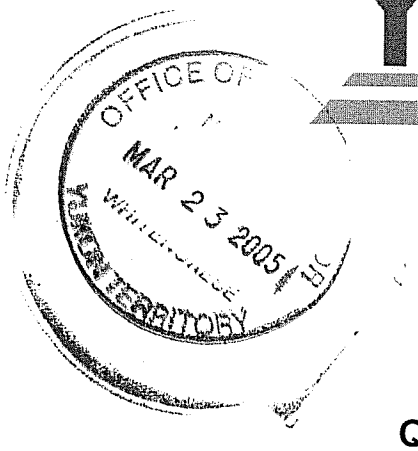
Yukon Zinc CORPORATION



Quartz Mining Land Use Approval

Advanced Exploration Phase

LQ00140
Wolverine Lake

Plans for Portal Construction and Underground Excavation

Conditions 79 to 86

Prepared by:

Richard Goodwin, P.Eng.
VP Mining

12 March 2005

Wolverine Advanced Exploration Program
Plan for Portal Construction and Underground Excavation
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1. INTRODUCTION

This report and enclosed plans have been prepared to satisfy requirements contained within the Quartz Mining Land Use Approval LQ00140, specifically items 79 through 86. Details contained within this report pertain to the advanced exploration phase of the Wolverine Project and include:

- dimensions of mine portal, decline and other workings
- location of the portal collar
- location of the portal laydown area
- plans for mine development
- plans for the geo-technical program; and,
- measures to ensure safe operation.

2. UNDERGROUND MINE PLAN

2.1. Summary

The Wolverine test mining program will comprise approximately 1100m of lateral development in the hangingwall of the orebody, as detailed in Table 1.

The mine will be accessed by a single portal located at approximately 1355 EL. The initial ramp, the Lynx Ramp, will be collared due north then driven at -15% grade in the northwest direction to approximately 1320 EL. This ramp will ultimately provide access to the Lynx Orebody on the west side of the property. One stope access, L1310SA will be driven from near the bottom of the Lynx Ramp to access ore for test mining on the 1300 EL of the Lynx deposit. The Lynx Ramp will be continued approximately 20m past this stope access collar and this additional length will be used as Sump #2 for the duration of the test mining program.

The Wolverine Ramp will be collared from the Lynx Ramp near its base. The Wolverine ramp will be driven at -15% grade northeast then southeast to approximately 1290 EL. A stope access, W1280SA, will be driven from near the base of this ramp to access ore on the 1280 EL of the Wolverine deposit. The Wolverine ramp will be extended approximately 20 past this intersection and the additional length will be used as Sump #3 for the duration of the test mining program.

The 1270 DD Decline will be collared near the base of the Wolverine Ramp. It will be driven at -15% in the northern direction to provide access to the 1270 DD Drift to provide ore definition drilling platforms for defining the core of the Wolverine deposit.

Table 1 Development Requirements of the Test Mining Program

Phase 1 Development								
Segment Name	Elevation (m)		Dimensions (m)		Distance (m)	Tonnes	Grade %	Dist to Portal (m)
	From	To	W	H				
Lynx Ramp	1351.7	1351.9	5.0	5.0	12.0	840	2%	24
Lynx Ramp	1351.9	1321.0	5.0	5.0	212.0	14,841	-15%	236.02
Lynx Ramp	1321.0	1319.6	5.0	5.0	20.1	1,404	-7%	256.08
Sump #2	1319.6	1318.1	5.0	4.5	10.1	637	-15%	266.19
Wolverine Ramp	1320.3	1319.7	5.0	4.5	8.0	506	-7%	264.11
Wolverine Ramp	1319.7	1291.0	5.0	4.5	194.5	12,252	-15%	458.58
Wolverine Ramp	1291.0	1290.0	5.0	4.5	16.1	1,012	-6%	474.64
Sump #3	1290.0	1288.5	5.0	4.5	10.1	637	-15%	484.75
1290 DD Decline	1290.3	1289.7	5.0	4.5	8.0	506	-7%	482.67
1290 DD Decline	1289.7	1270.8	5.0	4.5	127.2	8,012	-15%	609.85
1290 DD Decline	1270.8	1270.1	5.0	4.5	8.0	506	-9%	617.88
1270 DD Drift (W)	1270.1	1274.7	4.0	3.5	33.6	1,315	14%	651.43
1270 DD Drift (E)	1270.1	1271.2	4.0	3.5	150.9	5,916	1%	768.79
W1280SA	1290.3	1280.0	4.0	3.5	72.6	2,846	-14%	547.25
L1310SA	1320.3	1310.0	4.0	3.5	61.4	2,405	-17%	317.43
Remuck #1 c/w BS			4.0	4.0	16.0	717	3%	
Remuck #2 c/w BS			4.0	4.0	16.0	717	3%	
Remuck #3 c/w BS			4.0	4.0	16.0	717	3%	
Sump #1			3.0	3.0	6.0	151	-15%	
Sump #4			3.0	3.0	6.0	151	-15%	
DDCO #1			3.0	3.0	3.0	76	3%	
DDCO #2			3.0	3.0	3.0	76	3%	
DDCO #3			3.0	3.0	3.0	76	3%	
ESUB #1			3.0	3.0	3.0	76	3%	
Safety Bays (13 total)			1.5	1.8	1.5	147	0%	
L1280 Ore Sub	1280.0	1280.0	3.0	4.0	50.0	1,680	0%	
W1310 Ore Sub	1310.0	1310.0	4.0	4.0	50.0	2,240	0%	
Subtotal					1,118.0	60,458		

2.2. Development Dimensioning

The nominal development sizes are summarized in Table 2.

Table 2: Nominal Stope Dimensions

Development Heading	Width (m)	Height (m)	Length (m)
Lynx Ramp	5	5	
Wolverine Ramp	5	4.5	
1290 DD Decline	5	4.5	
1270 DD Drift	4	3.5	
Stope Access Drifts	4	3.5	
Remuck Stations	4	4	16
Temporary Sumps	3	3	6
Diamond Drill Cut Outs	3	3	3
Safety Bays	1.5	1.8	1.5

The development has been located and sized to accommodate the requirements of the future mine, not simply the test mining program. As such, the haulage drifts have are wide enough to accommodate a future production fleet of 40 to 50 tonne diesel haulage trucks and are driven at a grade of 15%, a typical grade employed for ramp haulage.

The Lynx Ramp has been sized slightly higher than the Wolverine Ramp (at 5 m) to accommodate the larger ventilation tubing required to supply fresh air to both ramp systems. Past the junction of the two ramps, both ramps will be driven at a reduced height of 4.5 m. For the future mine, this portion of ramp will be an exhaust conduit for the merged streams coming from both ramp systems, and the increased profile will reduce friction.

2.3. Location of the Portal Collar

The location of the portal area is (10803 N, 39899 E), as shown in Dwg Nos. 1614-U-001 and 002 relative to the underground mine and on Dwg. No. 1614-C-001 relative to the portal bench.

This location has been selected for the following reasons:

- It is in the hangingwall of the orebody, immediately placing the ramp in the desired location without crossing the orebody
- It is south-facing and not in permafrost
- It is well situated on the portal bench, away from all structures and services
- It is in a natural hollow in the mountainside topography with a steep slope, allowing the ramp to get under the overburden and into solid rock rapidly.

2.4. Location of the Portal Laydown Area

A general arrangement of the portal area is depicted in Dwg. No. 1614-C-001.

2.5. Mine Development Plans

This development has been shown on the following drawings:

1614-U-001	Test Mine Development Plan
1614-U-002	Lynx Ramp, Portal Excavation Details
1614-U-003	Lynx Ramp, Portal to EL 1326.4 Excavation Details
1614-U-004	Lynx Ramp EL 1326.4 to EL 1318.1, Wolverine Ramp EL 1320.3 to EL 1314.6 Excavation Details
1614-U-005	Wolverine Ramp EL 1314.6 to EL 1290.0 Excavation Details
1614-U-006	1290 Diamond Drill Decline EL 1290.3 to EL 1270.1 Excavation Details
1614-U-007	1270 Diamond Drill Drift Excavation Details
1614-U-008	Typical Rockbolting Patterns by Development Type
1614-U-100	L1310 Stope Access Excavation Details
1614-U-101	W1280 Stope Access Excavation Details

1614-C-003 Portal Area General Arrangement

These are included with this package of information.

2.6. Mine Dewatering

The mine will contain four collection sumps, each described below:

Sump #1 will be a small temporary collection sump used for driving the Lynx Ramp. Inflows are anticipated to be light during the life of this sump.

Sump #2 will located at the base of the Lynx Ramp and is, in fact, the future ongoing extension of the Lynx Ramp.

Sump #3 will be located at the base of the Wolverine Ramp and is the future ongoing extension of that ramp.

Sump #4 will be located at the junction of the 1290 DD Decline and the 1270 DD Drift. This is deepest point of the test mine.

The locations of these sumps are indicated on the mine plans, Dwg. Nos. 1614-U-001 to 1614-U007.

Water will be collected to these sumps in ditches located on the right side of the ramp below the mine service pipes. Water will then be settled in each of the sumps and transferred to Sump #2. From Sump# 2 it will be pumped out of the mine to the settling ponds on surface, located south of the portal (see Dwg. No. 1614-C-003 for the location of the surface settling ponds).

3. UNDERGROUND GEOTECHNICAL PROGRAM

The underground test mining program will have a thorough and structured geotechnical program to ensure adequacy of support mechanisms and aid YZC in understanding the rock mass and its response to mining. This will include visual observation, instrumentation, rock testing, and the regular usage of professional consulting services.

3.1. Visual Observation

While it sounds simple and intuitive, visual observation is often the best and most comprehensive monitor of changes in ground conditions in a mine. The key to establishing a good system is the reliable recording of the observations made. A binder will be kept in the engineering office with daily inspection sheets filed chronologically. The engineers, supervisors, and surveyors will document any observations made by recording and where possible by photographing the specific location and visual observation made. This may include loading of rockbolts plates, loading of screen, fresh loose on the ground, fresh water inflows, or the

formation of cracks in ground or shotcrete. Cracks will be further monitored by being spray painted so that further movement and spalling is obvious.

3.2. Instrumentation

A suitable instrument for monitoring ground movement or convergence of a drift is a tape extensometer. Tape extensometer is a simple, portable instrument and used to accurately measure changes in distance between two points. Measurements are made in any direction – vertical to horizontal – between two reference points. The changes in distance between these two points over period of time can be monitored with accuracy, reliability and repeatability. Normally, five permanent anchor points will be installed around the perimeter of a drift profile and well marked. The initial readings of point to point will be taken and recorded. These will then be measured on a regular basis to mark any change in the initial readings, monitoring drift convergence.

A single point extensometer is subject to mechanical failure and provides less data, as it only measures the movement between two points. If it is anchored completely inside or adjacent to a moving wedge, it will register no movement. Tape extensometers can not only detect the movement, but also isolate which portion of the perimeter is moving.

Because tape extensometers are very inexpensive, they can be generously placed throughout the mine and monitored as frequently as required to ensure that the ground response is understood. They will also last the life of the operation.

3.3. Rock Testing

The primary rock test that will be done during the test mining program is point load testing to predict the range of unconfined compressive strength (UCS) of each rock type for use in rock mass classification. A tester will be located at site for use on core and rock samples as required. For correlation of the point load test results, representative rock types will also be tested at a commercial laboratory.

3.4. Quality Assurance Program

As this is a test mine, there will be an ongoing task to assure that the ground support being used is both properly installed and effective. A quality assurance program will be implemented when mining commences. Bolts will be routinely test pulled using a hydraulic jack. Should shotcrete be used as primary ground support, various properties such as set up time and hardness of shotcrete will be tested at the site and samples will be sent to an independent laboratory for testing.

3.5. Consulting Services

YZC has contracted the services of Dr. Khosrow Aref, P. Eng. of Rockland Ltd. to act as its primary underground geotechnical consultant. Mr. Aref has approximately twenty years of experience in underground stability, support systems design, and instrumentation and monitoring.

Mr. Aref will familiarize himself with the various ground types and provide ongoing recommendations regarding development dimensioning, orientation and support. It is anticipated that Mr. Aref will require a lengthy initial visit for orientation followed by regular follow-up visits to monitor the ongoing program. A key to the success of the geotechnical program will be continuity of personnel. It is the intention of YZC that Mr. Aref fills these services for the duration of the program and applies his experience and familiarity to the feasibility study.

4. SAFETY REQUIREMENTS

The Occupational Health and Safety Handbook will be held as the paramount authority for the operation and design of the mine.

Procon has been selected as the underground operator for the test mining program. Procon has developed its own Occupational Health and Safety Program and Guidelines, which will be used as a supplementary document. This document is included as Appendix A.

Procon has also developed a Hazard Communication Program that incorporates the workplace hazardous materials information system (WHMIS) program, policies for transportation of dangerous goods (TDG), a Safe Work Plan program, and their Job Hazards Assessment program. This document is included as Appendix B.

The main systems that will be used to maintain a safe work environment are the "Five Point Safety System", daily safety talks, and more formal weekly meetings. The "Five Point Safety System" is designed to provide a simple check list to review each time an employee moves to or enters a work place. It prompts a pre-work check of the workplace to ensure that any hazard is identified and corrected prior to proceeding with work. The program is more fully described in the Hazard Communications Program in Appendix B.

YZC staff and employees will fully cooperate with the operator in all aspects of the safety program established by Procon for the mine, including correct use of PPE (personal protective equipment), attendance at weekly safety meetings, compliance with safety rules and regulations, and the faithful reporting of unsafe actions and/or incidents.

YZC will add the following facilities to the portal area for safety considerations:

- A field hospital for first aid treatment, stabilizing patients, and preparing them for travel to hospital
- A helicopter pad for medivac purposes

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SECTION 1 - SAFETY PROGRAM

1.00 PERSONNEL RESPONSIBILITIES

1.01 DUE DILIGENCE

Employers, supervisors and workers all have responsibilities towards the safety of themselves and fellow workers.

The Procon Group ensures the health and safety of all workers by correcting known hazards, developing policies and procedures, providing protective equipment, providing information, instruction, training, and supervision and complying with all health and safety regulations.

Procon supervisors have the responsibility to all workers on their work sites to ensure health and safety by following the policies and procedures established by the company. Supervisors must participate in the training of workers and be knowledgeable about the work being supervised.

Procon workers must carry out their work in accordance with established company safe work procedures, use or wear their protective equipment and not engage in horseplay that may endanger other workers. Procon workers must ensure that their ability to work without risk to their health or safety and to the health or safety of their fellow workers is not impaired by drugs, alcohol or other causes. Procon workers must report any hazards, defective equipment or lack of personal protective equipment to their supervisor or company representative.

It is everyone's responsibility to be diligent in the workplace.

1.02 EMPLOYER RESPONSIBILITIES

Procon must:

a. Ensure the health and safety of all workers working for Procon and any other workers present at the workplace that Procon work is being carried out.

b. Comply with the local Occupational Health and Safety and / or Mines Act Regulations, and any applicable orders.

c. Remedy any workplace conditions that are hazardous to the health and safety of the workers.

d. Ensure workers are informed of any known hazards.

e. Ensure workers are made aware of their right to refuse unsafe work.

f. Establish health and safety policies and programs.

g. Provide and maintain in good condition protective equipment.

h. Provide information, instruction, training and supervision necessary to ensure the health and safety of employees.

i. Consult and cooperate with joint committees and worker health and safety representatives.

j. Cooperate with all legislated regulators. (Mines Inspectors, WCB Officers.

1.03 SUPERVISOR'S RESPONSIBILITIES

a. Supervisory staff including Foremen, Sub-Foremen, Lead hands and any one responsible for another employee shall be thoroughly familiar with all safety rules and working methods pertaining to the work under their direction.

b. Each supervisor must:

1. Ensure the proper instruction and training of workers in the safe execution of work.

2. Ensure that all workers follow safe working procedures.

3. Ensure the enforcement of all safety regulations and safe work procedures and practices.

4. Ensure the provision of personal protective equipment as required by Procon Group and the respective regulations in effect.

5. Ensure the assignment of tools and equipment adequate for the work, the manner in which they are used, and the prohibition of the use of defective tools and equipment.

6. Ensure the prompt investigation and correction by verbal or written reports of alleged hazardous conditions.

7. Ensure that regular worksite inspections are conducted and the enforcement of the safe work procedures are adhered too.

8. Ensure the proper follow-up and the procedures for reporting injuries.

9. Ensure that accident/incident investigations are conducted and that all injuries are reported.

10. Practice Due Diligence.

11. Consult and co-operate with the company appointed safety representative or Joint Health and Safety committee/members appointed for the work site.

c. Each supervisor shall satisfy himself/herself that each worker employed and assigned to work in or around a potentially dangerous condition is personally familiar with the rules applicable to such work.

d. While executing the work, the Supervisor must:

1. Inform the workers of the safety hazards, which may be present.

2. Instruct workers how to avoid such hazards.

3. Immediately correct unsafe conditions.

4. Make frequent inspections of all equipment and its repair and replacement as may be required.

5. Protect workers from injury during the course of the work they are directing.

6. Promptly and properly report any incident/accident, which occur and assist in conducting investigations of incidents/accidents.

7. Obtain the services of proper emergency units (Ambulance, Fire, Police etc)

In addition to the above supervisor responsibilities, supervisors must also adhere to specific responsibilities that pertain to each individual workplace or task.

Any site hazard has the potential to threaten the well being of workers, the public and/or the environment. Procon Supervisors are in the best position to ensure our Health, Safety and Environmental policies are consistently performed to corporate expectations.

SUPERVISOR GUIDING PRINCIPLES

SAFETY extends beyond the job-site. Supervisors must remember that by protecting our workers we are also protecting their families from the social cost of accidents. Value and care for your crews at work as you would care for your own family. Be sure that each crew member understands and follows their personal responsibility for HS&E.

ANTICIPATE the risks that may arise due to changes in equipment, weather, or the scope of work.

FOCUS on demonstrating professional work habits and setting consistent expectations for all employees.

ENCOURAGE and coach crews on the importance of reporting hazards or near-misses, and their active participation in the HS&E program. No job schedule is more important than a workers health and safety. Encouraging worker participation will ensure schedules are met without compromising health or safety.

TEACH your crews the correct use of safework practices and procedures as work progresses, as you would with your own family – with persistence and patience.

YOUR active participation in the corporate HS&E program is required in order to achieve the level of health, safety and environmental performance expected by the Company.

1.04 EMPLOYEE RESPONSIBILITIES

a. In order to help promote the principals of a safe work environment, all workers are encouraged to take an active role in their Safety Program by:

1. Reporting unsafe acts and conditions to your supervisor.
2. Reporting all injuries to your supervisor.
3. Correcting unsafe conditions or equipment.
4. Maintaining equipment and tools in good working order.
5. Maintaining good housekeeping habits in all work locations.
6. Know and follow safe working procedures.
7. Know and follow Company and legislated regulations.

b. No employee shall report for work, or be permitted to work, while they are in any way unfit to perform their duties in a safe and efficient manner.

c. No person shall engage in any improper activity or behaviour that might create or constitute a hazard to their self, or any other worker. Improper activity or behaviour includes "horseplay, scuffling, fighting, practical jokes, unnecessary running or jumping, or similar conduct." This shall include duty on any work site.

d. No person shall report to work under the influence of alcohol or drugs, nor shall they possess or use intoxicating liquids or drugs on or at any work site or anywhere during daily breaks.

e. No person shall wilfully violate any safety rules.

f. No person shall falsify or refuse to give testimony when accidents or injuries are being investigated.

g. No person shall remove or deface any safety-related notice or other information posted by the Company.

In addition to the above employee responsibilities, employees must also adhere to specific responsibilities that pertain to each individual worksite or task.

1.05 SUBCONTRACTOR HS&E RESPONSIBILITIES

All subcontractors to Procon must adhere to the following:

- Read, understand and sign off on the Project specific safety program
- Demonstrate leadership and cooperate with the project/supervising manager in all matters relating to HS&E.
- Ensure that all contractor workers attend Procon Project Orientation Session prior to beginning work on the project.
- Actively participate and comply with all Procon HS&E program standards, and applicable government regulations.
- Ensure that all contract workers are aware of Procon's HS&E program, standards and applicable government regulations.
- Provide experienced and qualified supervision.
- Ensure all personnel are qualified through appropriate competency based job training or direct supervision.
- Ensure that at a minimum weekly safety meetings are held with all workers, and copies of these sessions are submitted to Procon project management.
- Attend weekly project safety meeting.

- Report and investigate all accidents, refusals and near-misses to Procon project management immediately.
- Adequately identify and control all hazards that have the potential to cause losses onsite or to others near site.
- Stop work immediately when a hazardous condition poses a risk to any individual's health, safety or to the environment.
- Communicate any issues that do not comply with Procon's HS&E program or regulatory requirements immediately to Procon site management.
- Take an active role in all HS&E efforts.

1.06 REPORTING A SAFETY CONCERN

Any worker that has a safety concern or a hazard to report must discuss it with their supervisor immediately. If the worker feels uncomfortable discussing it with their supervisor, or they have and their concern has not been addressed, they must then discuss it with their health and safety representative.

1.07 RIGHT TO REFUSE UNSAFE WORK

As an employee, you have the right to refuse unsafe work and are obligated to the Company, your Supervisor and your fellow workers for the following:

1. If you believe that an undue hazard exists at your worksite, you are forbidden to carry out any work.

2. Notify your supervisor/manager of the unsafe condition, and your refusal to work.

3. Procon must investigate and remedy the situation without delay; and inform you of the results.

4. If the matter is not resolved, you can still refuse to work. The supervisor or employer must conduct the investigation with you and the workers' representative of the Occupational Health and Safety Committee.

5. When the investigation does not resolve the matter, continue to refuse to work. Either you or your employer must inform an O.H. & S. regulatory officer to investigate.

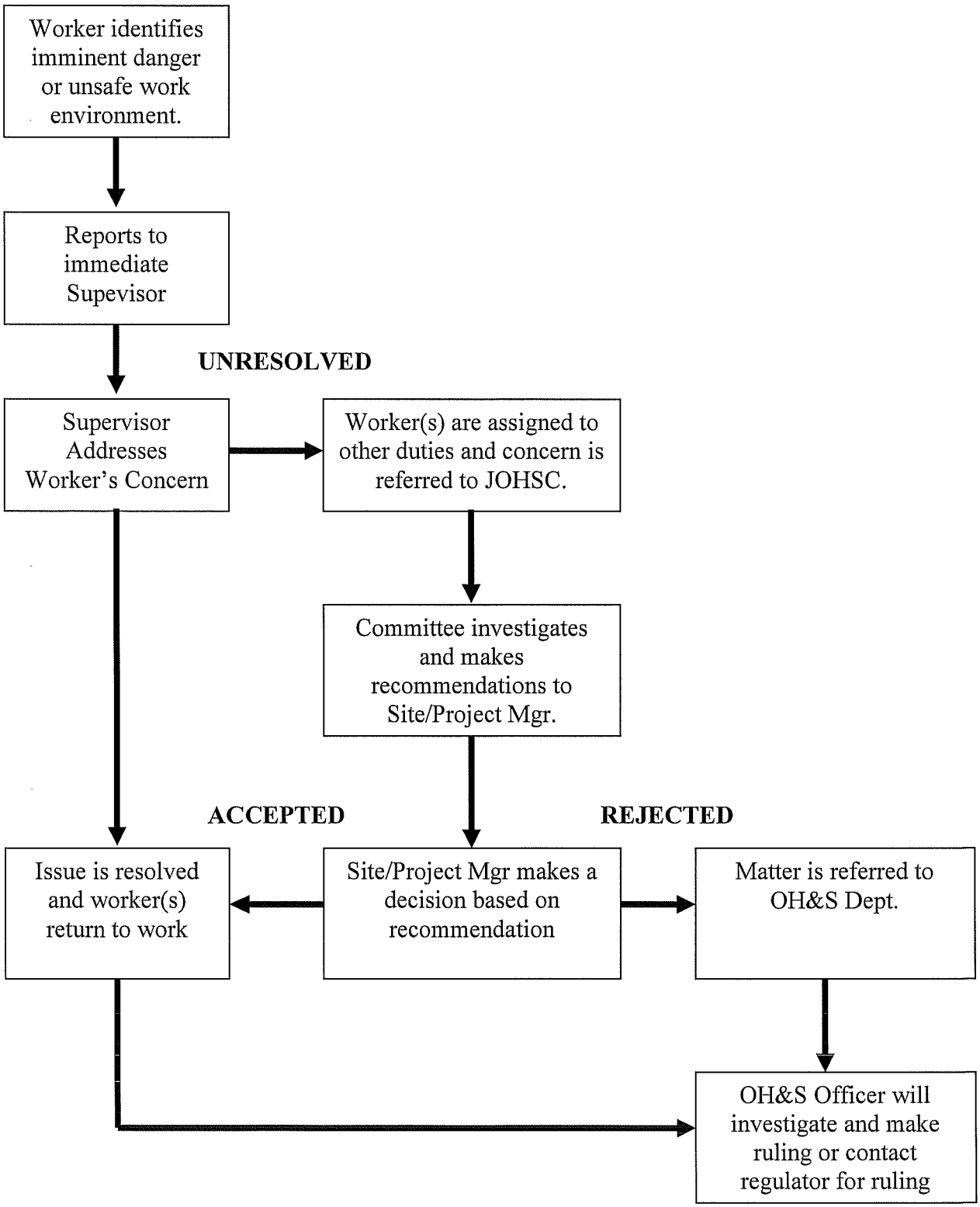
For Mine Operations the following replaces Step 5.

5. If the above procedures fail to resolve the issue, the Mine Manager shall;

   a. Conduct an investigation and either develop a plan that is acceptable to the persons who will do the work and which will allow the work to proceed safely, or suspend further work, and

If the work is suspended or allowed to proceed, submit a report to the OHSC, local union, and an inspector, that describes the incident, shows compliance with the code and describes any remedial action taken.

EMPLOYEES RIGHT TO REFUSE UNSAFE WORK – FLOW CHART



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- A 10,000 gallon bladder of water for mine firefighting.

Facility locations are shown on Dwg. No. 1614-C-003.

5. FURTHER REQUIREMENTS

Client Services and Inspections will be notified within 7 days of commencement of portal development. As-built drawings will be submitted by January 31, 2006 in the year-end report. Upon seasonal decommissioning, a heavy screen will be placed in at the entrance of the portal to prevent animals and people from entering the mine. Final decommissioning will be as outlined in the closure plan.

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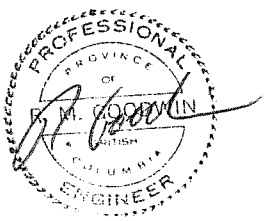

APEY registration pending.

Richard Goodwin, P.Eng.
VP Mining

Appendix A

Occupational Health and Safety Program and Guidelines
Procon Mining and Tunneling Ltd.

Procon

Health & Safety Manual

SAFETY IS EVERYONE'S RESPONSIBILITY

REVISED SEPTEMBER 2004

Disclaimer:

The safety information contained in this manual does not take precedence over British Columbia's Workers' Compensation Board's Occupational Health and Safety Regulation (BC Regulation 296/97 as amended by BC Regulation 185/99) or the Ministry of Energy and Mines Health, Safety and Reclamation Code for Mines in British Columbia, 2003 and established national/regional O.H. & S. Act(s) and Regulations for company operations outside British Columbia.

As a minimum current Occupational Health and Safety Legislation and/or Mines Act Regulations will apply wherever Procon Group operates.

The Procon Group Safety Policy

Procon Group is committed to ensuring the health, safety and welfare of all its employees and visitors to any Procon Group worksite. It is this company's primary objective to ensure all Procon Group worksites achieve and maintain a zero injury environment.

Management is responsible for providing a safe worksite and for establishing and maintaining safety standards of site and equipment to ensure that hazards to health, safety or the environment are guarded against or eliminated, and for developing safe work procedures conducive to a safe and healthy workplace.

Superintendents / Foremen are responsible for ensuring that workers are properly instructed to do their work safely, for enforcing safe work procedures, following safety legislation, and for correcting all unsafe activities.

All employees have a regulatory duty of care to take reasonable care of themselves and others that may be affected by their acts or omissions.

Recognizing, evaluating, and controlling workplace hazards through worker education, training and positive reinforcement makes a zero injury environment one hundred percent attainable.

Employees at every level, including management, are responsible and accountable for the company's overall safety initiatives. Complete and active participation by everyone, everyday, in every job is necessary for the safety excellence the company expects.

Senior Management demands participation in the program by all employees of The Procon Group. Employee's are responsible for following all procedures, working safely and safety measures above minimum legislated requirements.

An injury and accident free worksite is Procon Group's primary goal. Through continuous safety and loss control efforts, this goal can be achieved.

All employees must be familiar with the O.H. & S. Act and Mines Act Regulations within their jurisdiction of company operations.

Signed: _____ Date: _____

E. A. Yurkowski, P.Eng
President

Environmental Policy

Procon is committed to conducting all its operations in a responsible manner to minimize its impact on the environment. Compliance with all applicable laws, regulations, and standards is mandatory and essential to uphold our commitment to environmental stewardship.

Procon will strive for excellence in its management of the environment by applying pollution prevention principles and addressing environmental implications in its decisions, activities and expenditures.

Procon will use best management practices, modern control methods, and processes that are economically feasible and technically sound to minimize waste generation and pollutant discharge from company activities.

Procon will maintain a proactive approach to protecting the environment by regularly assessing its environmental performance; training its workforce to recognize environmental issues and ensuring that the spirit of this policy is upheld at all company projects.

Procon Group considers environmental protection to be an important part of our corporate responsibility. At each project and in conjunction with the project owner, site specific procedures will be developed to minimize impacting the environment as operations are carried out.

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AGENDA AND MINUTES

a) An agenda will be prepared by the secretary under the direction of the chairperson and distributed to members prior to the meeting.

The agenda will include:

- Review of reported workplace hazards
- Review of accident investigations and workplace inspections
- Review all reports of injuries experienced since the previous meeting
- Recommend to the employer educational programs promoting health and safety and the occupational environment
- Review records on education, training and orientation of workers

b) Minutes will be prepared as soon as possible after the meeting and will be made available to the employer, workers, and regional O.H. & S. Regulator, or Mines Inspector as the case may be.

c) Minutes from the three most recent committee meetings will be posted.

a) The committee shall consist of a minimum of four members. At no time shall the employer representatives outnumber the worker representatives.
b) Worker representatives are selected by fellow workers.
c) Management representatives will be appointed by management.

The committee shall have two co-chairs, one selected by the worker representatives and the other selected by the employer representatives.

The co-chairs shall:

- prepare meeting agendas
- arrange the meeting place
- notify members of meetings
- control the meetings
- ensure the maintenance of an unbiased viewpoint
- review previous minutes and material prior to the meetings
- ensure that minutes are prepared
- forward a copy of the minutes to the employer for distribution

These terms of reference may be amended by majority vote of the committee members.

2.0 BASIC RULES

Rules are an integral part of the Corporate Health, Safety and Environment Program. Rules provide a Code of Conduct which each worker must follow for the benefit of their own safety as well as the safety of their co-workers.

2.01 SUPERVISOR'S TEN RULES OF SAFETY

1. **YOU** are a supervisor and thus, in a sense have two families. Care for your people at work as you would care for your own people at home. Be sure that each of your workers understands and accepts his/her personal responsibility for safety.

2. **KNOW** the rules of safety that apply to the work you supervise. Never let it be said that one of your workers was injured because you were not aware of the precautions required on his job.

3. **ANTICIPATE** the risks that may arise for changes in equipment, methodology or environments. Make use of expert advice that is available to help you guard against such hazards.

4. **ENCOURAGE** your workers to discuss with you the hazards of their work. NO job should proceed where a question of safety remains unanswered.

5. **INSTRUCT** your workers to work safely, as you would guide and counsel your family at home – with persistence and patience.

6. **FOLLOW-UP** your instructions consistently. See to it that workers make use of safeguards provided to them. If necessary, enforce safety rules by disciplinary action.

7. **SET A GOOD EXAMPLE**. Demonstrate safety in your work habits and personal conduct. Do not appear as a hypocrite in the eyes of your workers.

8. **INVESTIGATE AND ANALYZE** every accident, incident or near-miss however slight. Where minor injuries go unheeded, crippling accidents may later strike.

9. **CO-OPERATE** fully with those in the organization who are actively concerned with employee safety.

10. **REMEMBER**: Not only does accident prevention reduce human suffering and loss, from the practical viewpoint, it is no more than good business sense. Safety, therefore is one of your prime obligations – to your company, your fellow workers and your own family.

2.02 GENERAL SAFETY RULES

1. Consuming or being in possession of alcohol or illegal drugs on company premises, or during the work shift, including lunch breaks is prohibited.

2. Fighting, horseplay, practical jokes or otherwise interfering with other workers is prohibited.

3. Theft, vandalism or any other abuse or misuse of company property is prohibited.

4. Violence of any type (threatening, physical or verbal) committed by or against employees is prohibited and will not be tolerated.

5. All unsafe acts and conditions including "near miss" incidents are to be reported immediately to management.

6. All incidents that result in damage or injury are to be reported immediately to management.

7. First aid treatment is to be obtained promptly for any injury.

8. Personal Protective Equipment is to be worn at all times on all worksites.

9. All work shall be carried out in accordance with appropriate safe work procedures and supervisor supervision.

10. Every worker shall keep their work area's neat, clean and orderly.

11. Only those tools that are in good repair, with all guards and safety devices in place shall be used.

12. Misuse of company equipment or property will result in disciplinary action.

2.03 COMPANY POLICIES

As a condition of employment with Procon Group, all employees must agree to and abide by all Company Policies, Procedures, Safety & Training Programs and government regulations as they apply to their work. Non-conformance to any company program, policy or government regulation could constitute immediate dismissal. All employees must read and sign off on all company policies and programs before commencing work.

SECTION 3 – SAFETY COMMUNICATION

3.00 SAFETY COMMUNICATION

3.01 JOINT HEALTH AND SAFETY COMMITTEES

The joint occupational health and safety committee is made up of worker and employer representatives consulting in a cooperative atmosphere to identify and resolve health and safety problems in support of a planned occupational health and safety program. Where operations dictate that Procon is the prime contractor the following structure will be implemented. Where Procon is a sub contractor to a client's existing operations, Procon will provide dedicated personnel to participate on the clients JHSC.

a) Make recommendations for the establishment and enforcement of safety and health policies and practices.

b) Participate in the identification of dangers to safety and health in places of employment, and recommend means of controlling the hazards.

c) Obtain information from the employer and from such other sources as necessary regarding the identification of existing or potential dangers to safety and health.

d) Advise on and promote safety and health programs for the education and information of the employer and workers.

e) Receive, consider and, where necessary, investigate complaints respecting safety and health of workers at this workplace, and where necessary, make recommendations to the employer.

f) Maintain records regarding the complaints received and the resolution of those complaints.

g) Where applicable, review the information resulting from monitoring and measuring procedures, and, where necessary, make recommendations to the employer.

i) Participate in inspections of this workplace.

i) Assist in investigations of accidents and incidents.

COMPANY RESPONSIBILITY

The company will ensure:

- there is equal representation on the committee from workers and management
- the duties and functions of the joint committee is in accordance with local applicable regulations
- they respond to recommendations from the joint committee
- adequate time from work for meetings and other committee functions is provided
- 8 hours educational leave for joint committee members is provided each year
- arrange for a qualified person to provide the committee with training sessions on three occasions during the year for company controlled operations
- provide a worker representative to a client operated JHSC
- equipment, premises and clerical personnel is provided for carrying out the joint committee's duties and functions

RECORDS

The committee will keep accurate records of all matters that come before it.

a) The committee will meet monthly.

b) Special meetings, if required, will be held at the call of the chairperson.

c) A quorum shall consist of a majority of members. (Management and labour represented, but management must not exceed labour representatives)

d) The committee will add procedures it considers necessary for the meetings.

EDUCATION

Each safety committee member is entitled to an annual educational leave totalling 8 hours, or a longer period if prescribed by regulation, for the purposes of attending occupational health and safety training courses.

For Company Operated Mine Operations

Where 20 or more workers are regularly employed, the Company shall arrange for a qualified person to provide the JHSC with training sessions on three occasions during the year.

Procon Group will provide the educational leave without loss of pay or other benefits and will pay for, the costs of the training course and reasonable costs of attending the course.

3.02 SAFETY MEETINGS

Safety meetings on a project are designed and scheduled to occur at three levels:

a) Project safety meetings

b) Crew talk safety meetings

c) Crew talk safety training meetings.

PROJECT SAFETY MEETINGS

Project Safety Meetings shall be held a minimum of monthly by Project Management. The preparation of the materials and topics for discussion shall be a joint effort shared between the site safety personnel, project supervisors and client/owner SHE representatives.

Project management shall notify the appropriate subcontractors, owner designates of the meeting particulars in advance.

Topics that shall be considered for discussion are:

- Review of all project injury accidents and near-misses for the previous month to determine areas requiring attention, or undesirable developing trends that require corrective action
- Information on accidents have recently occurred in the industry that may apply to current or future project operations.
- Changes to HS&E regulations that may have a direct impact on project operations, or specific procedures currently in place.

- Discussions on precautionary measures needed for a specific operation.
- Reviewing observed unsafe practices.
- Reviewing previous months inspection reports.
- Ensuring that PPE is suitable for activities currently being conducted and available in sufficient quantity for both normal and emergency operations.
- A review of monthly accident and injury frequency and severity rates.
- Suggestions for continuous HS&E improvement on the site.

Each attendee is expected to communicate key information to their crews at the weekly crew talk safety meeting.

CREW TALK SAFETY MEETING

Crew talk safety meetings are conducted at the beginning of each shift. Either the site safety trainer or shift supervisor will select a safety topic and review it will all personnel. Each attendee will signoff as understanding the safety topic.

Guidelines for the conduct of a crew safety talk meeting are as follows:

- All members of the crew shall attend.
- It shall be held at the beginning of each shift.
- The meeting shall only address HS&E topics.
- Point out unsafe acts, practices, or hazardous conditions that have been observed in the work area and delegate corrective measures if applicable.
- Review recent injuries or accidents in the work area, why they happened and what is being done to prevent reoccurrence.
- Brief the crew on any new equipment with specific reference to equipment capabilities and safeguards.

CREW TALK SAFETY TRAINING MEETINGS

Crew talk safety training meetings are to be held once per week. Training meetings will include training activities and job instruction. Job instruction is an awareness program designed to assist workers complete tasks in a safe and productive manner.

Job instruction consists of reviewing established safe work practices and job procedures. Job/Safety instruction improves communication between supervisors and their crews by encouraging input from crew members.

Weekly training meetings should take no more than 30 minutes to complete. Topics covered include reviewing and updating SWP's and Job procedures,

lecturing on specific safety hazards, watching safety presentations, undertaking refresher training in task specific or safety specific issues, ex: WHMIS, Explosive Handling.

3.03 FIVE POINT SAFETY PROGRAM

The "Five Point Safety System" is designed to provide a simple mental checklist to review each time an employee moves to and enters a workplace. All employees are required to complete a five point safety card at the beginning of their shift and hand it in to their supervisor at the end of their shift.

PROCON
SAFETY SYSTEM

Employee Name_____ Date _____

Working Place_____ Shift _____

1. Is the entrance to the W.P. in good order? Yes ☐ No ☐
2. Are W.P. and equipment in good order? Yes ☐ No ☐
3. Can I continue to work safely? Yes ☐ No ☐

If "No" is answered to any of above, explain what is unsafe.

_____

_____

_____

What corrective actions were taken? _____

_____

PLEASE PRINT (Over)

(TO BE COMPLETED AT WORKING PLACE)

4. Act of Safety _____

_____

_____

5. Can and will men continue to work properly? Yes ☐ No ☐
   Did I apply all 5 points to the Safety System? Yes ☐ No ☐
   Can I do something to stop accidents? Yes ☐ No ☐

If "No" explain why _____

_____

_____

_____

Supervisor_____

PLEASE PRINT

3.04 10' CIRCLE OF SAFETY

10 Foot Safety Circle

The objective of the 10 Foot Safety Circle is to make you aware of your surroundings at any given point during your work activities.

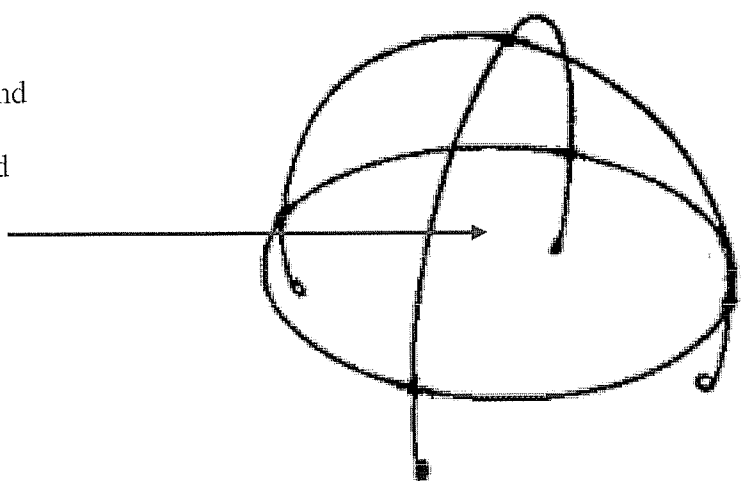
RECOGNIZE, EVALUATE, CONTROL

Before commencing any work activity. Employees should always do the following:

1. Check and review Safe Work Plans for all work activities – especially when a new member joins the crew.
2. Prior to commencing work activities, review the workplace for all areas of potential hazards – recognize the hazards in your workplace.
3. Evaluate your workplace – is there debris that can be moved, holes filled, etc. Are inherent risks present that need control measures implemented?
4. Control the workplace; take control of how you carry out your work activities. Always carry out your work according to established Safe Work Plans and under supervisor direction.

The 10 foot safety circle allows all employees to project an imaginary sphere around them and evaluate all the potential hazards that fall within their sphere. As you move forward so to does your 10 foot safety circle. By always recognizing the hazards, you as a worker can evaluate and report on what control measures need to be in place to safely do the assigned work activity.

Place yourself in the center and observe all the hazards around you.



3.05 SAFETY BULLETINS / SAFETY NEWSLETTERS

It is Procon Group's objective to ensure that all employees receive current information on all safety measures implemented by the company. Every month Procon's safety department will distribute monthly safety bulletins that focus on a single safety topic and a monthly safety newsletter that summarizes the company's safety initiatives.

SECTION 4 – TABLE OF CONTENTS

4.00 INVESTIGATIONS

4.01 INCIDENT / ACCIDENT INVESTIGATIONS POLICY

1. Incident Investigation Reports are to be filled out by the investigation team (one management representative and one employee representative as a minimum) and submitted to the designated site safety representative and Corporate Safety Officer for review. These must be completed within 24 hours of an incident/accident.

2. The Incident/Accident Investigation Team is to consist of:
   a. Designated Site Safety Representative
   b. Appropriate/immediate supervisor of the work site involved
   c. Procon Group Corporate Safety Officer in the event of serious accident or loss of Company property.

Designate Safety Representative/Supervisor/Manager to notify appropriate government regulatory agency (i.e. O.H. & S. regulatory officer/department) in the event of serious injury or loss of life.

4.02 INVESTIGATION POLICY

It is the policy of Procon Group to have all incidents that result in injury or property damage, or that could have resulted in serious injury or property damage, thoroughly investigated.

The purpose of such investigation shall determine the causes of the incident so that appropriate action can be taken to prevent recurrence.

Supervisors shall be responsible for conduction of investigations and submitting reports to the designated safety representative/manager.

The manager shall determine and implement appropriate measures to prevent recurrence.

Prevention of occurrence is the primary goal of conducting incident/accident investigations. They are not conducted to place blame, but as a means of measuring the effectiveness of the Health and Safety Program. Investigations discover where the organization's system broke down and how to correct it.

Senior management is responsible for ensuring an investigation of workplace incidents or accidents is conducted as soon as possible after the occurrence, to determine the cause(s). Management also ensures recommended changes in job procedures or physical conditions are acted upon quickly to prevent recurrence of a similar incident or accident. All regulatory forms (i.e. WCB forms) are to be signed off by the Production Supervisor and/or Shift Foreman.

All accidents resulting in injury that requires medical treatment or that could cause serious injury or death must be investigated by a supervisor and worker representative (accident investigation team). Information shall be collected and documented on an accident / incident report.

The purpose of the accident investigation is to provide a systematic effort to gather all relevant facts, to establish responsibility and to determine why and how the incident occurred in order that conclusions and recommendations can be made about what must be done to prevent a recurrence.

Information should be obtained from all available sources, including interviewing witnesses involved in the incident, photographs or diagrams and where necessary visiting the scene of the accident. A Safety Committee member or other worker representative familiar with the work should assist in the accident investigation. The Accident Investigation Report, including recommendations, shall be forwarded to management for review and implementation of appropriate action.

If an accident-producing situation, or cause, is left undetected, uncorrected and not eliminated or controlled, a similar type situation is likely to recur. Although investigation, reporting and corrective follow-up of each accident or incident will consume some time, it is a vital factor in injury prevention and represents relatively little of the total time lost to the entire work interruption.

The Prevention Division of the regional O.H. & S. regulator (example Workers Compensation Board of British Columbia) shall be notified immediately of any accident resulting in serious injury or death or any accident resulting from a major structural failure or release of a toxic or hazardous substance.

4.03 INJURED WORKER

The First Aid Attendant will inform the worker's supervisor and safety committee to initiate an accident investigation once the injured worker is sent (or taken) to medical treatment.

4.04 SERIOUS INCIDENT

Should there be an incident where there was a potential for causing serious worker injury, the worker or the worker's supervisor must notify the accident investigation team to ensure that an accident investigation is initiated.

Minor accidents and incidents of a similar nature should signal a warning that a dangerous trend may be developing. Supervisors must recognize that events of a similar nature are a warning that a condition or practice if allowed to continue may result in a serious injury or damages.

Incident (Near-Miss) reporting must be encouraged at all levels within Procon. Supervisors have to coach their crews on the importance of reporting and must also take visible actions to correct these situations. Failure to report means:

We have missed an opportunity to learn from the experience
We are not correcting underlying causes
We are likely to have a similar event with more serious consequences.

Workers have a legal responsibility to report unsafe acts and unsafe conditions. Supervisors are required by legislation to correct workplace hazards. Incident or near-miss reporting is critical to any and all project successes.

4.05 PURPOSE

The purpose of investigations of workplace incidents/accidents is to:

- determine the cause(s) (primary and secondary)
- identify any unsafe conditions or unsafe acts
- identify unsafe job procedures that contributed to the result, and
- develop and implement corrective action to prevent recurrence

Management will ensure that accident investigation recommendations are used as a basis for crew talks and that Supervisors and Foreman are contacted for follow-up.

Accidents must be investigated promptly before evidence is destroyed or lost. Delaying investigations means important information may be lost at the scene and people may forget important details. It is important to obtain the injured person's and witnesses versions of an accident as soon as possible.

An investigation is made up of five areas including:

- Scene Investigation
- Preservation of Evidence
- Interviews
- Communications
- Report Completion.

Management will ensure that members of the accident investigation team receive adequate training to conduct effective investigations. This training will include:

- definition of incidents and accidents, and who, what, when, where and why to investigate
- conducting investigation interviews
- completing the accident investigation form that includes primary and secondary causes
- recommend corrective action

The safety committee will review each accident/incident investigation for the purpose of:

- making further recommendations
- ensuring crew talks are conducted
- reviewing accident trends

Management will review all completed accident investigation reports to:

- make further recommendations, if necessary,
- immediately respond to recommended corrective action
- assign responsibility for determining subject and conducting crew talks
- allocate financial resources for repair or replacement of equipment, additional worker training, etc.

SECTION 5 – INSPECTIONS

5.00 INSPECTIONS

5.01 PROJECT INSPECTIONS

5.02 METHOD OF INSPECTION

5.03 IMMINENT DANGER SITUATIONS

5.00 INSPECTIONS

It is the policy of Procon to maintain an effective inspection program. The objective of this program is to identify and correct hazards that may affect health, environmental and/or safety.

All operational areas shall be included in the inspection program to ensure that existing hazard controls remain effective and appropriate.

Informal inspections shall be conducted by supervisors on an ongoing basis.

Formal (documented) inspections shall be conducted by Project management or designate at each facility or site on a weekly/monthly basis.

5.01 PROJECT INSPECTIONS

Project management or assigned designate will conduct regular inspections of the entire project and record the results on Procon's facility inspection report or client/owner inspection reports. Inspections will include all active structures, buildings and underground operations.

Inspection reports will be reviewed with project management corrective action plans will be developed and assigned to specific personnel to be completed. Copies of all inspection reports will be submitted to Procon Corporate on a monthly basis.

Project management will retain copies of all inspection reports, corrective action plans in the project HS&E files for the duration of the project.

Upon completion of the project, all files will be sent to Procon Corporate for storage in file archives.

5.02 METHOD OF INSPECTION

In every instance, the inspection of any project will be made in the presence of the project HS&E personnel, the project supervisor or assigned designate.

All observations must be accurately recorded on the inspection sheet including a description of any unsafe condition or act and its exact location.

An important part of the inspection process is observing and noting unsafe acts or behaviours. Unsafe acts contribute to 80% of accidents because individuals ignore or failed to recognize the hazard. Where unsafe acts or behaviours are observed, they should be noted and pointed out to the Supervisor for corrective action. The inspection team should not attempt to correct the worker. All corrective direction should come from the worker's immediate supervisor.

5.03 IMMINENT DANGER SITUATIONS

When an imminent danger situation is observed at any time, supervisors must be informed immediately and that supervisor must take corrective action. When a supervisor is not immediately available the inspection team has a duty to stop the work being performed. Project management must be promptly contacted and appraised of the situation.

In all cases, imminent danger situations must be properly corrected before work may resume. These situations point to:

- A near-miss that may result in a serious loss, if not corrected.
- A need to investigate the reasons why imminent danger was allowed to exist.
- An opportunity to educate the crew before work resumes.
- A need to review existing hazard controls related to the event.
- An opportunity to update and review SWP's and job procedures related to the event.

SECTION 6 – MAINTENANCE PROGRAM

6.00 MAINTENANCE PROGRAM

6.01 PERSONAL PROTECTIVE EQUIPMENT (PPE) MAINTENANCE

6.02 EQUIPMENT MAINTENANCE

6.00 MAINTENANCE PROGRAM

It is Procon's policy that all tools, equipment, vehicles and personal protective equipment be maintained in a condition that will maximize their intended use and provide the maximum health and safety for all employees.

A Maintenance Program shall be implemented on each project and should include the following:

All tools, equipment and vehicles will be maintained in compliance with all applicable regulations and manufacturers specifications.
All tools, equipment and vehicle repairs will be performed by appropriately qualified maintenance personnel.
A system for controlling inventory and issuing of equipment will be implemented.
Scheduling and documentation of all maintenance work on all equipment will be recorded and kept on site.

6.01 PERSONAL PROTECTIVE EQUIPMENT (PPE) MAINTENANCE

Each project will have a well planned and organized maintenance program for keeping all PPE in good repair. The equipment must be properly stored, maintained and sanitized, as applicable.

It shall be the responsibility of each worker to inspect their PPE prior to use and return and replace any defective equipment.

No worker shall be permitted to use defective PPE at anytime.

6.02 EQUIPMENT MAINTENANCE

It is the responsibility of all equipment operators to ensure that they conduct pre and post equipment inspections. Report and log any maintenance issues. At no time are equipment operators allowed or permitted to conduct any mechanical repairs on any piece of equipment. Defective equipment is to be tagged out and placed out of service.

Daily inspections of mechanized equipment should include but not be limited to:

- Checking oil & coolant levels
- Inspecting lighting systems (headlights, taillights, backup lights, signals)
- Check brake fluid levels, actuated pressure levels
- Fire suppression systems
- Testing brake operations including emergency and parking brakes
- Visual inspection of tires
- Ensure all vehicles have wheel chalks
- Safety devices (seat belts, emergency stops, back-up alarms, etc)

SECTION 7 – PERSONNAL PROTECTIVE EQUIPMENT

7.00 PERSONAL PROTECTIVE EQUIPMENT

It is Procon's policy to have all workers use the proper personal protective equipment (PPE) when and where required.

All employees will wear CSA green triangle steel toed boots and company supplied eye & ear protection and protective coveralls.

Safety Equipment provided by the Company is for your protection and must be used on every appropriate occasion. It must be kept in good condition and repaired or replaced immediately if found unsafe.

7.01 EYE AND FACE PROTECTION

All employees must wear the appropriate eye protection devices at all times when using grinders, welding, cutting, steam cleaning equipment, painting, spraying, operating chop-saws, pneumatic hammers, air hoses, or where injury to the eye may result from flying particles, debris, dust, chemicals, gas, smoke, paint spray, fumes, hot oils or any other hazard which may be present or suspected.

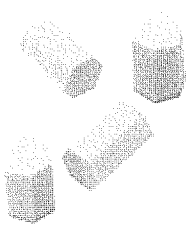
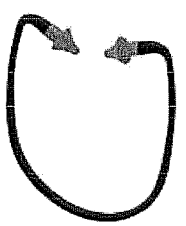
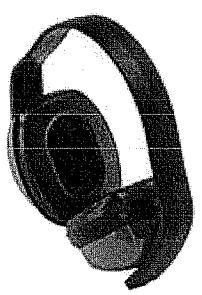
When transferring chemicals (solvents), if there is a chance that a chemical splash may occur a safety shield must be worn over the safety glasses.

All eyeglasses must include side protectors. Employees with prescriptions must where approved safety glasses with side shields. The wearing of contact lens is prohibited in all underground mine projects.

7.02 HEARING PROTECTION

All employees must wear hearing protection when exposed to a steady state of noise at or above the 85 dBA Lex or when exposed to a peak sound level of 135 dBA. Employees must not be exposed to noise levels greater than $L_{ex\ 8hr}$ of 85 dBA. $L_{ex\ 8hr}$ is the maximum exposure limit that an employee can be exposed to over a nominal workday.

The Company provides various hearing protection devices including:

DISPOSABLE EARPLUGS	PERMANENT EARPLUGS	EARMUFFS
		

If you are unsure as to the recommended type of hearing devices to use, contact your Supervisor and/or the Joint Health and Safety Committee for additional information.

7.03 RESPIRATOR PROTECTION

Employees that may be exposed to a concentration of dust, vapours, gases, non-toxic or toxic fumes, paint fumes or oxygen deficient atmosphere must wear the appropriate respiratory equipment for the environment they are working in. When working with any chemicals, always consult the Material Safety Data Sheet to determine if and what type of respirator is required.

Before using a respirator, an employee must be properly Fit-Tested.

7.04 HAND PROTECTION

All employees handling materials likely to puncture, abrade, or irritate the hands or arms shall wear protective gloves or other personal protective equipment to prevent such injuries, except when the use of such introduces an equal or greater hazard.

The Company provides gloves to reduce the likelihood of injury. All workers should utilize gloves whenever possible to reduce the potential for injury. Gloves reduce the exposure of our hands to hazardous materials. No single material will protect against all chemicals, so glove selection must be made for each type of chemical. Latex gloves may provide adequate protection against dilute aqueous solutions; they however provide no protection against exposure to solvents.

The table below is intended as a guideline for selection of the appropriate protective glove. Manufacturers can supply specific information on the choice of glove.

Glove selection should be based on the following criteria.

Degradation due to contact with chemicals causes the glove material to soften, swell, shrink, stretch, dissolve, or to become hard and brittle.

Permeation is the result of molecular diffusion of a chemical through a glove material. There may be permeation with out obvious signs of degradation. Permeation is quantified by breakthrough time and permeation rate.

Breakthrough Time is the time it takes for a particular chemical to pass through a protective material.

Permeation Rate

The speed at which the chemical moves through the protective material once it has broken through.

Exposure

Glove performance is decrease significantly as chemical exposure increase by the following:

- Chemical concentration
- Direct immersion
- Pervious exposures
- Temperature

Permeation test data are obtained at room temperature (20 to 25 degrees Celsius). If chemicals are being used at temperatures higher than this glove performance may be significantly affected.

Glove Thickness

Any chemical will permeate a protective material given enough time. The breakthrough time for a thicker material will be longer than that of a thinner material, providing superior chemical resistance. When choosing a chemical resistant glove manual dexterity must also be taken into account.

Manufacturer

Differences in production of materials results in variations of permeation and degradation between manufactures. Test data for a particular manufacture should be consulted prior to selecting a chemical resistant glove.

Chemical Purity

Permeation testing is conducted using pure chemicals. Mixtures of chemicals will significantly alter the permeation rate and degradation of a material.

Physical Resistance

Chemical penetration through a tear or hole in a glove will cause a much greater chemical exposure potential than caused by molecular permeation.

Selection Guide

This guide is for general reference only, for specific recommendations contact the glove manufacturer, MSDS or the Safety Office.

GLOVES	MATERIAL	CHEMICAL RESISTANCE	
		RECOMMENDED	NOT RECOMMENDED
Latex	Natural Rubber	Weak Acids, Weak bases, alcohols, aqueous solutions	Oils, greases and organics
Butyl	Synthetic Rubber	Aldehydes, ketones, esters, glycol ethers, polar organic solvents	Aliphatic, aromatic and chlorinated solvents
Neoprene	Synthetic Rubber	Oxidizing acids, bases, alcohols, oils, fats, aniline, phenol, glycol ethers	Chlorinated solvents
Nitrile	Synthetic Rubber	Oils, greases, acids, caustics, aliphatic solvents	Aromatic solvents, many ketones, esters, many chlorinated solvents
PVA	Poly-Vinyl Alcohol	A wide range of aliphatic, aromatic and chlorinated solvents, ketones (except acetone), esters, ethers	Acids, alcohols, bases, water
PVC	Poly-Vinyl Chloride	Strong acids and bases, salts, other aqueous solutions, alcohols, glycol ethers	Aliphatic, aromatic and chlorinated solvents, aldehydes, ketones, nitrocompunds
Viton	Fluoroelastimer	Aromatic, aliphatic and chlorinated solvents, and alcohols	Some ketones, esters, amines
Silver Shield	Laminate	Wide range of solvents, acids and bases	

7.05 LEG PROTECTION

Leg protection devices must be worn by anybody operating equipment in circumstances where a hazard of leg injury exists.

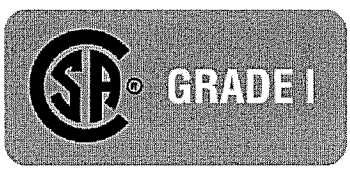
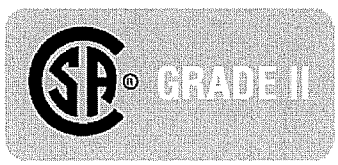
7.06 FALL PROTECTION

Employees are who are required to work at an elevation of 3 meters or more above grade, or when a fall from a lesser elevation involves an unusual risk of injury, must use guardrails, safety harnesses with the related equipment. Lifelines, anchors, safety nets, control zones, safety monitors and other procedures must be used.

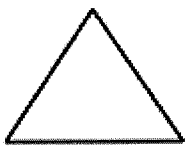
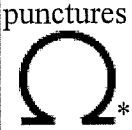
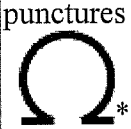
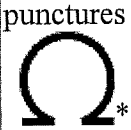
7.07 FOOTWEAR PROTECTION

All Employees are required to wear certified footwear protection at all times when working outside administrative offices. Workers shall wear CSA-certified Grade 1 footwear or CSA-certified footwear with heavy-duty toe and sole protection at all times on the jobsite. Work boots should be laced to the top and tied. Replace badly worn or deteriorated work boots.

CLASSIFICATION OF SAFETY FOOTWEAR

		
Grade I will withstand 125 joules, or 93 ft. lbs.; a 50 lb weight dropped from a height of 22 in.	Grade II will withstand 90 joules, or 65 ft. lbs; a 50 lb. weight dropped from a height of 16 in.	Grade III will withstand 60 joules, or 45 ft. lbs.; a 50 lb. weight dropped from a height of 10.5 in.
		
Electric Shock Resistant Footwear carries this GSA marking tag. Footwear must withstand (under dry conditions) a test potential of 18 kV (18,000 volts), 60 Hz for a period of one minute, without discharge to ground of more than one milliampere (1 mA).*Use if danger of high voltage	If the triangle is Green it is Grade I; Yellow it is Grade II; Red it is Grade III The triangle designates a puncture resistant sole able to withstand 135 kg. of pressure, (300 ft. lbs.) without being punctured by a 5 cm. nail. ** Use where there is danger of punctures.	

SELECTION GUIDE FOR SAFETY FOOTWEAR

GRADE I	GRADE II	GRADE III
Combined with:  ** for punctures  * for high voltage	Combined with:  ** for punctures  * for high voltage	Combined with:  ** for punctures  * for high voltage
Freight companies Steel mills Construction Mining Auto industries Paper Mills Lumbering	Warehousing Machine shops Auto industries Aircraft Industries Paint companies Home Appliance Company Fire Departments	Light manufacturing Retail stores Supervisors Office staff Hospitals Service stations Security Ambulance staff

7.08 HEAD PROTECTION

It is mandatory that all personnel wear head protection when and where required to do so. Head protection is only effective when properly cared for.

Because the protective helmet is a system, if any component is not in good working condition, the hard hat wearer does not have adequate head protection. So, inspecting the helmet before each use should be part of every workers daily review of their PPE. Inspections are neither difficult nor time-consuming. A thorough inspection takes less than a minute. The helmet shell should be inspected for cracks, dents, cuts, bad nicks, or gouges both inside and outside. Because even something as small as a hairline crack will widen and spread, helmets with shells showing any damage should be replaced immediately.

Plastic shells such as polyethylene or polycarbonate that are exposed to heat, sunlight, or chemicals can age. The helmet should be replaced at the first sign of damage, long before the color becomes dull, and/or the surface feels chalky. Workers who are struck while wearing a helmet in less than top condition may be seriously injured or killed. The suspension system should be checked for any signs of wear, such as straps that are twisted, cut, torn, or frayed; loose stitching; or plastic parts with cracks or small breaks. Aging from hair oils, perspiration and dirt can cause the suspension to deteriorate and become weak.

- Store the helmet in a clean, dry area where it is not exposed to extremes of heat or cold, which can affect the helmet's useful service life.
- Clean the protective helmet with a mild soap and warm water to help avoid skin irritation from wearing the helmet.
- Do not stress their helmet by sitting on them or compressing the sides.
- Do not store the helmet on the rear window deck of a car, where the sun can age the shell prematurely. It may also become a dangerous flying object after sudden stops. A protective helmet provides the best possible head protection, if it's cared for properly and replaced when necessary. Workers who understand how their protective helmet system works are more likely to use them properly.

7.09 FLAME RETARDANT CLOTHING

All persons operating welding or grinding equipment where a potential for sparks, slag, or splatter of molten materials exists must wear the appropriate CSA approved flame retardant clothing.

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8.00 EMERGENCY PREPAREDNESS & FIRST AID

8.01 EMERGENCY PREPAREDNESS

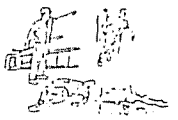
Emergency means of escape must be provided from any work area in which the malfunctioning of equipment or a work process could create an immediate danger to workers and the regular means of exit could become dangerous or unusable.

In developing site specific emergency preparedness plans, the company, and/or its designated safety representative will:

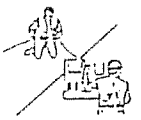
- Develop and train a First Aid Team (if required).
- Coordinate appropriate emergency response procedures.
- Provide First Aid on an "as need" basis. (if required)
- Notify necessary government and management contacts.
- Coordinate accident investigation with appropriate parties.
- Ensure required reports are forwarded to appropriate management and government personnel.

Procedure:

1. First Aid Attendant's in the immediate area will respond and treat life-threatening situations, if any.
2. Make contact with the designated safety representative.
3. Keep non-essential personnel well outside of the accident scene.
4. Ensure that no one disturbs the accident other than to protect from further injury.



1 - TAKE COMMAND
Assign the following duties to specific personnel.



2 - PROVIDE PROTECTION
Protect the accident scene from continuing or further hazards - for instance, traffic, operating machinery, fire or live wires.

3 - GIVE FIRST AID
Give first aid to the injured as soon as possible.

4 - CALL AN AMBULANCE
Call an ambulance and any other emergency services required. In some locales dialling 911 puts you in touch with all emergency services.

5 - GUIDE THE AMBULANCE
Meet and direct the ambulance to the accident scene.

6 - GET NAME OF HOSPITAL
For follow-up, find out where the injured person is being taken.

7 - ADVISE MANAGEMENT
Inform senior management. They can then contact relatives, notify authorities and start procedures for reporting and investigating the accident.

8 - ISOLATE THE ACCIDENT SCENE
Barricade, rope off or post a guard at the scene to make sure that nothing is moved or changed until authorities have completed their investigation.

Designated Safety Representative:

1. Call for necessary emergency support.
2. Direct emergency support vehicles and personnel.
3. Provide additional first aid support if required.
4. Secure the accident scene until directed otherwise by WCB or other government regulators (if necessary).
5. Coordinate accident investigation with appropriate parties.
6. Ensure reports are forwarded to the necessary parties in the required time frame.

Emergencies do happen, including personal injuries, fires, explosions, chemical spills, toxic gas releases, vandalism, natural disasters such as earthquakes and floods, and man-made disasters such as riots and terrorist activities. Anticipating emergencies and planning your response can greatly lessen the extent of injuries and limit equipment, material and property damage.

The Emergency Response Plans should outline the basic preparedness steps needed to handle the anticipated emergencies at your work site. Although Emergency Response Plans are not meant to be all-inclusive, they should provide appropriate guidance on what to do in an emergency. For example, a sound disaster response plan should include:

- Clear, written policies that designate a chain of command, listing names and job titles of the people (or departments) who are responsible for making decisions, monitoring response actions and recovering back to normal operations.
- Names of those who are responsible for assessing the degree of risk to life and property and who should be notified for various types of emergencies.
- Specific instructions for shutting down equipment and production processes and stopping business activities.
- Alarm recognition procedures.
- Facility evacuation procedures, including a designated meeting site (mustering station) outside the facility and a process to account for all employees after an evacuation.
- Procedures for employees who are responsible for shutting down critical operations before they evacuate the facility.
- Specific training and practice schedules and equipment requirements for employees who are responsible for rescue operations, medical duties, hazardous responses, fire fighting and other responses specific to your work site.
- The preferred means of reporting fires and other emergencies.

It is the responsibility of all Project Managers/Supervisors to ensure that an Emergency Response Plan is co-ordinated and implemented with client supervisory staff.

8.02 FIRST AID ATTENDANTS

For all work sites, the site supervisor will appoint duly qualified person(s) to provide first aid services as may be required given the nature of the work site and government regulations governing said worksite.

The appointed person(s) shall possess the appropriate Certificate in First Aid in accordance with the current regulatory requirements and must be available at all times to administer first aid.

- Administer First Aid
- Maintain a First Aid Logbook
- Requisition all First Aid Supplies and Equipment
- Maintain Relationships with Physicians, O.H. & S. regulators, ambulance services and hospitals

- Coordinate the transportation of injured employees to a physician's office, medical clinic or hospital
- Assist the designated Safety Representative when necessary
- Provide health education materials or instructions to all on-site employees as required.

8.02(1) FIRST AID ACCIDENT / INCIDENT REPORTING

a. When an injury occurs, it is necessary to report it to your supervisor immediately. You will receive an accident/incident report form to be filled out by you immediately, and then turned into your supervisor for review.
b. It is important to fill out the report accurately and fully so that others can learn from your experience and avoid injury.
c. If you have to go to your doctor, a Workers Compensation Board claim will be established for you and your supervisor (in the case of British Columbia) will fill out the WCB "Form 7" based on your injury report.
d. It is important that you contact your supervisor after you go to your doctor to inform him/her of the results.
e. The Company Accident/Incident form must be completed within 24 hours of your injury.

8.02(2) FATAL OR SERIOUS ACCIDENTS

When an accident of a fatal or serious nature occurs, the employer must report immediately to the designated Safety Representative and the Worker's Compensation Board. No equipment, apparatus, appliances or materials involved in the accident shall be removed except when such movement is necessary for the release of the injured worker or to avoid the creation of additional hazards.

a. Resulted in death or critical condition with a serious risk of death.
b. Involved a major structural failure or collapse of a building, bridge, tower, crane, hoist, temporary construction support system, or excavation, or
c. Involved the release of a toxic or hazardous substance, or
d. Was a blasting accident?

8.03 ENVIRONMENTAL HAZARDS

Procon, in support with its client's will ensure that all environmental hazards have been identified and addressed through, risk assessments, hazard control protocols and safe work procedures. All employees will receive training to ensure recognition, understanding and corrective measures along with their responsibilities for project specific environmental protection procedures. Site specific procedures will be developed after a thorough understanding of the hazard. Examples of site specific hazards could include and are not limited to the following:

- Presence of Asbestos
- Presence of Moulds & Fungi
- Presence of Radon
- Presence of carcinogens
- Presence of biologicals

8.04 ENVIRONMENTAL PRACTICES

AIR QUALITY

Procon shall endeavour to:

Reduce nuisance odours generated from equipment operations, maintenance procedures. Reduce dust by watering down work areas.

SOIL CONTAMINATION

When working in environmentally sensitive areas all project personnel will be informed of site requirements and guidelines for:

- Established Right of Ways
- Soil Disturbances
- Stock piling
- Spill Containment

GROUND WATER

Procon shall adhere to all environmental regulations and site specific standards created for the prevention of contaminated materials weeping into groundwater. All spills are to be reported and cleaned up promptly to reduce any potential of groundwater contamination.

NOISE

All noise exposures will be minimized so as not to stress the natural habitat.

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9.00 FIRE PREVENTION

The purpose of this section is to provide employees with a basic understanding of the importance of fire prevention. Outlined below is a comprehensive approach to minimizing the potential for a fire through good housekeeping habits, what to do in the event of a fire and how fire extinguishers work. Equipment specific fire suppression systems are covered under operator training and competency.

Fire may be caused by flammable liquids, electrical hazards, smoking, hot surfaces, sparks poor housekeeping, and arson. Precautions must be taken to aid in the prevention of fire to reduce the risk of loss of life and property.

9.01 FLAMMABLE LIQUIDS

1. Store flammable liquids only in approved safety cans or storage cabinets. Label the containers and keep them in areas that are well ventilated, away from any heat sources.
2. Clean up spills immediately.
3. Store oily rags in a covered metal container with a self-closing cover and the containers must be emptied daily.
4. Never smoke or light a match near flammable liquids.

9.02 ELECTRICAL FIRE HAZARDS

1. Check tools, equipment, extension cords and plugs for worn spots and exposed wires.
2. Keep switch boxes clean and closed.
3. Don't try to use broken power tools or equipment, report them to the supervisor.
4. Repairs on broken power tools should only be performed by competent personnel.
5. Inspect equipment at regular intervals.

9.03 SMOKING

1. Smoke only in areas where smoking is permitted.
2. Use ashtrays for cigarettes and matches.

9.04 HOT SURFACES

1. Keep floors clean to prevent falling sparks and hot metal from causing a fire. cover wood floors with metal or other non-combustible material.
2. Use fire retardant curtains.
3. Turn off and unplug appliances such as soldering irons and coffee pots when workday is over.

9.05 SPARKS

1. Use brass or plastic tools when working with flammable liquids.
2. Oil motor bearings frequently.
3. Take precautions with metal to metal or metal to concrete contacts.
4. Ensure containers for flammable liquids are grounded and bonded to prevent static electricity from causing a spark.

9.06 HOUSEKEEPING

1. Clean equipment tools and machinery.
2. Prevent machinery from overheating.
3. Separate flammable items from flames or hot surfaces.
4. Repair or replace leaking pipes, tanks or gas lines.
5. Wipe up spills.
6. Remove doorstops or wedges used under fire doors.
7. Report broken fire doors or exits that are blocked or locked.
8. Keep corridors, exits and stairways clear.
9. Maintain a clean working area.
10. Inspect fire fighting equipment regularly.

9.07 ARSON

Report all suspicious persons to the site supervisor, client representative or local RCMP.

9.08 FIRE EXTINGUISHER USE IN CASE OF FIRE

1. Quickly size up the situation, and stay calm. Most fire extinguishers only last for 30-40 seconds.
2. Fire extinguishers are located on all operational equipment and in all company vehicles.
3. Remove everyone away from the hazard, contact emergency services. If fire is small, .
4. Keep egress options open - so you have an escape route.
5. Stay low - out of heat and smoke.
6. Select the proper fire extinguisher for the job.
7. Use the technique with the appropriate fire extinguisher:

    - **P**ull the pin or locking device.
    - **A**im low, at the base of the fire.
    - **S**queeze the handle.
    - **S**weep the agent slowly and evenly at the base of the fire.

8. If inside a structure, stay outside small rooms - shoot stream in.
9. Ventilate only after fire is out.
10. Have the local Fire Department Check to make sure the fire is out.

9.09 SERVICING

Persons who use fire extinguishers, or notice that an extinguisher has been used or tampered with should notify management to arrange for an immediate replacement.

9.10 FIRE EXTINGUISHERS – TYPES AND USEAGE

1. A fire extinguisher is a storage container for water or a chemical. It is designed to put out a small easily accessible fire – **NOT LARGE FIRES**.
2. Extinguishers are labelled A, B, C, D or K or a combination of these letters to indicate what type of fire it can be used on.

Class A		Fires that are fuelled by materials such as wood, clothe, textiles, paper and some plastics.
Class B		Fires that are fuelled by combustible or flammable liquids such as gasoline, acetone, kerosene or chemical agents.
Class C		Fires that are caused by energized electrical equipment such as appliances, transformers, generators, motors, fuse panels and computers.
Class D		Fires that are fuelled by combustible metals such as titanium, magnesium, aluminium, sodium and lithium.
Class K		Recent addition. Fires that are fuelled by liquid cooking media such as vegetable oils.

3. Fire extinguishers must be recharged professionally after any use. A partially used one might as well be empty.
4. Fire extinguishers are to be serviced and checked semi-annually by an authorized agent.
5. Fire extinguishers should be installed away from potential fire hazards and near escape routes.

DO NOT ATTEMPT TO EXTINGUISH FIRE IF YOU CANNOT DO IT SAFELY

SECTION 10 – MATERIAL HANDLING

10.00 MATERIAL HANDLING

Manual material handling tasks, if not done carefully, can result in injuries to the back, sprains, and musculoskeletal conditions.

Risk factors that may increase the chance of injury include:

- Force expended to perform the task
- Direction that the force is applied
- Repetition of motion
- Posture
- Load characteristics
- Grip on the load
- Workplace conditions
- Lighting and visibility
- Environmental conditions

Risk factors in manual material handling can be minimized through identification, reduction or elimination. Material handling strategies should include:

- Job planning (to reduce unnecessary material handling)
- Mechanize (e.g. use of lifting devices)
- Reduce re-handling
- Reduce weight
- Improve ergonomics
- Container or package design
- Reduce the distance travelled with a load
- Eliminate risky postures (bending, twisting, extreme reaches)

All personnel should review safe work procedures and task specific procedures before manually moving any materials. Remember Always ask for help.

10.01 MATERIAL HANDLING (TRANSPORTATION OF DANGEROUS GOODS)

All employees assigned work tasks that require the use and transfer (transporting) of controlled products must receive Transportation of Dangerous Goods Training. Project Managers, Supervisors

10.02 WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

In 1988, WHMIS (Workplace Hazardous Materials Information System) legislation came into effect across Canada. It is designed to protect the health and safety of workers through the provision of information about hazardous materials at a worksite. WHMIS gives everyone the right to know about the hazards of materials they work with and provides the means to find out that information through labels, material safety data sheets, and worker training and education.

All Procon employees are required to participate in WHMIS training as part of their initial hire-on orientation as well as receive at least once per year a refresher course. Project Managers, Supervisors and Site Safety Personnel/Trainers are required to conduct WHMIS training as part of Procon Groups Hazard Communication Program initiative and site specific orientation programs.

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11.00 WORKER HEALTH

11.01 NOISE

Hearing protection is designed to reduce the level of sound energy reaching the inner ear. Noise induced hearing loss (NIHL) is a progressive disease that occurs over years of exposure to elevated noise environments. It is a not reversible.

To minimize risk to hearing loss all employees shall adhere to the following:

GUIDELINES

Use hearing protection when:

- You cannot carry on a conversation at a normal volume at a distance of 3 feet or less.
- Noise surveys indicate levels exceeding local regulations.
- The requirement is posted.

NOISE MEASUREMENTS
When noise levels appent/Supervisor to ensure noise measurements are taken and appropriate controls are implemented.

NOISE CONTROLS
Anything that affects our abili
Reducing noise at the source is the most effective way to control noise.

HEARING PROTECTION

When noise control is impractical, personal hearing protection must be used. Refer to Section 5 for information on selection of hearing protection.

AUDIO-METRIC TESTING

Procon will perform audio-metric testing in accordanc

11.02 COLD ENVIRONMENTS

Exposure to low temperatures while working in cold environments can have a negative impact on health, if proper precautions are not taken.

HEALTH CONCERNS

Frostbite, fatigue and hypothermia.

PREVENTION

- Protect workers from wind by erecting wind breaks or hoardings.
- Use the "buddy system" to help detect signs of exposure to cold environments
- Breaks should be introduced to allow workers an opportunity to warm up.
- Remove outer clothing to prevent sweating

RECOMMENDED CLOTHING

- Dress in layers provides greater insulation qualities than a few heavy layers. Outer clothing should be water and wind resistant.
- Gloves should be wind resistant with liners that can be replaced when wet.
- Boots must be steel toed, CSA approved and acceptable for winter wear. It is recommended that boots be large enough to accommodate extra layers of socks and have removeable liners that can be dried.
- Head protection should include a hard hat liner or toque.
- If working directly outdoors, face protection in the form of a Bala-clava should be worn to prevent exposed skin from frost bite.

PRECAUTIONS

- Workers with circulatory conditions or diabetes should check with their family doctor before working in cold environments.
- Individuals with a history of frostbite are more prone to re-injury.
- Bulky clothing requires extra care when working near machinery to avoid entanglement.

FIRST AID

If any sign of frostbite appears (waxy are of exposed skin) or shivering becomes difficult to control, proceed indoors and seek medical assistance immediately.

11.03 HOT ENVIRONMENTS

Exposure to hot temperatures can lead to severe dehydration and skin burn if proper precautions are not taken.

HEALTH CONCERNS

- Heat exhaustion, heat cramps and heat stroke
- Sunburn

PREVENTION

- Sunblock
- Portable fans
- Work rest brakes
- Worker rotation from hot to cooler environments
- Adequate cold water intake

CAUTION: DO NOT ADD SALT TABLETS TO WATER

CLOTHING

- Dress in light weight clothing
- Avoid dark coloured clothing (absorbs heat)

FIRST AID

If any signs of heat related illness such as dizziness appear seek medical assistance.

11.04 LIGHTING

Proper lighting can reduce the probability of accidental trips and falls. All workers should ensure that adequate light is in place prior to starting work.

11.05 HOUSEKEEPING

Good safety housekeeping can significantly reduce accidents and injuries in any type of work environment. By developing good safety habits, and by being aware of their work environment and any hazards associated with it, employees can help to create a much safer workplace.

It is the responsibility of all employees to adhere to good housekeeping practices.

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12.00 SAFE WORK PRACTICES AND JOB PROCEDURES

A Safe work practice (SWP) will be developed when the hazards encountered exceed the normal exposure for a specific task, e.g.

Working in an atmosphere where the potential for explosive gases are present.

In the event that a SWP is required, the site safety personnel and / or the site project manager will review the requirements of the SWP with all workers involved in the task. Each worker will sign a sheet indicating that they understand and will comply with the requirements of the SWP.

Job procedures are written administrative controls used to direct work being performed. They describe how to perform a task from start to finish in the correct and safest manner.

Procedures should be developed when a task:

- Requires 5 or more distinct steps to complete.
- Requires the steps to be performed in a specific order or sequence.
- Has complex steps and requires a high degree of skill.
- Has a potential for injury or loss due to one or more critical hazards.

Key points to consider include:

- Procedures must match the scope of work.
- Procedures are only developed for high risk work.
- Procedures are developed with the assistance from workers performing the job/task.
- A related safework practice should accompany every procedure.
- Related safework practices and job procedures must be readily available.

RESPONSIBILITIES

- Compliance to practices and procedures is a condition of employment.
- Supervisors will ensure that SWP's and Job Procedures are created, maintained and readily available for each project.
- SWP's and job procedures must be reviewed and updated as required.
- Critical job procedures and associated practice(s) must be reviewed with crews prior to proceeding with task.
- Supervision will ensure that all SWP's and job procedures are followed.

12.01 DEVELOPMENT

Due to the diversity of Procon operations, it is necessary for each operation to develop and compile Safework Practices and Job Procedures. All SWP's and job procedures must be put into a manual format and be readily available and together with the Health and Safety Manual, Policy Manual & Guidelines and the Hazard Communication Program will collectively comprise of the HEALTH, SAFETY & ENVIRONMENTAL PROGRAM for that project.

Safework Practices and Job Procedures must be developed for all high risk work performed. Safework practices and job procedures are based on hazard assessments and are written by persons experienced in performing the work.

Due to the diversity of circumstances and situations that may occur on specific projects, the SWP's and job procedures must not be considered complete or applicable for every project. Factors affecting the suitability of Safework Practices and Job Procedures, such as, client requirements, local government legislation, and/or Project specific conditions may dictate the modifications to a specific job procedure may be necessary.

References to completing a safe work practice (procedure) can be found in Procon's Hazard Communication Program.

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13.00 SUBCONTRACTOR MANAGEMENT

All firms contracted by Procon are employers and therefore have responsibilities as described in Procon's Health, Safety Program Section 1.05.

As an employer Procon is also responsible for providing a safe and healthy work environment for its workers and subcontract workers.

13.01 SUBCONTRACTOR EXPECTATIONS

It is expected that subcontractors will:

1. Meet or exceed all applicable federal, provincial/state, and local government HS&E regulations and Procon's Health, Safety and Environmental Standards.
2. Provide their workers with the necessary personal protective equipment and training.
3. When requested by Procon, submit a comprehensive safety and health program for the specific contract undertaken.
4. Comply with all applicable federal, provincial/state, and local government regulations and Procon requirements, with violation being grounds for contract termination.
5. Meet or exceed Procon's prequalification guidelines.
6. All subcontractors must have a valid Worker's Compensation Board (WCB) account in good standing.

13.02 SUBCONTRACTOR RESPONSIBILITIES

A firm or individual contracted to Procon is responsible for meeting all contractual agreements and for providing a safe and healthy workplace for its workers.

1. Provide for regular safety inspections of subcontractor work-sites, materials and equipment.
2. Notify Project Management of all incidents, near-misses or accidents immediately.
3. Notify Project Management immediately of non-conformance to HS&E standards (both legislative and contractor).
4. Cooperate with Procon HS&E efforts.
5. Attend all scheduled weekly, monthly or special site meetings.

SUBCONTRACTOR HEALTH, SAFETY & ENVIRONMENTAL PROGRAM
When required by subcontract, the subcontractor must develop and implement a comprehensive Health, Safety & Environmental Program for it's workers which covers all aspects of the scope of work and activities associated with the contract. This program must comply with all applicable HS&E regulations.

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14.00 MODIFIED WORK PROGRAM

14.00 MODIFIED WORK PROGRAM

Procon will provide a light duty (modified work) program for its workers who have been injured while on the job.

The primary purpose of this policy is to assist worker(s) in rehabilitation resulting from an occupational injury or illness by making light duties available where practical.

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15.00 SAFETY RECOGNITION PROGRAM

15.00 SAFETY RECOGNITION PROGRAM

Safety is of paramount importance to Procon in all our corporate activities. Recognition of workers who make positive contributions to Procon's Health, Safety and Environmental performance underlines our commitment to the protection of all.

Working and operating safely is the responsibility of all employees.

The safety bonus appears on an employees pay statement as a separate line item for each pay period. The safety bonus represents ten percent of the employee's normal production bonus and is calculated each pay period based on the number of Medical Aids or Loss Time Accidents during the period. The factors affecting the Safety Bonus are as follows:

For a Medical Aid

- In the event of an accident requiring medical aid (i.e. a visit to a Doctor or clinic where an invoice will be generated to the WCB and no loss time occurs) the person incurring the Medical Aid will have their Safety Bonus reduced to zero and their production bonus reduced by two percent.
- 500 Safety Hours will be deducted from accumulated safety hours.
- The remainder of the crew on site will have their Safety Bonus reduced by two percent.

For a Loss Time Accident

- In the event of a Loss Time Accident, the person incurring the Loss Time Accident will have their safety bonus reduced to zero and their production bonus reduced by five percent.
- Accumulated safety hours will be reset to zero.
- The remainder of the crew on site will have their Safety Bonus reduced by five percent.

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RECORDS AND STATISTICS

16.01 FIRST AID RECORDS

All injuries that receive first aid treatment shall be recorded in a first aid attendant's record book. A copy of first aid treatment activity will be forwarded to the Safety department.

16.02 HS&E INVESTIGATION REPORTS

Accident/Incident/Near-Misses/Investigation Reports must be completed as soon as possible after the event. Procon Safety Department is to be notified immediately on all investigation matters.

16.03 INSPECTION REPORTS

All inspection reports are to be completed with copies forwarded to Procon Safety Department on a monthly basis.

16.04 SAFETY/WORKSITE HEALTH, SAFETY & ENVIRONMENTAL MEETINGS MINUTES

All meeting minutes require attendee's to sign off at the completion of each meeting. Copies to be forwarded to Procon Safety Department.

16.05 TRAINING RECORDS

All employees regardless of experience must be certified to operate all company equipment. All orientation, testing and competency evaluations must be submitted to Procon Safety Department upon completion. All current certifications, trade tickets, restricted licenses must be recorded with photocopies of said retained at Procon Corporate.

16.06 SUMMARIES AND STATISTICS

Summaries and statistics are calculated to the following recognized standard on a monthly basis.

Injury Frequency Rate No. of Recordable Cases x 200,000 / Man Hours Worked

Lost-Time Injury Frequency Rate LTA's x 200,000 / Man Hours Worked

Severity Rate No. of Lost Days x 200,000 / Man Hours Worked

Appendix B

Hazard Communications Program
Procon Mining and Tunneling Ltd.

Procon

Hazard Communication Program

SAFETY NOW, SAFETY ALWAYS

Hazard Recognition Mission Statement

The Hazard Communication Program conveys to all employees the potential hazards that may be present in their respective workplaces. It is Procon Group's policy to ensure that all employees are provided with the necessary knowledge and training to recognize and report all potential workplace hazards.

It is the responsibility of all persons employed within the Procon Group of Company's to maintain a proactive approach to their and their fellow workers safety. Recognizing and reporting all known or observed hazards is a fundamental responsibility of all employees.

The Procon Group of Companies will continuously strive to provide all employees with current information and training so that all employees remain current in their knowledge and safe work practices.

James White, DOHS
Corporate Safety Officer
Procon Group of Companies

Table of Contents

Workplace Hazardous Materials Information System

In 1988, WHMIS (Workplace Hazardous Materials Information System) legislation came into effect across Canada. It is designed to protect the health and safety of workers through the provision of information about hazardous materials on the job.

Right to Know

WHMIS gives everyone the right to know about the hazards of materials they work with and provides the means to find out that information. It does this through labels, material safety data sheets (MSDSs), and worker training and education.

Hazardous Materials

Materials covered under WHMIS include six classes. Each class has its own symbol, which must appear on the supplier label so the hazard is easily identified.

Class A.
Compressed gas (eg. Acetylene, nitrogen, oxygen)

Class B.
Flammable and combustible materials (e.g. solvents)

Class C. Oxidizing materials

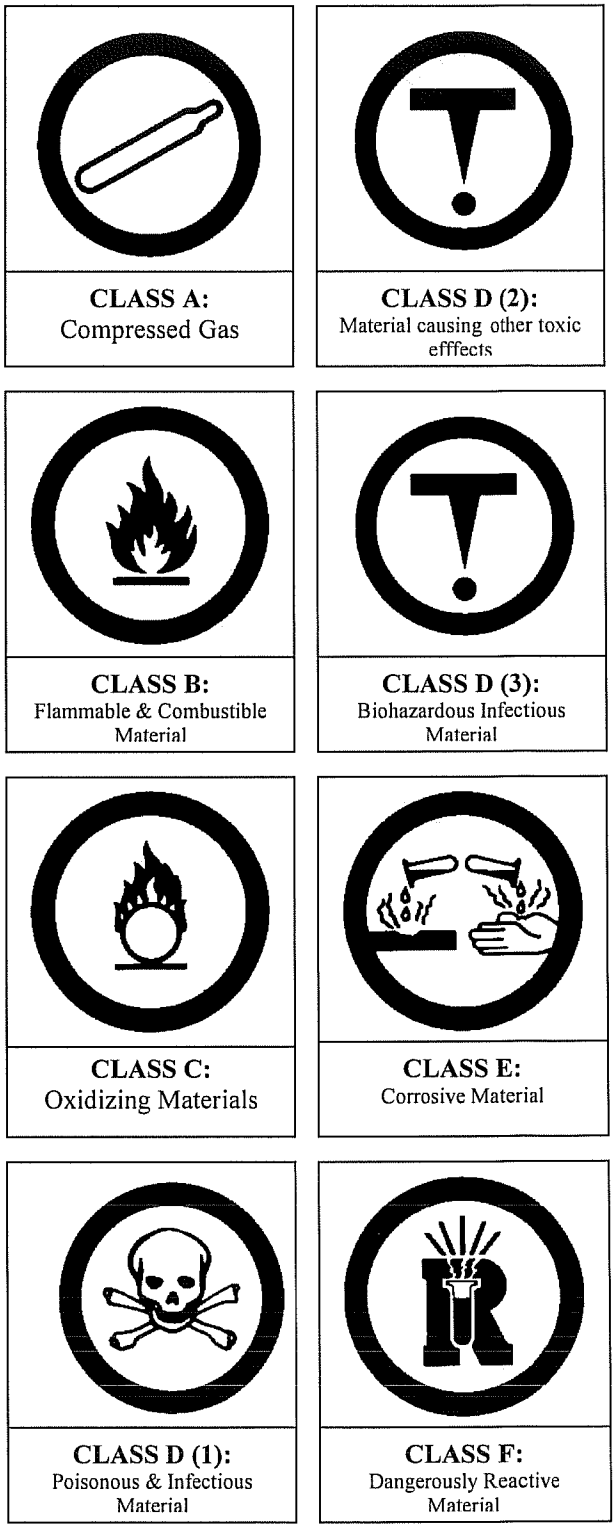
Class D. Poisonous and infectious material.

Division 1:
Immediate and serious toxic effects (e.g., carbon monoxide gas)
Division 2:
Other toxic effects (e.g. silica)
Division 3:
Biohazardous infectious material

Class E. Corrosive material (e.g. acids, & alkalis)

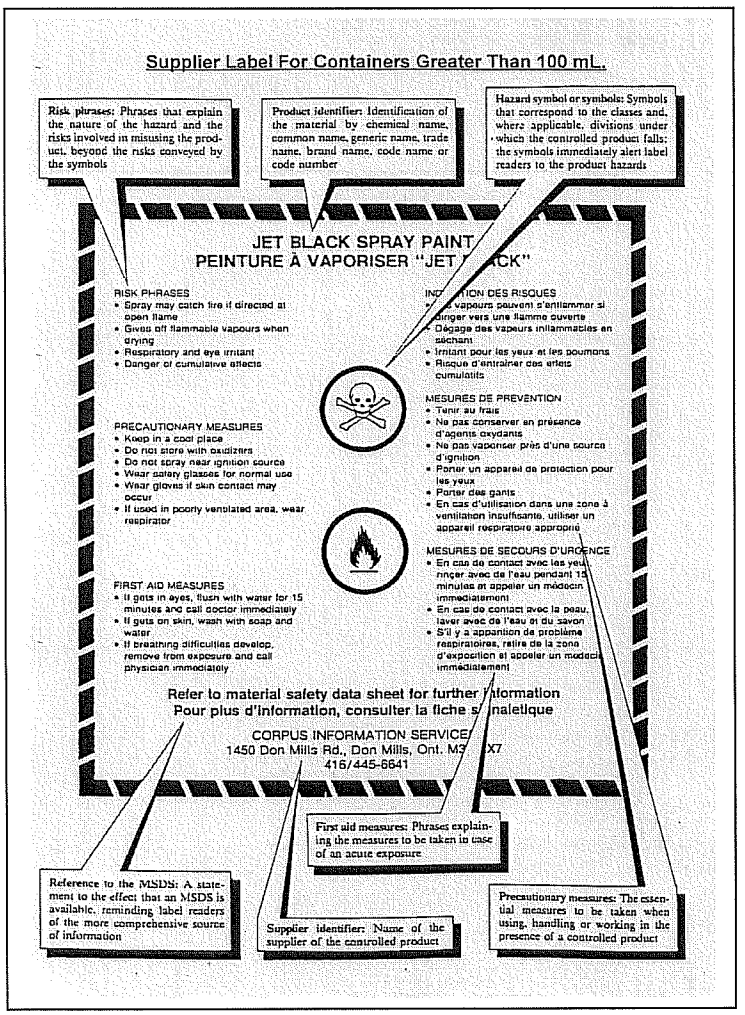
Class F. Dangerously reactive material (e.g. acetylene)

HAZARD SYMBOLS



Labels

WHMIS labels help workers recognize that a product may be hazardous to their health. Hazardous products used in the workplace are required to have WHMIS supplier labels. These are readily identified by their cross-hatched border and must contain information on the health hazards and safe handling, as well as other data. If material is transferred from the original container to another container, workplace labels must be used.



The **Supplier Label** serves three purposes:

1. Identifies the chemical
2. Tells the user whether the product is a controlled product (symbols)
3. Provides safe handling information (risk phrases, precautionary statements & first aid measures)

The supplier label must also provide supplier information (name, address and emergency telephone number) and reference the user to the Material Safety Data Sheet.

Workplace Labels are provided by your employer. They show:

- the name of the product
- how to protect yourself from the hazards
- that more information is in the Material Safety Data Sheets (MSDS)

When you take any hazardous material out of its original (supplier) container and put it into another container, a workplace label must be attached to the new container.

Workplace labels are also placed on containers used to store hazardous materials made at the workplace.

The workplace label has no special border.

Worker Training and Education

WHMIS education should equip all workers to recognize hazardous products and use proper controls. Only then can everyone work safely with, or near hazardous materials in the workplace.

Self Test

1. The purpose of WHMIS is to provide information on:

a. using and storing workplace hazardous materials
b. storing workplace hazardous materials
c. handling hazardous materials
d. all of the above

2. Hazardous materials include:

a. materials which are toxic, corrosive or dangerously reactive
b. materials which are flammable or combustible
c. compressed gases
d. all of the above

3. List the three main elements of WHMIS:

a._____
b._____
c._____

4. WHMIS supplier labels:

a. act as a warning to alert workers to the hazards of using a given hazardous product
b. have a distinctive slashed border
c. must be in both English and French
d. all of the above

5. The worker is responsible for attaching supplier labels to producs.

True___, False___

6. Place a checkmark beside the following information that must be contained on a supplier label:

___ the identity of the product
___ the date the product was shipped
___ hazard symbols
___ supplier/manufacturer name, address
___ a list of those workers who may use the product safely
___ first aid directions
___ precautions and storage instructions

___ a statement absolving the manufacturer of responsibility for accidents resulting from the use of the product
___ reference to MSDS

7. Workplace labels are required when:
a. the product is transferred from its original container
b. when a bulk shipment arrives without a supplier label
c. if the material is produced on site
d. all of the above

8. Workplace labels must contain the product's identity, information on safe handling and the availability of MSDS.
True___, False___

9. Which of the following are classes of hazardous products:
a. Flammable and combustible material
b. Poisonous and infectious material
c. Perfectly safe to use material
d. Oxidizing material
e. Corrosive material
f. Always fatal material
g. Dangerously reactive material
h. Compressed gas

10. Employer responsibilities under WHMIS include ensuring:
a. that products are properly labeled and workers are trained in their safe use
b. that all controlled products have an MSDS available for employee review
c. that the Joint Health and Safety Committee or Health and Safety representative be consulted concerning the training program
d. all of the above

11. If a worker finds a product with a torn or illegible label, or if it has no label, they must:
a. report it to their supervisor
b. call the supplier immediately
c. consider the product is safe to use
d. call 911 and leave the building

12. MSDSs must be prepared for all hazardous products and updated every 3 years.
True___, False___

13. Employers must supply WHMIS training only to those workers who are exposed to hazardous materials on a daily basis:
True___, False___

14. Who is responsible for enforcing WHMIS:

a. Ministry of Labour Inspectors
b. The Fire Marshall
c. The Disease Control Institute
d. The Employer

Material Safety Data Sheets (MSDSs)

MSDSs provide detailed information about the product, including the following:

- Product Information
- Hazardous Ingredients
- Physical Data
- Fire and Explosion Data
- Reactivity Data
- Toxicological Properties
- Preventative Measures
- First Aid Information
- Preparation Information (name and phone number of party preparing the MSDS and date of preparation.

MATERIAL SAFETY DATA SHEET (MSDS)

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT IDENTIFICATION AND USE

ODUCT IDENTIFIER ⇨ Sodium hydroxide, Caustic soda	PRODUCT IDENTIFICATION NUMBER (PIN) S-318
ODUCT USE ⇨	

NUFACTURER'S NAME La Bell Industries		SUPPLIER'S NAME Omega Chemicals	
REET ADDRESS 18 Rue LeJour		STREET ADDRESS P.O. Box 1989	
TY Montreal	PROVINCE Quebec	CITY Sumware	PROVINCE Ont.
STAL CODE MON 0C0	EMERGENCY TELEPHONE NO. (522) 555-4433	POSTAL CODE C1H 2O1	EMERGENCY TELEPHONE NO. (416) 555-4321

SECTION 2 - HAZARDOUS INGREDIENTS

ZARDOUS INGREDIENTS	%	CAS NUMBER	LD_{50} OF INGREDIENT (Specify species & route)	LD_{50} OF INGREDIENT (Specify species)
dium Hydroxide	96	1310-73-2		
dium Carbonate (Na_2CO_3)	0.5-2.5			
dium Chloride (NaCl)	0.0-2.1			
dium Sulphate (Na_2CO_3)	0.02-0.1			
tassium, Calcium, and Magnesium	0.1			
dium Dioxide (SiO_2)	0.03			
her Metals (total)	0.01			

SECTION 3 - PHYSICAL DATA

YSICAL STATE Other	ODOUR AND APPEARANCE White/off-white odourless, hygroscopic			ODOUR THRESHOLD (ppm) odourless
POUR PRESSURE m Hg) Not appl.	VAPOUR DENSITY (AIR = 1) Not appl.	EVAPORATION RATE Non-volatile (= 1 for ether)	BOILING POINT (°C) 1388°C	MELTING POINT (°C) 318°C
Not appl.	SPECIFIC GRAVITY 2.13	COEFF. WATER/OIL DIST. Not appl.		

SECTION 4 - FIRE AND EXPLOSION DATA

AMMABILITY
S ☐ NO ☒ IF YES, UNDER WHICH CONDITIONS? ⇨

EANS OF EXTINCTION Although it is non-combustible, it can be hazardous in a fire area. The following should be known for fire fighting: 1) it can melt and flow when heated (mp 318°) 2) ot or molten material can react violently with water (splattering). 3) Can react with certain metals, such as luminum to generate flammable hydrogen gas.

ASHPOINT (°C) AND METHOD Not flammable	UPPER FLAMMABLE LIMIT (% BY VOLUME) Not flammable	LOWER FLAMMABLE LIMIT (% BY VOLUME) Not flammable
UTOIGNITION TEMPERATURE (°C) Not flammable	HAZARDOUS COMBUSTION PRODUCTS Not flammable	
PLOSION DATA ⇨ SENSITIVITY TO IMPACT Not appl.	SENSITIVITY TO STATIC DISCHARGE Not appl.	

SECTION 5 - REACTIVITY DATA

EMICAL STABILITY
S ☒ NO ☐ IF NO, UNDER WHICH CONDITIONS? ⇨

COMPATIBILITY WITH OTHER SUBSTANCES
ES ☒ NO ☐ IF SO, WHICH ONES ⇨ Strong acids, many organic compounds, leather, wool, aluminum, zinc, and tin.

EACTIVITY, AND UNDER WHAT CONDITIONS Slowly picks up moisture and CO_2 from the air to form Sodium carbonate

AZARDOUS DECOMPOSITION PRODUCTS None

PRODUCT IDENTIFIER

SECTION 6 - TOXOLOGICAL PROPERTIES

ROUTE OF ENTRY

SKIN CONTACT X SKIN ABSORPTION X EYE CONTACT X INHALATION X INGESTION X

EFFECTS OF ACUTE EXPOSURE TO PRODUCT Damage to any human tissue particularly skin, eyes, and respiratory tract.

EFFECTS OF CHRONIC EXPOSURE TO PRODUCT Dust and mist can cause damage particularly to the respiratory tract.

EXPOSURE LIMITS	IRRITANCY OF PRODUCT	SENSITIZATION TO PRODUCT	CARCENOGENICITY
2 mg/m^3 Ceiling limit.	Causes burning sensation	Not known	Not listed
TERATOGENICITY	**REPRODUCTIVE TOXICITY**	**MUTAGENICITY**	**SYNERGISTIC PRODUCTS**
Not known	Not known	Not listed	Reacts violently when molten

SECTION 7 - PREVENTATIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT

GLOVES (SPECIFY)	RESPIRATOR (SPECIFY)	EYE (SPECIFY)
rubber, polyethylene	filter type	goggles, face shield
FOOTWEAR (SPECIFY) rubber boots where needed to prevent contact	**CLOTHING (SPECIFY)** rubber apron where needed to prevent contact	**OTHER (SPECIFY)** Lab coat, overalls

ENGINEERING CONTROL (SPECIFY E.G., VENTILATION, ENCLOSED PROCESS) local exhaust

LEAK AND SPILL PROCEDURE When spilled in a dry condition, it can be promptly shovelled up for recovery or disposal. Flush surfaces with water, neutralize with diluted acid (vinegar).

WASTE DISPOSAL Disposal must meet with local requirements. Waste must *never* be discharged directly into sewers or surface waters. (Neutralize and dilute with much water!

HANDLING PROCEDURES AND EQUIPMENT

STORAGE REQUIREMENTS Store in well-sealed containers, have abundant water (running preferred) at hand.

SPECIAL SHIPPING INFORMATION This material is classified as **Corrosive**

SECTION 8 - FIRST AID MEASURES

SPECIFIC MEASURES

Eye Contact: Wash eyes immediately with plenty of running water for no less than 15 min. (including under the eyelids). Speed is important to avoid permanent injury. If one eye is injured, keep the injured eye at a lower level to avoid contaminating the uninjured eye.

Skin Contact: Wash contact area promptly with much water. (Dilute acetic acid, vinegar, can be used to neutralize). Remove contaminated clothing under the shower. Prolong washing until medical help arrives.

Inhalation: Remove from exposure to mist or dust and get prompt medical help.

Ingestion: Immediately phone 911 and ask for poison treatment. Describe the chemical that has been swallowed, and follow the advise of emergency personnel.

SECTION 9 - PREPARATION DATE OF MSDS

PREPARED BY (GROUP, DEPARTMENT, ETC.)	PHONE NUMBER	DATE

USING THE MSDS ON THE PREVIOUS PAGES, REVIEW AND ANSWER THE FOLLOWING QUESTIONS:

1. What personal protective equipment is required to use this product?

2. What materials should you avoid when using this product?

3. What are the storage requirements for this product?

4. What are the effects of this product on the eyes, skin?

5. What are the chronic effects of exposure to this product?

6. What emergency & first aid procedures are required should this product make contact with the skin?

7. How should this product be handled?

Transportation of Dangerous Goods

The "Transportation of Dangerous Goods" (TDG) has been written to provide information to people who handle and transport dangerous goods, or who respond to emergencies involving dangerous goods.

The Transportation of Dangerous Goods Regulations state that everyone who "handles, offers for transport or transports" dangerous goods must be trained and certified. The penalties for failing to obey these regulations are severe:

- Fines of up to $50,000 for the first offence, and up to $100,000 for further offences
- Jail terms of up to years
- Tickets may be issued for some offences, bring fines of up to $1000

Anyone involved can be charged from the president to a part-time worker!

Everyday employees handle controlled products that fall under both the WHMIS program and Transportation of Dangerous Goods.

Classification

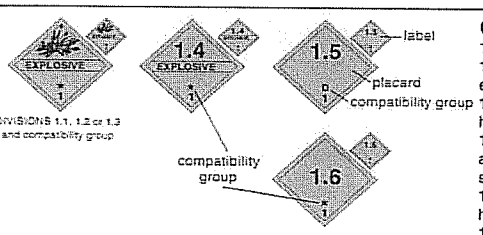
The Transportation of Dangerous Goods Act divides dangerous goods into nine classes according to the type of danger they present. Some of these classes are further divided into divisions which are also associated with hazard characteristics.

Transport Canada Surface Dangerous Goods
Transports Canada Surface Marchandises dangereuses

LABELS AND PLACARDS

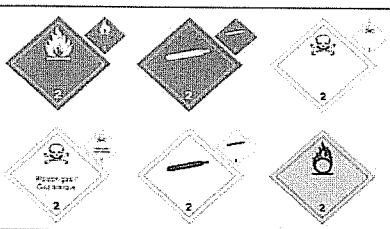
TP 11504E

The Marks of Safety



Class 1 - Explosives

1.1 - A substance or article with a mass explosion hazard.
1.2 - A substance or article with a fragment projection hazard, but not a mass explosion hazard.
1.3 - A substance or article which has a fire hazard along with either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard.
1.4 - A substance or article which presents no significant hazard; explosion effects are largely confined to the package and no projection or fragments of appreciable size or range are to be expected.
1.5 - A very insensitive substance which nevertheless has a mass explosion hazard like those substances in 1.1.
1.6 - An extremely insensitive substance which does not have a mass explosion hazard.

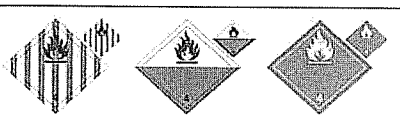


Class 2 - Gases

2.1 - A flammable gas.
2.2 - A non-flammable, non-poisonous, non-corrosive gas.
2.3 - A poisonous gas.
2.3 - Canada - U.S. transborder shipments and special poisonous gases.
2.4 - A corrosive gas.
2.2 (5.1) - Oxygen only (mixed load).

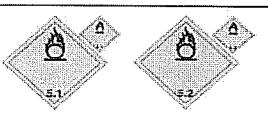
Class 3 - Flammable Liquids

A liquid with a closed-cup flash point of not greater than 61°C.



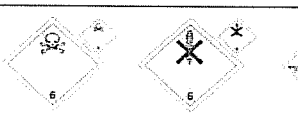
Class 4 - Flammable Solids; Substances liable to spontaneous combustion; Substances that on contact with water emit flammable gases (water-reactive substances)

4.1 - A solid that under normal conditions of transport is readily combustible or would cause or contribute to fire through friction or from heat retained from manufacturing or processing or is a self-reactive substance that is liable to undergo a strongly exothermic reaction, or is a desensitized explosive that is liable to explode if they are not diluted sufficiently to suppress their explosive properties.
4.2 - A substance liable to spontaneous combustion under normal condition of transport, or when in contact with air, liable to spontaneous heating to the point where it ignites.
4.3 - A substance that, on contact with water emits dangerous quantities of flammable gases or becomes spontaneously combustible on contact with water or water vapour.



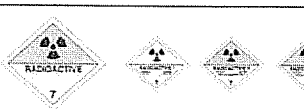
Class 5 - Oxidizing Substances and Organic Peroxides

5.1 - A substance which causes or contributes to the combustion of other material by yielding oxygen or other oxidizing substances whether or not the substance itself is combustible.
5.2 - An organic compound that contains the bivalent "-O-O-" structure which is a strong oxidizing agent and may be liable to explosive decomposition, be sensitive to heat, shock or friction, react dangerously with other dangerous goods or may cause damage to the eyes.



Class 6 - Poisonous Substances and Infectious Substances

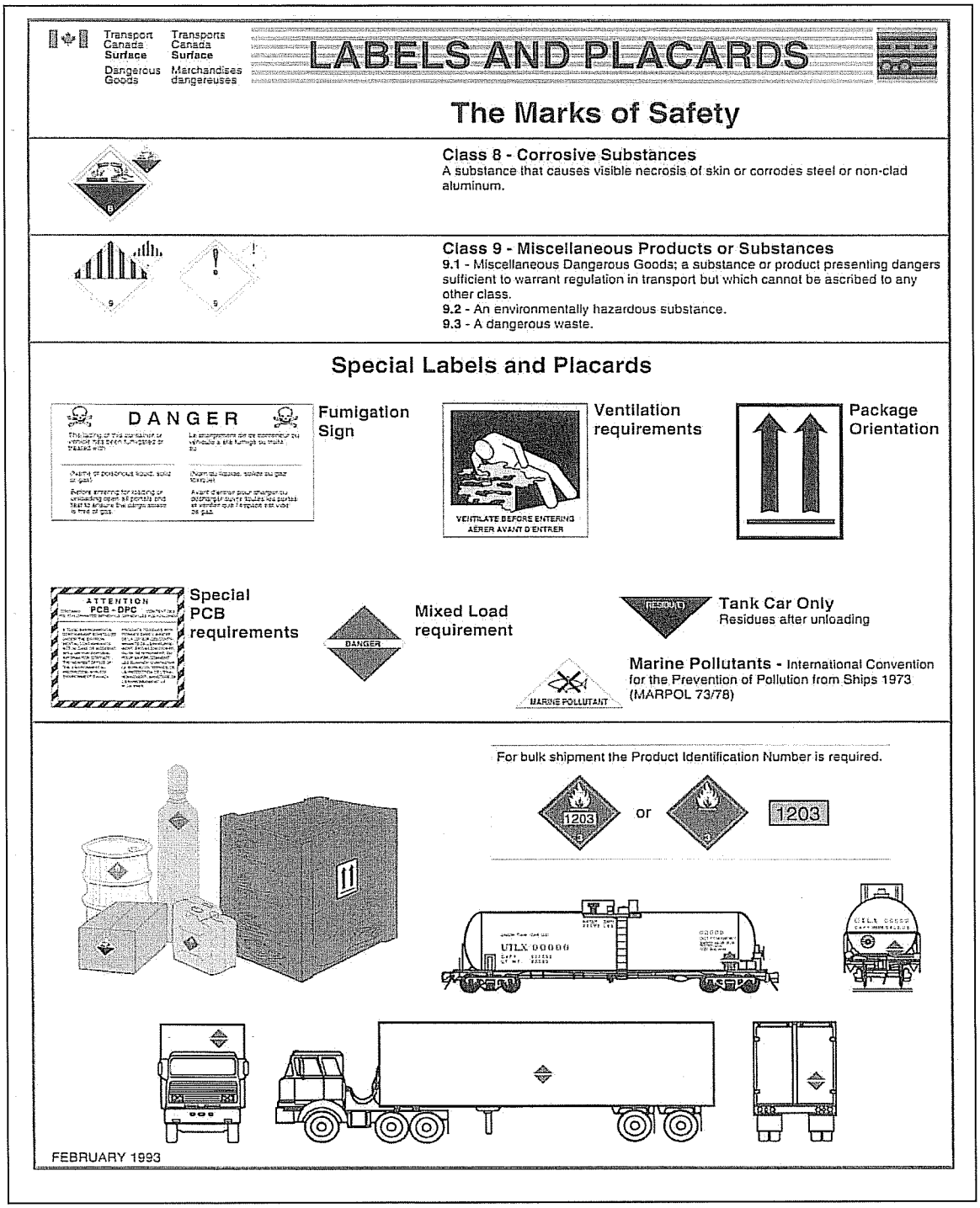
6.1 - A solid or liquid that is poisonous through inhalation of its vapours, by skin contact or by ingestion.
6.2 - Organisms that are infectious or that are reasonably believed to be infectious to humans or to animals.



Class 7 - Radioactive Materials

Radioactive materials within the meaning of the Atomic Energy Control Act with activity greater than 74 kBq/kg.

Canada



Safety Marks

Safety marks communicate by colour and symbol the degree and nature of the hazard of dangerous goods. These safety marks are displayed on containers, packages, tanks, cylinders and on transport units. There are four groups of safety marks: labels, placards, signs and other safety marks. Labels indicate the primary classification of dangerous goods. Unless otherwise specified, they must be applied to every small container, package and cylinder that contains dangerous goods.

SAFE WORK PROCEDURES

It is the policy of The Procon Group of Companies to eliminate and/or minimize workers exposures to harmful workplace hazards. Developing safe work procedures to meet project environments with client input establishes a core of understanding and responsibility between all parties to ensure that workers exposures are minimized and preferably eliminated.

When assigned specific work tasks that have established safe work procedures, it is required that supervisors and/or safety trainers review all the components of the safe work plan with the workers and ensure that the worker clearly understands the task, recognizes the hazards and plans the task.

On the following pages are two Safe Work Procedures, one is a blank and the other has been developed and are included as examples. Each project manager, supervisor and/or safety trainer will orientate each worker on safe work procedures on their specific project.

FIVE POINT SAFETY PROGRAM

In addition to supporting safe work procedures, it is mandatory that all project employees adhere too, follow and participate in the five point safety system. Samples of the five point safety system can be found after the Safe Work Procedure presentations.

SAFE WORK PLAN (SAMPLE)

SITE/PROJECT/OPERATION:	DeBeers Canada Mining / KeTe Whii Procon		
LOCATION:	Snap Lake Diamond Project		
JOB TYPE:		**START DATE:**	**FINISH DATE:**
JOB LOCATION:	Underground Operation		

DESCRIPTION OF JOB:

TASK No.	TASK DESCRIPTION	HAZARD	RISK LEVEL	CONTROLS

SUPERVISOR RESPONSIBLE: Ron Koebel		
APPROVED BY:		
DATE SUBMITTED	**DATE APPROVED:**	**VALID UNTIL:**

SAFE WORK PLAN

SITE/PROJECT/OPERATION:	Ke TE Whii / Procon # 014		
LOCATION:	Snap Lake Diamond Project		
JOB TYPE:	Transfer Fuel	**START DATE: 22-05-04**	**FINISH DATE: 23-05-04**
JOB LOCATION:			

DESCRIPTION OF JOB:

TASK No.	TASK DESCRIPTION	HAZARD	RISK LEVEL	CONTROLS
1	Prepare to transfer fuel form a 1000l tank to 205l barrels	Slips and falls	2	Have the area free from all tripping and slipping hazards, use proper PPE in good condition
2	Transfer fuel using a 12 volt barrel pump	Spill	3	Ensure that all precautions have been taken to prevent a spill, have oil absorbent pads ready and placed around the transfer area
3	Label and move barrels to the used oil storage area	Falling object	2	Barrels are to be on a pallet and strapped together, all appropriate labelling on each barrel, the load to be tied back to the forks of the loader

SUPERVISOR RESPONSIBLE:		
APPROVED BY:		
DATE SUBMITTED:	**DATE APPROVED:**	**VALID UNTIL:**

FIVE POINT SAFETY SYSTEM

The "Five Point Safety System" is designed to provide a simple mental check list to review each time an employee moves to or enters a work place.

PROCON

SAFETY SYSTEM

Employee Name_____ Date _____

Working Place_____ Shift _____

1. Is the entrance to the W.P. in good order? Yes ☐ No ☐
2. Are W.P. and equipment in good order? Yes ☐ No ☐
3. Can I continue to work safely? Yes ☐ No ☐

If "No" is answered to any of above, explain what is unsafe.

_____

_____

_____

What corrective actions were taken? _____

_____

PLEASE PRINT (Over)

(TO BE COMPLETED AT WORKING PLACE)

4. Act of Safety _____

_____

_____

5. Can and will men continue to work properly? Yes ☐ No ☐

   Did I apply all 5 points to the Safety System? Yes ☐ No ☐

   Can I do something to stop accidents? Yes ☐ No ☐

   If "No" explain why _____

_____

_____

_____

Supervisor_____

PLEASE PRINT

It is mandatory that the five point safety card is completed at the beginning of each shift and submitted directly to the supervisor.

JOB HAZARD ASSESSMENTS

Job hazard assessment is a systematic process for identifying hazards and eliminating or minimizing their risks.

Job hazard assessments break down a job or activity into basic steps and examine each step for potential hazards. For more complex tasks, the task is broken down into several activities or sub-steps. For each hazard identified, a means of eliminating or controlling the hazard must be identified.

Follow these basic steps to complete a job hazard assessment:

A. Basic Job Steps: List the steps necessary to accomplish the job in the order you would do them.
B. Hazards: List the tools, equipment, materials, or chemicals used for each job step, and the environment they will be used in. List the conditions or events which could cause injury, illness, property loss for each step.
C. Safe Job Procedures: List the actions, controls, protective clothing or equipment that will eliminate or reduce the hazards identified in each step.

Attached on the following page is an example of a Job Hazard Assessment.

It is best to use job hazard assessments when creating standard operating procedures.

Job Hazard Analysis Assessment for PPE:

Instructions

1. **Conduct a walk through survey of your work area.** For each job/task step, note the presence of any of the following hazard types (see table below), their sources, and the body parts at risk. Fill out the left side of the hazard assessment form. Gather all the information you can.
   - Look at all steps of a job and ask the employee if there are any variations in the job that are infrequently done and that you might have missed during your observation.
   - For purposes of the assessment, assume that no PPE is being worn by the affected employees even though they may actually be wearing what they need to do the job safely.
   - Note all observed hazards. *This list does not cover all possible hazards that employees may face or for which personal protective equipment may be required.* Noisy environments or those which may require respirators must be evaluated with appropriate test equipment to quantify the exposure level when overexposure is suspected.

Hazard Type	General Description of Hazard Type
Impact	Person can strike an object or be struck by a moving or flying or falling object.
Penetration	Person can strike, be struck by, or fall upon an object or tool that would break the skin.
Crush or pinch	An object(s) or machine may crush or pinch a body or body part.
Harmful Dust	Presence of dust that may cause irritation, or breathing or vision difficulty. May also have ignition potential.
Chemical	Exposure from spills, splashing, or other contact with chemical substances or harmful dusts that could cause illness, irritation, burns, asphyxiation, breathing or vision difficulty, or other toxic health effects. May also have ignition potential.
Heat	Exposure to radiant heat sources, splashes or spills of hot material, or work in hot environments.
Light (optical) Radiation	Exposure to strong light sources, glare, or intense light exposure which is a by-product of a process.
Electrical Contact	Exposure to contact with or proximity to live or potentially live electrical objects.
Ergonomic hazards	Repetitive movements, awkward postures, vibration, heavy lifting, etc.
Environmental hazards	Conditions in the work place that could cause discomfort or negative health effects.

2. **Analyze the hazard.** For each job task with a hazard source identified, use the Job Hazard Analysis Matrix table and discuss the hazard with the affected employee and supervisor. Fill out the right side of the hazard assessment form:
   - Rate the SEVERITY of injury that would *reasonably* be expected to result from exposure to the hazard.
   - Rate the PROBABILITY of an accident actually happening.
   - Assign a RISK CODE based upon the intersection of the SEVERITY and PROBABILITY ratings on the matrix.

Job Hazard Analysis Matrix						
Severity of Injury		Probability of an Accident Occurring				
Level	Description	A Frequent	B Several Times	C Occasional	D Possible	E Extremely Improbable
I	Fatal or Permanent Disability	1	1	1	2	3
II	Severe Illness or Injury	1	1	2	2	3
III	Minor Injury or Illness	2	2	2-3	3	3
IV	No Injury or Illness	3	3	3	3	3

Risk Priority		
Code	**Risk Level**	**Action Required**
1	**High**	Work activities must be suspended immediately until hazard can be eliminated or controlled or reduced to a lower level.
2	**Medium**	Job hazards are unacceptable and must be controlled by engineering, administrative, or personal protective equipment methods as soon as possible.
3	**Low**	No real or significant hazard exists. Controls are not required but may increase the comfort level of employees.

3. **Take action on the assessment.** Depending on the assigned Risk Level/Code (or Risk priority), take the corresponding action according to the table above:
   - If Risk priority is LOW (3) for a task step → requires no further action.

     Note: If you assign a risk code of 3, be sure that there isn't an OSH standard that requires specific protection be provided.
   - If Risk priority is MEDIUM (2) → select and implement appropriate controls.
   - If Risk priority is HIGH (1) → immediately stop the task step until appropriate controls can be implemented.

     A high risk priority means that there is a reasonable to high probability that an employee will be killed or permanently disabled doing this task step and/or a high probability that the employee will suffer severe illness or injury!

4. **Select PPE:**
   - Try to reduce employee exposure to the hazard by first implementing engineering, work practice, and/or administrative controls. If PPE is supplied, it must be appropriately matched to the hazard to provide effective protection, durability, and proper fit to the worker. Note the control method to be implemented in the far right column.

5. **Certify the hazard assessment:**
   - Certify on the hazard assessment form that you have done the hazard assessment and implemented the needed controls.
   - Incorporate any new PPE requirements that you have developed into your written accident prevention program.

Job Hazard Analysis for Personal Protective Equipment (PPE) Assessment

Job/Task: _____ Location: _____

Job/Task Step	Hazard Type	Hazard Source	Body Parts At Risk	Severity	Probability	Risk Code	Control Method[1]

(1) Note: Engineering, work practice, and/or administrative hazard controls such as guarding must be used, if feasible, before requiring employees to use personal protective equipment.

Certification of Assessment

***Location of work place:** _____ ***Address** _____

***Assessment Conducted By:** _____ Title: _____ ***Date(s) of Assessment** _____

Implementation of Controls Approved By: _____ Title: _____ Date: _____

In order to minimize potential hazards on Procon project's, site specific employee orientation programs are developed with client participation to identify and minimize worker exposures to known site hazards.

When and where necessary site specific procedures are integrated into each project employee orientation program and introduced to employees prior to the commencement of their scheduled shifts.

On the following pages are examples of a Procon employee orientation program and sample site specific procedure introduced within the orientation program. Each project will develop their own Employee Orientation Program to address their site specific requirements.

PROCON INDUSTRIAL
EMPLOYEE ORIENTATION

Employee Name _____
Date _____

CATEGORY	STATUS	INITIALS
1. Employee qualification and certification		
2. Site Emergency Procedures		
3. First Aid station location		
4. First Aid treatment and reporting of injuries		
5. Site Layout and Procedures		
6. Equipment washing location and procedures		
7. Equipment Operator Reports and Lockout Procedure		
8. Requirement to Adhere to the Federal Health and Safety Regulations		
9. Personal protective equipment		
10. Explanation of the W.H.M.I.S Program		
11. Environmental protection and requirements		
12. Procon Safety Manual (Acknowledgement sent to Burnaby)		
13. Training Requirements		
14. Specific Site Hazards		

This employee has been checked out by the Mechanical Dept and is Qualified to Operate the following equipment._____

_____

_____

_____

Employee Signature _____
Date _____

Supervisor Signature _____
Date _____

COMMENTS

_____

_____

_____

_____

_____

Example of Site Specific Procedure introduced in Employee Orientation Program, Snap Lake Diamond Project

KeTe Whii/ Procon

SUBJECT: BARRICADE'S FOR MANWAYS, DRIFTS, RAISES & OPEN HOLES
Prepared By: R McPherson – Superintendent Safety & Training

1.0 Objective

To prevent inadvertent access into manway, drifts and raises which may contain one or any combination of the following hazards

i) contaminated or oxygen deficient atmosphere (unventilated areas);
ii) hazardous ground conditions;
iii) open hole conditions.

2.0 Scope

This procedure is to be followed by all underground employees and contractors, as well as any other person who goes below the collar at the Snap Lake Mine.

3.0 Legal Requirements

The following regulations pertain to this procedure.

1.65 The manager shall ensure that any area of a mine that is not being ventilated is
a) effectively barricaded to prevent inadvertent access;
b) posted with signs to warn persons that entry is prohibited; and
c) examined by an authorized person before any person is permitted to enter that part of the mine to determine
i) oxygen content,
ii) the presence of toxic or noxious gases, fumes, vapours, mist or dust, and
iii) any other dangerous condition.

1.66 The manager shall ensure that the authorized person who is to carry out the examination referred to in paragraph 1.65 (c) is provided with instructions in writing setting out
a) the hazard involved;
b) the use of testing equipment required;
c) the personal protective equipment he or she is required to use or wear; and
d) any other precautions and procedures to be taken for his or her protection.

4.0 Responsibilities

I. It is the responsibility of management to ensure that all relevant personnel know, and understand and comply with this procedure.

II. It is the responsibility of the underground front line supervisor to ensure that any closure of a manway, drift or raise under their jurisdiction meets the standards as outlined in this procedure.

III. It is the responsibility of the worker, once informed, to comply with the standards as outlined.

5.0 Definitions

Permanent Barricade

A permanent barricade must meet or exceed the following minimum standards:

i) Two upright sprags with three 2" planks nailed horizontally to the sprags with plastic snow fence or chainlink screen nailed to the planks.

Or

Chainlink screen bolted to the walls of the drift or to the back (in the case of closing off the bottom of a raise.

ii) A "Danger Keep Out" sign posted or in the case of an unventilated area a "Danger Keep Out – Unventilated Area" sign posted.

iii) The barricade must prevent inadvertent access.

Temporary Barricade

A temporary barricade must meet or exceed the following minimum standards, dependent upon the circumstances:

i) A two-inch (2") pipe that extends wall to wall, with reflective tape at both ends and also at intervals of 4' along its length. The pipe will have snow fence hanging its entire length and be hung with sash cord in a manner so that the snow fence does not come in contact with the ground.

ii) Two upright sprags with three 1" planks nailed horizontally to the sprags.

iii) A gate made of steel grating (in the case of a raise) or 4" x 4" mesh screen (in the case of a drift) that when closed covers the opening sufficiently to prevent inadvertent access and can be secured.

iv) Chainlink screen secured as close as possible to the entranceway.

v) These barricades should be where possible a minimum 20' from the hazard.

vi) All temporary barricades must be sufficient to prevent inadvertent access and must have the proper signage ("Danger Keep Out", Danger Open Hole", Danger Men Working in Raise" or Danger Keep Out – Unventilated Area").

Temporarily Closed Raise or Manway

Any raise or manway that has been closed due to mining cycles and/or a combination of the following hazards:

i) Hazardous ground conditions.
ii) Unventilated areas.
iii) Open hole conditions.

Permanently Closed Raise or Manway

Any raise that has been closed for any reason with the intention that it will never be used again for any purpose.

Temporarily Closed Drift

Drifts may be temporarily closed for any one of or any combination of the following hazards.

i) Hazardous ground conditions
ii) Unventilated areas.
iii) Open hole conditions.
iv) Abandoned workings.

Permanently Closed Drifts

Any drift that has been closed for any reason with the intention that it will never be used again for any purpose.

6.0 Procedure

6.1 Manways and Raises

Temporary closing of manways or raises

- Remove all items that are deemed reusable from the manway except for the tools and equipment required for any work in or around the manway.

- Install a temporary barricade of chainlink screen at both entrances of the manway or raise.

- Secure a "Danger Keep Out" or "Danger Men Working in Raise" to the barricades at both entrances.

- Record the date, the name or number of the stope or raise and the reason for closure in the mine captain's logbook. The supervisor in charge of the closure must initial the entry.

Opening of temporary closed manways or raises.

- Obtain a Inspection Request Form from supervision and acquire to proper permission by way of signatures on the form to open the manway or raise. Obtain all necessary equipment and/or help to conduct an inspection for all possible hazards and conditions.

- Remove the chainlink screen and the sign from the top entrance; inspect the raise for all possible hazards. Remove the screen and sign from the lower entrance.

- Post-open signs at all entrances to manways.

- Record the date of opening and the name or number of the stope or raise in the mine captains logbook. The supervisor in charge of the opening must initial the entry.

Permanently closing manway or raise

- Remove all items deemed reusable from the raise.

- Remove the bottom ladder from the raise and install chainlink screen at the bottom of the raise or entrance to the manway as close to the entrance as possible. The screen must be installed in such a manner so as to prevent inadvertent access to the raise or manway.

- Secure an appropriate sign to the barricade, ("Danger Keep Out – Closed" or "Danger Keep Out – Unventilated Area")

- Remove the top ladder from the raise or manway and install chainlink screen at the top of the raise as close to the entrance of the raise or manway as possible. The screen must be installed in such a manner so as to prevent inadvertent access to the raise or manway.

- Secure an appropriate sign to the barricade, ("Danger Keep Out – Closed" or "Danger Keep Out – Unventilated Area")

- Record the date, the name or number of the stope or raise and the reason for closure in the mine captains log book. The supervisor in charge of the closure must initial the entry.

Note: **If it becomes necessary to open a permanently closed manway or raise follow the same procedure as opening a temporarily closed manway or raise.**

HAZARD COMMUNICATION

Procon Group of Companies commitment to ensuring its workforce is informed regarding legislative changes, safe work practices, safe work procedures, advances in technology, and personnel safety awareness is fundamental to maintaining the highest of safety standards in the industry.

Supervisors and workers are responsible for ensuring that every employee is made aware of, acknowledges and conforms to company safety initiatives. Ongoing hazard communication is supported by the following:

SAFETY NEWSLETTER

Every month Procon's Safety Department distributes a monthly safety newsletter to all operations. Specific safety topics are presented along with safety tips, company accident/incident results, safety recognition and company news.

SAFETY BULLETINS

Procon's Safety Department distributes on a monthly basis safety bulletins that support specific safety issues. It is the responsibility of all project supervisors / safety trainers to post and discuss the safety bulletins with all personnel.

SAFETY CREW TALKS

It is the responsibility of all supervisors / safety trainers to conduct daily safety crew talks at the beginning of each shift and a formal training crew talk once per week. All crew talks are to be signed off by each employee in attendance.

HAZARD ALERTS

Hazard Alerts are received from manufacturers, trade associations and specific project operations. As they are received they are communicated directly to each project for dissemination to all employees.