24.0 CYANIDE MANAGEMENT PLAN

INTRODUCTION

Ore feed to the Leadville Mill will be sourced from historic dump material mined from the Penn Group Dumps and transported via truck to the Leadville Mill Plant. Ore will be coarse-screened at the dump site to remove the +6-in. oversize particles. The current process flowsheet incorporates crushing and grinding, followed by cyanide leaching in agitated tanks, followed by liquid-solid separation and extraction of precious metals form the pregnant solution via the Merrill Crowe process to produce gold and silver doré. Solids in slurry form will be detoxified using an air/ferric sulfate addition to remove residual cyanide compounds and the detoxified process residue (tailings) will be dewatered to produce a dry filter cake prior to surface placement in a lined and fully drained storage facility (Filtered Tailings Deposit or FTD) located adjacent to the plant site. Recovered filtrate, contact water and leachate from the dewatering plant and residue storage facility are collected in a double-synthetic lined pond for return to the mill circuit.

Prior to the start of operations, a comprehensive Cyanide Management Plan will be developed to ensure worker safety and to prevent release of cyanide to the environment. The following subsections provide a conceptual Cyanide Management Plan, outlining the information and the level of detail that will be provided in the final plan. The plan will include all applicable mitigation and management measures developed through the environmental assessment process and committed to by CJK Milling, as well as any additional conditions specified in the Conditional Use Permit (CUP) to be granted by Lake County.

The Cyanide Management Plan will be developed in consideration of the principles and standards of practice of the International Cyanide Management Code (Cyanide Code). The principles and standards of practice related to the following components, activities and management measures are relevant to the Leadville Mill Project:

- Transportation
- Handling and storage
- Process solutions and waste streams
- Decommissioning
- Worker safety
- Emergency response and training
- Public consultation.

Union Milling is committed to following the Cyanide Code Principles and implementing its Standards of Practice through all phases of the Leadville Mill Project.

The Cyanide Management Plan will be integrated with other relevant Environmental Management Plans (e.g., Emergency Response Plan, Spill Contingency Plan) to ensure protection to workers, public health and safety and the environment.

The Cyanide Management Plan is designed to ensure the effective transport, storage, management and disposal of cyanide by CJK Milling for the Leadville Mill Project (Project). The plan contains 1) the methods that shall be

used to prevent adverse effects occurring during operations, 2) monitoring plans to assess potential effects during operations, and 3) monitoring plans for determining the effectiveness of mitigation.

24.1 OBJECTIVES

The objectives of this Management Plan are to:

- Follow the established Standard Operating Procedures (SOPs) for Union Milling Leadville Milling operations and closure activities;
- Define Union Milling requirements and procedures to guide the Project Management Team and other outside contractors;
- Define roles and responsibilities;
- Define monitoring and reporting procedures.

24.2 SCOPE

Cyanide is required for the extraction of gold and silver. The plan covers all activities that could result in adverse effects to human health and safety and environmental quality during the project. The plan takes into account both the US Environmental Protection Agency (EPA) requirements for the use, handling and transport of cyanide together with international best practice as specified by the International Cyanide Management Code.

24.3 REGULATORY REQUIREMENTS

24.3.1 UNITED STATES FEDERAL REGULATIONS

OSHA

- There are no chemical specific standards that apply to cyanide and its components.

CAA SECTION 112

- Components present at or above the de minimus level (5mg/m3) are hazardous air pollutants:
  - Sodium Cyanide CAS No. 143-33-9

CERCLA REPORTABLE QUANTITIES

- A Reportable Quantity (RQ) applies to the product based on the percent of the named component:
  - Sodium Cyanide CAS No. 143-33-9
  - Reportable Quantity: 10 lbs

SARA TITLE III SECTION 311/312 HAZARD CATEGORIES

- The product meets the criteria for the following hazard class:
  - Acute Health Hazard

SARA TITLE III SECTION 313 REPORTABLE SUBSTANCES

- Components are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
  - Sodium Cyanide CAS No. 143-33-9
  - Reportable Quantity: 10lbs.

TOXIC SUBSTANCE CONTROL ACT (TSCA)

- Non-proprietary substances are subject to export notification under Section 12 (b) of TSCA:
  - No components fall under the TSCA regulation.

24.3.2 INTERNATIONAL CODE FOR THE MANAGEMENT OF CYANIDE

The "*International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold*" (Cyanide Code) is a voluntary program for the gold mining industry to promote:

- Responsible management of cyanide used in gold mining;
- Protection of human health from exposure to cyanide; and
- Reduction in the potential for environmental impacts.

The Code focuses exclusively on the safe management of cyanide and cyanidation leach solutions. The objective of the Code is to improve the management of cyanide used in gold mining and assist in the protection of human health and the reduction of environmental impacts. The Code sets out standards of practice for:

- Production
- Transportation
- Handling and storage
- Operations
- Decommissioning
- Worker safety
- Emergency response
- Training
- Public and Agency dialogue

24.4 POTENTIAL IMPACTS

Cyanide in its bioavailable form will damage natural, physical, chemical and biological processes. Properties of cyanide are as follows:

- Cyanide is a rapidly-acting highly potent poison to people, animals and plants when exposed to high levels and increasing concerns are being raised about the effects of repeat low doses to animals.
- Cyanide poisoning may occur due to inhalation of cyanide gas (hydrogen cyanide), dusts or mists, absorption through skin following skin contact, or by consuming materials containing cyanide (e.g. drinking water, sediment, soil, plants).

- Exposure to cyanide in solution through consumption of surface water is the main exposure route for most animals affected by cyanide poisoning, but concurrent exposure through inhalation and skin absorption may also occur. Animals may also consume cyanide inadvertently in slurry or sediments.
- While it is a deadly poison when ingested, inhaled, or contacted in a sufficiently high dose, it does not accumulate in the food chain, and will generally not give rise to chronic health or environmental problems when present in low concentrations.
- It oxidizes and degrades when exposed to air or other oxidants.
- Cyanide is abundant in nature, with cyanide containing chemicals being produced by a wide range of micro-organisms and approximately 2,650 plant species as part of their normal metabolism.
- Cyanides can also occur naturally at low levels in many surface and ground waters.
- Cyanide may degrade or diminish by natural processes, however, some of the breakdown products are themselves toxic and able to pose unacceptable risks to human health and the environment (e.g., ammonia, cyanate, nitrate, nitrite, metal-cyanide complexes, thiocyanates, cyanogens, cyanogen chloride, chloroamines).
- More elevated levels may be found in certain plants and animals (many plant and insect species contain cyanogenic glycosides) or near certain industrial sources.

Due to the properties identified, the key issues related to the management of cyanide are principally preventing cyanide from coming into contact with the human body and prevention of cyanide solids or liquids reacting to produce cyanide gas. Consideration must therefore be given to the following:

1. Elimination of direct disposal/spillage of cyanide to the ground, surface water or stormwater drains.
2. Management and maintenance of storage facilities.
3. Proper cyanide handling.
4. Proper cyanide transportation and delivery

24.5 CYANIDE MANAGEMENT PROCEDURES

24.5.1 GENERAL

- Union Milling is aware of its responsibilities with respect to cyanide transport and handling and is committed to following the principles and procedures set out in the Cyanide Code.
- The focus of the Leadville Mill Cyanide Management Plan (LMCMP) will be prevention of access to the pregnant solution pond and barren pond to wildlife and livestock, using fencing and other measures, and the prevention of contamination of groundwater.
- Union Milling will purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide and to prevent releases of cyanide to the environment.
- Union Milling will follow the comprehensive water management program through quarterly monitoring to protect against unintentional releases.
- Union Milling will continue to implement measures to protect birds, other wildlife and livestock from adverse effects from exposure to cyanide from accidental releases and from direct and indirect discharges of cyanide process solutions to surface and groundwater.

24.5.2 TRANSPORTATION

- No cyanide will be transported until all transportation management procedures are in place and all road safety upgrades have been completed.
- Cyanide will be transported in bulk on transport trucks with proper signage. Transporters of cyanide will receive instruction in the safe handling this material.
- Clear lines of responsibility will be established for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.
- Cyanide transporters will be required to implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.

24.5.3 HANDLING & STORAGE

Union Milling will ensure that cyanide handling and storage is upheld to a standard consistent with the Cyanide Code and all federal regulations.

- Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices and quality control and quality assurance procedures, spill prevention and spill containment measures.
- Operate unloading, storage and mixing facilities using inspections, preventive maintenance, and contingency plans to prevent or contain releases and control and respond to worker exposures.
- Inspections of the secondary containment where the cyanide is stored will be conducted according to the inspection schedule.
- Training will be provided to employees in the safe handling of cyanide will handle the material. This will be limited to a small number of employees.
- Materials Safety Data Sheets (MSDS) and handling procedures will be posted in the cyanide storage area where they can be easily seen and read (See attached MSDS sheets).
- Defined hazardous procedures involving cyanide will require operators to wear appropriate protective clothing as described in the MSDS and the manufacturer's recommendations for personal protective equipment (PPE).
- Working in pairs when performing the following hazardous operations:
  - opening storage containers
  - dissolving sodium cyanide pellets
  - cleaning-up cyanide spillages

24.5.4 MANAGEMENT & MAINTENANCE OF STORAGE FACILITY

Any accidental damage to containment structures will be inspected immediately and repairs made immediately. The extent of damage will be reported in writing to the plant manager.

24.5.5 CLOSURE

Union Milling will ensure that closure planning is held to a standard consistent with the Cyanide Code:

- On the plant site, all unused cyanide will be destroyed on site or, if a qualified buyer is available, shipped off site.
- Cyanide tanks and piping will be cleaned and removed from site as recycled scrap metal.

24.5.6 PERSONAL PROTECTIVE EQUIPMENT (PPE)

The following guidelines will be implemented on the Leadville Mill Project:

- When handling cyanide in any form, a full-face respirator must be worn at all times.
- Working with cyanide demands thorough housekeeping and cleanliness. Workers must wash their hands before eating, drinking or smoking. (None of these activities will take place where cyanide is stored or used).
- Contaminated protective gear and clothing should be securely discarded or washed before being stored and re-used.

24.5.7 FIRST AID

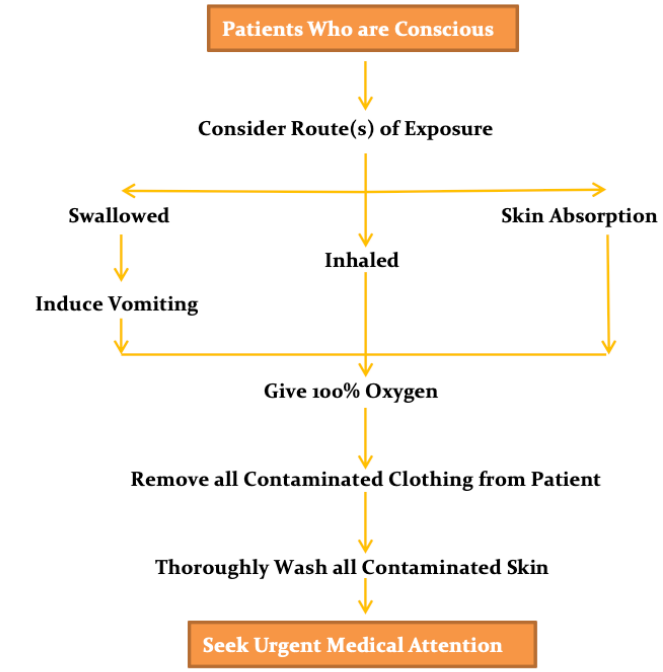
The following figures outline basic first-aid treatment for conscious and unconscious patients from cyanide exposure:

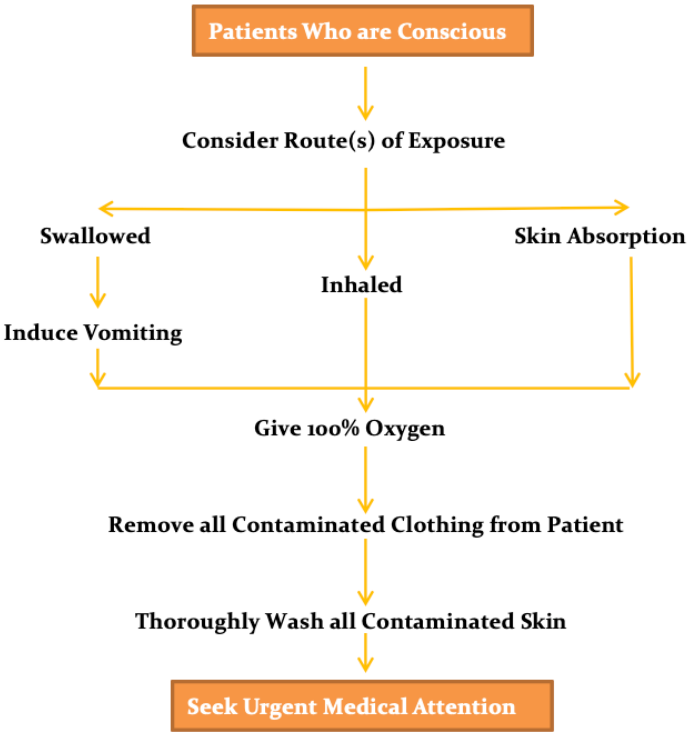
24.6 TRAINING

Union Milling will guarantee that worker training is maintained to a standard consistent with all federal regulations. Union Milling employee training for those handling or exposed to cyanide will include:

- Understanding the hazards associated with cyanide use.
- Correct facility operation according to systems and procedures that protect human health, the community and the environment.
- The use of personal protective equipment (PPE).
- First-aid and emergency response to worker exposures and environmental releases of cyanide.

Well-defined responsibilities will be established for all employees working with cyanide along with effective communication within all present on site. All employees will be given orientation training in safety precautions if exposed to cyanide.


Patients Who are Conscious
Consider Route(s) of Exposure
Swallowed
Inhaled
Skin Absorption
Induce Vomiting
Give 100% Oxygen
Remove all Contaminated Clothing from Patient
Thoroughly Wash all Contaminated Skin
Seek Urgent Medical Attention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Remove all Contaminated Clothing from Patient
Thoroughly Wash all Contaminated Skin
Seek Urgent Medical Attention

24.7 MONITORING & REPORTING

Union Milling will maintain an inventory of all chemicals purchased, delivered, stored, and used at the Leadville Mill Project. This inventory will include cyanide and will be updated monthly. Union Milling will collect and maintain records on cyanide for the following:

- tracking and recording of all cyanide use
- reconciled bulk inventory;
- inspections and maintenance checks of storage areas
- inspection of handling methods
- any alteration to the system
- reports of spill responses
- records of training

PRINCIPLES & STANDARDS OF PRACTICE AS DEFINED IN THE CYANIDE CODE

Principles	Standards of Practice
1: PRODUCTION *Encourage responsible cyanide manufacturing by purchasing from manufacturers who operate in a safe and environmentally protective manner.*	**1.1** Purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide and to prevent releases of cyanide to the environment.
2: TRANSPORTATION *Protect communities and the environment during cyanide transport.*	**2.1** Establish clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.
	2.2 Require that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.
3: HANDLING AND STORAGE Protect workers and the environment during cyanide handling and storage.	**3.1** Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices and quality control and quality assurance procedures, spill prevention and spill containment measures.
	3.2 Operate unloading, storage and mixing facilities using inspections, preventive maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.
4: OPERATIONS *Manage cyanide process solutions and waste streams to protect human health and the environment.*	**4.1** Implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventive maintenance procedures.
	4.2 Implement a comprehensive water management program to protect against unintentional releases.
	4.4 Implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.
	4.5 Implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.
	4.6 Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of ground water.
	4.7 Provide spill prevention or containment measures for process tanks and pipelines.
	4.8 Implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.
	4.9 Implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and ground water quality.
5: DECOMMISSIONING *Protect communities and the environment from cyanide through development and implementation of decommissioning plans for cyanide facilities.*	**5.1** Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock.
6: WORKER SAFETY *Protect workers" health and safety from exposure to cyanide.*	**6.1** Identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.
	6.2 Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.
	6.3 Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.
7: EMERGENCY RESPONSE *Protect communities and the environment through the development of emergency response strategies and capabilities.*	**7.1** Prepare detailed emergency response plans for potential cyanide releases.
	7.2 Involve site personnel and stakeholders in the planning process.
	7.3 Designate appropriate personnel and commit necessary