



**Magino Project
Environmental Impact Statement
Technical Support Document 20-4
Hazardous Substances Management Plan**

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Table of Contents

SECTION 1.0 – INTRODUCTION	1
1.1 PURPOSE	1
1.2 REGULATORY STANDARDS	1
1.2.1 Hazardous Waste	2
SECTION 2.0 – OVERVIEW OF HAZARDOUS MATERIALS ON SITE	2
2.1 HAZARDOUS SUBSTANCE AND STORAGE LOCATIONS	2
2.2 TYPES AND QUANTITIES OF HAZARDOUS SUBSTANCES AT THE MAGINO SITE ...	3
2.3 GENERAL HAZARDOUS MATERIAL STORAGE GUIDELINES.....	4
2.3.1 General Guidelines for Storage of Drums/Containers	4
2.3.2 General Guidelines for Storage Areas	4
SECTION 3.0 – HAZARDOUS MATERIALS LIFE CYCLE MANAGEMENT	5
3.1 LIFE CYCLE MANAGEMENT	5
3.1.1 Delivery	5
3.1.2 On-Site Handling	6
3.1.3 Wastes	6
3.1.4 Tailings.....	7
3.1.5 Empty Product Containers.....	7
SECTION 4.0 – SODIUM CYANIDE	7
4.1 INTRODUCTION.....	7
4.2 PHYSICAL PROPERTIES.....	7
4.3 CYANIDE PRODUCTION	7
4.4 CYANIDE TRANSPORT	7
4.5 ON-SITE STORAGE & HANDLING.....	8
4.6 SPILLS.....	8
4.7 INTERNATIONAL CYANIDE MANAGEMENT CODE	9
SECTION 5.0 – PETROLEUM PRODUCTS	9
5.1 PRODUCT DESCRIPTION	9
5.2 DELIVERY TO SITE AND STORAGE	9
5.3 FUEL TRUCK TRANSFER PROCEDURES.....	10
5.4 CONTAMINATED SOILS AND SPILLS.....	11
5.5 USED PETROLEUM PRODUCTS	11
SECTION 6.0 – EXPLOSIVES	12
6.1 PRODUCT DESCRIPTION	12
6.2 EXPLOSIVES STORAGE	12

6.3 USE OF EXPLOSIVES	12
6.4 DISPOSAL	13
SECTION 7.0 – PROCESS PLANT AND WATER TREATMENT	13
7.1 PRODUCT DESCRIPTION	13
SECTION 8.0 – MISCELLANEOUS TOXIC SUBSTANCES	17
8.1 PRODUCT DESCRIPTION	17
8.2 STORAGE FACILITIES OF HAZARDOUS/TOXIC CHEMICALS	17
SECTION 9.0 – INVENTORY, INSPECTION AND RECORD KEEPING.....	17
9.1 PETROLEUM PRODUCTS	18
9.1.1 Inventory Management.....	18
9.1.2 Inspection.....	18
9.1.3 Records.....	18
9.2 EXPLOSIVES.....	19
9.2.1 Records.....	19
9.3 MISCELLANEOUS HAZARDOUS/TOXIC MATERIALS.....	19
9.3.1 Inventory Management.....	19
9.3.2 Inspection.....	19
9.3.3 Records.....	20
SECTION 10.0 – TRAINING	20
10.1 GENERAL.....	20
10.2 PETROLEUM PRODUCTS HANDLERS.....	20
10.3 EXPLOSIVES HANDLERS	20
10.4 PLANT EMPLOYEES.....	21
10.5 THIRD PARTY CONTRACTORS	21
SECTION 11.0 – ADAPTIVE MANAGEMENT AND CONTINUOUS IMPROVEMENT	21
APPENDIX A – LEGISLATIONS AND GUIDELINES	22
A.1 WHMIS LEGISLATION AND GUIDELINES	22
The Federal WHMIS Legislation.....	22
Ontario's WHMIS Legislation.....	22
A.2 OTHER FEDERAL LEGISLATION AND GUIDELINES	23
APPENDIX B – SITE MAPS AND RELEVANT DRAWINGS	24
B.1 SITE LAYOUT INDICATING STORAGE LOCATIONS FOR HAZARDOUS SUBSTANCES	24
B.2 HAZARDOUS SUBSTANCE STORAGE AREA LAYOUT	24
B.3 DIESEL FUEL STORAGE FACILITY	24
APPENDIX C – MATERIAL SAFETY DATA SHEETS	25

TABLES

Table 1: Types and Quantities of Hazardous Substances on the Magino Site..... 3
Table 2: Hydrocarbon Products – Hazardous Classes and Potential Impacts 9
Table 3: Quantities of Petroleum Products on Site..... 9
Table 4: Petroleum Fuel Products Safe Handling Procedures 11
Table 5: Petroleum Products – Personal Protective Equipment..... 12
Table 6: Process Plant & Water Treatment Reagents – Hazard Classes & Potential ... 13
Table 7: Process Plant & Water Treatment Reagents – Safe Handling Procedures 14

ABBREVIATIONS

AN	Ammonium Nitrate
ANFO	Ammonium Nitrate Fuel Oil
CCME	Canadian Council of Ministers of the Environment
ERD	Explosives Regulatory Division, Natural Resources Canada
ERSPC	Emergency Response Spill Prevention / Contingency Plan
ERT	Emergency Response Team
HAZCOM	Hazard Communication
HCN	Hydrogen Cyanide
HM	Hazardous Materials Storage Area
HazMP	Hazardous Materials Management Plan
IBC	Intermediate Bulk Container
ISO	International Organization for Standardization
MSDS	Materials Safety Data Sheets
OHSA	Occupational Health and Safety Administration

SECTION 1.0 – INTRODUCTION

1.1 PURPOSE

The purpose of this plan is to provide a consolidated source of information on the safe and environmentally sound transportation, storage, and handling of the major hazardous products that are used at the Magino Mine.

A hazardous material is one that, due to its physical, chemical, or other properties, poses a hazard to human health or the environment when it is improperly handled, used, stored, disposed of, or otherwise managed.

In combination with Prodigy's Health and Safety Management Plan, and the Emergency Response and Spill Prevention / Contingency Plan (ERSPC), this Hazardous Materials Management Plan (HazMP) provides instruction on the prevention, detection, containment, response, and mitigation of accidents that could result from handling hazardous materials.

The plan is based on the following principles of best practice management for hazardous materials:

- Identify and prepare materials and waste inventories;
- Characterize potential environmental hazards posed by those materials;
- Allocate clear responsibility for managing hazardous materials;
- Describe methods for transport, storage, handling, and use;
- Identify means of long-term storage and disposal;
- Prepare contingency and emergency response plans;
- Ensure training for management, workers, and contractors whose responsibilities include handling hazardous materials; and
- Maintain and review records of hazardous material consumption and incidents in order to anticipate and avoid impacts on personal health and the environment.

All hazardous materials to be used at the Magino site will be manufactured, delivered, stored, and handled in compliance with all applicable federal and provincial laws and regulations.

As with all other aspects of health and safety policy at the Magino mine, all employees are expected to comply with all applicable precautions and handling procedures related to hazardous materials. Employees are also expected to report any concerns to their supervisors, the EH&S Committee, or senior site management. All staff are encouraged to bring forward suggestions for improvements that can be incorporated into procedure revisions as appropriate.

1.2 REGULATORY STANDARDS

Copies of relevant legal documents are kept on file at the Project mine site. Prodigy will regularly update the HazMP with respect to applicable legislation, and ensure that current legislation documents are available at the mine site. The acts, regulations, and guidelines pertinent to the hazardous products are listed in Appendix A.

Management and safety personnel provide an overview of the applicable regulations to all employees as part of their initiation and ongoing training.

The *Transportation of Dangerous Goods Act* (1992) classifies hazardous materials into nine (9) main classes in accordance with an internationally recognized system. The classifications are as follows:

- Class 1 – Explosives;
- Class 2 – Gases;
- Class 3 – Flammable liquids;
- Class 4 – Flammable solids;
- Class 5 – Oxidizing substances and organic products;
- Class 6 – Poisonous (toxic) and infectious substances;
- Class 7 – Nuclear substances, within the meaning of the *Nuclear Safety and Control Act*, which are radioactive;
- Class 8 – Corrosives; and
- Class 9 – Miscellaneous products or substances.

1.2.1 Hazardous Waste

In Ontario, landfilling sites and other waste management activities are subject to Part V of the *Environmental Protection Act* and the regulations made under the Act. Regulation 347 defines when waste is considered hazardous or non-hazardous. Hazardous waste is defined by listing some specific wastes as being hazardous, and by identifying certain hazardous waste characteristics and tests.

The Ministry of the Environment and Climate Change's guidance publication "Registration Guidance Manual for Generators of Liquid Industrial and Hazardous Waste" provides Ontario's hazardous waste management rules and the requirements generators, carriers and receivers of subject waste.

SECTION 2.0 – OVERVIEW OF HAZARDOUS MATERIALS ON SITE

2.1 HAZARDOUS SUBSTANCE AND STORAGE LOCATIONS

Site maps showing the locations of storage facilities for hazardous substances, and specific drawings related to the storage facilities, are attached in Appendix B.

Petroleum products, explosives, sodium cyanide and miscellaneous hazardous materials are stored in facilities that:

- 1) contain no open drains;
- 2) utilize concrete berms; and
- 3) incorporate lined areas or secure sea-cans.

Storage tanks on site are regularly inspected and maintained.

Storage facilities are clearly identified as storage facilities for hazardous materials with proper labelling. These facilities are ventilated to prevent the build-up of toxic fumes or dust, which could harm both personnel and the environment.

The facilities are secured and only authorized personnel have access to the area.

A hazardous material storage area is located next to the process plant where products and hazardous wastes will be held until they are transported off-site for treatment at a certified waste management disposal facility.

2.2 TYPES AND QUANTITIES OF HAZARDOUS SUBSTANCES AT THE MAGINO SITE

The Magino Project requires the use of the following types of classified hazardous materials:

- Petroleum products and lubricants – diesel fuel, oils, greases, anti-freeze, and solvents used for equipment operation and maintenance;
- Process plant (the mill) consumables – sodium cyanide, caustic soda (sodium hydroxide), sulphur prills, carbon sodium metabisulphite, nitric acid, calcine lime, flocculants, calcium chloride, borax, silica, lead nitrate, and anti-scalant used in mineral extraction;
- Water treatment chemicals - silica sand and flocculants polymers;
- Explosives – emulsion, caps, and high explosives used for blasting in the mine; and
- Laboratory chemicals and wastes – various by-products classified as hazardous waste and chemicals such as nitric acid used in the assay laboratory.

Expected types and quantities of hazardous substances stored on the Magino site are presented in Table 2. Material Safety Data Sheets (MSDS) specific to each of these substances are provided in Appendix C.

Sections 5 and 7 contain general information and safe handling procedures for the categories listed in the first four bullets above.

Laboratory wastes, listed as bullet 5, are generally very limited in quantity and will be handled only by specialist laboratory technicians. These wastes will be pumped to the grinding circuit in the process plant for recycling and eventually become part of the tailings disposal stream. As such, they are not addressed separately in this document.

Table 1: Types and Quantities of Hazardous Substances on the Magino Site

Reagent	Consumption		Storage	
	Kg/tonne	tonnes/year	Capacity	Method
Lime (CaO)	0.20	2555	100 tonnes (2 weeks supply)	Stored in 100 tonnes silo.
Sodium Cyanide (NaCN)	0.75	9580	200 tonnes (one week supply)	Stored in 10 seacan containers on site (20 t capacity per container). Bags/wooden box transferred to mill as required.
Caustic Soda (30% strength)	0.02	255	40 m ³	Up to two iso-containers on site stored on laydown area close to the mill.
Hydrochloric Acid (36 - 38% strength)	0.010	130	40 m ³	Up to two iso-containers on site stored on laydown area close to the mill.

Activated Carbon	0.050	640	60 tonnes (one month supply)	Three 20 ft. seacan container stored on laydown area next to mill. Bag transferred to mill by forklift as required.
Sodium Metabisulphate	0.375	4800	400 tonnes (one month supply)	Twenty 20 ft. seacan container stored on laydown area close to the mill. Bag transferred to mill by forklift as required.
Copper Sulphate (CuSO ₄ ·4H ₂ O)	0.127	1625	140 tonnes (one month supply)	Seven 20 ft. seacan container stored on laydown area close to the mill. Bag transferred to mill by forklift as required.
Magnafloc 155	0.02	255	20 tonnes (one month supply)	One 20 ft. seacan container stored on laydown area close to the mill. Transferred to mill as required.
Anti-scalant	0.03	385	30 tonnes (one month supply)	Two 20 ft. seacan container stored on laydown area close to the mill. Transferred to mill as required.
Other minor reagents may include antiscalants, Leachaid and standard industry fluxes, typically consisting of borax, silica and nitre for use in the induction furnace.				

2.3 GENERAL HAZARDOUS MATERIAL STORAGE GUIDELINES

2.3.1 General Guidelines for Storage of Drums/Containers

Hazardous materials/waste shall be stored in super sacs/drums/sea containers in accordance with the following guidelines:

- Storage in the original containers, where possible, or in containers compatible with the material being stored to prevent corrosion or chemical interaction that could lead to leaks or fires;
- Storage containers shall be in good condition, sealable and not damaged or leaking;
- Drums containing hazardous materials/wastes expected to be in storage for more than six months shall be placed on pallets or on a well-drained storage area to prevent rusting;
- Each container shall be clearly labelled to identify the substance being stored in accordance with the requirements of the *Workplace Hazardous Materials Information System* (WHMIS) and as specified in the MSDS;
- Containers shall be kept closed except when adding or removing product;
- Containers with product shall be kept in the upright position, empty drums can be placed horizontally;
- Containers shall be arranged to prevent damage from falling or dislodging; and
- Containers shall be arranged to allow for easy access and inspections.

2.3.2 General Guidelines for Storage Areas

To assist in the safe and secure storage of fuels, hazardous materials and hazardous wastes, the following general guidelines for storage areas/facilities will be followed:

- Design of storage areas are in compliance with the *National Fire Code*, where appropriate;

- Compliance with the Canadian Council of Ministers of the Environment (CCME) publication, *“Environmental Code of Good Practice for Above Ground Storage Tank Systems Containing Petroleum Products”*. This CCME code deals with inventory control, inspections, corrosion protection, records and monitoring. Environment Canada’s *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations* outline registration and documentation requirements for storage tanks;
- Storage areas are adequately signed indicating that hazardous materials/wastes are stored therein;
- Storage locations are clearly defined and marked to prevent damage of storage drums and containers in the event they are covered by snow;
- Incompatible materials are segregated by chemical compatibility within the storage area to prevent contact between materials in the event of a release;
- Storage areas are located at least 30 metres from surface water and on a low-permeability area;
- Storage areas are readily accessible for firefighting and other emergency procedures;
- Storage areas are adequately ventilated to prevent the build-up of noxious or toxic vapours;
- Where necessary secondary containment is installed to allow for the containment of at least 110% of the largest container or tank volume within the contained area;
- Storage areas are constructed, or provided with barriers, to protect containers from physical damage; and
- Adequate spill and emergency response equipment is installed at large volume storage areas – i.e.; bulk fuel tank facilities (i.e. spill control, fire protection, etc.). A list of spill control equipment is provided in the ERSPC Plan.

SECTION 3.0 – HAZARDOUS MATERIALS LIFE CYCLE MANAGEMENT

3.1 LIFE CYCLE MANAGEMENT

“Life cycle management” implies the assessment of a product over its entire life — from the time where a material need is identified to the time the product is fully consumed or disposed of as waste. It covers product supply, transportation, storage, handling, recycling, and waste disposal.

Prodigy is committed to ensuring proper life cycle management of all products used at the Magino site, including hazardous materials. Prodigy and its contractors will deal only with reputable, certified suppliers, transporters, and expeditors.

3.1.1 Delivery

All hazardous materials are delivered to site by commercial carriers in accordance with the requirements of the *Canadian Transportation of Dangerous Goods Act* (TDGA). Carriers are licensed and inspected as required by the Department of Transportation. All required permits, licences, and certificates of compliance are the responsibility of the carrier. All shipments are properly identified and labelled. Shipping documentation must be accessible and include information describing the substance, immediate health hazards, fire and explosion risks, immediate precautions, firefighting information, procedures for handling leaks or spills, first aid measures, and emergency response telephone numbers.

Each transportation company is required to develop a spill prevention, control, and response plan

for the materials they are transporting. In the event of a release during transport, the commercial transportation company is responsible for first response and cleanup.

As part of the procurement contract, carriers will be requested to submit their qualifications for the transportation of hazardous substances, which will include qualification of their personnel and the existence of their spill prevention and response plan.

3.1.2 On-Site Handling

The provincial and federal *Workplace Hazardous Materials Information System* (WHMIS) calls for the proper labelling of products, the availability of product information in the form of MSDS, and employee education on how to identify and handle hazardous products.

Prodigy has established procedures for obtaining MSDS with new product deliveries; maintaining MSDS current (i.e. no older than three years), and maintaining a system of hardcopy or electronic MSDS that are readily accessible by all employees. A chemical tracking system is also established and all new hazardous material used on site are reviewed by Environmental Health and Safety (EH&S) Department before the first use.

All hazardous materials are stored in secured areas to prevent access or tampering by unauthorized personnel. All tanks used for the storage of diesel and aviation fuel are installed in secondary containment areas sized to hold at least 110% of the volume of the largest tank or in double walled storage tanks. Tanks and vessels in the process plant are installed on concrete surfaces sloping to interior sumps that will route spilled solutions to lined collection areas. Additional guidelines for the storage of hazardous materials are provided in Section 2.3.2. In support of pollution prevention, Prodigy has established procedures for the regular inspection of storage containers and facilities. If deficient conditions are identified, appropriate corrective actions are taken and documented. Additional details for inspection of storage areas are provided in Section 9.

Emergency response procedures for spilled chemical substances are provided in the ERSPC Plan (TSD 20-3).

3.1.3 Wastes

On becoming wastes, materials are stored and/or disposed of in accordance with specific provincial / federal regulations and guidelines.

Hazardous waste materials are stored in secure facilities until they can be transported off-site for disposal. The waste will be stored in a seacan on a lined pad. The length of time the wastes will be stored on site will depend on the product and the time it takes to fill a seacan for safe shipment to a certified Provincial hazardous waste treatment facility.

A Waste Manifest accompanies movements of hazardous wastes off site. Prodigy will employ only registered waste carriers to transport waste to registered/approved waste treatment facilities. A copy of the completed manifest will be maintained on site after the hazardous waste is received by the authorized waste disposal facility.

3.1.4 Tailings

Tailings undergo treatment plant for cyanide destruction before pumping to the TMF. Cyanide destruction is achieved through chemical destruction with sodium metabisulphite. The cyanide content of the tailings material is reduced to less than 15 ppm (parts per million). Cyanide further degrades naturally with exposure to air and sunlight (UV) in the TMF.

3.1.5 Empty Product Containers

Many empty chemical containers are not safe to dispose of directly and require handling precautions identical to those for full containers. Chemical users must be familiar with safe waste handling and storage procedures supplied by manufacturers and included in the MSDS. The containers are stored in a secured area on site until shipped to a certified facility for disposal.

SECTION 4.0 – SODIUM CYANIDE

4.1 INTRODUCTION

Large quantities of sodium cyanide are used for recovering gold from the ore. This product will be transported, stored, handled, transferred and used in compliance with appropriate legislation and applicable Best Management Practices (Cyanide Code). Prodigy will be a signatory to the International Cyanide Management Code.

4.2 PHYSICAL PROPERTIES

Cyanide is one of only a few chemical reagents that will dissolve in water. Gold mining operations use very dilute solutions of sodium cyanide, typically in the range of 0.01% to 0.05% cyanide (100 to 500 ppm). Unlike many synthetic chemicals, cyanide oxidizes and decomposes when exposed to air or other oxidants (UV sunlight rays), and does not persist in the environment. As such, it does not give rise to chronic health or environmental problems when present in low concentrations.

4.3 CYANIDE PRODUCTION

Cyanide production and handling are highly regulated. Both the manufacturer and Prodigy employ stringent risk management systems to prevent injury or damage from the use of cyanide.

Sodium cyanide for the Magino Project will be in briquette form, and packaged in water-resistant super sac and 4mm bags inside an intermediate bulk container (IBC). The IBC holds 1,000 kg of cyanide, and has the following approximate dimensions: 44" x 44" x 44". For shipment, there are normally 20 IBCs in a sea can container.

4.4 CYANIDE TRANSPORT

Cyanide producers audit purchasers and transportation systems. Suppliers design special packaging for the transport of cyanide and they inventory all shipments against delivery records to ensure proper surveillance at all times. All shipments are accompanied by MSDS that provide the chemistry and toxicity of sodium cyanide, instructions in case of accidents, and emergency telephone numbers for assistance.

Transporters screen their employees, inventory shipments and, establish and maintain systems for loading and unloading cyanide products. Product handling and transportation are in accordance with protocols set by the industries and in compliance with national and international regulations.

For the Magino Project, the IBCs will be properly stacked in sea containers and transported by trucks to the Magino site. At no point during transport will the container or IBCs be opened. From the point of cyanide packaging onwards, the bags will only be opened on site, when at the location (mill) where the use of cyanide is required.

This method of cyanide transport provides three levels of containment. The cyanide is contained within plastic bags. In the event one of the bags ruptures, the cyanide is contained within the IBC. In the event the IBC container breaks, the cyanide is contained within the sea container, which provides a tertiary precautionary measure for minimizing the impact of the spilled material.

4.5 ON-SITE STORAGE & HANDLING

The cyanide is stored on site in a dark, cool, dry, location. Cyanide is stored in sealed sea cans until the time it is needed for processing. Only as much as needed is removed from storage at any one time. The cyanide storage area is located close to the processing plant. Only authorized personnel have access to the cyanide storage.

When cyanide is required, only the quantity required for immediate use will be removed from storage. The cyanide bag will be lifted by its straps (the straps are provided by the manufacturer as part of packaging) using a forklift, and then lifted using an overhead crane to lower onto a specially designed knife slitter that cuts the bag. The contents of the bag will drop into a mixing tank. At no time does the cyanide need to be touched or physically handled by Prodigy personnel.

The IBC materials are properly decontaminated and disposed of in accordance with applicable regulations to prevent any environmental impact. Before disposal, the bags are visually inspected to ensure they are empty, and triple rinsed and drained to dissolve any residual cyanide left in the bag. Rinse water from the flushing process is recovered and reused in the cyanide mix tank and used in the gold recovery plant.

All personnel potentially exposed to cyanide, including contractors and visitors, receive appropriate training (see Section 10).

4.6 SPILLS

In the event of a spill, the cyanide will be promptly cleaned up to minimize its exposure to humans and the environment. A dry spill will be swept up and disposed of in a drum or other suitable container. In the event of a wet spill, the spill procedures will be carried out to prevent environmental contamination and the appropriate authorities will be contacted. For more information on spills handling and containment, refer to the ERSPC Plan (TSD 20-3).

After cleaning up as much cyanide as possible, the area will be decontaminated using a small amount of caustic solution (i.e., 1 oz. /5 gal hypochlorite solution). This will help keep the pH in the 10 to 11 range and suppress the formation of lethal HCN gas.

4.7 INTERNATIONAL CYANIDE MANAGEMENT CODE

Prodigy will be signatory to the International Cyanide Management Code (the Code) for the manufacture, transport and use of cyanide in the production of gold. The Code is administered by a non-profit institute consisting of participants from the gold mining industry, governments, nongovernmental organizations, labour, cyanide producers, and other interested parties.

The Code represents a voluntary commitment on the part of all signatories to identify and follow basic principles and guidelines for safe cyanide use at gold mining operations. This is the first such generic international code in the history of the mining industry. Under the Code, gold mines are required to manage their cyanide from source to site, thus assuming “cradle to grave” responsibility for all cyanide used at their operation.

SECTION 5.0 – PETROLEUM PRODUCTS

5.1 PRODUCT DESCRIPTION

The Magino open pit operations will use large amounts of fuel and lubricants (petroleum products). These products will be transported, stored, handled, transferred and used in compliance with the appropriate legislation and Best Management Practices.

Fuel products hazard classes and potential impacts are presented in Table 1.

Table 2: Hydrocarbon Products – Hazardous Classes and Potential Impacts

Material	TDGA Class	Potential Environmental Impact
Diesel	3	Water and soil contamination
Motor Oil	Not regulated	Water and soil contamination
Hydraulic Fluid	Not regulated	Low risk to water and soil with proper handling
Varsol	3	Water and soil contamination
Automotive Grease	Not regulated	Low risk to water and soil with proper handling
Ethylene Glycol	Not regulated	Toxic by ingestion, can potentially be consumed by wildlife

5.2 DELIVERY TO SITE AND STORAGE

Except for diesel and gasoline, petroleum and lubricant products are delivered to the site and stored in the manufacturer’s original packing container. These types of containers include a variety of sealed drums, pails, 1 tonne super sac, bulk cubes, cans, and tubes.

Diesel fuel and gasoline are delivered by tanker trucks and transferred to the on-site storage tanks. Propane is delivered in ISO containers. The anticipated quantities and locations of petroleum products on the Magino site are presented in Table 3.

Table 3: Quantities of Petroleum Products on Site

Product	Quantity	Storage Location	Container Size
Diesel fuel	2,000,000 L	Adjacent to Maintenance Facility	Tank
Gasoline	50,000 L		Tank
Propane			ISO container

Waste Oil	20,000 L	Maintenance Facility	Tank
Motor Oil		Maintenance Facility	Cubes or barrels
Hydraulic Fluid		Maintenance Facility	Cubes or barrels
Ethylene Glycol		Maintenance Facility	Cubes or barrels

The diesel and gasoline storage tanks are single-walled and constructed of welded steel. The tanks are located within a bermed secondary containment area. These tanks are constructed to meet the CCME guidelines for *Aboveground Storage Tank Systems Containing Petroleum and Allied Petroleum Products*. The fuel unloading facility includes a sloped lined pad to prevent contamination of the receiving environment. A continuous 60 mm high-density, polyethylene liner sheet is installed under the tanks and the internal sides of the berm. The containment area is sized to hold 110% of the volume of the largest tank.

All fuel transfer and storage facilities have been designed in accordance with the Canadian Council of Ministers for the Environment (CCME, 1994) *Environmental Code of Practice for Above Ground Storage Tank Systems Containing Petroleum Products*, and the *National Fire Code*.

Appropriate measures are in place to minimize impacts to surface water, groundwater and soils from potential vehicle accidents when transporting petroleum products to the site. Details of petroleum product safe handling procedures and proper PPE can be found in Tables 4 and 5. Details of spill response measures are presented in the ERSPC Plan. The following general precautions will be taken:

- A maximum speed on the Magino site road and haul road for loaded and empty vehicles has been established based on the road design which considers safety and the protection of personnel. This speed limit is 50 km/hr;
- All trucks will carry a spill kit; and
- Prodigy is prepared to respond to spills resulting from vehicle accidents on both roads in a timely and efficient manner. For more detail refer to the ERSC Plan (TSD 20-3).

5.3 FUEL TRUCK TRANSFER PROCEDURES

A contract supplier will fill the storage tank adjacent to the Maintenance facility. General procedures to be followed are listed below. Similar procedures will be followed for fuelling remote station tanks. Before fuel transfer, it will be verified that:

- All fuel transfer hoses are connected properly and couplings are tight;
- Transfer hoses are not obviously damaged;
- Fuel transfer personnel are familiar with procedures;
- Personnel are located at both the fuel delivery truck and fuel transfer tank(s) and can manually shut off the flow of fuel;
- If a high liquid level shutoff device is installed at the delivery tank, verify that the shutoff is operating correctly each time it is used; and
- Fuel transfer will then proceed per the established procedures of the contract supplier.

Any accidents or spills must be reported immediately to the Environmental Department representatives. Notification and response procedures are detailed in the ERSPC Plan.

5.4 CONTAMINATED SOILS AND SPILLS

All contaminated spill pads, and booms resulting from the storage and handling of fuels and lubricants will be salvaged at the time such impacts are identified, and put into Quatrex bags, labelled, and either shipped off-site to an approved disposal facility or incinerated (small quantities) on site. All petroleum hydrocarbon contaminated soil from the Magino site will be placed into the landfarm for treatment. The landfarm is adjacent to the Maintenance facility. Remediated soil will then be trucked to the TMF for disposal. Surface water from the landfarm is pumped to the Maintenance facility oily water treatment unit.

5.5 USED PETROLEUM PRODUCTS

Used oil that is no longer suitable for its intended use is classified as a liquid waste. The discharge of used oil into the environment, including but not limited to landfills, sewers and water bodies, is prohibited.

Used oil and used oil products are collected in tanks or drums marked "Waste Oil" and disposed of at an approved facility. Empty petroleum containers are stored on site in a designated area and ultimately returned to the supplier.

Oil filters are punctured and/or crushed and drained of their contents for 24 hours prior to disposal. They are collected in a suitable container and shipped off-site for disposal.

The following information is recorded:

- Volume of used oil generated at each site;
- Volume of used oil incinerated at each site;
- Name and address of the person in charge, management or control of the used oil, and the place where the used oil was produced;
- Volume and nature of the products produced from the used oil; and
- Destination of the used oil products shipped from the Magino site.

Table 4: Petroleum Fuel Products Safe Handling Procedures

Product	Handling Procedure
Diesel Gasoline	Do not get in eyes, on skin, or on clothing. Avoid breathing vapours, mist, fume, or dust. Do not swallow. May be aspirated into lungs. Wear PPE and/or garments if exposure conditions warrant. Wash thoroughly after handling. Launder contaminated clothing before reuse. Use with adequate ventilation. Keep away from heat, sparks, and flames. Store in a well-ventilated area. Store in a closed container. Bond and ground during transfer.
Propane	
Hydraulic Oil	Keep container closed until ready for use.
Motor Oil	Wear protective clothing and impervious gloves when working with used motor oils. To be handled generally consistent with other petroleum hydrocarbons.

Ethylene Glycol	
Important: This Table provides a quick overview only. Refer to MSDS in Appendix C for a full description of chemical properties and instruction on its transportation, handling storage and disposal.	

Table 5: Petroleum Products – Personal Protective Equipment

Product	Personal Protective Equipment (PPE)		
	Eyes	Skin	Respiration
Diesel Gasoline	Chemical goggles	Neoprene o nitrile gloves; Protective garment	None required
Hydraulic Oil	Chemical goggles	None usually required	None required
Motor Oil	Chemical goggles	Neoprene o nitrile gloves; Protective garment	None required
Ethylene Glycol	Chemical goggles	Neoprene o nitrile gloves; Protective garment	None required

SECTION 6.0 – EXPLOSIVES

6.1 PRODUCT DESCRIPTION

Explosives are required for blasting mine rock and ore in the mine. Transportation, storage, use, and handling of blasting materials are strictly regulated by the Federal *Explosives Act* and *Transportation of Dangerous Goods Act* (Class 1 – Explosives):

- *Explosives Use Act* and Regulations; and
- *Mine Health and Safety Act* and Regulations.

6.2 EXPLOSIVES STORAGE

To be completed.

6.3 USE OF EXPLOSIVES

The responsibility for blasting will be split between appropriately trained mine personnel and the explosives supplier. The Explosives Supplier is responsible for supplying and delivering blasting agents to the site, manufacturing the blasting product (on site or off-site), delivering blasting agents to the blast holes and filling the holes.

Prodigy Blasters are responsible for charging the holes, placing the detonators and boosters, and tying-in the patterns. The AN and emulsion components are delivered to the Magino site by the Explosives Supplier. The Explosives Supplier provide mixing and delivery trucks. Prodigy provides diesel fuel and accommodations.

Blasting will be done approximately daily and will average, in size, the daily production requirement of 50-90,000 tonnes per blast. Blasting will likely be by electric initiation and will

feature current technology with down-the-hole delays to minimize the energy per delay to single hole loads. This will minimize fly rock and vibration levels and will optimize fragmentation and minimize digging problems.

Blasting will be carried out by certified blasters following blasting regulations and safe practices. All pit activities will be under the supervision of certified mine supervisors, knowledgeable in mine operating regulations and best practices.

The manufacture and distribution of explosives is carried out by licenced suppliers under Federal license to conduct such work. They will provide and operate the explosives manufacturing plant under such license and authority. Details on explosives inventory and inspections are provided in Section 9.2. Information on Explosives Handlers is available in Section 10.3.

6.4 DISPOSAL

Prodigy's Licenced Contractor will be responsible for disposal of waste explosive products.

SECTION 7.0 – PROCESS PLANT AND WATER TREATMENT

7.1 PRODUCT DESCRIPTION

The Process Plant (mill) will use many chemicals and reagents to treat the ore, recover entrained gold and to destroy cyanide. The Water Treatment Plant will also use chemicals and reagents to treat water for TSS removal. The expected use and quantities of hazardous chemicals stored on site for the processing plant are presented in Table 2.

Table 6: Process Plant & Water Treatment Reagents – Hazard Classes & Potential

Material	Class	Potential Impact
Acetylene	2.1	Not hazardous for water
Activated carbon	4.2	No information available
Anti-scalant	Not regulated	Negligible with proper handling
Borax	Not regulated	Presents no health hazards.
Calcium oxide	Not regulated	No information available
Calcium peroxide	5.1	Releases oxygen into environment when dissolved in water.
Copper sulphate	9	Harmful to aquatic life
Flocculant	Not regulated	Acute fish, invertebrate, algae and bacteria toxicity
Hydrochloric acid	8	Extremely toxic to aquatic life by lowering the pH below 5.5. When released into the soil, this material may leach into groundwater
Hydrofluoric acid	8.6.1	No information available
Hydrogen peroxide	5.1	Aquatic Toxicity 96-hour LC50

Lead acid batteries	8	No information available
Nitric acid	8	No information available
Paints	Not regulated	No information available
Silica	Not regulated	Not hazardous for water
Sodium cyanide	6.1	Expected to be very toxic to aquatic and terrestrial life.
Sodium hydroxide	8	No information available
Sodium metabisulphite	Not regulated	No information available
Sodium nitrate	5.1	Possibly hazardous short-term degradation products are not likely. However, long term degradation products may arise. The products of degradation are less toxic than the product itself.
Sulphur	9	Insoluble in water

Table 7: Process Plant & Water Treatment Reagents – Safe Handling Procedures

Product Handling	Handling Procedure
Acetylene	<p>Do not mix with air or oxygen above atmospheric pressure. Store away from oxidizing agents. Open and handle cylinder with care.</p> <p>Keep ignition sources away - Do not smoke.</p> <p>Protect from heat. Protect against electrostatic charges. Pressurized container: protect from sunlight, store in a cool location and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Prevent impact and friction. Store in accordance with local fire code and/or building code or any pertaining regulations.</p>
Activated Carbon	<p>Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Activated Carbon, especially when wet, can deplete oxygen from air in enclosed spaces, and dangerously low levels of oxygen may result.</p> <p>Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.</p>
Anti-scalant	<p>Used in extremely small quantities. Can cause mild to moderate irritation of eyes, skin, and upper respiratory tract. Wash thoroughly after handling. Use sensible industrial hygiene and housekeeping products. Not flammable. Keep containers tightly closed.</p>
Borax	No special steps required.
Calcium oxide	Stored in 100 tonne silo

Calcium peroxide	<p>Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.</p> <p>Store in a cool, dry, well-ventilated place. Keep container tightly closed and away from incompatible materials and sources of heat.</p>
Copper sulphate	<p>Avoid contact with skin and eyes. DO NOT breathe dust. Always wash hands thoroughly after contact. Store and use only in dry, well-ventilated areas. Keep container tightly closed.</p>
Flocculant	<p>Dust generated in handling of this product can be explosive if sufficient quantities are mixed in air, in which case ignition sources should be avoided. Employ grounding, venting and explosion relief provisions in accord with accepted engineering practices in process operations capable of generating dust/or static electricity. Handle in accordance with good industrial practice, handle with care and avoid unnecessary personal contact. Avoid contact with eyes and prolonged or repeated skin contact.</p> <p>Avoid continuous or repetitive breathing of dust. Use only with adequate ventilation. Remove contaminated clothing; launder or dry-clean before reuse. Wash thoroughly with soap and water after using. For industrial use only. Slip hazard when wet.</p> <p>Material is slippery when wet. Store in the original container, securely closed, in a cool and dry location. Avoid extremes of temperature and ignition sources.</p>
Hydrochloric acid	<p>Do not get in eyes, on skin, or on clothing. Wear protective clothing. Avoid breathing vapours or fumes. Store in cool, dry, ventilated area with acid-resistant floors. Keep container closed, out of direct sunlight, and away from heat, water, and incompatible materials. When diluting, add acid slowly to water and in small amounts. Never use hot water and never add water to acid. When opening metal drum, use non-sparking tools because hydrogen gas may be present. Do not wash out container and use for other purposes. Empty containers retain product residues and may be hazardous.</p>
Hydrofluoric acid	<p>Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not get on skin, in eyes or on clothing. Do not ingest or inhale.</p> <p>Store in a cool, dry, well-ventilated area away from incompatible substances. Do not store in metal or glass containers. Do not store in direct sunlight. Keep tightly closed.</p> <p>Empty container may contain hazardous residue. Do not add any other material to the container. Do not wash down the drain. Do not allow smoking or food consumption while handling. Store in approved containers only. Do not add water to acids.</p>
Hydrogen peroxide	<p>Use extreme care when attempting any reactions because of fire and explosion potential (immediate or delayed). Conduct all initial experiments on a small scale and protect personnel with adequate shielding as the reactions are unpredictable, and may be delayed, and may be affected by impurities, contaminants,</p>

	<p>temperature, etc. Do not get in eyes. Avoid contact with skin and clothing. Wash thoroughly after handling. Avoid contact with flammable or combustible materials. Avoid contamination from any source including metals, dust, and organic materials.</p> <p>In the event of an accident where large volumes of hydrogen peroxide might come into contact with external fires or with incompatible chemicals, a one-half mile area from the incident should be evacuated.</p> <p>Store in a properly vented container or in approved bulk storage facilities. Do not block vent. Do not store on wooden pallets. Do not store where contact with incompatible materials could occur, even with a spill (see "Hazardous Reactivity" on MSDS). Have water source available for diluting. Do not add any other product to container. Never return used or unused peroxide to container, instead dilute with plenty of water and discard. Rinse empty containers thoroughly with clean water before discarding. (See "Waste Disposal" on MSDS).</p>
Lead acid batteries	Store batteries in a well-ventilated cool area. Handle carefully to avoid damaging or turning batteries over.
Nitric Acid	<p>Class 8 products are not to be loaded with class 1, 4.3, 5, 6, 7 or foodstuffs or foodstuff empties. Store in a well-ventilated area and out of direct sunlight. Keep containers closed at all times. Store away from oxidisable, caustic and combustible materials.</p> <p>Vapours heavier than air; prevent concentration in sumps and hollows. DO NOT enter confined spaces where vapour may have collected. Strong oxidising agent; can lead to fire or explosion with organic and/or combustible materials.</p>
Paints	No special steps required.
Silica	Prevent formation of dust. This product is not flammable. When pouring into a container of flammable liquid, ground both containers electrically to prevent static electric spark. Keep containers tightly sealed.
Sodium cyanide	Highly toxic and corrosive to eyes, skin, and respiratory tract. Can be fatal if swallowed inhaled, or absorbed through skin. Keep cyanide antidote kit available in any cyanide work area. Wear personal protective clothing at all times. Keep in tightly closed container in cool, dry, ventilated area. Protect against physical damage to containers. Do not store under sprinkler systems. Do not wash out container and use for other purposes. Empty containers retain product residues and may be hazardous.
Sodium metabisulphite	May cause irritation to eyes, skin, and respiratory tract with prolonged exposure. Sulphite-sensitive individuals may experience severe allergic reaction to dust. Releases sulphur dioxide gas when mixed with water. Wear PPE and wash thoroughly after handling. Store in dry, well-ventilated area away from heat, acids, and oxidizers. Keep container tightly closed. Use vacuum to clean up dust.
Sodium nitrate	Keep away from heat. Keep away from sources of ignition. Keep away from combustible materials. Empty containers pose a fire risk; evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment.

	<p>If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.</p> <p>Keep away from incompatibles such as reducing agents, combustible materials, acids. Keep container dry. Keep in a cool place. Keep container tightly closed. Keep in a cool and well-ventilated area. Highly toxic or infectious materials should be stored in a separate locked safety storage cabinet or room.</p>
<p>Sulphur</p>	<p>Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. May form flammable dust-air mixtures. Avoid contact with skin, eyes and clothing. Empty containers contain product residue, (liquid and/or vapour), and can be dangerous. Keep containers tightly closed. Avoid contact with heat, sparks, and flame. Use with adequate ventilation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat spark, or open flames.</p> <p>Store away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances (e.g., oxidizing agents).</p>
<p>Important: This Table provides a quick overview only. Refer to MSDS in Appendix C for full description of chemical properties and instruction on transportation, handling storage and disposal.</p>	

SECTION 8.0 – MISCELLANEOUS TOXIC SUBSTANCES

8.1 PRODUCT DESCRIPTION

Acids such as nitric acid, as well as emulsifiers and ammonium nitrate, will be used at the Project mine site. Gases such as propane, oxygen, acetylene; solvents; water/effluent treatment chemicals and various additives will also be utilized.

The release or spillage of any of these substances would possibly result in environmental impacts and pose a potentially hazardous situation for those personnel exposed to these materials. It is essential that materials deemed to be potentially hazardous be dealt with in a cautious manner, in strict adherence to laws and regulations outlined in legislation, whether the substance is provided in large or smaller quantities as this will prevent serious repercussions should an accidental release of material happen.

8.2 STORAGE FACILITIES OF HAZARDOUS/TOXIC CHEMICALS

All explosive related chemicals will be safely stored as discussed in Section 6 of this Plan.

All other chemicals and gases will be stored in appropriate locations.

Use of these separate storage facilities will ensure that chemicals that could interact and cause a serious incident will be kept segregated.

SECTION 9.0 – INVENTORY, INSPECTION AND RECORD KEEPING

The Magino Site Manager has the ultimate responsibility for supervising the receipt, inspection, and recording of all material inventories at site. The Logistics Supervisor reconciles total amounts received against amounts ordered.

9.1 PETROLEUM PRODUCTS

9.1.1 Inventory Management

Diesel fuel use is metered automatically when it is pumped from the bulk tanks. The metered volumes are summarized daily and reconciled against tank level.

Lubricants and other petroleum products are inventoried monthly.

9.1.2 Inspection

The Environmental Department performs regularly scheduled inspections of all fuel and lubricant storage areas at the site. All inspections are logged with the date and time of inspection, facility inspected, and name of the person making the inspection.

The condition of hazardous materials storage areas, containers, tanks, connectors and associated plumbing will be checked on a regular basis. Observations on their condition will be logged, dated and kept near the corresponding storage area. Drums/containers will be inspected for the presence and legibility of symbols, words or other marks identifying the contents. Signs of deterioration or damage such as corrosion, rust, leaks at seams or signs that the drum/container is under pressure such as bulging and swelling, spillage or discoloration on the top or sides of the drum/container will also be inspected and noted. If leaks or deterioration are encountered it will be noted and addressed in a timely manner. The hazardous materials area's secondary containment will be inspected and the condition of the secondary containment will be noted. Arrangements will be made for repairs if necessary.

Any accidental damage to containment structures will be inspected immediately and appropriate repairs undertaken. The extent of damage will be reported in writing to the Site Manager and Environmental Superintendent. The report will note any remedial repairs that are made, the date of any repairs, and the need for any follow-up inspection.

9.1.3 Records

Records pertaining to storage, use, and loss of fuels and lubricants are required by CCME and the Fire Marshal (under the *National Fire Code*). The following records are prepared by the Procurement and Logistics and Site Services departments:

- Reconciliation of bulk inventory from resupply logs;
- Weekly use summaries;
- Weekly reconciliation for each storage tank;
- Overfill alarm tests;
- Pressure tests (if applicable);
- Inspections and maintenance checks of the storage tank, piping, and delivery systems;
- Any alteration to the systems;
- Reports of leaks or losses;

- Reports of spill responses; and
- Records of training.

9.2 EXPLOSIVES

Prodigy will contract a Licenced Supplier of explosives who will produce ANFO or other blasting agents such as emulsion at an off-site location. The supplier will load the blast holes with the blasting agent and Prodigy will load the blast hole with accessories (detonator, non-el, etc.) according to Prodigy's design. Prodigy will tie the shot in on the surface and initiate the blast according to Prodigy safety procedures. Accessories will be stored on site in magazines provided by the supplier.

Access to and use of explosives will be under the exclusive control of the Licenced Contractor retained by Prodigy.

9.2.1 Records

The *Federal Explosives Act* requires that the following records be kept for explosives products:

- Quantity and strength of each explosive manufactured; and
- Quantity of each explosive issued to the mine site from the factory, including the dates of shipments and quantity of each explosive on site.

Prodigy staff will provide weekly reports to the Site Manager that will include:

- Staffing;
- Safety concerns or incidents;
- Total explosives consumption;
- Amount of ammonium nitrate remaining on site; and
- Inventory of other explosives and accessories to be audited for fiscal month-end balances.

9.3 MISCELLANEOUS HAZARDOUS/TOXIC MATERIALS

9.3.1 Inventory Management

Adequate quantities of all hazardous chemicals will be reconciled against orders on receipt. The appropriate department responsible for the miscellaneous chemicals at each site is responsible for reconciling the resupply inventory.

9.3.2 Inspection

During operations, the appropriate department responsible for storage and handling of the miscellaneous chemicals will regularly inspect all areas where such hazardous materials are used and stored. Any problems will be noted and reported to the Department Superintendent. The Department Superintendent will be responsible for weekly or monthly inspections of miscellaneous hazardous materials and storage areas.

9.3.3 Records

The quantity of hazardous materials received, used, and in possession of personnel will be recorded by the appropriate Departments. The departments are to comply with the environmental regulations.

SECTION 10.0 – TRAINING

10.1 GENERAL

All staff and contractors at the Magino site will receive the following training:

- WHMIS;
- Emergency and spill response (refer to ERSPC Plan);
- Operations overview; and
- Mine Standard Operating Procedures.

Mine employees will receive additional training in mine safety as specified by the *Mine Health and Safety Act* and regulations. Prodigy will ensure compliance with the training requirements specified in the Act and regulations.

Process plant employees will receive additional training specific to their area of work and duties, including safe operating practices, safe handling and storage of chemicals, and use of PPE. Other training will include cyanide and chemical awareness, specific chemical training for specific tasks, and mill induction training.

A record of training received will be maintained for each employee and contractor.

10.2 PETROLEUM PRODUCTS HANDLERS

Personnel who handle petroleum products will be expected to be conversant with relevant MSDS information. As well, these personnel will be given training in the following:

- Transportation of dangerous goods (TDG);
- Prodigy's fuel handling procedures (outlined in Section 5 above);
- Spill response and cleanup procedures for petroleum (refer to ERSPC Plan); and
- Emergency response, especially firefighting procedures (refer to ERSPC Plan).

10.3 EXPLOSIVES HANDLERS

Only trained and certified persons will work with explosives. The explosives personnel will undertake formal training and on-the-job training to ensure compliance with legislation. The Mine Inspector will check the adequacy of training. Training requirements will include:

- Specific fire procedures as per the *Federal Explosives Act*;
- First aid;
- Transportation of dangerous goods; and
- WCB blasting certificate.

10.4 PLANT EMPLOYEES

Process plant operators may receive TDG training, if appropriate. All plant employees will be trained in spill and emergency response procedures. Emergency response procedures for spilled chemical substances are provided in the ERSPC Plan.

10.5 THIRD PARTY CONTRACTORS

It is expected that third-party contractors receive adequate and comprehensive training to conduct their work tasks from their employer. Prodigy intends to review the general qualifications of third party contractors prior to allowing them to work at the site. In addition, the contractor companies may be requested to confirm the qualifications of specific individuals that they may have working at the site.

Third party contractors working on the site will be required to participate in, and complete a site specific health and safety training session. The training session is envisioned to be valid for a period of 3 years, after which time the contractor may be required to complete the training again, or attend a refresher. The training session will outline site specific hazardous and response procedures that they should be aware of when conducting their work on site. The training session will cover hazardous materials management.

SECTION 11.0 – ADAPTIVE MANAGEMENT AND CONTINUOUS IMPROVEMENT

In accordance with Prodigy's EMS Framework, the HazMP will be reviewed on a regular basis. Incidents and spills involving hazardous substances will be investigated to determine root causes of the incident. Procedures will be reviewed and updated as required and the HazMP will also be updated if and when required.

As a commitment under the International Cyanide Management Code, Prodigy will retain the services of a third party professional approved by the Cyanide Institute to audit Prodigy's compliance with the Code's principles and standards related to cyanide management.

APPENDIX A – LEGISLATIONS AND GUIDELINES

A.1 WHMIS LEGISLATION AND GUIDELINES

Workplace Hazardous Materials Information System (WHMIS) is implemented by a combination of federal and provincial legislation. The main purpose of the federal WHMIS legislation is to require the suppliers of hazardous materials used in the workplace to provide health and safety information about their products as a condition of sale. The main purpose of the provincial WHMIS legislation is to require employers to obtain health and safety information about hazardous materials in the workplace and to pass this information on to workers.

The Federal WHMIS Legislation

There are 5 pieces of federal legislation that implement WHMIS.

1. The [Hazardous Products Act](#), which places duties on suppliers, who sell or import a hazardous material for use in a workplace in Canada, to provide labels and material safety data sheets to their customers.
2. The [Controlled Products Regulation](#), passed on January 20, 1988, under the authority of the *Hazardous Products Act*. This regulation defines what a controlled product is, and also sets out in detail the information that the supplier is required to put on a label and a material safety data sheet.
3. The [Ingredient Disclosure List](#), issued on January 20, 1988, under the *Hazardous Products Act*. This list contains the names of chemicals which must be identified on a material safety data sheet, if they are ingredients of a controlled product, and if they are present above a specified concentration. The Ingredient Disclosure List is **not** a finite list of chemicals to which WHMIS applies. Although most of the chemicals on the list are controlled products, WHMIS applies to many more chemicals than are on the list.
4. The [Hazardous Materials Information Review Act](#), passed on June 30, 1987. This Act establishes the [Hazardous Materials Information Review Commission](#), which is the federal agency that will rule on claims for exemption from disclosing confidential business information. The Act also defines the type of information that a supplier or employer may withhold from a label or material safety data sheet.
5. The [Hazardous Materials Information Review Regulations](#) passed on January 20, 1988, under the *Hazardous Materials Information Review Act*. This regulation sets out the criteria that the Commission will use when assessing the validity of a claim for exemption, and also sets out the fees to be paid when filing a claim for exemption, or appealing a decision of the Commission.

Ontario's WHMIS Legislation

There are 2 pieces of provincial legislation that implement WHMIS in Ontario:

1. The [Occupational Health and Safety Act](#), which places duties on employers in charge of workplaces where hazardous materials are used, to obtain labels and material safety data sheets from their suppliers and to provide worker education programs.
2. The WHMIS Regulation, Ontario Regulation 644/88 ([now R.R.O. 1990, Regulation 860](#)), which came into effect on October 31, 1988. This regulation sets out in detail the employer duties respecting labels, material safety data sheets and worker education.

A.2 OTHER FEDERAL LEGISLATION AND GUIDELINES

CANADIAN ENVIRONMENTAL PROTECTION ACT, 1999 S.C. 1999, c. 33

- *Code of Practice for the Reduction of Chlorofluorocarbon Emissions from Refrigeration and Air Conditioning Systems.*
- *Environmental Code of Practice for Elimination of Fluorocarbon Emissions from Refrigeration and Air Conditioning Systems.*
- *Environmental Code of Practice on Halons Code of Practice EPS 1/RA/3E.*
- *Environmental Emergency Regulations SOR/2003-307.*
- *Environmental Guidelines for Controlling Emissions of Volatile Organic Compounds from Aboveground Storage Tanks, CCME-EPC-87-E, as amended.*
- *Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations SOR/2005-149.*
- *Federal Halocarbon Regulations, 2003 SOR/2003-289.*
- *Interprovincial Movement of Hazardous Waste Regulations SOR/2002-301.*
- *Ozone-Depleting Substances Regulations, 1998 SOR/99-7.*

EXPLOSIVES ACT R.S.C 1985, c. E-17

- *Ammonium Nitrate and Fuel Oil Order C.R.C. 1978, c. 598.*
- *Explosives Regulations C.R.C. 1978, c. 599.*

TRANSPORTATION OF DANGEROUS GOODS ACT, 1992 S.C. 1992, c. 34

- *Transportation of Dangerous Goods Regulations SOR/2001-286.*
- *Transportation of Dangerous Goods Regulations - Schedules SOR/2001-286.*

Federal Codes and Other Guidance Documents

- National Fire Code.
- Indian and Northern Affairs Canada. (2005). DEW Line Cleanup Barrel Protocol.
- Canadian Council of Ministers for the Environment (CCME) - Environmental Code of Practice for
- Above-Ground and Underground Storage Tanks Systems containing Petroleum Products and
- Allied Petroleum Products (2003).
- CCME - Canadian Wide Standards for Petroleum Hydrocarbons in Soil.
- CCME - Canadian Environmental Quality Guidelines.
- Environment Canada (Tilden & Westerman, 1990) - Guidelines for the Preparation of Hazardous Wastes
- Material Spill Contingency Plans.
- Department of Fisheries and Oceans. 1998. Guidelines for the Use of Explosives in or Near Canadian Fisheries Water.

APPENDIX B – SITE MAPS AND RELEVANT DRAWINGS

B.1 SITE LAYOUT INDICATING STORAGE LOCATIONS FOR HAZARDOUS SUBSTANCES

B.2 HAZARDOUS SUBSTANCE STORAGE AREA LAYOUT

B.3 DIESEL FUEL STORAGE FACILITY

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TODAY'S DISCOVERY, TOMORROW'S FUTURE.

APPENDIX C – MATERIAL SAFETY DATA SHEETS

MAGINO PROJECT

Hazardous Substances Management Plan

ES Technical Support Document 20-4

January 2017