23.1 Excavations must be carried out in accordance with Provincial Health & Safety Regulations.
- 4.23.2 Utility services in the area, such as electrical, telecommunication, gas, water and sewer must be located.
- 4.23.3 Trees, utility poles, rocks, or similar objects near the area to be excavated must be removed or secured to ensure worker safety.
- 4.23.4 Hazards:
- Is It Safe - no one can predict if it is safe to enter an excavation without a proper support structure.
 - Cave In - a worker can be seriously injured or killed if he is buried only up to his waist.
 - Previously Excavated Ground - back filled or previously excavated grounds are especially dangerous since the soil is loose and does not support itself well.
 - Water - increase the possibility of a cave in.
 - Clay - if dried by the sun, large chunks can falloff.
 - Frozen Ground - not a substitute for shoring.
 - Shoring - must be done to overcome the additional pressures from: piles of excavated material, adjoining structures, vehicular traffic and nearby equipment.
- 4.23.5 Protection Requirements:
- Observer - to remain on the surface to supervise the trench and the workers for unsafe conditions.
 - Access/Egress - ladder to extend 1m (3ft) over the top of the trench and within 3m (10ft) of the worker, or ramp constructed at one end of the trench. If worker is required to cross over the trench, a proper walkway with guardrails is required.
 - Public Protection and Traffic Control - proper barriers and signage to protect the public from falls, falling material and equipment. Proper covers or fencing during "off" hours.
- 4.23.6 Shoring and Proper Sloping:
- If the excavation exceeds 5 feet in depth, the sides of the excavation must be sloped at a an angle of at least 45 degrees for A or B soil types, 33 degrees for a type C soil, or an engineered approved shoring structure must be installed.
 - For approved shoring structures, see Section 17, Safety Info Grams.

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- 4.23.7 Soil Categories:
- Class A -cohesive soils with an unconfined compressive strength of 1.5 ton per square foot or greater. Ex. clay, silt clay, sandy clay, clay loam.
-cannot be fissured, subject to vibration from heavy traffic, pile driving, previously disturbed, part of a sloped, layered system, etc.

 - Class B -cohesive soil with an unconfined compressive strength greater than 0.5 ton per square foot, but less than 1.5 ton per square foot. Ex. granular cohesion soils, angular gravel, silt, sandy clay loams.
-includes Class A type soils which have been disturbed.

 - Class C -cohesive soil with an unconfined compressive strength of 0.5 tons per square foot or less. Ex. gravel, sand, loamy sand.
-includes soils or rocks that are submerged from which water is freely seeping.

4.24 SAFE WORK PRACTICE #24 - BACKFILLING

- 4.24.1 Backfilling should not commence until all personnel are clear of the work area.
- 4.24.2 The heavy equipment operators should keep their swampers in sight at all times.
- 4.24.3 The operators should ensure that everyone is clear of the area before approaching the trench or dumping the load.
- 4.24.4 The swamper and the heavy equipment operator should know the proper hand signals and utilize them.
- 4.24.5 Extra caution should be used when working next to overhead power lines.
- 4.24.6 Ensure that equipment is locked out overnight to prevent theft and vandalism and to ensure public safety.

4.25 SAFE WORK PRACTICE #25 - DEFECTIVE TOOLS

- 4.25.1 Defective tools can cause serious and painful injuries. If a tool is defective in any way, don't use it. Be aware of problems like:
- chisel and wedges with mushroomed heads
 - split or cracked handles
 - chipped or broken drill bits
 - wrenches with worn out jaws
 - tools which are not complete, such as files without handles
- 4.25.2 To ensure safe use of hand tools, remember:
- Never use a defective tool
 - Double check all tools prior to use
 - Ensure defective tools are repaired
- 4.25.3 Air, gasoline and electric power tools, require skill and complete attention on the part of the user even when they are not defective in any way.
- 4.25.4 Watch for problems like:
- broken or inoperative guards
 - insufficient or improper grounding due to damage on double insulated tools.
 - no ground wire (on plug) or cords of standard tools
 - the on/off switch not in good working order
 - tool blade is cracked
 - the wrong grinder wheel is being used
 - the guard has been wedged back on a power saw

4.26 SAFE WORK PRACTICE # 26 - BATTERIES

- 4.26.1 Never create a spark or allow a bare light bulb near a battery; they give off a certain amount of hydrogen gas which is highly explosive.
- 4.26.2 Always disconnect the battery ground (-) cable at the battery before working on the fuel or electrical systems.
- 4.26.3 If possible, loosen the filler caps or cover when charging the battery from an external source (this does not apply to sealed or maintenance-free batteries).
- 4.26.4 Do not charge at an excessive rate or the battery may burst.
- 4.26.5 Always wear eye protection when cleaning the battery to prevent the caustic deposits from entering your eyes.

4.27 SAFE WORK PRACTICE #27 - MAINTENANCE SAFETY

- 4.27.1 Wear eye protection when using power tools such as a drill, sander, bench grinder, etc. and when working under a vehicle.
- 4.27.2 Do not attempt to lift a heavy component alone - get someone to help you.
- 4.27.3 When working alone on a vehicle make sure someone periodically checks on you.
- 4.27.4 Do not rely on a jack when working under a vehicle, always use approved jack stands to support the weight of the vehicle and place them under the recommended lift or support points.
- 4.27.5 Do not attempt to loosen extremely tight fasteners (i.e. wheel lug nuts) while the vehicle is on a jack - it may fall.
- 4.27.6 Before starting the engine, make sure the transmission is in neutral or park and that the parking brake is set.
- 4.27.7 Do not touch any part of the engine or exhaust systems until it has cooled sufficiently to avoid burns.
- 4.27.8 Do not inhale brake lining dust; it is potentially hazardous (some may contain asbestos).
- 4.27.9 Wipe up or use floor dry to absorb spilled oil or grease.
- 4.27.10 Do not siphon toxic liquids such as gasoline, antifreeze and brake fluid by mouth or allow them to remain on your skin.

4.28 SAFE WORK PRACTICE #28 - BACK INJURY PREVENTION

4.28.1

Back Facts:

- 80% of Canadians will suffer some form of back pain in their lives.
- Back pain is the second most common medical complaint, after the common cold.
- Back injuries cause 100 million lost days of work annually.
- Work-related back injuries are the country's number one occupational hazard. 2% of the nation's work force (450,000 people), sustain back injuries each year.
- The total cost of back injury disabilities is between \$30 billion and \$60 billion annually (National Safety Council).
- After 52 weeks of back injury disabilities, only 25% of injured workers return to work; after 2 years of disability, the return rate is zero.
- For 85% of back pain sufferers, the primary site of back pain is the lower back.
- An estimated 4.1 million persons each year report disc disorders which are a major contributor to back problems.
- There are 46,000 disabling back injuries each year (Safety & Health Publication, 1988).

4.28.2

About the Back and Back Problems:

The human spine is made up of small bones called vertebrae. The vertebrae are stacked on top of each other to form a column. Between each vertebrae is a cushion known as a disc. The vertebrae are held together by ligaments, and muscles are attached to the vertebrae by bands of tissue called tendons.

Openings in each vertebrae line up to form a long hollow canal. The spinal cord runs through this canal from the base of the brain. Nerves from the spinal cord branch out and leave the spine through the spaces between the vertebrae.

The lower part of the back holds most of the body's weight. Even a minor problem with the bones, muscles, ligaments, or tendons in this area can cause pain when a person stands, bends, or moves around. Less often, a problem with a disc can pinch or irritate a nerve from the spinal cord, causing pain that runs down the leg, below the knee called sciatica.

- 4.28.3 Lower Back Problems:
- If you have lower back problems, your symptoms may include:
 - pain or discomfort in the lower part of the back
 - pain or numbness that moves down the leg (sciatica)
 - herniated disc - disc rupture, disc prolapse
- A lower back problem may come on gradually or suddenly. It is acute if it lasts a short while, usually a few days to several weeks. An episode that lasts longer than 3 months is not acute.
- 4.28.4 Causes of Lower Back Problems:
- Even with today's technology, the exact reason or cause of low back problems can be found in very few people. Most times, the symptoms are blamed on poor muscle tone in the back, muscle tension or spasm, back sprains, ligaments or muscle tears, or joint problems. Sometimes nerves from the spinal cord can be irritated by slipped discs causing buttock or leg pain. This may also cause numbness, tingling or weakness in the legs.
- People who are in poor physical condition or do work that includes heavy labor or long periods of sitting or standing are at a greater risk for lower back problems. These people also recuperate at a slower rate. Emotional stress or long periods of inactivity may make back symptoms seem worse.
- 4.28.5 Things To Do About Lower Back Problems:
- Exercise:
- abdominals* - should be strong so that the front and back of the spine is stabilized.
 - gluteus, quadriceps, and hamstrings* - need to be strong so that they can be depended upon to do the work, thereby protecting the spinal joints and back muscles from injury.
 - flexibility* - can be achieved through daily stretching. It is important that flexibility of the spine, are maintained during all activities.

Lifting:

- Reduce the amount of stress on your spine by only lifting loads within your capability (being in control, no strain).
- Move a heavy load using mechanical aid when possible or by getting help from another person.
- When lifting, place your feet apart (with one foot slightly in front of the other for balance), bend your knees and keep your back straight as if you have a broomstick attached to your back.
- Keep the lower abdominals activated and braced during the lift, do not hold your breath.
- Keep the object as close to you as possible and maintain a balanced position throughout the lift.
- Keep your body squared to the object at all times, avoid twisting the spine - pivot with your feet turned.

Acute Injuries:

- Discontinue the aggravated activity. Soreness, twinges and spasms are warning signs.
- Ice, as soon as possible for 15 to 20 minutes at a time. Then let the skin temperature return to normal. You may do this as often as necessary during the acute stage, i.e. usually the first 24 to 48 hours.
- Find a position of comfort. Either, lie on your back with feet and lower legs elevated on pillows, on your stomach with one or more pillows under your hips, on your side with a pillow between your knees. Use ice on your back while resting in a comfortable position.
- Avoid lifting and forward bending activities.
- Progress to gentle stretching exercises.

4.29 SAFE WORK PRACTICE #29 - FIRST AID FOR HEAT ILLNESSES

Heat Cramps, Heat Exhaustion and Heat Stroke are heat illnesses that are caused by:

- Long Exposure to hot conditions
- Over Exposure to the sun
- Lack of Fluids to replace lost body fluids
- Vigorous Exercise or Hard Labor in a hot environment

To Prevent Heat Illnesses:

- Expose the body gradually to the sun
- Protect the head from direct sun
- Drink sufficient water to replace body fluids from sweating

4.29.1 Heat Cramps:

- Signs:* excessive sweating
- Symptoms:* painful muscle spasms in the limbs and abdomen
- 1st Aid:*
- place person in a comfortable position in a cool place
 - give a glass of water to drink
 - give one more glass of water in 10 minutes
 - DO NOT give any more water even if cramps persist
 - OBTAIN medical aid if muscle pains continue

4.29.2 Heat Exhaustion:

- Signs:* cold, clammy, pale skin
vomiting
weak and rapid pulse
unconsciousness
excessive sweating
- Symptoms:* blurred vision
headache
nausea
painful muscle cramps in limbs and abdomen
dizziness
- 1st Aid:* (combination for heat cramps and shock)
- place in a cool place, with legs and feet elevated
 - loosen tight clothing at neck and waist, remove excess clothing
 - give water as much as the casualty will take (if casualty becomes unconscious)
 - place in recovery position
 - monitor breathing and give artificial respiration if necessary
 - obtain medical aid

4.29.3 Heat Stroke:

Heat stroke is life threatening and far more serious than heat cramps or heat exhaustion

Signs: body temperature
flushed, hot, dry skin
convulsions
rapid and full pulse
noisy breathing
unconsciousness
vomiting
restlessness

Symptoms: headache
dizziness
nausea

1st Aid: A person suffering from heat stroke is in a very serious condition because the body is overheated and cannot reduce its temperature without assistance. (Send for medical aid)
To prevent permanent damage or death, you must reduce body temperature quickly.
-remove clothing
-sponge casualty with cool water, particularly the armpit, neck, head, and groin areas, **or**
-cover with wet sheets and direct cool air over him by fanning, **or**
-immerse the casualty in a cool bath and watch closely
When the body feels cooler to the touch, place in the recovery position and cover with a dry sheet. Monitor the casualty and if temperature rises, repeat the cooling process.

5.0 JOB DESCRIPTIONS:

5.1 PLOWING OPERATIONS

5.1.1 Pre-Rip Plow Operator:

Prior to commencing the plowing in of conduit, the pre-rip operator makes the initial path in which the conduit will be laid. The purpose of the pre-rip is to ensure that a path clear of obstructions can be found for the conduit. During the pre-rip, all utility locations are marked, all culverts are marked, and any areas in which there may be problems in laying conduit are marked.

Safety Hazards: underground utilities, moving equipment, overhead power lines, traffic hazards, site conditions, noise, hydraulic oil lines

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests

Protective Devices: fire extinguisher, first aid kits, traffic control devices

Do: -check all fuel, oil, and coolant levels daily
-conduct written equipment inspections bi-weekly
-watch for moving equipment
-be aware of underground utility locates
-be aware of any other obstructions in the ground (i.e. culverts)
-wear appropriate PPE

Do Not: -move heavy equipment onto unstable soil
-ride on any machinery not supplied with an approved manufacturer's seat
-plow over any unexposed underground utilities

5.1.2 Plow Cat Operator:

The responsibility of the Plow Cat Operator is to install the conduit into the ground at a designated depth. The Plow Cat Operator is responsible for ensuring that the plow is lifted in appropriate areas, (i.e. utilities, culverts, etc.).

Safety Hazards: underground utilities, moving equipment, overhead power lines, traffic hazards, site conditions, noise, hydraulic oil lines, winch cables

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests

Protective Devices: fire extinguisher, first aid kits, traffic control devices

Do:

- ensure the correct reels are used
- check all fuel, oil, and coolant levels daily
- conduct written equipment inspections bi-weekly
- watch for moving equipment
- be aware of underground utility locates
- be aware of any other obstructions in the ground (i.e. culverts)
- wear appropriate PPE
- ensure all nails have been pulled out of reels

Do Not:

- move heavy equipment onto unstable soil
- ride on any machinery not supplied with an approved manufacturer's seat
- plow over any unexposed underground utilities

5.1.3 Tow Cat Operator:

The responsibility of the Tow Cat Operator is to tow the plow cat while installing cable into the ground.

Safety Hazards: underground utilities, moving equipment, overhead power lines, traffic hazards, site conditions, noise, hydraulic oil lines, winch cables

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests

Protective Devices: fire extinguisher, first aid kits, traffic control devices

Do: -check all fuel, oil, and coolant levels daily
-conduct written equipment inspections bi-weekly
-watch for moving equipment
-be aware of underground utility locates
-wear appropriate PPE

Do Not: -move heavy equipment onto unstable soil
-ride on any machinery not supplied with an approved manufacturer's seat

5.1.4 Plow Walker

The Plow Walker is responsible for following the plow and ensuring that the marker tape is placed correctly with the conduit. It is the responsibility of the plow walker to identify all areas in which the conduit is not at the designated depth or could not be installed by the plow. The plow walker should also mark any areas in which the conduit may have been damaged by rock or any other obstruction in the ground.

Safety Hazards: close proximity to moving equipment, traffic hazards, site conditions, noise, general debris around the area, underground utilities

Personal Protective Equipment safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests

Protective Devices must know proper hand signals, traffic control devices

Do: -remain within the operator's line of vision
-keep an eye on the line at all times
-know proper hand signals
-practice good housekeeping
-wear all appropriate PPE

Do Not: -stand or walk under any suspended loads
-ride on any machinery not supplied with an approved manufacturer's seat
-hold onto the plow at any time

5.1.5 Clean-Up Operator

The responsibility of the Clean-Up Operator is to follow the plowing operation and restore the job site to its original condition or better. This may include regrading areas, backfilling, and leveling of the ground to the surrounding area. General housekeeping duties are also performed by the Clean-Up Operator when required.

Safety Hazards: underground utilities, moving equipment, overhead power lines, traffic hazards, site conditions, noise, hydraulic oil lines

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests

Protective Devices: fire extinguisher, first aid kits, traffic control devices

Do: -check all fuel, oil, and coolant levels daily
-conduct written equipment inspections bi-weekly
-watch for moving equipment
-be aware of underground utility locates
-wear appropriate PPE

Do Not: -move heavy equipment onto unstable soil
-ride on any machinery not supplied with an approved manufacturer's seat

5.2 DIRECTIONAL DRILLING OPERATIONS

5.2.1 Drill Locator:

The locator is responsible for locating the drill head and instructing the drill operator in the direction and depth to push the pipe in order to reach the designated location. The Locator is also responsible for insuring the safe crossing of existing underground utilities, roadways, and all watercourses. The Locator is also responsible for recording all distances drilled for invoicing purposes.

Safety Hazards: underground utilities, rotating equipment, traffic hazards, site conditions, noise, hydraulic oil lines

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests

Protective Devices: fire extinguisher, first aid kits, traffic control devices, grounding mats, communication devices

Do:

- check all fuel, oil, and coolant levels daily
- conduct written equipment inspections bi-weekly
- watch for rotating equipment and pinch points in drills
- be aware of underground utility locates
- be aware of any other obstructions in the ground (i.e. culverts)
- wear appropriate PPE

Do Not:

- move any equipment onto unstable or soft soil
- drill around unexposed underground utilities
- wear any loose clothing that may get caught up in the drill

5.2.2 Drill Operator:

The responsibility of the Drill Operator is to maneuver the drill in the appropriate direction and at the appropriate depth depending on the instruction given from the Drill Locator. The Drill Locator informs the Drill Operator of the current depth and location of the drill head, and the direction that the drill must move so that it can reach the designated location.

Safety Hazards: underground utilities, rotating equipment, traffic hazards, site conditions, noise, hydraulic oil lines

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests

Protective Devices: fire extinguisher, first aid kits, traffic control devices, grounding mats, communication devices

Do: -check all fuel, oil, and coolant levels daily
-conduct written equipment inspections bi-weekly
-watch for rotating equipment and pinch points in drills
-be aware of underground utility locates
-be aware of any other obstructions in the ground (i.e. culverts)
-wear appropriate PPE

Do Not: -move any equipment onto unstable or soft soil
-drill around unexposed underground utilities
-wear any loose clothing that may get caught up in the drill

5.2.3 Laborer:

The responsibilities of the Laborer are to ensure that all pipes are ready to fasten to the drill, when the drilling operations are underway, fasten the pipes to the drill, ensuring that all joints are lubricated with pipe dope, ensure that the water-bentonite compound is at the correct consistency and at an acceptable level, and when pulling back, remove all pipes and prepare for storage. The laborer is also responsible for general housekeeping duties.

Safety Hazards: underground utilities, rotating equipment, traffic hazards, site conditions, noise, hydraulic oil lines, lifting hazards

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests, respiratory masks

Protective Devices: fire extinguisher, first aid kits, traffic control devices, grounding mats, communication devices

Do: -watch for rotating equipment and pinch points in drills
-practice correct lifting techniques
-be aware of underground utility locates
-be aware of any other obstructions in the ground (i.e. culverts)
-wear appropriate PPE

Do Not: -move any equipment onto unstable or soft soil
-drill around unexposed underground utilities
-wear any loose clothing that may get caught up in the drill

5.2.4 Backhoe Operator

The responsibilities of the Backhoe Operator are to excavate the area in which the drill will be set up, backfill and clean up the area after drilling operations have ceased, and to anchor the drill if needed. Clean up duties may include regrading areas, backfilling, and leveling of the ground to the surrounding area. Also, general housekeeping duties may be required.

Safety Hazards: underground utilities, moving equipment, overhead power lines, traffic hazards, site conditions, noise

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests

Protective Devices: fire extinguisher, first aid kits, correct shoring, traffic control devices

Do:

- check all fuel, oil, and coolant levels daily
- conduct written equipment inspections bi-weekly
- watch for moving equipment
- be aware of underground utility locates
- be aware of area (vehicles, equipment, personnel, pedestrians, personal property, etc.)
- wear appropriate PPE
- practice good housekeeping
- ensure correct shoring requirements are met
- ensure excavated material is piled 1 meter away from side of trench

Do Not:

- move heavy equipment onto unstable soil
- allow anyone to ride on any machinery not supplied with an approved manufacturer's seat
- leave an excavation unprotected from public access

5.3 TIE INS

5.3.1 Backhoe Operator:

The responsibility of the Backhoe Operator is to expose the conduit at the points in which the conduit needs to be repaired, at points in which the conduit needs to be lowered to the designated depth or protected if that depth cannot be acquired, at reel ends, or at boring locations. Also, any areas in which utilities must be exposed will be excavated with the assistance of a swamper and hand excavation.

Safety Hazards: underground utilities, moving equipment, overhead power lines, traffic hazards, site conditions, noise

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests

Protective Devices: fire extinguisher, first aid kits, correct shoring, traffic control devices

Do:

- check all fuel, oil, and coolant levels daily
- conduct written equipment inspections bi-weekly
- watch for moving equipment
- be aware of underground utility locates
- be aware of area (vehicles, equipment, personnel, pedestrians, personal property, etc.)
- wear appropriate PPE
- practice good housekeeping
- ensure correct shoring requirements are met
- ensure excavated material is piled 1 meter away from side of trench

Do Not:

- move heavy equipment onto unstable soil
- allow anyone to ride on any machinery not supplied with an approved manufacturer's seat
- leave an excavation unprotected from public access

5.3.2 Fuser:

The responsibilities of the Fuser is to fuse together conduit when repairing damaged conduit, joining reel ends, or tying in bores. The Fuser may use a form of polyethylene fusing, in which the conduit is joined together by a controlled melting process at 500 degrees Fahrenheit. He may also use couplers to join the pipe together. Also, the Fuser may need to protect the conduit that cannot be installed at eh designated depth by installing a trough around the conduit. After a fuse is completed, the Fuser will record the location and depth, and any additional information that may be required (i.e. troughing).

Safety Hazards: burns, electric shock, eye exposure, noise, excavation cave-ins, traffic, congested work area, weather conditions, high temperatures of heating irons

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests

Protective Devices: fire extinguishers, first aid kits, correct shoring, traffic control devices, ground fault circuit interrupter

Do: -wear all appropriate PPE
-inspect tools and equipment prior to use
-use recommended melt times and procedures
-practice good housekeeping

Do Not: -leave melting equipment in unprotected areas
-stand or walk on pipe
-enter an excavation without proper shoring

5.3.3 Clean-Up Operator:

The responsibility of the Clean-up Operator is to follow the Fuser, place the marker tape over the conduit, and then restore the job site to its original condition or better. This may include regrading areas, backfilling, and leveling of the ground to the surrounding area. General housekeeping duties are also performed by the Clean-Up Operator when required.

Safety Hazards: underground utilities, moving equipment, overhead power lines, traffic hazards, site conditions, noise

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, florescent vests

Protective Devices: fire extinguisher, first aid kits, devices

Do: -check all fuel, oil, and coolant levels daily
-conduct written equipment inspections bi-weekly
-watch for moving equipment
-be aware of underground utility locates
-be aware of area (vehicles, equipment, personnel, pedestrians, personal property, etc.)
-wear appropriate PPE
-practice good housekeeping

Do Not: -move heavy equipment onto unstable soil
-allow anyone to ride on any machinery not supplied with an approved manufacturer's seat

5.4 JETTING OPERATIONS

5.4.1 Jetting Foreman:

The responsibility of the Jetting Foreman is to determine locations to place the jets prior to commencing operations, organize the retrieving of the correct reels to jet into the conduit, record the reels installed and the locations in which they are installed, and overseeing the overall jetting operation.

Safety Hazards: underground utilities, traffic hazards, site conditions, noise.

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests

Protective Devices: fire extinguishers, first aid kits, traffic control devices, communication devices

Do: -ensure the correct reels are used
-wear appropriate PPE
-ensure all required PPE is in use by employees
-ensure all underground utilities are located prior to digging the jetting points
-keep communication lines open

Do Not: -ride on any machinery not supplied with an approved manufacturer's seat.

5.4.2 Jetter:

The responsibilities of the Jetter include installing the fibre into the conduit via the jet, the setting up and dismantling of the jets at the jetting points, controlling the speed at which the jets install the fibre, and the figure-eighting of the fibre at the jetting points after it has been installed.

Safety Hazards: underground utilities, pinch points in the jets, traffic hazards, site conditions, noise

Personal Protective Equipment: safety boots, hard hats, hearing protection, gloves, safety glasses, appropriate clothing, fluorescent vests

Protective Devices: fire extinguisher, first aid kits, traffic control devices, communication devices

Do: -wear all appropriate PPE
-ensure fibre is not damaged while jetting
-practice good housekeeping
-keep communication lines open

Do Not: -continue jetting if there is a problem with the fibre
-ride on any machinery not supplied with an approved manufacturer's seat.

5.4.3 Jetting Laborer:

The responsibility of the Jetting Laborer is to ensure that the fibre being jetted into the conduit is free of any damage and to guide the fibre into the jet so as to ensure no stoppages resulting from kinked or coiled fibre. Additional duties include assisting the Jetter with the setting up and dismantling of the jets, general housekeeping duties, and any other duties deemed necessary by the Foreman or the Jetter.

Safety Hazards: underground utilities, pinch points in the jets, traffic hazards, site conditions, noise

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests

Protective Devices: Fire extinguishers, first aid kits, traffic control devices, communication devices

Do: -wear all appropriate PPE
-wear gloves when guiding fibre
-inspect fibre carefully
-practice good housekeeping
-keep communication lines open

Do Not: -ride on any machinery not supplied with an approved manufacturer's seat.

5.4.4 Backhoe Operator:

The responsibility of the Backhoe Operator is to expose the conduit at predetermined jetting points so that the jets can be set up and fibre installed from these locations. After completion of the installation, the excavations are backfilled with appropriate materials and leveled to the surrounding terrain.

Safety Hazards: underground utilities, moving equipment, traffic hazards, overhead power lines, site conditions, noise

Personal Protective Equipment: safety boots, hard hats, hearing protection, gloves, safety glasses, appropriate clothing, fluorescent vests

Protective Devices: fire extinguisher, first aid kits, traffic control devices

Do:

- wear all appropriate PPE
- conduct written inspections bi-weekly
- practice good housekeeping
- ensure all utilities are located
- be aware of area (vehicles, equipment, personnel, pedestrians, personal property, etc.)
- ensure correct shoring requirements are met
- ensure excavated material is piled at least 1 meter away from side of trench

Do Not:

- move heavy equipment onto unstable or soft soil
- allow anyone to ride on any machinery not supplied with an approved manufacturer's seat.
- leave an open excavation unprotected from public access

5.4.5 Picker Truck Driver:

The responsibility of the Picker Truck Driver is to transport the fibre reels to the appropriate job site. This involves the loading of the reels onto the truck and also the removal of the reels at the job site.

Safety Hazards: loading and binding, road conditions, uneven ground, power lines, weather conditions, motor vehicle accidents

Personal Protective Equipment: safety boots, hard hats, gloves, safety glasses, appropriate clothing, fluorescent vests

Protective Devices: fire extinguisher, first aid kits, load binders, straps, chains, blocking devices

Do: -plan a safe route in advance, take into consideration bridges, overpasses, tunnels, road restrictions, and peak traffic periods
-do vehicle inspections before traveling, en route, and upon reaching your destination
-only qualified personnel are authorized to operate the picker truck
-abide by all transport regulations
-wear your seatbelt
-ensure that the load is secured

Do Not: -operate or drive while under the influence of alcohol, or any medications that may impair your skills
-attempt to lift over load capacity of the picker truck

5.5 FIBER OPTIC SPLICING

5.5.1 Cable Measurement For Final Racking:

This is the first step in the process of fibre optic splicing. At each splice location, a coil of cable is left either as a continuous length (for loop through locations), or several separate cable ends. Each cable is removed from the splice location and laid out on the ground. A measurement is taken of each cable and subsequently cut to an exact length to ensure that after the cables are spliced, they can be placed back within the closure in a neat and orderly fashion. The final racking of the cables and the splice closure are critical in that no macro bends occur. This can lead to unwanted cable losses and deterioration of the glass fibres.

future

Safety Hazards: vehicle location (Hwy. or Railway R.O.W.), loose glass shards from cleaving, 99% isopropyl alcohol, sharp cutting tools for cable preparation manholes and closures (confined spaces).

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests.

Protective Devices: fire extinguishers, first aid kits, traffic control devices, gas detector(if needed), loose glass containers, communication devices.

Do: -ensure extreme cleanliness at all times during fibre optic splicing(very important to remember)
-ensure extreme care is taken at all times
-ensure extreme caution is taken at all times
-wear appropriate PPE

Do Not: -smoking prohibited at all times while performing fibre optic splicing procedures.

5.5.2 Cable Preparation:

After measurement, the cable ends are brought into the splicing vehicle where they will be prepared for the actual splicing operation. This includes measuring and placing the splice closure, cleaning, stripping and degreasing the cable to gain access to the buffer tubes which hold the loose fibres. The fibres themselves are also cleaned extensively and with extreme caution. This is also to remove cable grease and grime so that the cable trays are neat and clean. All of these cleaning steps are done with 99% isopropyl alcohol.

Safety Hazards: vehicle location (Hwy. or Railway R.O.W.), loose glass shards from cleaving, 99% isopropyl alcohol, sharp cutting tools for cable preparation manholes and closures (confined spaces).

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests.

Protective Devices: fire extinguishers, first aid kits, traffic control devices, gas detector(if needed), loose glass containers, communication devices.

Do: -ensure extreme cleanliness at all times during fibre optic splicing(very important to remember)
-ensure extreme care is taken at all times
-ensure extreme caution is taken at all times
-wear appropriate PPE

Do Not: -smoking prohibited at all times while performing fibre optic splicing procedures.

5.5.3 Splice Closure Installation:

This step coincides with the cable preparation and is critical to the actual splicing of the fibres. It is very important that the base of the closure is properly installed on the cables to ensure a water tight seal. (Water migration into the splice case is very detrimental to the splice). It is also critical in this step that the cables are properly grounded and that the splice case is secure to the internal strength member of the cable. This will ensure there is no movement within the splice case during the final racking procedure.

Safety Hazards: vehicle location (Hwy. or Railway R.O.W.), loose glass shards from cleaving, 99% isopropyl alcohol, sharp cutting tools for cable preparation manholes and closures (confined spaces).

Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests.

Protective Devices: fire extinguishers, first aid kits, traffic control devices, gas detector(if needed), loose glass containers, communication devices.

Do: -ensure extreme cleanliness at all times during fibre optic splicing(very important to remember)
-ensure extreme care is taken at all times
-ensure extreme caution is taken at all times
-wear appropriate PPE

Do Not: -smoking prohibited at all times while performing fibre optic splicing procedures.

5.5.3 Cable Tray Preparation:

Once the splice case is secured to the cables, the loose buffer tubes are measured and cut to a desired length. (Splice case and tray specific). They are then placed and secured to the splice trays which hold the completed splices and shrink sleeves. Once again, the bare fibres are cleaned with 99% isopropyl alcohol to ensure the splice trays remain clean and neat.

The wrapping of the bare fibres and shrink sleeves within the splice trays is critical and extreme care must be taken with this process. It is at this step, once again, that macro bends can be introduced. As well, the fibres are most vulnerable to breakage at this step and extreme care must be taken when placing the fibres. A broken fibre at this point can lead to the entire process being re-done. (ie. From measuring the cables to splice case installation to cable preparation).

Prior to the placement of the fibres within the splice trays, the actual fusion process takes place. Once again, extreme care and caution must be used in this step. It is critical to the integrity of the splice that the fibres ends are cleaned and cleaved properly. Improper cleave angles will produce very poor splices and must be re-done. As well, dirty fibre ends will produce faulty splices.

NOTE: It is very important that the shrink sleeves are placed over the fibres prior to splicing. Failure to do so will require an unwanted cut-out.

Once all splicing operations are completed, the cover of the splice case is secured and pressure tested. This will ensure a water tight seal which is very critical. If there is leakage in the test, the cover will be removed and checked until the problem is corrected.

Final step is to rack the cable and splice case within the closure. It is very important that the cable is securely fastened and that no sharp bends are introduced (macro bends).

Safety Hazards: vehicle location (Hwy. or Railway R.O.W.), loose glass shards from cleaving, 99% isopropyl alcohol, sharp cutting tools for cable preparation manholes and closures (confined spaces).

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Personal Protective Equipment: safety boots, hard hats, hearing protection, safety glasses, gloves, appropriate clothing, fluorescent vests.

Protective Devices: fire extinguishers, first aid kits, traffic control devices, gas detector(if needed), loose glass containers, communication devices.

Do: -ensure extreme cleanliness at all times during fibre optic splicing(very important to remember)
-ensure extreme care is taken at all times
-ensure extreme caution is taken at all times
-wear appropriate PPE

Do Not: -smoking prohibited at all times while performing fibre optic splicing procedures.

6.0 JOB SPECIFIC TRAINING:

6.1 OVERVIEW

6.1.1 Job specific training makes sure each employee can do the job and knows how to do it right. This type of training should be conducted:

1. At time of hire
2. When an employee is assigned new or different work

6.2 TRAINING

6.2.1 In every case the approach is the same. Job specific training is best conducted by the employee's immediate supervisor. The supervisor should:

1. Review the company's Safe Work Practices along with any Job Procedures that apply to the specific job.
2. Bring all known safety hazards that may affect the employee to do the job safely and correctly.
3. Provide the employee all information that is necessary for the employee to do the job safely and correctly.

6.2.2 Depending on the complexity of the job and the employee's skill/experience level, job specific training may take anywhere from a few minutes to several weeks. Records should be kept for all training and included in each employee's file. In addition to formal training, the ongoing monitoring and coaching of the employee is a major duty and responsibility of a good supervisor.

6.2.3 *JOB-SPECIFIC-TRAINING FORM*

JOB-SPECIFIC-TRAINING

FOR: _____ (PRINT EMPLOYEE'S NAME)

TASK: _____ **DATE:** _____

Explanation : explain the task you want the employee to do

Demonstration: show the student how to do the task

Repetition: go over the above steps and let the student ask questions to assure understanding

Practice: let the student do the task under your supervision

Follow Up: Stop the student, ask if they fully understand and if so they continue the task under loose supervision. As they show competency, gradually reduce the supervision.

Student's Signature

Instructor's Signature

7.0 SAFETY RULES

- 7.1 Wear your hard hat, safety boots, and any other personal protective equipment required on the job to prevent injury.
- 7.2 Perform all work in accordance with acceptable safe work practices and your foreman's direction.
- 7.3 Operate all vehicles and mobile equipment in accordance with site rules and motor vehicle regulations. Do not operate equipment unless you are trained in its use.
- 7.4 Maintain good housekeeping on your machine or in your work area.
- 7.5 Report all unsafe acts, unsafe conditions, or near miss incidents to your foreman so that corrective action may be taken.
- 7.6 Report any injuries, however small, or accidents immediately to your foreman.
- 7.7 Workers must wear safety glasses or face shields for all operations where the eyes or face are exposed to any flying objects, intense heat, injurious light or splash from hazardous chemicals.
- 7.8 Workers must wear full body safety harnesses when working at elevations greater than 8 feet above grade level.
- 7.9 Do not wear wrist watches, rings, bracelets, or dangling neckwear at work since serious injury can result should they become caught in equipment or other objects. Long hair and heavy beards should be tied back.
- 7.10 No worker should operate any equipment in a manner that endangers himself or any other worker.
- 7.11 Do not smoke in areas where flammable or combustible materials are used or stored or in areas where explosive materials are stored or in use.
- 7.12 Identify, store and handle all hazardous materials in accordance with W.H.M.I.S. Regulations.
- 7.13 Riding a load, crane hook, material bucket, or other equipment not provided with a passenger seat is not allowed.
- 7.14 Never stand or walk under a suspended load. Keep a safe distance from swinging machinery, crane cabs, etc.

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- 7.15 Never operate any piece of equipment within 10 feet of any overhead power lines. Do not commence excavation until underground utilities are located and marked.
- 7.16 No worker shall attempt to lift, with a hoist or crane or any other equipment, any load greater than the rated capacity of such equipment.
- 7.17 Do not attempt to lift any object that is heavier than your ability to handle safely; get assistance from a fellow worker.
- 7.18 Always attach a tag line to a load which is apt to swing while being hoisted or lowered. Hand control is not permitted.
- 7.19 Never load or unload trucks from overhead, by crane or other equipment, while the driver is in the cab, unless the truck is equipped with a cab guard.
- 7.20 When loading a dump truck or semi trailer, attempt to distribute the load evenly, so the truck won't tip when the load is raised to dump.
- 7.21 Never leave a machine running while unattended, except for stationary equipment like welders, compressors or when special precautions have been taken. After shut down, return the machinery to de-energized positions; buckets lowered to the ground, brakes locked, etc.
- 7.22 Do not clean, oil, or adjust any equipment or machinery while it is in motion.
- 7.23 Do not remove guards, except for repair or adjustments; replace guards before operating.
- 7.24 Only authorized personnel may do electrical work of any kind.
- 7.25 Always stop gasoline powered engines before refueling and observe "no smoking" rules.
- 7.26 Never store oxygen and acetylene together or near gasoline, oil or any other source of heat. Store and use compressed gas cylinders in an upright position. Attach cylinder caps in place before transporting and secure cylinders in an upright position.
- 7.27 Store gasoline, solvents, oils, and other flammable materials clear of the work area.
- 7.28 Lock-out and tag any equipment before attempting any maintenance or adjustments on it. Only the person who places the lock-out tag on the equipment has authorization to remove the tag.

The following are prohibited at all times on all company job sites:

- 7.29 Consuming or being in possession of alcohol or illegal drugs, on company work sites or premises.
- 7.30 Arriving for work or remaining at work when your ability to perform the job safely is impaired.
- 7.31 Fighting, horseplay, practical jokes, or otherwise interfering with other workers.
- 7.32 Using defective tools or equipment without guards or safety devices in place.
- 7.33 Attempting to operate any equipment unless you are instructed or trained in its use.
- 7.34 Theft, vandalism, or any other abuse of company property or equipment.

8.0 *PERSONAL PROTECTIVE EQUIPMENT*

8.1 PERSONAL PROTECTIVE EQUIPMENT POLICY:

PERSONAL PROTECTIVE EQUIPMENT POLICY

Due to the nature of our work, along with the various hazards that workers are exposed to on a daily basis, it is necessary for Rohl Enterprises Ltd. to:

- Provide the appropriate protective equipment to all employees.
- Instruct each worker on the proper use and care of such equipment.
- Enforce compliance with this policy.

Our personal protective equipment policy is aimed at the prevention of injury.

PPE is categorized in two ways:

- Safety equipment is to be worn at all times; i.e. hard hats, work boots, safety glasses, hearing protection, safety vests, etc.
- Protective equipment used for injury prevention for specific job tasks; i.e. welding helmets with face and eye protection, gloves when handling sharp objects, etc.

The following direction is given for our workplace:

- Basic PPE requirements will be explained during orientation.
- Employees must wear appropriate PPE as required on all construction sites.
- Any specific PPE required while performing specific job tasks must be worn as well.
- All PPE, except work boots, will be provided by Rohl Enterprises Ltd.
- Job specific training on PPE will be provided as well.
- The foreman will ensure that the proper PPE is available and in use by workers.
- Any PPE that is damaged or of questionable reliability must be returned to the foreman for immediate repair or replacement.

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JASON ROHL

KURT ROHL

8.2 EYE AND FACE PROTECTION

8.2.1 Eye protection shall be worn when the work to be done results in exposure to eye hazards. Sources of injury are:

1. Flying particles of dust, sand, splinters, and metal fragments, concrete debris, etc.
2. Chemical splashes or eye contact with other toxic materials.
3. Radiation hazards - welding operations are sources of UV radiation which can result in welders flash, cataracts, or burns on the retina.
4. Blows to the eye - usually from a heavy object.

8.2.2 The following lists the eye and face protection required for various tasks:

Welding	Welding helmet plus correct shaded lens with clear safety glasses and side shields under helmet.
Welding Helper	Safety glasses with side shields or cutting goggles.
Gas Cutting	Welder's goggles.
Hammering Metal, Sledging, Jack hammering, Drilling or Cutting Concrete	Safety glasses with side shields.
Portable or Bench Grinding	Face shields and safety glasses with side shields.
Chipping or Scraping Anything	Safety glasses with side shields.
Use Compressed Air or Wire Brushing	Safety glasses with side shields.
Hand Chiseling	Safety glasses with side shields.
Maintenance Under Vehicles	Face shield or safety glasses with side shields.
Handling any Hazardous Material the may Splash	Close-fitting chemical splash goggles.

8.3 FOOT PROTECTION

Safety boots must be CSA Grade 1 classification and can be identified by a green triangle.

8.4 HEAD PROTECTION

CSA approved Class "B" hard hats shall be worn at all times on the job site.

8.5 HEARING PROTECTION

8.5.1 Hearing protection is designed to reduce the level of sound energy reaching the inner ear. Exposure to noise in excess of 80 dBA, usually over a period of time, can result in permanent hearing loss.

8.5.2 Much of the equipment used in construction produces noise levels well above the 80 dBA level, where the use of hearing protection is strongly advised, and is mandatory if the noise level is 90 dBA or higher.

8.6 FALL PROTECTION

If a work task is such that a worker can fall a vertical distance of 8 feet or more, the worker must be prevented from falling by installing a guard rail or by wearing a full body safety harness. If the fall arrest distance is short (less than 2 feet) a safety belt can be used, otherwise a full body safety harness is required.

8.7 RESPIRATORY PROTECTION

8.7.1 Respiratory protection will be provided to prevent any toxic or hazardous material from being inhaled by workers. Exposure to toxic materials can come from entering excavations or confined spaces that contain gasoline or other vapors or contain carbon monoxide, methane or hydrogen sulfide (poisonous sewer gases). Maintenance workers can be exposed to solvent, paint or adhesive vapors as well as exhaust emissions. Also, compressed gas used in welding operations, acetylene, nitrogen or propane can produce inhalation exposures of concern.

8.7.2 Respiratory protection comes in two forms:

1. Supplied air respirators consist of either a portable air supply and mask system (S.C.B.A. - Self Contained Breathing Apparatus) or an air line attached to the face mask drawing breathing air from a remote tank.
2. Air purifying respirators consist of either a disposable mask or chemical cartridge type rubber face mask.

9.0 MAINTENANCE PROGRAM

9.1 MAINTENANCE SAFETY PROGRAM POLICY

MAINTENANCE SAFETY PROGRAM POLICY

It is our company's policy and the direct responsibility of the maintenance shop to ensure that all tools and equipment used on a job site or in the work shop are maintained to proper operating condition.

The maintenance program shall include:

- Adherence to the regulations, standards and manufacturer's specifications for all equipment.
- Service all tools and equipment by qualified personnel.
- Scheduling and record keeping of all maintenance work.

Inventory: ladders, PPE, all vehicles, mobile equipment, hoisting equipment, power tools, hydraulic equipment, electrical tools, and power cords.

Monitoring:

- The employees who are responsible for operating and/ maintaining equipment must monitor the equipment to ensure that the appropriate checks and maintenance are done. This is accomplished by vehicle inspection sheets that are filled out by operators and drivers.
- Management must monitor the entire program to ensure that it is functioning in accordance with company policy.

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KURT ROHL

9.2 MAINTENANCE SCHEDULE

For all vehicles;

Daily Maintenance:

1. Check fluid levels
2. Check tire pressure
3. Inspect lights and signal lights
4. Housekeeping

Scheduled Maintenance:

1. Oil change and Air filter inspection - every 5000 kilometers
2. Brake inspection - every 40,000 kilometers
3. Transmission filter inspection - every 60,000 kilometers
4. Vehicle Maintenance/Repair List - monthly

For all Equipment;

Daily Maintenance:

1. Check fluid levels
2. Inspect lights and signal lights
3. Grease machine
4. Housekeeping

Scheduled Maintenance:

1. Air filter inspection - every 10 hours or daily
2. Battery Inspection - every 50 hours or weekly
3. Oil change and Fuel filter inspection - every 200 hours or monthly
4. Transmission filter inspection and fluid change - every 1000 hours
5. Hydraulic oil change - every 2000 hours or yearly
6. Equipment Inspection Check List - bi-weekly

For all tools;

Tool inspection to be performed prior to commencement of each construction project. Any damaged or broken tools will be tagged as "inoperable" and sent to the Shop Manager for immediate replacement or repair.

10.0 SAFETY & HEALTH COMMITTEE

10.1 ORGANIZATION

- 10.1.1 The Joint Health & Safety Committee must consist of between 4 and 12 members, at least one half must consist of non-management workers.
- 10.1.2 The worker representative must be chosen by the workers that they represent. One member of each crew shall be elected as the safety representative.
- 10.1.3 The committee shall have two chairpersons, one chosen by management representatives, one chosen by the worker representatives, who alternate as the meeting chairpersons.
- 10.1.4 The Joint Health & Safety Committee shall hold meetings at least quarterly.

10.2 FUNCTION & DUTIES

- 10.2.1 The receipt, consideration and disposition of concerns and complaints respecting worker's safety and health.
- 10.2.2 Participation in the identification of risks to workers on the job.
- 10.2.3 The development and promotion of measures to protect workers.
- 10.2.4 Co-operation with the Occupational Health Service and S & H Officer.
- 10.2.5 The development and promotion of education programs.
- 10.2.6 The maintenance of safety meeting records.

10.3 RIGHTS

- 10.3.1 Workers have the right to:
 - 1. Know
 - 2. Participate
 - 3. Refuse

11.0 SAFETY EDUCATION MEETINGS

11.1 DESCRIPTION

- 11.1.1 A safety meeting is the primary means of promoting safety on the job and the exchange of safety information.
- 11.1.2 The primary type of safety meeting involves the workers and their immediate supervisor or the H & S Officer.
- 11.1.3 Safety Meetings will occur at a minimum of 30 minutes every two weeks.

11.2 TOPICS

- 11.2.1 The presentation of a safety topic. This subject would be chosen by the H & S Officer or the foreman and would relate to the work being done or a review of safety procedures for work that is about to be started.
- 11.2.2 Comments and concerns on safety matters brought to the meeting by the workers for discussion and improvements.
- 11.2.3 Review of accident reports since the previous meeting including a review of corrective action that was taken.
- 11.2.4 Various environmental issues pertaining to the construction industry.
- 11.2.5 Review of safe work practices and job descriptions.
- 11.2.6 Information on Workplace, Safety and Health Regulations.

11.3 SAFETY MEETING RECORDING FORMS

Date:	Project:
Foreman's Name:	
Topic(s) Discussed:	
Suggestions/Recommendations:	
Action Taken:	
Crew Signatures:	

12.0 HEALTH, SAFETY & ENVIRONMENTAL PROGRAM ORIENTATION FOR EMPLOYEES

12.1 OVERVIEW

- 12.1.1 All employees, prior to commencement of their work duties, shall receive a health, safety, and environmental program orientation provided by the company.
- 12.1.2 At this time, the worker will become acquainted with their responsibilities for safety on the job and be alerted to the dangers present on the job site.
- 12.1.3 The company safety policies and safety rules will be reviewed, along with various safe work practices, emergency numbers, first aid, accident reporting, spill response, required personal protective equipment and information on safety meetings.

12.2 OUTLINE

- I Company Safety Policy
- II Responsibility and Accountability for Safety
- III Hazard Assessments
- IV Safety Inspections
- V Safe Work Practices
- VI Job Descriptions
- VII Safety Rules
- VIII Personal Protective Equipment
- IX Maintenance Program
- X Safety & Health Committee
- XI Safety Education Meetings

Rohl Enterprises Ltd. Health, Safety, and Environmental Program

- XII Emergency Preparedness
- XIII Accident Investigation
- XIV Environmental Management
- XV Workplace Harassment

**12.3 HEALTH, SAFETY AND ENVIRONMENTAL PROGRAM ORIENTATION
FORM**

Date:
Name (Company):
Address:
Emergency Contact:
Allergies/Medical Conditions:
Supervisor:
Topics Covered:
-Company Safety Policy:
-Safe Work Practices (list):
-Personal Protective Equipment(list):
-General Safety Rules:
-Safety Meetings/Job Briefings:
-Reporting Unsafe Acts/Conditions:
-Reporting Accidents/Incidents:
-Emergency Preparedness:
Employee Signature:
Instructor's Signature:

13.0 EMERGENCY PREPAREDNESS

13.1 OVERVIEW:

13.1.1 Every construction site is faced with a certain amount of risk despite everyone's efforts to prevent accidents, we must be prepared for an emergency.

13.1.2 Emergency preparedness means that we are ready to deal with emergency situations no matter where the workplace.

13.2 MINIMUM REQUIREMENTS:

13.2.1 First Aid: At least one member of each crew will receive training in CPR and Emergency First Aid. Each site will be equipped with an approved First Aid Kit.

13.2.2 Outside Emergency Assistance: Each vehicle will be equipped with a map of the area in which the crew is located. The map will outline the locations of the hospitals or health care facilities, as well as supply the information of the addresses and contact numbers. In all areas, emergency contact will be 911 unless otherwise stated.

13.2.3 Transportation: In the event that an accident should occur, one already designated member of the crew shall provide for the immediate transportation of an injured worker to a hospital or adequate health care facility where medical care can be given.

13.2.4 Fire Fighting: Each work site shall be equipped with a proper fire extinguisher, so that a small fire can be extinguished to keep damages and losses to a minimum.

13.3 EMERGENCY RESPONSE

13.3.1 Our objective for emergency response is to ensure a quick recovery from a serious accident or incident. Our top priorities should be to:

1. Minimize injury to employees and the public.
2. Minimize damage to the public and property.
3. Assist in restoring normal conditions as directed.

13.3.2 Emergency Priorities: In the event of an emergency our initial steps should involve assessing the hazard, evacuating personnel from the area, identifying any resources and delegating priority activities, such as acquiring outside emergency assistance, rendering first aid, crowd control, etc.

1. Contact key personnel (1st Aid, Safety Officer, Superintendent)
2. Give exact location.
3. Provide a short detailed account of the incident.
4. Identify any types of injuries.
5. Appoint worker to monitor radio.

13.3.3 Release of Natural Gas:

1. Call gas company immediately.
2. Clear people from the vicinity and prevent people from approaching the area of the leak.
3. Shut off all vehicles and equipment - remove or extinguish all sources of ignition. Do not smoke or allow open flame in the presence of natural gas.
4. If a gas line has been punctured, do not remove the tool or equipment that punctured the line as this could result in a larger gas leak.
5. Allow the gas to vent to the atmosphere. Gas that is accumulated and not allowed to vent has a greater risk of igniting.

13.3.4 Broken Power Line or Electric Cable:

1. Contact foreman or supervisor.
2. Contact the local Hydro/Power company immediately.
3. If you are operating any equipment which comes in contact with overhead/underground power lines, stay inside the vehicle or machinery.
4. Protect yourself and others.

13.4 FIRE PREVENTION

13.4.1 At construction sites:

1. The foreman is responsible for periodically checking for any fire hazards. Wooden forms, scrap building materials, flammable liquids and oily rags, and containers are common fire hazards often present. Other sources of fire include cutting and welding operations, portable heaters and inadequate electrical systems.
2. Good housekeeping and the periodic removal of garbage will help reduce the fire hazard.
3. Flammable gases and liquids should be properly stored.
4. No employee is allowed to work with oily or grease covered clothing, especially where sparks or flames may occur.
5. Gasoline, oil, grease, solvents, fuel oils, propane, welding and cutting gases must all be stored well away from the work area. These flammable storage areas should have a "no smoking" sign posted and the rule enforced.
6. Suitable fire extinguishers must be available at the work sites and on certain equipment.
7. Transport gasoline and other flammables in approved containers and follow the TDG requirements.
8. Never store oxygen or acetylene tanks near oil containers, gasoline or near any source of heat, sparks, or flame. All compressed gas cylinders must be secured upright when stored or when under transport.
9. Burning and welding sparks cause most construction fires; it may be advisable to isolate or protect the welding area.
10. Foremen must report any fire, no matter how minor to the Health & Safety Officer.
11. Emergency fire phone numbers must be prominently posted at each job site.

13.4.2 At the shop facility:

1. Sound the alarm.
2. Notify all office personnel of the location of the fire.
3. Go to the entrance of the premises and help direct the fire department to the location of the fire.
4. If members of the crew are trained in fire fighting, they may remain in the shop to extinguish the fire. All others must be cleared out and gather at the main entrance to the shop where the supervisor will make certain that all members are present. Only emergency personnel may enter the facility to search for any persons missing.

13.4.3 Shop fire safety

1. Help prevent fires from starting by keeping the shop clear of waste debris, especially oily rags and combustibles. Keep entrances and walkways clear and access to electrical switch panels and sprinkler systems open.
2. Store flammable liquids in safety containers, properly labeled and well away from cutting, welding and grinding operations.
3. Do not use fire fighting equipment for any other than their initial purpose.

14.0 ACCIDENT INVESTIGATION

14.1 ACCIDENT INVESTIGATION POLICY:

ACCIDENT INVESTIGATION POLICY

It is Rohl Enterprises Ltd.'s policy to investigate all:

- Accidents resulting in injuries that require time lost from work.
- Accidents resulting in injuries that require medical assistance.
- Accidents resulting in damage to equipment, materials, or property with the potential loss of \$1000.00 or more.
- Incidents or "Near Misses" that could have resulted in a fatality, serious injury or property loss.

The supervisor immediately in charge of the manpower or operations affected by an accident will conduct an initial investigation and forward the report to the Safety Officer no longer than 24 hours after the incident occurs. Upon receiving the initial report, the Safety Officer, along with the Managers and Committee Members will conduct a formal investigation. All documentation will be reviewed and kept on file. Should a fatality occur, Workplace Safety & Health will be notified no longer than 72 hours after the incident occurs.

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14.2 INVESTIGATION PROCEDURE

- 14.2.1 Look after the injured first.
- 14.2.2 Secure the accident scene or equipment, and notify the Health & Safety Officer immediately.
- 14.2.3 Be sure no further injuries or damage can occur.
- 14.2.4 Determine what took place and how the accident occurred.
- 14.2.5 Examine the equipment, activities or materials involved.
- 14.2.6 Collect any physical evidence, take pictures or make a hand sketch.
- 14.2.7 Interview workers or witnesses and make notes as to how the accident occurred.
- 14.2.8 Identify any hazardous conditions, unsafe acts or underlying causes leading to the accident
- 14.2.9 Take action that will prevent recurrence of the accident.

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14.3 ACCIDENT INVESTIGATION FORM (page 1 & 2 consecutively)

ACCIDENT INVESTIGATION REPORT				
Job Location:		Crew:		Report Date:
Employee's Name:		S.I.N.:		Report Time:
Occupation:	Start Date:		Incident Date:	Incident Time:
Incident Location:				
Accident Category	Injury or Illness	Equipment/ Motor Vehicle	Property Damage	Other
Severity of Injury	First Aid Only	Medical Treatment	Disabling	Fatal
Type of Injury:			Area of Injury:	
Name of Witnesses:			Address & Telephone No.:	
Description: Describe clearly how the incident occurred (diagram area on page 2)				
Was written Job Procedure available? Y or N		Was it adequate? Y or N		Was it used for worker training? Y or N
Analysis: What acts or conditions contributed most directly to the incident?				
What are the reasons for these acts or conditions?				
Loss Severity Potential			Probable Recurrence Rate	
Major Serious Minor			Frequent Occasional Rare	

14.4 PROGRESSIVE ACCIDENT POLICY

PROGRESSIVE ACCIDENT POLICY

You, _____, as an employee of Rohl Enterprises Ltd., are hereby informed that this is your (1st, 2nd, 3rd) written warning for a motor vehicle/equipment accident.

Upon receiving your 1st warning, you will be responsible for paying the full amount of the deductible regarding your accident *or* you will be responsible for the full amount of damages incurred if it does not go through AutoPac.

Upon receiving your 2nd warning, you will be responsible for paying the full amount of the deductible regarding your accident plus a surcharge fee of \$100.00 *or* you will be responsible for the full amount of the damages incurred if it does not go through AutoPac plus a surcharge fee of \$100.00.

Upon receiving your 3rd warning, you will be responsible for paying the full amount of the deductible regarding your accident plus a surcharge fee of \$100.00 *or* you will be responsible for the full amount of the damages incurred if it does not go through AutoPac plus a surcharge fee of \$100.00 *and* you will be released from work immediately.

If you do not agree with any of the above warnings, once you have received them, you may contact management and discuss this in further detail.

Authorized By: _____

Dated: _____

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KURT ROHL

Office copy (white)

Employee copy (yellow)

15.0 ENVIRONMENTAL MANAGEMENT

15.1 ENVIRONMENTAL POLICY

ENVIRONMENTAL POLICY

At Rohl Enterprises Ltd., we are committed to reducing the environmental impact associated with our industry. We recognize our industry's potential to impact upon the environment through our:

- Handling, transporting, and disposal of hazardous materials;
- Excavation activities; and
- Use of heavy equipment.

We also acknowledge our responsibility to protect the environment for the sake of our employees, our community, and our future generations. We therefore commit to a policy of continual environmental improvement, with the following objectives:

- To prevent pollution whenever possible,
- To comply with all environmental legislation and regulations,
- To educate and train employees with regard to environmentally responsible procedures, and
- To maintain an easily accessible record of our environmental performance.

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15.2 SPILL PREVENTION AND RESPONSE

- 15.2.1 Each crew will be equipped with a spill kit and be educated on its use, and the procedures to follow should a spill occur.
- 15.2.2 Spilled substances such as hydraulic oil, motor oil, gasoline, will be absorbed and cleaned with Floor Dry if spilled on land, or Sorbent Sheets if spilled on water. These materials will be disposed of at an approved location or brought back to our shop location to be disposed of.
- 15.2.3 In the event of a spill:
1. Assess the situation and secure the immediate area.
 2. Report the spill to the supervisor and the Health & Safety Officer.
 3. Identify the substance and the amount spilled.
 4. Take action to contain and clean up the spill.
 5. Dispose of the waste in an approved location.
 6. Record location, type of material involved, and volume spilled.
- 15.2.4 Depending upon the quantity spilled, the Health & Safety Officer will report the accident to the appropriate Environmental Division, depending upon location. Any such spills will be reviewed by the Health & Safety Officer as to how the spill occurred, were the proper procedures followed, and what actions could be taken to prevent the recurrence of the situation.

15.3 ENVIRONMENTAL GUIDELINES

- 15.3.1 Surface Erosion Control:
- Vehicle traffic on range or pasture land will be restricted to one-way travel where practical to minimize the disturbance of the sod layer.
 - Temporary silt fences or hay bales should be installed on slopes to minimize surface erosion and prevent siltation of watercourses.
- 15.3.2 Fire Prevention:
- All cigarette butts should be properly disposed of.
 - Fires will not be permitted in accordance with the area's forest fire hazard level ratings.
 - Each crew will be equipped with a fire extinguisher.
- 15.3.3 Waste Management:
- Left over waste materials from construction as well as all uprooted or cut plants will be collected and disposed of at an approved facility.

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- 15.3.4 Prevention of Pest and Weed Introduction:
 -All construction equipment should arrive at the work site in clean condition in order to help prevent the introduction of foreign weed and pest species into the area.
- 15.3.5 Protection of Watercourse:
 -Special measures should be taken at all watercourses to prevent the siltation and/or pollution of these systems.
 -At all stream crossings, directional boring should be implemented if feasible.
 -No refueling should take place within 100 meters of a watercourse.
 -Minimize the amount of material entering the water.
 -Rip Rap the banks to prevent the washing out of sediment into waterways as per supervisor's and/or engineer's instructions.
- 15.3.6 Archeological Finds:
 -In the event that archeological artifacts are uncovered through construction activities, secure the area and notify the utility company's engineer.
- 15.3.7 Clearing:
 -Alteration of land should be minimized by the replacement of sod, stubble on working side.
 -When passing through private property where it is fenced, a gate must be installed if it is to be used as a thoroughfare and the livestock are near. Close gates immediately after use.
 -When clearing near watercourses, leave an undisturbed organic buffer zone to reduce the introduction of sediment into the water.
- 15.3.8 Grading:
 -Changes in grades should be minimized (max 3:1)
 -Regrade areas with vehicle ruts, erosion gullies, or where trench settlement produced depressions.
- 15.3.9 Trenching:
 -Top soil should be kept separate from underlying material.
 -Minimize the time that the trench will be left open to reduce the effects of wind erosion.

15.3.10 Backfilling:

- Compact backfill to minimize settlement.
- Restore the original grades and drainage channels.
- Spread topsoil evenly over trench.
- Crown trench to approximately 8 inches to allow for settlement.

15.3.11 Clean-Up

- Remove all garbage, excess construction material from site.
- Consult with land owners regarding seeding and clean up.
- Seed the location with the appropriate seed mix.
- Repair fences.

16.0 WORKPLACE HARASSMENT

16.1 WORKPLACE HARASSMENT POLICY

WORKPLACE HARASSMENT POLICY

At Rohl Enterprises Ltd., we believe that every worker is entitled to employment free from harassment.

Harassment is defined as: “Any objectionable conduct, comment or display by a person that:
 --Is directed at a worker;
 --Is made on the basis of race, creed, religion, color, sex, sexual
orientation, marital status, family status, disability, physical size or weight, age, nationality,
ancestry, or place of origin; and
 --Constitutes a threat to the health and safety of the worker.”

Rohl Enterprises Ltd. has a zero tolerance level for harassment, and will make every reasonable effort to ensure that no worker is subjected to harassment.

Any concerns of harassment should be brought to the attention of the Superintendent or with the Safety Officer, and will be dealt with in a confidential manner, except where required by law.

All workers have the right to consult with the Safety Officer to resolve a complaint.

After an investigation is completed regarding the complaint, each party will be informed of the results in a confidential meeting with Management and the Safety Officer.

In no way is this policy intended to deter any party with a complaint from exercising any other legal rights or pursuing any other legal venues in which to rectify this manner.

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