EAGLE GOLD PROJECT
CYANIDE MANAGEMENT PLAN

Version 2014-01

MAY 2014
# Table of Contents

1. **Introduction** ................................................................. 1  
   1.1 Cyanide Management Plan Description ........................................ 1  
   1.2 Plan Review, Approval, and Update Requirements ...................... 1  

2. **Cyanide Procurement** ....................................................... 2  
   2.1 Contractual Requirements and Responsibility Assignments ....... 2  
   2.2 Management of Temporary Supplies from Alternate Producers .... 2  

3. **Cyanide Transportation** .................................................. 3  
   3.1 Contractual Requirements and Responsibility Assignments .......... 3  
   3.2 Management of Deliveries from Alternate Transporters .............. 4  

4. **Cyanide Receipt, Handling, and Storage** ............................ 5  
   4.1 Cyanide Unloading and Storage ............................................. 5  
   4.2 Cyanide Mixing and Solution Storage ..................................... 8  
   4.3 Prevention of Cyanide Releases and Workforce Exposures .......... 8  

5. **Operational Process Controls** ........................................... 10  
   5.1 Operating Plans and Procedures .......................................... 10  
      5.1.1 Management Plans and Procedures ..................................... 10  
      5.1.2 Documentation of Design Assumptions and Parameters in Operating Plans and Procedures ................................................. 13  
      5.1.3 Preventive Maintenance System and Interface with Facility Inspection Plans/Procedures .................................................. 13  
      5.1.4 Management of Facility Changes ....................................... 14  
      5.1.5 Contingency Plans/Procedures ........................................... 14  
      5.1.6 Facility Inspection Schedule ............................................. 14  
      5.1.7 Facility Inspection Requirements ........................................ 14  
      5.1.8 Management of Inspection Records ..................................... 17  
      5.1.9 Preventative Maintenance Programs ................................... 17  
      5.1.10 Critical Power ................................................................. 18  
   5.2 Optimization of Cyanide Usage ........................................... 21  
   5.3 Water Balance Management ............................................... 21  
      5.3.1 Probabilistic Water Balance Description ............................. 21  
      5.3.2 Water Balance – General Input Parameters ....................... 21  
      5.3.3 Water Balance – Inspection and Monitoring Data Input ............ 23  
      5.3.4 Freeboard Considerations – Event Ponds ............................. 23  
      5.3.5 Meteorological Facilities/Precipitation Measurement ............. 23  
   5.4 Wildlife Protection ............................................................. 23
# Eagle Gold Project
## Cyanide Management Plan

## Table of Contents

5.4.1 Preventive Measures for Open Ponds ................................................................. 23
5.4.2 Monitoring of Cyanide Concentrations in Open Ponds ....................................... 23
5.4.3 Wildlife Mortality Monitoring .............................................................................. 23
5.4.4 Leach Solution Application Controls ................................................................. 24

5.5 Management of Direct/Indirect Process Solution Discharges ................................. 24
5.5.1 Direct Discharges to Surface Water .................................................................... 24
5.5.2 Indirect Discharges to Surface Water .................................................................. 25
5.5.3 Protection of Beneficial Uses of Surface Water ................................................... 25
5.5.4 Monitoring Discharges to Surface Water ............................................................. 26

5.6 Management of Cyanide Facility Groundwater Impacts ......................................... 26
5.6.1 Management of Seepage from Cyanide Facilities ............................................... 26
5.6.2 Groundwater Monitoring .................................................................................... 26

5.7 Spill Prevention and Containment Measures for Process Solution Tanks and Pipelines .................. 26
5.7.1 Secondary Containment Description – Mixing and Storage Tanks and ADR Process Solution Tanks .......................................................... 26
5.7.2 Sizing Considerations for Secondary Containments ......................................... 27
5.7.3 Management of Solution/Contaminated Water in Secondary Containments .......... 27
5.7.4 Contingency Planning for Remediation of Contaminated Soil ............................ 27
5.7.5 Spill Prevention/Containment Measures for Process Solution Pipelines ............. 28
5.7.6 Tank and Pipeline Material Compatibility ............................................................ 28

5.8 Construction Quality Assurance/Quality Control (QA/QC) Program ....................... 29
5.8.1 Construction QA/QC Program – ADR ................................................................. 29
5.8.2 Construction QA/QC Records Management ..................................................... 30
5.8.3 Construction QA/QC Approvals ....................................................................... 30

5.9 Wildlife and Surface/Groundwater Quality Monitoring Programs ......................... 30
5.9.1 Monitoring Program Documentation ................................................................... 30
5.9.2 Development of Sampling and Analytical Protocols ......................................... 30

6 Decommissioning of Cyanide Facilities ....................................................................... 31
6.1 Decommissioning Planning .................................................................................... 31
6.1.1 Decommissioning Plan and Procedures ............................................................. 31
6.1.2 General Schedule or Sequence for Decommissioning of Cyanide Facilities .......... 31
6.1.3 Periodic Review and Update of Decommissioning Plan and Procedures .............. 31

6.2 Financial Assurance Mechanism for Decommissioning Cyanide Facilities ............... 32
6.2.1 Cost Estimate for Third-Party Decommissioning of Cyanide Facilities ................ 32
6.2.2 Cost Estimate Updates ....................................................................................... 32
6.2.3 Jurisdictional Requirements for Financial Assurances/Guarantees for Funding Third-Party Decommissioning of Cyanide Facilities .................................................. 32

7 Worker Safety ............................................................................................................. 34
### Table of Contents

7.1 Identification and Management of Cyanide Exposure Scenarios .............................................. 34
   7.1.1 Exposure Risk Assessments .............................................................................................. 34
   7.1.2 Personal Protective Equipment (PPE) and Pre-work Inspection Requirements ................. 35
   7.1.3 General Signage Requirements ...................................................................................... 35
   7.1.4 Location of Emergency Showers/Eyewash Stations and Fire Extinguishers ................... 35
   7.1.5 Process Tank and Pipeline Signage Requirements .......................................................... 35
   7.1.6 Material Safety Data Sheet (MSDS) and Cyanide Safety Information ............................ 36
   7.1.7 Management of Occupational Health and Safety Issues in Facility Changes ................. 36
   7.1.8 Solicitation of Workforce Input on Occupational Health and Safety Issues ................ 36
7.2 Operational Monitoring of Cyanide Facility Worker Health and Safety ..................................... 37
   7.2.1 Management of pH ....................................................................................................... 37
   7.2.2 Ambient/Personal Monitoring Devices .......................................................................... 37
   7.2.3 Investigation and Evaluation of Exposure Incidents ...................................................... 37
7.3 Emergency Preparedness and Response Plans and Procedures ............................................. 38
   7.3.1 Emergency Response/First Aid Equipment .................................................................. 38
   7.3.2 Emergency Response/First Aid Equipment Inspections and Maintenance .................... 38
   7.3.3 Emergency Response Procedures for Cyanide Exposures .......................................... 38
   7.3.4 Onsite First Aid/Medical Assistance Capabilities ....................................................... 38
   7.3.5 Agreements with Offsite Medical Facilities .................................................................... 39
   7.3.6 Mock Emergency Drills ............................................................................................... 39
8 Emergency Response ....................................................................................................................... 40
   8.1 Emergency Response Planning .......................................................................................... 40
   8.1.1 Considerations for Potential Cyanide Releases in Emergency Response Plan .......... 40
   8.1.2 Potential Cyanide Emergency Scenarios ....................................................................... 40
   8.1.3 Responses to Transportation-Related Emergencies ..................................................... 41
   8.1.4 Response Actions ......................................................................................................... 41
   8.2 Stakeholder Engagement in Emergency Response Planning Process ............................... 44
   8.2.1 Planning for Stakeholder/Workforce Engagement ........................................................ 44
   8.2.2 Consultation with Potentially Affected Individuals and Communities .......................... 44
   8.2.3 Consultation with Local Response Agencies and Medical Facilities ........................... 44
   8.2.4 Stakeholder Engagement in Emergency Response Plan Updates ................................ 44
   8.3 Commitment of Resources and Personnel for Emergency Response ............................... 45
   8.3.1 Cyanide-Related Elements of Eagle Gold Project Emergency Response Plan ............... 45
   8.3.2 Stakeholder/Workforce Engagement in Mock Drills ................................................... 45
   8.4 Internal/External Emergency Notification and Reporting Procedures ............................... 45
   8.4.1 Procedures and Contacts for Emergency Reporting ...................................................... 45
   8.4.2 Emergency Notifications – Potentially Affected Communities and Media Communications .. 46
# Table of Contents

8.5 Remediation Measures/Monitoring Elements for Cyanide Hazards ................................................................................................. 46
  8.5.1 Identification of Potential Cyanide Release Scenarios in Emergency Response Plan ................................................................................. 46
  8.5.2 Prohibited Treatment Chemicals for Cyanide Releases to Surface Water ............................................................................................... 46
  8.5.3 Monitoring for Extent of Potential Cyanide Releases .......................................................................................................................... 47

8.6 Evaluation and Update of Emergency Response Procedures and Capabilities ....................................................................................... 47
  8.6.1 Routine Emergency Response Plan Review and Update Requirements ........................................................................................................ 47
  8.6.2 Mock Emergency Drills ........................................................................................................................................................................... 47

9 Training of Workers and Emergency Response Personnel ............................................................................................................................ 48
  9.1 Cyanide Hazard Recognition Training ....................................................................................................................................................... 48
    9.1.1 Cyanide Hazards Recognition Training Program ................................................................................................................................. 48
    9.1.2 Refresher Training Requirements ......................................................................................................................................................... 48
    9.1.3 Retention of Training Records ................................................................................................................................................................. 48
  9.2 Operational Training Requirements ................................................................................................................................................................. 48
    9.2.1 Operational Training Program for Cyanide Facility Workers ....................................................................................................................... 48
    9.2.2 Trainer Qualification Requirements ......................................................................................................................................................... 49
    9.2.3 Authorization of Trainees/Release for Cyanide Facilities Work .................................................................................................................. 49
    9.2.4 Evaluation of Training Program Effectiveness and Refresher Training .................................................................................................. 49
    9.2.5 Operational Training Records Requirements ................................................................................................................................................ 49
  9.3 Cyanide Release Response Training ............................................................................................................................................................... 50
    9.3.1 Cyanide Release Response Training – Cyanide Facilities Workers / Maintenance Personnel ......................................................................... 50
    9.3.2 Decontamination and First Aid Training .................................................................................................................................................. 50
    9.3.3 Emergency Response Coordinator/Emergency Response Team Training .................................................................................................. 50
    9.3.4 Offsite Emergency Responder Cyanide Release Response Training ..................................................................................................... 50
    9.3.5 Refresher Training Requirements ............................................................................................................................................................. 51
    9.3.6 Mock Cyanide Emergency Drills and Effectiveness Evaluations ........................................................................................................... 51

10 Public Dialog and Disclosure ................................................................................................................................................................................ 52
  10.1 Stakeholder Outreach and Opportunities for Communication ......................................................................................................................... 52
  10.2 Dissemination of Cyanide Information to External and Internal Stakeholders ........................................................................................... 52
    10.2.1 Written Descriptions of Cyanide Use and Associated Management Practices .......................................................................................... 52
    10.2.2 Dissemination of Information on Cyanide Exposures or Releases ......................................................................................................... 52

11 References ......................................................................................................................................................................................................................... 53

List of Tables

Table 5.1-1: Primary Cyanide Facility Management Plans/SOPs ......................................................................................................................... 11
Table 5.1-2: Routine Cyanide Facility Inspection Focus Areas ......................................................................................................................... 15
Table 5.7-1:  Tank Size/Containment Volume for Mixing, Storage, and Process Solution Tanks ..............27

List of Figures

Figure 4.1-1: Conceptual Layout of ADR/Cyanide Storage/Mixing Areas and Containment Boundaries ....6
Figure 4.1-2: Conceptual location of ADR/Cyanide Storage and Mixing Areas ..............................................7
Figure 5.1-1: Mineral Extraction Process Flowsheet ..................................................................................19
Figure 5.1-2: Eagle Gold Project Site – Cyanide Facilities Location .............................................................20
Figure 5.3-1: Conceptual Water Balance Model .......................................................................................22
Figure 5.5-1: Example HLF Cross-Sections, Showing Typical Transition and Internal Pond Arrangement ........................................................................................................25
Figure 8.1-1: Emergency Response/Reporting Tree Diagrams ..................................................................43
# List of Acronyms

**LIST OF ACRONYMS**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>Adsorption, Desorption, and Recovery</td>
</tr>
<tr>
<td>API</td>
<td>American Petroleum Institute</td>
</tr>
<tr>
<td>CMP</td>
<td>Cyanide Management Plan</td>
</tr>
<tr>
<td>CQA</td>
<td>Construction Quality Assurance</td>
</tr>
<tr>
<td>EDC</td>
<td>Engineering, Design, and Construction</td>
</tr>
<tr>
<td>EHS</td>
<td>Environment, Health, and Safety</td>
</tr>
<tr>
<td>ERT</td>
<td>Emergency Response Team</td>
</tr>
<tr>
<td>FNNND</td>
<td>First Nation of Na-Cho Nyäk Dun</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
</tr>
<tr>
<td>HCN</td>
<td>Hydrogen Cyanide</td>
</tr>
<tr>
<td>HLF</td>
<td>Heap Leach Facility</td>
</tr>
<tr>
<td>ICMC</td>
<td>International Cyanide Management Code</td>
</tr>
<tr>
<td>ICMI</td>
<td>International Cyanide Management Institute</td>
</tr>
<tr>
<td>IFC</td>
<td>International Finance Corporation</td>
</tr>
<tr>
<td>MEDEVAC</td>
<td>MEDical EVACuation</td>
</tr>
<tr>
<td>MSDS</td>
<td>Material Safety Data Sheet</td>
</tr>
<tr>
<td>OFA</td>
<td>Occupational First Aid</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>Operations and Maintenance</td>
</tr>
<tr>
<td>PM</td>
<td>Preventive Maintenance</td>
</tr>
<tr>
<td>PPE</td>
<td>Personal Protective Equipment</td>
</tr>
<tr>
<td>RCMP</td>
<td>Royal Canadian Mounted Police</td>
</tr>
<tr>
<td>SCBA</td>
<td>Self-Contained Breathing Apparatus</td>
</tr>
<tr>
<td>SGC</td>
<td>StrataGold Corporation</td>
</tr>
<tr>
<td>SOP</td>
<td>Standard Operating Procedure</td>
</tr>
<tr>
<td>QA/QC</td>
<td>Quality Assurance/Quality Control</td>
</tr>
<tr>
<td>WAD</td>
<td>Weak Acid Dissociable</td>
</tr>
<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
</tr>
<tr>
<td>YOHSR</td>
<td>Yukon Occupational Health and Safety Regulations</td>
</tr>
<tr>
<td>YWCHSB</td>
<td>Yukon Workers’ Compensation Health and Safety Board</td>
</tr>
</tbody>
</table>
1 INTRODUCTION

1.1 CYANIDE MANAGEMENT PLAN DESCRIPTION
This Cyanide Management Plan (CMP) describes the practices and procedures that StrataGold Corporation (SGC) will apply to the procurement, delivery, storage handling, and use of sodium cyanide (cyanide) reagent for mineral extraction purposes at the Eagle Gold Project (the Project), Yukon Territory, Canada. It is designed to address the requirements of the International Cyanide Management Code (ICMI, 2012a) and is structured to correspond closely to the interpretative guidance provided by International Cyanide Management Institute - Auditor Guidance for Use of the Gold Mining Operations Verification Protocol (ICMI, 2012b). The ICMC has been widely and successfully applied in international gold mining projects, and is recognized by the World Bank/International Finance Corporation (IFC) and World Gold Council as a best practice in management of all mining operations with cyanide-based mineral extraction processes.

This CMP is prepared specifically to support the Water Use and Quartz Mining License Applications for the Project. As the Project is still in the permitting process and preliminary design phase, and some specific details will depend on the completion of detailed design activities, this should be considered the initial version of the CMP. It is expected that the CMP may be built upon during the licensing stage up until commissioning of the ADR facility and the completion of other facilities associated with the management of cyanide. To the extent possible, however, it presents a complete management structure for prevention or mitigation of environmental and social impacts associated with the use of cyanide. It is supported by a suite of complementary management plans and Standard Operating Procedures (SOPs) that will be developed and implemented as the permitting and design processes are completed and mining facilities constructed, well prior to the transport of any cyanide reagent to the mine site and the commencement of the operational phase of the Project.

1.2 PLAN REVIEW, APPROVAL, AND UPDATE REQUIREMENTS
The CMP is conceived as one of the Project’s primary environmental, health, and safety (EHS) management plans. The CMP will be updated to reflect the final detailed design of the Project, and will be kept current with any cyanide facility or process changes that may occur over the life of the mine. All versions to the CMP and the supporting management plans and SOPs cited herein will be reviewed and approved by SGC management, and formally controlled in accordance with SGC-CMP-SOP-001, “Preparation, Review, Approval, Update, and Controlled Distribution of Eagle Gold Project Management Plans and Standard Operating Procedures.”
2 CYANIDE PROCUREMENT

2.1 CONTRACTUAL REQUIREMENTS AND RESPONSIBILITY ASSIGNMENTS

SGC will purchase cyanide in solid briquette form, to be delivered in 1 tonne nylon “supersacks”, overpacked in polyethylene-lined plywood pallet crates and transported to the Project site in standard steel intermodal containers. All cyanide will be purchased on a preferential basis from manufacturers whose cyanide production facilities have been certified to the ICMC. SGC expects to establish a long-term supply contract with a North American supplier, and will seek to establish contractual conditions under which the cyanide producer will also assume responsibility for management of the entire supply chain pursuant to the requirements of the ICMC (see Section 3). Copies of all contracts or ordering agreements, amendments, and purchase orders will be retained in accordance with SGC-CMP-SOP-003, “Records Management.”

2.2 MANAGEMENT OF TEMPORARY SUPPLIES FROM ALTERNATE PRODUCERS

SGC will seek to establish a long-term supply chain contract with an ICMC-certified producer. However, in the event that the primary ICMC-certified source of supply is for any reason interrupted, SGC may be required to temporarily purchase cyanide (in the same delivery form noted in Section 2.1) from alternate sources and supply chains. In such cases, SGC will make a good-faith effort to preferentially purchase cyanide from sources offering an ICMC-certified supply chain. Purchases of cyanide from partially certified supply chains or non-certified sources will be permitted only if all other viable ICMC-certified cyanide supply chains and sources are exhausted. In all cases, the ICMC-certified supply chain will be reinstated as soon as circumstances permit. Correspondence documenting the effort to locate alternate supply chains and/or to reinstate fully certified supply chains will be retained in the Project records in accordance with SGC-CMP-SOP-003, “Records Management.”
3 CYANIDE TRANSPORTATION

3.1 CONTRACTUAL REQUIREMENTS AND RESPONSIBILITY ASSIGNMENTS

As noted in Section 2.1, SGC will seek to establish contractual conditions with an ICMC-certified cyanide producer under which the producer will also assume responsibility for management of the entire supply and delivery chain, pursuant to the requirements of the ICMC. Contractual terms and conditions will specifically denote supply chain contractor responsibilities for all aspects of transportation, including development of an ICMC-compliant Cyanide Transportation Management Plan that addresses:

- Packaging and product labeling as required by the United Nations for international shipments\(^1\);
- Storage prior to shipment;
- Evaluation and selection of optimal delivery routes, including all necessary community relations contacts and interactions with responsible emergency response authorities;
- Transport from the production facility to the Project site, using optimal delivery routes, global positioning system (GPS) tracking, and lead pilot vehicles on shipments between Mayo and the mine site;
- Interim unloading, storage, loading, and security in transit;
- Safety and maintenance of the means of transportation;
- Safety and operational/task training for all transportation personnel, throughout transport;
- Emergency response throughout transport; and
- Contractor training.

SGC will be responsible for unloading intermodal containers of cyanide upon receipt, and will take formal ownership of the product at the point each individual crate is lifted out of the intermodal delivery container by the SGC forklift.

---

\(^1\) No ICMC-certified cyanide production facilities currently exist in Canada; however, there are currently two manufacturers of industrial cyanide in the United States, both of which hold current ICMC supply-chain certifications for railway/truck delivery in Canada.
3.2 MANAGEMENT OF DELIVERIES FROM ALTERNATE TRANSPORTERS

See Section 2.2; SGC will seek to establish a long-term supply chain contract with an ICMC-certified producer, who will be responsible for all aspects of transportation of cyanide to the Project site. In the event that the primary ICMC-certified supply chain is temporarily interrupted, SGC will make a good-faith effort to preferentially purchase cyanide from sources offering a fully ICMC-certified supply chain. Purchases of cyanide from sources with partially certified or non-certified supply chains will be considered only if all other viable sources of ICMC-certified cyanide and cyanide transport are exhausted. In all cases, ICMC certification status notwithstanding, transporters will be certified for transportation of hazardous materials under applicable governmental regulations. The ICMC-certified supply chain must also be reinstated as soon as circumstances permit. Correspondence documenting the effort to locate alternate transporters and/or resume the use of fully certified transporters will be retained in the Project records in accordance with SGC-CMP-SOP-003, “Records Management.”
4  CYANIDE RECEIPT, HANDLING, AND STORAGE

4.1  CYANIDE UNLOADING AND STORAGE
Cyanide will be received at a designated unloading area at the east end of the Adsorption, Desorption, and Recovery (ADR) plant building; see Figure 4.1-1 for a conceptual plan view. The ADR is well away from the location of the Project camp and will be designed to physically isolate (by the use of containment walls) the cyanide reagent storage area from other storage areas designated for acids or other chemically incompatible materials. See Figure 4.1-2 for the conceptual location of the ADR facility with respect to other major site features.

The delivery area will be cordoned with warning signs and visual barriers to prevent unauthorised passage of personnel and equipment while the cyanide crates are being offloaded. The storage bay will be designed with input from the cyanide manufacturer; it will be covered and well-ventilated, with a bermed concrete floor permitting dry retrieval of any potential spillage of cyanide briquettes. The storage bay will be sized to permit storage of up to two weeks’ operational reserve, assuming crates are permitted to be stacked no more than three high. The storage area will be provided with appropriate warning signage at all entry doors, along with an audible and visual hydrogen cyanide (HCN) alarm and monitoring systems that can be observed from the ADR plant operations control station. Fire extinguishing equipment for cyanide storage areas will comply with SGC- CMP-SOP-009, “Fire Prevention/Protection Program” requirements; use of water-based deluge systems and carbon dioxide fire extinguishers in the cyanide receiving and storage area is specifically prohibited.

Overall procedural controls for cyanide unloading and storage operations will be defined in SGC-CMP-SOP-004, “Receipt and Storage of Reagent Cyanide.”
Figure 4.1-1: Conceptual Layout of ADR/Cyanide Storage/Mixing Areas and Containment Boundaries

A - Adsorption train containment area
B - Bunded dry storage area, CN briquettes
C - CN mixing and storage tank containment
D - CN unloading area
E - Barren solution tank containment area

- Concrete CN containment berm/ bund wall
Figure 4.1-2: Conceptual location of ADR/Cyanide Storage and Mixing Areas
4.2 CYANIDE MIXING AND SOLUTION STORAGE

SGC will conduct bag cutting, cyanide mixing, and high-strength solution storage operations in strict accordance with SGC-CMP-SOP-005, “Cyanide Mixing Process.” The cyanide mixing and storage tanks will be located in the ADR building. The cyanide mix plant area will be well ventilated to minimize the potential for build-up of HCN vapours.

The ADR building will contain appropriate crane facilities for lifting and positioning reagent supersacks over the mixing tank. The mixing tank will be fitted with a hopper and integral bag cutter and bag rinse arrangement. The mixing deck will be fitted with an audible and visual hydrogen cyanide (HCN) alarm, a stationary HCN monitor set to alarm at 4.7 ppm, and a video monitoring system, all of which can be accessed/observed from the ADR plant operations control station. Mixing operations will be conducted by a two-man team with personal HCN monitors and appropriate personal protective equipment (PPE) in accordance with SGC-CMP-SOP-008, “Personal Protective Equipment for Cyanide Facility Operations.” The mixing and storage tank will be maintained at a pH of 12 or greater as a precaution against the generation of HCN. Both the mixing and storage tanks will be fitted with hard-plumbed overflows (with solution collection and return pumps) and remotely-monitored tank level indicators.

Tank foundations will consist of concrete plinths; concrete ring beam foundations for high-strength solution tanks (i.e., the cyanide mixing and storage tanks) will not be used. Concrete impoundments for the mixing and storage tanks will be sealed, physically isolated from acids or other incompatible materials, and sized to contain at least 110% of the largest contained tank, plus flowback, giving due consideration to the potential reduction of containment volume from pumps or other equipment installed within the containment. Mixing and storage tanks will also be subject to baseline and periodic ultrasonic testing under the Project’s Preventive Maintenance (PM) program (see Section 5.1.3) for monitoring of corrosion effects on wall thickness, in accordance with American Petroleum Institute (API) Standard 653, Tank Inspection, Repair, Alteration and Reconstruction (API, 2008) or an equivalent standard. Testing records, construction quality assurance/quality control (QA/QC) and secondary containment volumes calculation records will be maintained in accordance with SGC-CMP-SOP-003, “Records Management.”

4.3 PREVENTION OF CYANIDE RELEASES AND WORKFORCE EXPOSURES

SGC will implement several SOPs to prevent cyanide releases and/or workforce exposures during the unloading, storage, and mixing of cyanide. SGC-CMP-SOP-004, “Receipt and Storage of Reagent Cyanide” addresses care in the use of a forklift in cyanide unloading and staging operations, and limits the stacking of the (approximately one metre cube) plywood cyanide crates in the dedicated cyanide storage area in the ADR building to 3 high.

As noted in SGC-CMP-SOP-005, “Cyanide Mixing Process”, the mixing deck area will be ventilated and instrumented to detect any potential generation of HCN gas. After completion of bag cutting and emptying operations, the empty supersack will be triple-rinsed using a water spray arrangement.
integrated with the bag cutter, with all rinseate reporting directly to the mix tank. Empty rinsed bags and all associated overpacking materials (i.e., plywood crates, polyethylene liners, and strapping materials) will be collected and transported to a securely fenced incinerator and disposed of in accordance with SGC-CMP-SOP-006, “Controlled Disposal of Cyanide Packaging Materials.” Recycling or re-use of any cyanide packaging materials for any other purpose will be specifically prohibited.
5 OPERATIONAL PROCESS CONTROLS

5.1 OPERATING PLANS AND PROCEDURES

5.1.1 Management Plans and Procedures
SGC will establish and maintain a suite of management plans and supporting SOPs for the safe and responsible operation of all cyanide management facilities at the Project. These cyanide management facilities are defined as:

- the (solid) cyanide reagent unloading and storage area in the ADR building;
- the cyanide mixing and storage tank area, also located in the ADR building;
- the incinerator used for disposal of rinsed supersacks, plywood overpacks, and other cyanide packaging wastes;
- the rest of the ADR building, less the gold room, including the elution column, carbon adsorption tank trains, strip/wash area, carbon screens, and associated piping system components;
- the barren solution tank on the south side of the ADR building;
- pregnant and barren solution pipelines to and from the heap leach facility (HLF);
- the HLF;
- the event pond; and
- all other project areas, pipelines, or infrastructure containing Weak Acid Dissociable (WAD) cyanide solution potentially $\geq 0.5$ mg/l.

The process relationships between and among major cyanide facilities are represented schematically in the flowsheet included as Figure 5.1-1; facility locations are shown in the general site layout drawing provided as Figure 5.1-2. The primary management/operational plans and/or SOPs associated with cyanide facility operations are listed in Table 5.1-1.
### Table 5.1-1: Primary Cyanide Facility Management Plans/SOPs

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Management Plan/SOP Title and/or Designator</th>
</tr>
</thead>
</table>
| Cyanide unloading bay and dry storage area (ADR building)                 | • SGC- CMP-SOP-004, “Receipt and Storage of Reagent Cyanide”  
• SGC-CMP-SOP-007, “Cyanide Facility Inspections”  
• SGC-CMP-SOP-008, “Personal Protective Equipment for Cyanide Facility Operations”  
• SGC-CMP-SOP-009, “Fire Prevention/Protection Program”  
• *Eagle Gold Project Preventive Maintenance Program Plan*  
• *Eagle Gold Project Spill Response Plan*  
• *Eagle Gold Project Emergency Response Plan* |
| Cyanide mixing and storage tanks and secondary containment                | • SGC-CMP-SOP-005, “Cyanide Mixing Process”  
• SGC-CMP-SOP-007, “Cyanide Facility Inspections”  
• SGC-CMP-SOP-008, “Personal Protective Equipment for Cyanide Facility Operations”  
• *Eagle Gold Project Preventive Maintenance Program Plan*  
• *Eagle Gold Project Spill Response Plan*  
• SGC-CMP-SOP-009, “Fire Prevention/Protection Program”  
• *Eagle Gold Project Emergency Response Plan* |
| Incinerator for cyanide packaging materials                               | • SGC-CMP-SOP-006, “Controlled Disposal of Cyanide Packaging Materials”  
• SGC-CMP-SOP-007, “Cyanide Facility Inspections”  
• SGC-CMP-SOP-008, “Personal Protective Equipment for Cyanide Facility Operations”  
• SGC-CMP-SOP-009, “Fire Prevention/Protection Program”  
• *Eagle Gold Project Preventive Maintenance Program Plan* |
| Other ADR plant areas and secondary containments, less the gold room but including the barren solution tank | • *ADR Plant Operations Management Plan*  
• SGC-CMP-SOP-007, “Cyanide Facility Inspections”  
• SGC-CMP-SOP-008, “Personal Protective Equipment for Cyanide Facility Operations”  
• SGC-CMP-SOP-009, “Fire Prevention/Protection Program”  
• SGC-CMP-SOP-010, “Backup Generator Operations and Maintenance”  
• *Eagle Gold Project Preventive Maintenance Program Plan* |
In addition, all cyanide facilities are subject to routine preventative maintenance as described in Section 5.1.3 and the *Eagle Gold Project Preventive Maintenance Program Plan*.

All of the management plans and SOPs noted in Table 5.1-1 and discussed elsewhere in this CMP are considered to be controlled documents, and will be subject to the requirements of SOP SGC-CMP-SOP-001, “Preparation, Review, Approval, Update, and Controlled Distribution of Eagle Gold Project Management Plans and Standard Operating Procedures.” Training in CMP, management
plan, and SOP requirements will be provided to all affected workers in accordance with Section 9 of this CMP and the requirements of SGC-CMP-SOP-002, “Eagle Gold Project Training Program.” Training records will be retained on file in compliance SGC-CMP-SOP-002 and SGC-CMP-SOP-003, “Records Management.”

5.1.2 Documentation of Design Assumptions and Parameters in Operating Plans and Procedures

The Heap Leach and Process Facilities Plan and Eagle Gold Project Operational Water Management Plan (which includes both the HLF Water Balance Model and the Site-wide Water Balance Model) will document the key assumptions and design parameters for the HLF and its supporting infrastructure, giving due consideration to applicable regulatory requirements and maximum precipitation events. At a minimum, these parameters will include:

- the required minimum freeboard for the event pond (although the normal operating practice at the pond will be to keep it empty), defines the maximum pond level that will be permitted before it must be pumped back to the ADR and process circuit or pumped to the Cyanide Detoxification/Mine Water Treatment Plant;

- definition of the characteristics of the assumed storm events considered in the design and operation of the event pond;

- the target concentrations of residual WAD cyanide in any potential controlled release from the event pond to the cyanide detoxification/water treatment plant and/or from the water treatment plant to Haggert Creek (see Section 5.5.1 and Section 5.5.2).

5.1.3 Preventive Maintenance System and Interface with Facility Inspection Plans/Procedures

SGC will establish and maintain a comprehensive, preventative maintenance program as described in the Eagle Gold Project Preventive Maintenance Program Plan. The preventative maintenance system will be capable of:

- identifying routine preventative maintenance inspection actions to be conducted by maintenance staff, for all cyanide facilities and equipment items (e.g., tank level indicators, pumps, inline cyanide analyzers, HCN and pH monitors and alarm systems, emergency eyewash/shower installations, controlled temperature cabinets for cyanide antidote kits);

- generating work orders for all required actions; and

- tracking work order completion.

The preventative maintenance program will be designed to ensure that cyanide facility-related actions receive the highest priority over all other preventative maintenance actions, and will also be capable of initiating work orders based on observations resulting from daily operator inspections and routine
Eagle Gold Project  
Cyanide Management Plan

Section 5: Operational Process Controls

environmental, health, and safety (EHS) inspections, as noted in SGC-CMP-SOP-007, “Cyanide Facility Inspections” and SGC-CMP-SOP-010, “Critical Power Operations and Maintenance.”

The preventative maintenance program will maintain a revision history of all routine preventative maintenance inspection actions, as well as records of all completed work orders for at least four years, as noted in SGC-CMP-SOP-003, “Records Management.”

5.1.4 Management of Facility Changes
All proposed changes or modifications to any aspect of Project cyanide management facilities or processes will be reviewed for their potential impact on the environment, occupational or public health and safety considerations, and the requirements of this CMP, in accordance with SGC-CMP-SOP-012, “Cyanide Facility Change Management Process.” Any identified impacts will be mitigated by appropriate modifications, additions, or improvements of the management practices defined by this CMP. Changes to the CMP and its supporting documents will be controlled in accordance with SGC-CMP-SOP-001, “Preparation, Review, Approval, Update, and Controlled Distribution of Eagle Gold Project Management Plans and Standard Operating Procedures.” Documented process changes or additions will be introduced to affected members of the workforce in accordance with SGC-CMP-SOP-002, “Eagle Gold Project Training Program.” See also Section 7.1.3.

5.1.5 Contingency Plans/Procedures
The Eagle Gold Project Heap Leach and Process Facilities Plan and the Operational Water Management Plan includes guidance on measures to be taken to stabilize the operation of the ADR and HLP (and the management of solution volumes entrained in the heap) in the event an upset in the water balance is observed, or if mining/leaching operations must be temporarily suspended for economic or operational reasons. Contingency actions required to address specific predictable non-conformances in HLP or ADR facility operations shall be as specified in the Heap Leach and Process Facilities Plan, respectively. Contingency actions required to address unanticipated types of non-conformances that may be observed in facility monitoring or inspection activities shall be developed and implemented on a case by case basis in accordance with CMP-SOP-024, “Incident Investigation and Reporting”; SGC-CMP-SOP-016, “Assessment and Mitigation of Workplace Cyanide Exposure Risks”; and/or SGC-CMP-SOP-012, “Cyanide Facility Change Management Process”, as appropriate for the circumstances.

5.1.6 Facility Inspection Schedule
As noted in SGC-CMP-SOP-007, “Cyanide Facility Inspections”, all cyanide facilities are subject to routine inspections, the results of which are reviewed by EHS staff on at least a weekly basis.

5.1.7 Facility Inspection Requirements
SGC-CMP-SOP-007, “Cyanide Facility Inspections” defines routine inspection requirements for the Project; the general focus areas for these inspections are summarized in Table 5.1-2.
## Table 5.1-2: Routine Cyanide Facility Inspection Focus Areas

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Inspection Focus Area</th>
</tr>
</thead>
</table>
| Cyanide unloading and storage area                                        | • maintenance of general housekeeping practices, presence of water or debris  
• proper segregated storage of incompatible materials  
• integrity and proper positioning and stacking of stored crates  
• presence of properly rated fire extinguishers  
• functionality of HCN alarms and video monitors  
• legibility of hazard warning signage  
• availability of Material Safety Data Sheets (MSDSs) for cyanide briquettes  
• cordonning of container unloading area during unloading operations, and restriction of access by unauthorized personnel  
• use of appropriate operator PPE during unloading operations  
• functionality of eyewashes/emergency showers and water supply line pressure  
• condition of emergency response equipment and first aid storage cabinets |
| Cyanide bag cutter arrangement, mixing and storage tanks, and secondary containments | • structural integrity, signs of corrosion, buildup of cyanide salts, or leakage (tanks, valves, pumps, and other piping system components)  
• structural integrity, cracks, spalling, or deterioration of concrete impoundments  
• functionality of HCN alarms and video monitors  
• functionality of tank level indicators  
• condition of chain hoist and bag lifting bridle  
• functionality of eyewashes/emergency showers and water supply line pressure  
• temperature, cleanliness, and condition of cyanide antidote kits and first aid storage cabinets  
• condition of emergency response equipment and PPE  
• use of appropriate operator PPE during mixing operations  
• legibility of hazard warning and direction flow signage  
• integrity of lockout/tag-out mechanisms on major solution or containment drain valves  
• maintenance of physical separation from chemically incompatible materials  
• maintenance of general housekeeping practices, |
## Facilities

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Inspection Focus Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incinerator for cyanide packaging materials</td>
<td>presence of spilled solution or debris</td>
</tr>
</tbody>
</table>
| ADR plant and secondary containments | • legibility of hazard warning signage  
• adequacy and integrity of security fencing, gate, and lock  
• completeness of combustion of packaging residues  
• control of windblown debris outside of fenced area  
• evidence of animal intrusion |
| Pregnant and barren solution pipelines and pumping stations/containments | • structural integrity, signs of corrosion, buildup of cyanide salts, or leakage involving process solution storage tanks, valves, pumps, and other piping system components  
• structural integrity, cracks, spalling, or deterioration of concrete impoundments  
• management of fluids in impoundments  
• functionality of HCN alarms and video monitors  
• functionality of tank level indicators  
• functionality of eyewashes/emergency showers and water supply line pressure  
• temperature and condition of cyanide antidote kits  
• condition of emergency response equipment and PPE  
• legibility of hazard warning and direction flow signage  
• integrity of lockout/tag-out mechanisms on major solution or containment drain valves  
• maintenance of physical separation from chemically incompatible materials  
• maintenance of good general housekeeping practices, including routine cleanup of spilled or leaked solution or debris |
| HLF earthworks, risers, | • signs of erosion, slumps, or cracks in earthworks |
Section 5: Operational Process Controls

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Inspection Focus Area</th>
</tr>
</thead>
</table>
| distribution lines, emitters, internal pond(s), and leak detection system | • signs of pipeline/flange leakage, and associated ponding  
• signs of ponding on HLF surface; if present, adequacy of screening or other appropriate avian exclusion devices  
• signs of animal trails or intrusion  
• management of fluids in impoundments  
• functionality of leak detection system and maintenance of associated detection logs  
• legibility of hazard warning and direction flow signage |
| External solution and event pond and leak detection systems | • adequacy of available freeboard (comparison to surveyed markers)  
• tears or holes in liner material or signs of erosion or slumps in underlying earthworks  
• signs of pipeline/flange leakage, and associated ponding  
• Adequacy of screening or other appropriate avian exclusion devices  
• signs of animal trails or intrusion  
• functionality of leak detection system and maintenance of associated detection logs  
• legibility of hazard warning and direction flow signage |
| Surface water interceptor ditches | • tears or holes in liner material (if lined) or signs of erosion, slumps, or cracks in earthworks  
• signs of animal trails or intrusion |

### 5.1.8 Management of Inspection Records

Records from all cyanide facility inspections conducted by operators and EHS personnel will identify the inspector, indicate the date of inspection, and will note the work order number(s) associated with any required corrective or preventive action, as noted in SOP-007, “Cyanide Facility Inspections.” All inspection records will be retained for at least 4 years, in accordance with SGC-CMP-SOP-003, “Records Management.”

### 5.1.9 Preventative Maintenance Programs

SGC will establish and maintain a preventative maintenance program for all major equipment items and systems as described in *Eagle Gold Project Preventive Maintenance Program Plan*. The preventative maintenance program will be capable of:

- identifying routine preventative maintenance inspection actions, to be conducted by maintenance staff, for all cyanide facilities and equipment items;
Section 5: Operational Process Controls

- generating work orders for all required actions; and
- tracking work order completion.

The preventative maintenance program will be designed to ensure that cyanide facility-related actions receive the highest priority over all other categories of maintenance actions, and will also be capable of initiating work orders based on observations resulting from daily operator inspections as well as routine EHS inspections, as noted in SGC-CMP-SOP-007, “Cyanide Facility Inspections” and SGC-CMP-SOP-010, “Backup Generator Operations and Maintenance.”

5.1.10 Critical Power
SGC will maintain onsite diesel generation capacity sufficient to maintain the HLF solution pumping system, event pond operations, and key aspects of ADR and emergency services operations in the event of temporary loss of grid power, in accordance with the contingency requirements of the Heap Leach and Process Facilities Plan. Generator sets and starting battery systems will be subject to routine preventative maintenance in accordance with the Eagle Gold Project Preventive Maintenance Program and SGC-CMP-SOP-010, “Critical Power Operations and Maintenance.”
Figure 5.1-1: Mineral Extraction Process Flowsheet
Figure 5.1-2: Eagle Gold Project Site – Cyanide Facilities Location
5.2 OPTIMIZATION OF CYANIDE USAGE
The corresponding section of the ICMC [Standard of Practice 4.2; see (ICMI, 2012b)] applies specifically to cyanidation associated with milling operations and hence is not applicable to the Project, which is a heap leach operation and does not generate tailings.

5.3 WATER BALANCE MANAGEMENT

5.3.1 Probabilistic Water Balance Description
The Project will establish and maintain a comprehensive probabilistic operational water balance model which is depicted graphically in Figure 5.3-1.

5.3.2 Water Balance – General Input Parameters
The Eagle Gold Project Operational Water Management Plan will include an operational heap leach water balance model as described in the report: Water Balance Modeling for the Eagle Gold Mine Heap Leach Pad Facility. The Eagle Project Heap Leach and Process Facilities and Operational Water Management Plans will specifically consider the following input data:

- the predicted range of rates at which pregnant solution will be applied to the active leach areas of the HLF;
- a design storm duration and storm return interval selected to meet regulatory requirements and to provide assurance of preventing overtopping of the in-heap pond and the event pond, over the operational life of the mine;
- the existing precipitation and evaporation data relative to actual site conditions, collected onsite;
- the amount of water entering the event pond from direct precipitation;
- effects of freezing and thawing conditions on the accumulation of precipitation within the HLF and event pond, as well as the watershed upgradient of the HLF;
- the effects of potential power outages or pump station failures on HLF draindown; and
- the capacity and on-line availability of necessary cyanide treatment, destruction, or regeneration systems that may be required prior to any emergency discharges of accumulated emergency pond water to surface water.
Figure 5.3-1: Conceptual Water Balance Model

**NOTES:**
- Water Balance schematic not drawn to scale
- HLF = Heap Leach Facility
- MWTP = Mine Water Treatment Plant
- WRSA = Waste Rock Storage Area
- LDSP = Lower Dublin South Pond
- PG = Platinum Gulch
- EP = Eagle Pup
- ADR = Adsorption, desorption and recovery plant

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HLF direct precipitation (rainfall + snowmelt)</td>
</tr>
<tr>
<td>2</td>
<td>HLF evaporative losses</td>
</tr>
<tr>
<td>3</td>
<td>Process Solution to In-Heap Pond</td>
</tr>
<tr>
<td>4</td>
<td>HLF evaporation to Events Pond</td>
</tr>
<tr>
<td>5</td>
<td>Process Solution to MWTP (closure)</td>
</tr>
<tr>
<td>6</td>
<td>EP WRSA direct precipitation and catchment runoff</td>
</tr>
<tr>
<td>7</td>
<td>EP WRSA evaporative losses</td>
</tr>
<tr>
<td>8</td>
<td>EP WRSA infiltration/runoff to EP collection pond</td>
</tr>
<tr>
<td>9</td>
<td>EP collection pond to LDSP</td>
</tr>
<tr>
<td>10</td>
<td>Truck shop, laydown, 100-day ore stockpile to LDSP</td>
</tr>
<tr>
<td>11</td>
<td>Open Pit direct precipitation</td>
</tr>
<tr>
<td>12</td>
<td>Open Pit evaporative losses</td>
</tr>
<tr>
<td>13</td>
<td>Open Pit dump draining to PG collection pond</td>
</tr>
<tr>
<td>14</td>
<td>PG WRSA direct precipitation and catchment runoff</td>
</tr>
<tr>
<td>15</td>
<td>PG WRSA evaporative losses</td>
</tr>
<tr>
<td>16</td>
<td>PG WRSA infiltration/runoff to PG collection pond</td>
</tr>
<tr>
<td>17</td>
<td>PG collection pond to LDSP</td>
</tr>
<tr>
<td>18</td>
<td>LDSP makeup water to HLF</td>
</tr>
<tr>
<td>19</td>
<td>LDSP excess water to MWTP</td>
</tr>
<tr>
<td>20</td>
<td>MWTP discharge to Haggart Creek</td>
</tr>
<tr>
<td>21</td>
<td>LDSP excess water to EP WRSA as snow</td>
</tr>
<tr>
<td>22</td>
<td>LDSP to Haggart Creek</td>
</tr>
<tr>
<td>23</td>
<td>Events Pond to ADR</td>
</tr>
<tr>
<td>24</td>
<td>Events Pond to MWTP (Closure)</td>
</tr>
</tbody>
</table>
5.3.3 Water Balance – Inspection and Monitoring Data Input
As previously noted SGC-CMP-SOP-007, “Cyanide Facility Inspections” will include monitoring of the in-heap pond solution level; the level of the event pond and available freeboard; daily monitoring of precipitation levels at meteorological stations; and the periodic inspection of upgradient water interceptor ditches for their effectiveness in preventing uncontrolled run-on to the HLF. These data will be used in or considered in the periodic (e.g., annual) operational water balance update process described in the *Eagle Gold Project HLF Facilities and Process and Operational Water Management Plans.*

5.3.4 Freeboard Considerations – Event Ponds
Freeboard requirements for the event pond will be as defined in the *Eagle Gold Project Heap Leach Facilities and Process Plan* the level of the event pond and available freeboard will be monitored on a daily basis as noted in SGC-CMP-SOP-007, “Cyanide Facility Inspections.”

5.3.5 Meteorological Facilities/Precipitation Measurement
Precipitation, wind speed, wind direction, and other data will be collected onsite as described in SGC-CMP-SOP-013, “Collection and Recording of Meteorological Data.” Monthly summaries of required data will be accessed as necessary to support refinements or updates to the operational site wide and HLF water balance models, as noted in the *Eagle Gold Project Operational Water Management Plan,* and will be retained as project records over the life of the mine in accordance with SGC-CMP-SOP-003, “Records Management.”

5.4 WILDLIFE PROTECTION

5.4.1 Preventive Measures for Open Ponds
Perimeter fencing will be installed around the event pond to discourage the intrusion of terrestrial wildlife. The event pond will be maintained empty except to contain and temporarily store exceptional rainfall events or overflows from the in-heap pond. After these events, the retained water will be cycled into the process circuit as soon as possible and be used as make-up water until the pond is emptied.

5.4.2 Monitoring of Cyanide Concentrations in Open Ponds
If for operational or other reasons the event pond cannot be emptied quickly as noted in Section 5.4.1, stored water will be monitored on a daily basis. If monitoring data indicate that event pond water contains WAD cyanide in concentrations ≥50 ppm, an appropriate combination of bird balls, hazing mechanisms, and/or other effective avian deterrent systems will be installed and monitored for effectiveness.

5.4.3 Wildlife Mortality Monitoring
Inspections performed in accordance with SGC-CMP-SOP-007, “Cyanide Facility Inspections” will require the immediate documentation and reporting of any observed wildlife fatalities in accordance with SGC-CMP-SOP-011, “Wildlife Mortality Reporting/ Investigation.”
5.4.4 Leach Solution Application Controls

The Eagle Gold Project Heap Leach and Process Facilities Plan will require monitoring of active leach areas to determine if any significant ponding is occurring. If ponding is observed on the surface of the pad, the Heap Leach and Process Facilities Management Plan will require appropriate action taken to either dissipate the ponded solution, or to cover it with portable avian exclusion screens.

5.5 MANAGEMENT OF DIRECT/INDIRECT PROCESS SOLUTION DISCHARGES

5.5.1 Direct Discharges to Surface Water

In normal operation, the Project will be managed as a closed facility, and no cyanide impacted water will be directly released to surface water. The HLF (including the event pond) is fully lined, with pregnant solution reporting to an internal collection pond (see Figure 5.5-1) prior to being pumped to the ADR for metal extraction. The event pond is designed to accept direct precipitation on the pond and any overflow from the in-heap pond (via the spillway), and hence may include low concentrations of cyanide from surface contact; all water reporting to the event pond will be pumped back to the ADR with residence time in the pond as low as possible, as noted in Section 5.4.1. When mining operations cease and the ADR is taken offline, any water collected in the event pond will be pumped back to the top of the heap to assist in the heap rinsing process. After cyanide neutralization and when untreated rinsewater meets predetermined criteria for final treatment, event pond and HLF draindown water will be released to the MWTP for final treatment, if required to meet water quality discharge criteria.

It should be emphasized that mine water treatment at the Project is required primarily to ensure that metals concentrations from all areas impacted by mining are reduced to permitted levels. The residual cyanide in the HLF will be subject to substantial natural degradation and dilution; however the overall water treatment process will consider the potential presence of residual cyanide in untreated effluents and will include an appropriate detoxification circuit if necessary to further reduce residual cyanide in treated effluent to values that comply with regulations. To achieve this protection requirement, the ICMC recommends a free cyanide concentration in treated effluent ≤0.022 mg/l [at the point of discharge, if no regulated mixing zone has been established in the receiving water body (Haggart Creek), or immediately downstream of the mixing zone if one has been established]. It is understood that actual regulatory values will be determined by the Yukon Water Board in the Project Water License.
5.5.2 Indirect Discharges to Surface Water
The Project is designed to prevent indirect discharges of process solution or cyanide-impacted wastewater or runoff. As noted in the *Eagle Gold Project Environmental Monitoring Plan*, the HLF and event pond are both fully lined facilities with interstitial leak detection arrangements. Runs of solution pipelines in trenches that do not drain to the HLF impoundment will also be lined, with any leakage, stormwater, or snowmelt accumulation in the liner system reporting to either the HLF impoundment or to the event pond. The *Eagle Gold Project Environmental Monitoring Plan* also describes a network of downgradient monitoring wells designed specifically to detect any potential seepage form the HLF, ADR, event pond, or barren and pregnant solution pipelines and associated pumping stations.

5.5.3 Protection of Beneficial Uses of Surface Water
See Section 5.5.1; the heap leach process will be operated as a closed system until the Project enters the closure phase. At that time, some potential exists for residual cyanide in event pond and HLF draindown water to require additional treatment prior to release to the environment. The overall water treatment process will therefore consider the potential presence of residual cyanide in untreated effluents and will include an appropriate detoxification circuit if necessary to further reduce residual...
cyanide in treated effluent to values that are protective of aquatic habitat, which is the “beneficial use” established for the receiving water body. SGC will manage the treatment of any residual cyanide concentration in wastewater to ensure that treatment plant effluent is less than the discharge values established by the Water License.

5.5.4 Monitoring Discharges to Surface Water
See Sections 5.5.1 and 5.5.2 above; the Environmental Monitoring Plan will be modified to include direction on the effluent sampling point (i.e., at the discharge point or immediately below the mixing zone), if residual cyanide detoxification is indeed required as part of the water treatment regime in closure. The Environmental Monitoring Plan will be supported by SGC-CMP-SOP-025, “Environmental Monitoring Procedures”, which will define field sampling protocols, field QA/QC procedures, sample collection and labeling requirements, as well as sample preservation, maintaining sample chain-of-custody to the analytical laboratory, and field reporting.

5.6 MANAGEMENT OF CYANIDE FACILITY GROUNDWATER IMPACTS

5.6.1 Management of Seepage from Cyanide Facilities
The Project is designed to prevent indirect discharges of process solution or cyanide-impacted wastewater or runoff. As noted previously, the HLF and event pond are both fully lined facilities with interstitial leak detection arrangements. Runs of solution pipelines in trenches that do not drain to the HLF impoundment will also be lined, with any leakage, stormwater, or snowmelt accumulation in the liner system reporting to either the HLF impoundment or to the event pond.

5.6.2 Groundwater Monitoring
The Eagle Gold Project Environmental Monitoring Plan also describes a network of downgradient monitoring wells designed specifically to detect any potential seepage from the HLF, ADR, event pond, or barren and pregnant solution pipelines and associated pumping stations. The Eagle Gold Project Environmental Monitoring Plan will be supported by SGC-CMP-SOP-025, “Environmental Monitoring Procedures”, which will define field sampling protocols, field QA/QC procedures, sample collection and labeling requirements, sample preservation requirements, maintaining sample chain-of-custody to the analytical laboratory, and field reporting requirements.

5.7 SPILL PREVENTION AND CONTAINMENT MEASURES FOR PROCESS SOLUTION TANKS AND PIPELINES

5.7.1 Secondary Containment Description – Mixing and Storage Tanks and ADR Process Solution Tanks
Concrete impoundments constructed within the ADR for the mixing and storage tanks, the elution column, adsorption train tanks, and the barren solution tank are delineated in Figure 4.1-1 above. All cyanide solution impoundments will be sealed and physically isolated from acids or other incompatible materials, and sized to contain at least 110% of the largest contained tank, plus flowback, giving due
consideration to the potential reduction of containment volume from pumps or other equipment installed within the containment.

### 5.7.2 Sizing Considerations for Secondary Containments

Calculated containment values for the final design configuration of affected tanks are noted in Table 5.7-1; original calculations supporting these values will be retained on file with the ADR CQA inspection package in accordance with SGC-CMP-SOP-003, “Records Management.”

<table>
<thead>
<tr>
<th>Containment Area (from Fig. 4.1-1)</th>
<th>Description</th>
<th>Largest Contained Tank Volume</th>
<th>Total Containment Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Adsorption train/cyanidation tank containment area</td>
<td>TBD*</td>
<td>TBD</td>
</tr>
<tr>
<td>C</td>
<td>Cyanide mixing and storage tank containment area</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>E</td>
<td>Barren solution accumulation tank containment area</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>

*To be developed in final design

### 5.7.3 Management of Solution/Contaminated Water in Secondary Containments

If process upsets occur in any of the ADR processes, all of the secondary containment areas in or adjacent to the ADR plant building are designed to drain to concrete sumps with dedicated pumps (or portable suction pumps) that permit immediate return to appropriate locations in the process. Specific direction on responses to process upsets will be provided in the ADR Plant Operations Management Plan. No residual spill material will be generated in normal operations that will require management and disposal as waste. In the unlikely event that the secondary containments in the ADR are somehow overwhelmed, spillage would report to the downgradient event pond via piping from a drainage collection system within the ADR, from which it would be pumped back to the ADR when normal operations are restored.

### 5.7.4 Contingency Planning for Remediation of Contaminated Soil

If secondary containments for solution pipelines, the HLF, the event pond, or the cyanidation operations in or adjacent to the ADR were to fail and the soil surface was thereby contaminated, the Eagle Gold Project Emergency Response Plan would be implemented to guide the remediation process. The Eagle Gold Project Emergency Response Plan will be supported by procedure SGC-CMP-SOP-020, “Cyanide Emergency Response Procedures”, which will describe the response procedures and roles and responsibilities for each of several predicated cyanide release scenarios. For each emergency scenario, specific measures will be included to ensure that appropriate mitigation measures, remediation actions, and monitoring programs are implemented to prevent or minimize potential impacts to the environment. These include:
type and location of emergency soil moving/excavation equipment and stockpiled materials as required, to respond to large liquid spills or earthworks failures;

methods for recovery of solid and liquid cyanide spills;

management and/or disposal of cyanide-contaminated soil to the heap leach pad, and spills of cyanide briquettes or process solution back into appropriate process locations;

location, preparation and use of cyanide neutralization chemicals; and

soil and water sampling/analytical methods, as necessary to delineate, monitor, and confirm completion of any required remediation of cyanide-impacted land or water.

5.7.5 Spill Prevention/Containment Measures for Process Solution Pipelines

Process solution pipelines within the ADR area are all installed within concrete secondary containment. All barren solution risers and distribution lines will be placed within the lined footprint of the HLF, and any potential leakage is absorbed by the pad, ultimately reporting to the internal pregnant solution accumulation pond at the bottom of the HLF. The pregnant and barren solution pipelines to the HLF riser arrangements and associated pumping stations that do not drain directly to the HLF impoundment will be placed in lined trenches, with any leakage, stormwater, or snowmelt accumulation in the liner system reporting to either the HLF impoundment or to the event pond. Apart from the routine inspections of ADR and HLF pipelines required by SGC-CMP-SOP-007, “Cyanide Facility Inspections”, the Eagle Gold Project Environmental Monitoring Plan also describes a network of downgradient monitoring wells designed specifically to detect any potential seepage from the HLF, ADR, event pond, or barren and pregnant solution pipelines and associated pumping stations.

5.7.6 Tank and Pipeline Material Compatibility

All tank, pipeline, and piping system components contacting cyanide will be constructed of materials suitable for cyanide services. The adsorption tank trains, elution column, cyanide mixing and storage tanks and all associated pumps, valves, and piping system components may be constructed of carbon or stainless steel or other nonreactive materials, as appropriate for the intended service. All steel piping system components will employ welded joints. HLF riser pipes, distribution lines, and emitters may be constructed of HDPE or other suitable material.
5.8 CONSTRUCTION QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) PROGRAM

5.8.1 Construction QA/QC Program – ADR
The Engineer, selected for the Project will be required to design all cyanide facilities under professionally recognized and technically appropriate QA/QC program requirements. As previously noted, cyanide facilities are specifically defined as:

- the cyanide reagent unloading and storage area in the ADR building;
- the cyanide mixing and storage tank area in the ADR building;
- the rest of the ADR building, less the gold room, including the elution column, carbon adsorption tank trains, strip/wash area, carbon screens, and associated piping system components;
- the dedicated incineration area for cyanide packaging wastes;
- the barren solution tank on the south side of the ADR building;
- pregnant and barren solution pipelines, risers, and pumping station;
- the HLF;
- the event pond; and

- all other project areas, pipelines, or infrastructure containing solution potentially > 0.5 mg/l WAD cyanide.

The Engineer(s) will be required to oversee and sign-off on the Construction Quality Assurance program (CQA or QA/QC) to ensure all facilities are constructed according to the design. A general description of the QA/QC programs(s) in effect during construction of these facilities will be included in the final design and construction plans. As part of the QA/QC program controls applied, the design and/or on-site engineer will specifically evaluate the suitability of materials for cyanide service; ground preparation for the placement of synthetic liners for the HLF and event pond and the construction of major tank foundations; the adequacy of synthetic liner materials relative to governing specifications, as well as materials placement and seam welding; the adequacy of cyanide mixing, storage, and process tank weldments; and the functionality of the fully commissioned and interconnected ADR plant, pregnant and barren solution pipeline, and event pond systems.
5.8.2 Construction QA/QC Records Management
Design and construction reports will be retained for all cyanide facilities (or groups of facilities), as well as any Construction Quality Assurance (CQA) inspection packages and commissioning/acceptance test records will be retained as permanent facility records in accordance with SGC-CMP-SOP-003, “Records Management.”

5.8.3 Construction QA/QC Approvals
All QA/QC or CQA packages will specifically document approval of the as-delivered facility against the latest iteration of the issued for construction design drawings and specifications; this approval will be reviewed and approved by the contractor’s project manager or other senior project engineer, who will be licensed as a professional engineer in Yukon Territory. Approval will be documented by the professional engineer of record; and filed with the associated QA/QC or CQA package and retained as part of the permanent facility records in accordance with SGC-CMP-SOP-003, “Records Management.”

5.9 WILDLIFE AND SURFACE/GROUNDWATER QUALITY MONITORING PROGRAMS

5.9.1 Monitoring Program Documentation
Overall requirements for the monitoring of surface and groundwater quality will be described by the Environmental Monitoring Plan, supported by SGC-CMP-SOP-025 “Environmental Monitoring Procedures”. The Eagle Gold Project Environmental Monitoring Plan will note the location, frequency, and type of each surface and subsurface sample to be acquired, along with discussion of sampling conditions, applicable analytical parameters (e.g., cyanide species to be analyzed) and specific container/container preservation, chain of custody, data quality verification, and reporting requirements. Any observations of wildlife intrusion will be documented on associated sample acquisition data sheets; observations of animal mortality will be documented and separately investigated in accordance with SGC-CMP-SOP-011, “Wildlife Mortality Reporting/Investigation.”

As noted in Section 5.5, if a cyanide detoxification circuit in the wastewater treatment plant is required at closure, the Eagle Gold Project Environmental Monitoring Plan will be specifically modified to include sampling of treated effluent for residual cyanide, at the discharge point if no mixing zone is authorized in the receiving water body, or just downstream of the mixing point if such a zone is authorized.

5.9.2 Development of Sampling and Analytical Protocols
All of the sampling, sample management, and analytical protocols cited in the Eagle Gold Project Environmental Monitoring Plan will be developed by qualified technical professionals;
6 DECOMMISSIONING OF CYANIDE FACILITIES

6.1 DECOMMISSIONING PLANNING

6.1.1 Decommissioning Plan and Procedures
The Eagle Gold Project Decommissioning and Reclamation Plan will reflect the details of the final mine design, as it is understood at the initiation of the construction phase of the Project, and will comply with the Yukon Mine Site Reclamation and Closure Policy (Yukon, 2006b). In its initial versions, the Eagle Gold Project Decommissioning and Reclamation Plan will include at least conceptual discussions of the various procedures that will be applied to the decommissioning and closure of all cyanide facilities. It is expected that these procedures will be fully developed as SOPs to support the last update of the Plan undertaken just prior to the initiation of closure operations, in accordance with SGC-CMP-SOP-001, “Preparation, Review, Approval, Update, and Controlled Distribution of Eagle Gold Project Management Plans and Standard Operating Procedures.”

6.1.2 General Schedule or Sequence for Decommissioning of Cyanide Facilities
The initial version of the Eagle Gold Project Decommissioning and Reclamation Plan contains a conceptual schedule or sequence of planned activities, which will form the basis for a detailed schedule to be developed in the last update of the Plan undertaken just prior to the initiation of decommissioning and reclamation activities. For individual cyanide facilities, closure schedule line items will be initiated at the point in time the facility is no longer required to be in use.

6.1.3 Periodic Review and Update of Decommissioning Plan and Procedures
The Eagle Gold Project Decommissioning and Reclamation Plan will be reviewed and updated in response to major changes in any cyanide management facilities or processes, and:

- just prior to any temporary shutdown periods,
- at least every five years (or more frequently if required by Yukon Government requirements) until the cessation of mining activities;
- every two years thereafter until the completion of major restoration actions (e.g., demolition and detoxification of the cyanide mixing and storage tanks and desorption trains; demolition of the ADR building; detoxification and draindown of the HLF); and
- at least every five years thereafter unless other post-closure monitoring obligations are negotiated with the Yukon Government.

All updates will be subject to controlled distribution in accordance with SGC-CMP-SOP-001, “Preparation, Review, Approval, Update, and Controlled Distribution of Eagle Gold Project Management Plans and Standard Operating Procedures.”
6.2 FINANCIAL ASSURANCE MECHANISM FOR DECOMMISSIONING CYANIDE FACILITIES

6.2.1 Cost Estimate for Third-Party Decommissioning of Cyanide Facilities
The Eagle Gold Project Decommissioning and Reclamation Plan will include an overall mine site closure cost estimate that specifically includes an estimate of third-party costs to close all cyanide management facilities. These facilities are interpreted to include:

- the cyanide reagent unloading and storage area in the easternmost portion of the ADR building;
- the cyanide mixing and storage tank area;
- the rest of the ADR building, less the gold room, including the elution column, carbon adsorption tank trains, and associated piling system components;
- the barren solution tank on the south side of the ADR building;
- pregnant and barren solution pipelines to and from the HLF;
- the HLF;
- the event pond; and
- all other project areas, pipelines, or infrastructure that, just prior to closure, were known to contain solution with WAD cyanide concentrations \( \geq 0.5 \text{ mg/l} \).

6.2.2 Cost Estimate Updates
At a minimum, cyanide facilities closure cost estimates will be updated in concert with the regular planned updates of the Eagle Gold Project Decommissioning and Reclamation Plan as presented in Section 6.1.3 above.

6.2.3 Jurisdictional Requirements for Financial Assurances/Guarantees for Funding Third-Party Decommissioning of Cyanide Facilities
SGC will comply with the requirements of Yukon Mine Site Reclamation and Closure Policy (Yukon, 2006b), Section 4, (“Financial Assurance”), which establishes the Yukon government’s authority in determining the specific form and amount of the financial security that SGC must provide to address the Project’s overall reclamation and closure liability. The amount of this negotiated financial security is to be based on third-party cost estimates, as is also required by the ICMC. The security will be documented in a negotiated financial instrument, and is subject to modification in keeping with the major project or process changes that may occur over the life of the mine. The funds necessary for
closure of cyanide facilities will by definition always be less than the total level of funding necessary to close and reclaim all areas impacted by the Project.
7 WORKER SAFETY

Under the provisions of the SGC Occupational Health and Safety Policy, SGC is committed to the protection of the health and safety of its employees, on-site contractors, and site visitors. SGC-CMP-SOP-016, “Assessment and Mitigation of Workplace Cyanide Exposure Risks” and other SOPs will be implemented to guide:

- the assessment and management of cyanide exposure risks in the workplace;
- management of workplace hazards associated with the use of cyanide; and
- maintenance of equipment and the workplace in a safe condition.

Training programs (see Section 9 and SGC-CMP-SOP-002, “Eagle Gold Project Training Program”) will also be implemented to ensure that employees work in compliance with regulations, approved policies, and procedures; have adequate training to safely complete their assigned work tasks; and establish and properly operate effective emergency preparedness systems.

7.1 IDENTIFICATION AND MANAGEMENT OF CYANIDE EXPOSURE SCENARIOS

SGC will develop and maintain operating procedures for managing its facilities to limit worker exposure to HCN gas and sodium cyanide salts of the worker exposure limits established by the Yukon Occupational Health and Safety Regulations (YOHSR).

7.1.1 Exposure Risk Assessments

In compliance with SGC-CMP-SOP-016 “Assessment and Mitigation of Workplace Cyanide Exposure Risk” a risk assessment will be conducted prior to start-up of operations to identify those areas where there is a significant risk of cyanide exposure from HCN gas generation. These areas will likely include but not be limited to the cyanide mix plant, ADR plant, carbon strip/wash area and carbon screens. Fixed HCN detectors will be installed in those areas determined to present a significant risk to workers. A risk assessment, supported by periodic ambient HCN gas surveys of cyanide facilities, will thereafter be conducted, at least annually and following any changes to cyanide equipment, processes, or operations to ensure that the number and location of fixed HCN detectors provide adequate and effective monitoring coverage. Records of risk assessments will be maintained in compliance with SGC-CMP-SOP-016; SGC-CMP-SOP-022, and SGC-CMP-SOP-003, “Records Management.”

HCN detectors will be designed to sound a highly audible evacuation alarm and initiate a flashing beacon if the airborne cyanide concentration reaches the most stringent of the worker exposure limits.
set to trigger, that is 4.7 ppm (5 mg/m³) cyanide. The detector will also send an electronic alarm signal to the ADR plant control room.

### 7.1.2 Personal Protective Equipment (PPE) and Pre-work Inspection Requirements

A comprehensive program for the proper use of equipment is provided in SGC-CMP-SOP-008 "Personal Protective Equipment for Cyanide Facility Operations" and will be an integral part of site induction and task training provided to workers in accordance with Section 9 of this CMP and the requirements of SGC-CMP-SOP-002 “Eagle Gold Project Training Program.” SGC-CMP-SOP-008 will identify the minimum PPE required on the site as well as any additional PPE required for each work area, job function and task, after all practical process changes and/or engineering controls have been implemented to eliminate, reduce or control possible exposure. All SOPs involving storage, handling and use of cyanide will also list the minimum PPE requirements to perform that operation, as well as other equipment requirements (e.g., communication radio, portable HCN monitor) to safety perform a task.

All SGC employees and site contractors are accountable for their own safety and for the safety of their fellow workers. In keeping with the company’s commitment to maintaining a safe working environment, it is the duty of every worker to conduct pre-work inspections prior to carrying out a specific task. In addition, formal documented pre-work inspections will be undertaken during shift changes, as an integral part of job safety analysis procedures, tasks requiring work permits, and for critical cyanide work tasks. The latter include the specific tasks addressed in SGC-CMP-SOP-004, “Receiving and Storage of Reagent Cyanide” and SGC-CMP-SOP-005, “Cyanide Mixing Process.”

### 7.1.3 General Signage Requirements

Signage will comply with requirements of SGC-CMP-SOP-019 “Cyanide Workplace Signage Requirements”. Warning signs will be placed on perimeter fencing at the entrances to the ADR; at the entrances to the water treatment plant; on the perimeter fence at the incinerator; and any other areas where cyanide is stored or used, in order to alert workers to the presence of cyanide and that smoking, open flames, eating, and drinking are all prohibited. General signage posted at the entrances to the HLF, event pond, and ADR (and potentially the water treatment plant) will also display minimum PPE requirements. Special signage will also be placed to identify emergency exits and the location of emergency equipment stations including emergency shower/eyewash stations, fire extinguishers, cyanide antidote kits, and first aid stations.

### 7.1.4 Location of Emergency Showers/Eyewash Stations and Fire Extinguishers

Low pressure safety shower/eyewash stations and non-acidic dry powder fire extinguishers will be installed at strategic locations throughout the operation where cyanide is present, including cyanide uploading and storage areas, the process plant and pump/valve houses. Safety showers will be fitted with quick activation valves and will be protected where necessary to prevent freezing.

A site plan will be prepared and posted in the control room and the main work areas that show the locations of safety equipment. The equipment will be inspected and maintained on a routine basis as required in SGC-CMP-SOP-008 “Cyanide Facility Inspection” and during pre-inspections as required.

7.1.5 Process Tank and Pipeline Signage Requirements
All tanks and vessels containing cyanide will be identified to the contents and the capacity of each tank. Piping containing WAD cyanide at concentrations >10 ppm will be color coded and labeled at prominent locations (e.g., flanged junctions and valves) to identify the contents and flow direction. Colour coding for piping will follow the guidelines of ANSI/ASME 13.1-2007, “Scheme for the Identification of Piping Systems” (ANSI/ASME 2007). Cyanide signage requirements are addressed in SGC-CMP-SOP-019 “Cyanide Workplace Signage Standards.”

7.1.6 Material Safety Data Sheet (MSDS) and Cyanide Safety Information
As required by Workplace Hazardous Materials Information System Regulations (WHMIS), O.I.C. 1988/107, SGC will implement a worker right-to-know program to identify controlled products in the workplace and train workers in the hazards and safety precautions required when using or working around controlled products and in the use and access to MSDS. As part of this program all controlled products will be appropriately identified (with placards and/or supply/workplace labels) and MSDS made available in the workplace to inform workers of properties and hazards associated with controlled products, safety requirements, and first aid and emergency response information.

Hard copies of MSDS for cyanide will be available in the ADR plant control room, cyanide mix tank area, and other prominent areas where cyanide is a significant hazard. In addition, information on cyanide exposure symptoms, and first aid and emergency response information will be posted in these areas.

7.1.7 Management of Occupational Health and Safety Issues in Facility Changes
All proposed changes or modifications to the Project cyanide management facilities or processes will be reviewed for their potential impact on the environment, occupational or public health and safety considerations, and the requirements of this CMP, in accordance with SGC-CMP-SOP-012, “Cyanide Facility Change Management Process.” Changes to the CMP and its supporting documents will be controlled in accordance with SGC-CMP-SOP-001, “Preparation, Review, Approval, Update, and Controlled Distribution of Eagle Gold Project Management Plans and Standard Operating Procedures.” Approved and properly documented process changes or additions will be introduced to affected members of the workforce in accordance with SGC-CMP-SOP-002, “Eagle Gold Project Training Program.” See also Section 5.1.4.

7.1.8 Solicitation of Workforce Input on Occupational Health and Safety Issues
In keeping with the SGC Occupational Health and Safety Policy, all employees are considered to be accountable for their own safety and for the safety of their fellow workers. In keeping with maintaining a safe working environment, workers will be encouraged to provide input on occupational health and safety issues. SGC will consider this input in developing, evaluating and reviewing operating procedures and during formal safety meetings and informal pre-work safety sessions (see SGC-CMP-SOP-019 “Cyanide Workplace Safety Meetings”).
7.2 OPERATIONAL MONITORING OF CYANIDE FACILITY WORKER HEALTH AND SAFETY

7.2.1 Management of pH

The *Heap Leach and Process Facilities Management Plan* will detail the operating constraints and parameters within which the ADR plant and the heap leach pad will be managed. The plan will also address procedures to be followed if conditions extend outside of the set operation parameters, there is a general plant upset, or if there is an emergency or planned shutdown. To minimize the risk of cyanide exposure to workers, the potential for HCN gas generation will be reduced by ensuring that pH is maintained within the range of 10.0 and 10.5 in the various cyanide bearing process solutions and slurries that will be present throughout the operation. This will be achieved by addition of lime in deposition of fresh ore to the heap leach pad, as required, and by pH adjustment in the ADR circuit through a lime addition system. In addition, as required in SGC-CMP-SOP-005 “Cyanide Mixing Process”, prior to a cyanide mix, the contents of the mix tank will be checked and pH adjusted through addition of caustic soda to ensure that the pH of the solution is greater than 11 before adding cyanide briquettes for the mix. The pH will be monitored through a combination of routine sampling and laboratory analysis of solutions during normal operations, and electronic pH meters that are readable on location and report to the control room. The results of pH analysis will be entered onto daily operation logs in accordance with *ADR Plant Operations Management Plan*, completed copies of which will be maintained as required by SGC-CMP-SOP-003 “Records Management.”

7.2.2 Ambient/Personal Monitoring Devices

As discussed in Section 7.1.1, fixed HCN monitors will be installed in all areas determined to present a significant risk of cyanide exposure to workers. In addition workers will be required to carry portable HCN monitors, set to alarm at 4.7 ppm, when performing tasks where there is a risk of cyanide exposure. These tasks include but may not limited to confined space entry into tanks, vessels and sumps where cyanide may be present, conducting maintenance procedures requiring decontamination of cyanide equipment, and cyanide unloading and mixing.

HCN monitors will be operated, calibrated and maintained in conformance with SGC-CMP-SOP-022 “HCN Monitors.” HCN monitors will be maintained, tested and calibrated using, at a minimum, the procedures and schedules recommended by the manufacturer. Calibration records will include the date of calibration and actual calibration information and be maintained in accordance with SGC-CMP-SOP-003 “Records Management.”

7.2.3 Investigation and Evaluation of Exposure Incidents

Safety and environmental incidents, including those involving cyanide, will be investigated using SGC-CMP-SOP-024, “Incident Investigation and Reporting.” This procedure will provide instruction and guidance to ensure that investigations are completed thoroughly. The procedure will address incidents associated with injuries/illnesses; fires and explosions; property damage; hazardous substance discharges and other incidences. The procedure will include requirements for reporting incidents, formation and responsibility assignments for investigation committees, root cause analysis, implementation of recommendations to prevent reoccurrence, and external reporting requirements.
SGC will keep records of all incident investigation reports in conformance with SGC-CMP-SOP-003 “Records Management” and maintain an electronic incident reporting system (see SGC-CMP-SOP-024) to track and communicate information on incidents and completion of associated corrective or preventive action.

7.3 EMERGENCY PREPAREDNESS AND RESPONSE PLANS AND PROCEDURES

As documented in the following sections SGC will provide and maintain the capability, emergency procedures, and employee training necessary for effectively responding to emergencies involving worker exposure to cyanide.

7.3.1 Emergency Response/First Aid Equipment

SGC will maintain emergency equipment and supplies at strategic locations to allow rapid response to emergencies involving cyanide exposure. In addition to the shower/eyewash stations discussed in Section 7.1.4, cyanide first aid kits will be maintained that will include medical oxygen equipment with resuscitator, activated carbon, and cyanide antidote [amyl nitrite and/or hydroxocobalamin (e.g., “CynoKit”)]. At a minimum, cyanide first aid kits will be located in the control room and medical clinic. Additional medical oxygen will be available in the site ambulance that will be stationed at the first aid room.

7.3.2 Emergency Response/First Aid Equipment Inspections and Maintenance

Emergency first aid kits will be inspected and maintained on a regular basis as required in SGC-CMP-SOP-007 “Cyanide Facility Inspections”, in order to ensure the kits are complete, equipment is operational, and antidote is stored within the temperature range stipulated by the manufacturer, and replaced with a new supply within the recommended expiration date.

7.3.3 Emergency Response Procedures for Cyanide Exposures

First aid procedures for response to cyanide exposure are to be provided in SGC-CMP-SOP-023, “Cyanide Exposure Symptoms and First Aid.” All employees that work with cyanide and able to respond to a cyanide exposures emergency will be trained in cyanide exposure recognition, first response and basic first aid procedures including the application of medical oxygen, and amyl nitrite antidote, as available. As hydroxocobalamin requires intravenous injection, this antidote should only be administered by qualified medical personnel.

7.3.4 Onsite First Aid/Medical Assistance Capabilities

Due to the remoteness of the Eagle Mine site from offsite emergency response support, medical services, and public hospitals, a first aid room will be established at the Project site, with the equipment and staff to handle first response of all readily foreseeable types of medical emergencies. The first aid room will be manned 24 hours a day, 7 days a week and able to provide advanced emergency first aid, including first aid to respond to cyanide poisoned patients. In addition the Project will retain an emergency response team (ERT), which, in addition to their regular daily jobs, will be
trained and certified as emergency responders. The ERT will be trained in fire, highwall, and hazardous materials emergency response and include members trained to Occupational First Aid (OFA) Level 3 medical first aid.

7.3.5 Agreements with Offsite Medical Facilities
SGC will work with Mayo Nursing Station to develop medical evacuation (MEDEVAC) emergency arrangements to transport a stabilized cyanide poison patient to Whitehorse General Hospital, and with the hospital to provide further treatment and observation of cyanide exposed patients as may be required.

7.3.6 Mock Emergency Drills
SGC will conduct emergency drills for response to cyanide exposures and/or releases at least annually. The drills will be designed to test each of the potential cyanide emergencies scenarios appropriate for the site as considered in the Eagle Gold Project Emergency Response Plan. Written documentation of the scope and evaluated results of each drill will be maintained as per the procedure and SGC-CMP-SOP-003, “Records Management.” The Eagle Gold Project Emergency Response Plan, Eagle Gold Project Spill Response Plan, and applicable emergency response training programs will be subsequently be reviewed, as necessary based on evaluation of the drill results.
8 EMERGENCY RESPONSE

8.1 EMERGENCY RESPONSE PLANNING

8.1.1 Considerations for Potential Cyanide Releases in Emergency Response Plan
SGC will incorporate measures in the design, construction and operation of its facilities to prevent cyanide releases to the natural environment as well as workplace exposures. The unloading, storage, mixing and use of cyanide in the gold extraction process will be conducted within contained areas of the ADR plant, as noted in Figure 4.1-1. The plant design will require individual containment areas to be sized to accept 110% of the volume of the largest tank within the impoundment, plus flowback. Provisions will be included in the containment design and the ADR Plant Operations Management Plan to capture spills in sumps or other arrangements that permit them to be pumped directly back to the appropriate point in the cyanidation process. No residual spill material will be generated in normal operations that will require management and disposal as waste. Any potential spills of dry sodium cyanide briquettes in the unloading or storage area will be captured and deposited in the mixing tank. Spills of process solution will be captured in sumps or with portable suction pumps, and returned to appropriate locations in the process (i.e., locations that will not contribute to or worsen a process upset). Containment areas associated with cleaned-up spills will be washed into sumps within the containment, and the collected effluent pumped back to the process.

8.1.2 Potential Cyanide Emergency Scenarios
SGC-CMP-SOP-020, “Cyanide Emergency Response Procedures” will provide guidance on responding to injuries and serious incidents as defined in Section 30(1) of the current Yukon Occupational Health and Safety Act (Yukon, 2002b). These will include any release of process solution outside of containment, any release of hazardous product in which there is a potential for that product to enter a waterway, and any release that results in dysfunction from lack of oxygen or poisoning.

A risk assessment will be undertaken prior to start of operations and after any significant facility or process change to determine possible emergency scenarios that may occur. Potential cyanide emergency situations to be considered include (but are not limited to):

- catastrophic release of HCN from the mixing, storage, and process facilities in the ADR building;
- transportation accidents;
- releases during unloading, storage, or mixing;
- releases during fires and explosions;
Section 8: Emergency Response

- significant pipe, valve, or tank leaks or ruptures;
- overtopping of the event pond and any downstream impoundments;
- power outages and pump failures;
- uncontrolled seepage from the internal solution pond in the HLF or the pregnant or barren solution pipelines;
- failure of cyanide treatment, destruction, or recovery systems, if installed; and
- geotechnical failure of the HLF.

For each potential emergency scenario involving cyanide, procedure SGC-CMP-SOP-020 will describe special emergency response procedures and the roles and responsibilities of emergency responders and coordinators. SGC-CMP-SOP-020 will be included as an appendix to the Eagle Gold Project Emergency Response Plan and will form an integral part of the Plan such that a single document can serve as the primary reference during emergencies. The minimum considerations presented for information in this section of the Cyanide Management Plan will be reflected in the procedures included in the Eagle Gold Project Emergency Response Plan. The Eagle Gold Project Spill Response Plan will describe the policies and procedures for prevention of major releases, in addition to describing the elements of the facility’s design and construction that limit the potential for such events.

8.1.3 Responses to Transportation-Related Emergencies

As discussed in Section 2.1., SGC will seek to only purchase cyanide from an ICMC-certified cyanide producer. SGC will seek to establish contractual conditions with such a producer under which the producer will also assume responsibility for management of the entire delivery chain, pursuant to the requirements of the ICMC. Contractual terms and conditions will specifically denote supply chain contractor responsibilities for all aspects of transportation, including, emergency response along the whole of the transportation route to the Project site. The emergency response capability and preparedness of the transporter is clearly set out in the ICMI Cyanide Transportation Verification Protocol (ICMI, October 2009).

Nevertheless, for incidents in proximity to the mine SGC will, on request from the transporter, assist with responding to a transportation related incident.

8.1.4 Response Actions

The Eagle Gold Project Emergency Response Plan will describe the specific actions and set out the responsibilities and duties of responders and management to respond to a Serious Incident. Figure 8.1-1 illustrates the emergency response and incident reporting and follow-up processes.

The discoverer of a “Serious Incident” will call a CODE 1 on the radio, stating name, location and nature of the assistance required. This will generate a response from the Site Manager/Site
Coordinator who will coordinate the initial response, mobilize the emergency response team and summon any specialized resources required. For each potential emergency scenario the Eagle Gold Project Emergency Response Plan will detail the response actions and mitigation measures to be undertaken and the roles and responsibilities for initiating and conducting these actions.

Procedures VGC-ERP-SOP-0002 “Medical Emergencies on Site”, and VGC-ERP-SOP-0003 “Management/ ERT Responsibilities – Fire in Camp” describe additional requirements and responsibilities for medical emergencies and site evacuation.
Figure 8.1-1: Emergency Response/Reporting Tree Diagrams
8.2 STAKEHOLDER ENGAGEMENT IN EMERGENCY RESPONSE PLANNING PROCESS

8.2.1 Planning for Stakeholder/Workforce Engagement
The Eagle Gold Project Emergency Response Plan will be refined with the involvement of and consultation with the project workforce and external stakeholders in order to ensure that the plan addresses site-specific. Because of the remoteness of the site, SGC will retain its own emergency response capability to respond all potential emergency scenarios, including medical, fire and HAZMAT response. In addition to OFA Level 3 First Aid personnel, SGC will also have a first aid room operated 24 hours a day, 7 days a week. Formal arrangements to provide external airborne medical evacuation (MEDEVAC) services through the Mayo Nursing Station and with the hospital at Whitehorse, or other, for cyanide exposure patients requiring additional treatment and observation.

8.2.2 Consultation with Potentially Affected Individuals and Communities
As noted in the Community Relations, Outreach, and Communications Plan, SGC will consult with the First Nation of Na-Cho Nyäk Dun (FNNND) and the citizens of the Village of Mayo to provide background information on the use of cyanide in the mining process, and to identify the risks of any cyanide release scenarios that may potentially affect them. SGC will also periodically advise these stakeholders on how the operation plans to communicate with them if an accidental cyanide release were to occur, and any specific measures that may need to be taken to protect water supply, human health, or wildlife habitat.

8.2.3 Consultation with Local Response Agencies and Medical Facilities
The Eagle Gold Project Emergency Response Plan will both note that SGC will engage their own security, fire, ambulance and medical capability at the mine site and therefore will not need to rely on the Royal Canadian Mounted Police (RCMP) or local medical assistance for first response to emergency situations. However, as discussed in Section 8.2.1, engagement will be made with Mayo Nursing Station and Whitehorse Hospital for the provision of MEDEVAC and hospital care services if needed.

8.2.4 Stakeholder Engagement in Emergency Response Plan Updates
On an annual basis, SGC will review any arrangements made for MEDEVAC services regarding potential treatment of patients for cyanide exposure; any required modifications will be reflected in an update to the Eagle Gold Project Emergency Response Plan. Current controlled copies of the Eagle Gold Project Emergency Response Plan will be distributed to the appropriate medical responders and the Occupational Health & Safety office of the Yukon Workers’ Compensation Health and Safety Board (YWCHSB), in accordance with SGC-CMP-SOP-001, “Preparation, Review, Approval, Update, and Controlled Distribution of Eagle Gold Project Management Plans and Standard Operating Procedures.”
8.3 COMMITMENT OF RESOURCES AND PERSONNEL FOR EMERGENCY RESPONSE

8.3.1 Cyanide-Related Elements of Eagle Gold Project Emergency Response Plan
Among its other provisions, the Eagle Gold Project Emergency Response Plan will:

- designate primary and alternate emergency response coordinators who will have explicit authority to commit the resources necessary to implement the Plan;
- identify the current members of the ERT;
- define the minimal training requirements for emergency responders;
- include mustering procedures and 24-hour contact information for emergency coordinators and ERT members;
- specify the duties and responsibilities of the emergency coordinators and ERT members;
- include procedural direction for periodic inspection of emergency response equipment to ensure its functionality and availability; and,
- describe specific roles, if any, of the Mayo Nursing Station MEDEVAC service, YWCHSB, Whitehorse General Hospital, and any other outside responders, medical facilities, or community organisations in the emergency response process.

8.3.2 Stakeholder/Workforce Engagement in Mock Drills
As discussed in Section 7.3.6, SGC will conduct mock emergency drills for response to cyanide exposures and/or releases on at least an annual basis.

8.4 INTERNAL/EXTERNAL EMERGENCY NOTIFICATION AND REPORTING PROCEDURES
8.4.1 Procedures and Contacts for Emergency Reporting

Procedure SGC-CMP-SOP-024, “Incident Investigation and Reporting” sets out the internal requirements for documenting, reporting and investigating all incidents, which by definition include significant releases or exposures to cyanide; Federal and/or Territorial regulations require immediate notification in the event of any serious incident or reportable spill. SGC-CMP-SOP-024 will provide specific direction in the reporting process, and will be appended to the Eagle Gold Project Emergency Response Plan. As previously noted, the Plan will provide simple decision tree diagrams for the reporting and follow-up required for serious incidents (see Figure 8.1-1), as well as a table of reportable spill quantities (including reportable quantities for solid and liquid cyanide). Current contact numbers for the Yukon Spill Report Line (for reporting spills) and for the Yukon Territory OH&S Mine Inspector (for the reporting of serious incidents, injuries or accidents) will also be listed.
8.4.2 Emergency Notifications – Potentially Affected Communities and Media Communications

SGC will conduct periodic communications in Mayo and other regional locations, in order to provide general information on the progress of the Project, to answer questions, and to disseminate general written information on mining activities and practices for the safe management of cyanide. As part of this initiative, SGC will keep the FNNND, the YWCHSB, and other community leaders informed of any serious incidents or reportable spills that may occur and will promptly notify them of any offsite incident that may potentially affect the public. In order to better ensure consistency and accuracy in the information provided, all media interactions will be controlled through a designated SGC spokesperson.

8.5 REMEDIATION MEASURES/MONITORING ELEMENTS FOR CYANIDE HAZARDS

8.5.1 Identification of Potential Cyanide Release Scenarios in Emergency Response Plan

As discussed in Section 8.1.2., SGC-CMP-SOP-020, “Cyanide Emergency Response Procedures” will describe the response procedures and roles and responsibilities for each of the possible cyanide release scenarios that may reasonably occur at the site. Specific measures will be included to ensure that appropriate mitigation measures, remediation actions, and monitoring programs are implemented to prevent or minimize potential impacts to the environment. These procedures will include, as appropriate:

- type and location of emergency soil moving/excavation equipment and stockpiled materials as required, to respond to large liquid spills or earthwork failures;
- methods for recovery of solid and liquid cyanide spills;
- management and/or disposal of cyanide-contaminated soil to the heap leach pad, and spills of cyanide briquettes or process solution back into the process (see Section 8.1.1);
- location, preparation and use of cyanide neutralization chemicals; and
- soil and water sampling/analytical methods, as necessary to delineate, monitor, and confirm completion of any required remediation of cyanide-impacted land or water.

If any cyanide release has a potential for impacting drinking water supplies, SGC-CMP-SOP-020 will provide direction on providing an alternate drinking water supply to affected residences or communities.

8.5.2 Prohibited Treatment Chemicals for Cyanide Releases to Surface Water

A supply of sodium hypochlorite, ferrous sulphate, or hydrogen peroxide will be maintained as part of the emergency response kit for use in neutralizing and decontaminating areas impacted by cyanide.
spills. SGC-CMP-SOP-020, “Cyanide Emergency Response Procedures” will describe the method for preparing neutralization chemicals for safe use and application. Because of the potential detrimental effect of neutralization chemicals on aquatic life, their use will be prohibited if there is any potential for the release to enter surface water.

8.5.3 Monitoring for Extent of Potential Cyanide Releases
SGC-CMP-SOP-020, “Cyanide Emergency Response Procedures” will describe the proposed monitoring activities that will be undertaken to identify the extent and effects of a cyanide release. The procedures will specify the type, location, number, and analytical methods to be used, depending on the nature and location of the spill. Field sampling protocols and QA/QC procedures, including sample collection and labeling, sample preservation, chain-of-custody, and field reporting, will be specified in SGC-CMP-SOP-025, “Environmental Monitoring Procedures.”

8.6 EVALUATION AND UPDATE OF EMERGENCY RESPONSE PROCEDURES AND CAPABILITIES

8.6.1 Routine Emergency Response Plan Review and Update Requirements
The SGC Health and Safety Manager and site manager will be responsible for keeping the Eagle Gold Project Emergency Response Plan up to date. The Plan will be reviewed at least annually and updated as applicable to incorporate any significant changes in any facility infrastructure or operational processes involving the management or use of cyanide. The Eagle Gold Project Emergency Response Plan will also be reviewed and modified to incorporate any improvements or “lessons learned” resulting from the evaluation of the results of each emergency response or mock drill (see Section 7.3.6). The Health and Safety Manager will also be responsible for maintaining up to date emergency contact information and ensuring that this information is incorporated in updates to Eagle Gold Project Emergency Response Plan; as previously noted, all Plan updates will be subject to controlled distribution in accordance with SGC-CMP-SOP-001, “Preparation, Review, Approval, Update, and Controlled Distribution of Eagle Gold Project Management Plans and Standard Operating Procedures.”

8.6.2 Mock Emergency Drills
As discussed in Section 7.3.6, SGC will conduct emergency mock drills to test the adequacy of response procedures for cyanide exposures and/or releases, on at least an annual basis.
9 TRAINING OF WORKERS AND EMERGENCY RESPONSE PERSONNEL

9.1 CYANIDE HAZARD RECOGNITION TRAINING

9.1.1 Cyanide Hazards Recognition Training Program
SGC’s cyanide hazard recognition training requirements will be set out within the context of SGC-CMP-SOP-002, “Eagle Gold Project Training Program.” All visitors to the Project will be required to complete site induction training prior to being permitted to enter the operating area of the site. This induction training will include a briefing on potential hazards at the site, required PPE, general health and safety precautions, and emergency response procedures.

All full time employees and contractors working in areas where there is a potential for encountering cyanide will also be required to complete Cyanide Hazard Recognition training. This program will include a general introduction to this Cyanide Management Plan and the Eagle Gold Project Emergency Response Plan. Training topics will also include: recognizing cyanide reagent and solution, and where such materials will be encountered within the operation; discussion of the health effects of cyanide; precautions to prevent cyanide exposure; symptoms of cyanide exposure; and specific procedures to follow in the event of exposure.

9.1.2 Refresher Training Requirements
All full time employees and contractors who may work in areas where there is a potential for encountering cyanide will also be required to complete Cyanide Hazard Recognition refresher training at least once a year.

9.1.3 Retention of Training Records
Induction training and Cyanide Hazard Recognition/Cyanide Hazard Recognition refresher training records and course presentation materials will be maintained on file in compliance with SGC-CMP-SOP-003, “Records Management.” Training records will include the names of the employee and the trainer, the date of training, the topics covered, and employee proficiency test results, were required. Initial and refresher training will be tracked on a training matrix to ensure training of all employees is complete and current.

9.2 OPERATIONAL TRAINING REQUIREMENTS

9.2.1 Operational Training Program for Cyanide Facility Workers
As part of their standard job-specific training, employees directly involved with cyanide management or mineral processing operators will receive specific training on the management plans and supporting SOPs that govern their work. At a minimum, these management plans will include:
Section 9: Training of Workers and Emergency Response Personnel

- Heap Leach and Process Facilities Plan;
- Eagle Gold Project Spill Response Plan;
- Eagle Gold Project Water Management Plan;
- Eagle Gold Project Emergency Response Plan;
- Eagle Gold Project Environmental Monitoring Plan; and
- Eagle Gold Project Preventive Maintenance Program Plan

Such training will involve instruction on required operational tasks, the prevention of unplanned releases of cyanide, minimization of cyanide-related risks to their own health and safety and the health and safety of their co-workers and the general public; and the protection of the environment. All training will be documented as note in SGC-CMP-SOP-002, “Eagle Gold Project Training Program”, with records retained as described in SGC-CMP-SOP-003, “Records Management.”

9.2.2 Trainer Qualification Requirements
Employee task training will be undertaken by dedicated training specialists with experience in the cyanide process, or by supervisors or managers with prior experience in training and the knowledge and experience in the systems and procedures that are the primary subject of the training tasks to be accomplished. Resumes showing the qualifications and experience of trainers will be maintained as per SGC-CMP-SOP-002, “Eagle Gold Project Training Program” and SGC-CMP-SOP-003, “Records Management.”

9.2.3 Authorization of Trainees/Release for Cyanide Facilities Work
An employee will not be permitted to work with cyanide in an unsupervised manner until he or she has successfully completed the induction training and Cyanide Hazard Recognition/Cyanide Hazard Recognition refresher training described in Section 9.1, as well as the operational training specified for their work assignment.

9.2.4 Evaluation of Training Program Effectiveness and Refresher Training
The effectiveness of cyanide training and the competence of employees performing their jobs in a safe and environmentally protective manner will be evaluated through informal observations and formal task observations undertaken by supervisors and managers. Where deficiencies are noted an employee will be required to complete task refresher training before being permitted to work unsupervised on that task.

9.2.5 Operational Training Records Requirements
Operational or task training records will be maintained as per SGC-CMP-SOP-003, “Records Management.” Training records will include the names of the employee and the trainer, the date of training, the topics covered, and the employee proficiency test results, where required. As noted in
SGC-CMP-SOP-003, operational training will be tracked on a training matrix to ensure training of employees working in specific areas of the plant and cyanide process have completed all required training and are approved to work unsupervised in those areas.

9.3 CYANIDE RELEASE RESPONSE TRAINING

9.3.1 Cyanide Release Response Training – Cyanide Facilities Workers / Maintenance Personnel
As discussed in Section 9.1.1, all employees that may encounter cyanide in the workplace will be required to complete Cyanide Hazard Recognition training and annual refresher training. This component of the overall training program will include actions to be taken by the first responder in the event of an emergency (i.e., report the emergency by calling CODE 1 on the radio, stating name, location and nature of the assistance required and provision of first aid and decontamination procedures).

9.3.2 Decontamination and First Aid Training
The Cyanide Hazard Awareness training will also include recognition of cyanide exposure symptoms and the application of basic first aid including the administration of medical oxygen and appropriate decontamination practices. The training program will include instruction on the location of emergency showers/eyewashes and emergency first aid stations, and practical exercises on the administration of medical oxygen and amyl nitrite antidote, as available.

9.3.3 Emergency Response Coordinator/Emergency Response Team Training
Emergency responders and coordinators will be trained in all elements of the Eagle Gold Project Emergency Response Plan and their specific responsibilities and duties during an emergency response. In addition to Cyanide Hazardous Awareness training, members of the Project ERT will also complete and maintain training in responses to accidents, fire, and hazardous materials. All emergency team members will be trained in use of self-contained breathing apparatus (SCBA) and selected members will also be trained to OFA Level 3. In addition to participating in mock emergency drills, the Emergency Response Team will also meet routinely for classroom and practical emergency response training. All training records will be maintained as per SGC-CMP-SOP-003, “Records Management.”

9.3.4 Offsite Emergency Responder Cyanide Release Response Training
Medical staff will be familiarized with the Eagle Gold Project Emergency Response Plan and their responsibilities and duties in the event of a medical emergency. SGC will provide their own emergency response capability and therefore there is no requirement to train offsite emergency responders. Nevertheless SGC will engage with Mayo Nursing Station and Whitehorse Hospital for the provision of MEDEVAC and hospital care in the event of a cyanide exposure emergency.
9.3.5 Refresher Training Requirements
As discussed in Section 9.1.1, all employees that may encounter cyanide in the work place will be required to complete Cyanide Hazard Awareness training and annual Refresher Training. This includes emergency responders and medical staff.

9.3.6 Mock Cyanide Emergency Drills and Effectiveness Evaluations
As discussed in Section 7.3.6, SGC will conduct emergency mock drills for response to cyanide exposures and/or releases. Where the evaluation of a mock drill identifies deficiencies in the methods and effectiveness of the response the adequacy of emergency response training will be reviewed, and additional or revised training may be recommended to hone the knowledge and skills of the responders.
10 PUBLIC DIALOG AND DISCLOSURE

10.1 STAKEHOLDER OUTREACH AND OPPORTUNITIES FOR COMMUNICATION
SGC will conduct on-going communication in Mayo and other regional locations (if required), in order to provide general information on the progress of the Project, and to disseminate general written or visual information on cyanide, its use in the mining process, and the general practices established to protect the environment and the health and safety of the workforce and the public with respect to any potential spills or releases (see Section 10.2). This communication will permit discussion of any concerns or questions related to the use of cyanide or other aspects of mine operations. Stakeholders will include the FNNND, the YWCHSB, community leaders, and other stakeholders.

10.2 DISSEMINATION OF CYANIDE INFORMATION TO EXTERNAL AND INTERNAL STAKEHOLDERS

10.2.1 Written Descriptions of Cyanide Use and Associated Management Practices
Where appropriate SGC will prepare and maintain written and visual materials suitable for external distribution, that describe the use of cyanide on the Project; these may be in the form of a written brochures, booklets, or papers, or may include video or audio presentations, or posters or other graphical/non-verbal methods.

10.2.2 Dissemination of Information on Cyanide Exposures or Releases
SGC is committed to disseminate information on any cyanide exposures or releases that could impact human health or the environment, in compliance with all applicable Yukon and Federal Government requirements. SGC-CMP-SOP-020, “Cyanide Emergency Response Procedures” will provide guidance on responding to injuries and serious incidents as defined in Section 30(1) of the current Yukon Occupational Health and Safety Act (Yukon, 2002b). These will include any release of process solution outside of containment, any release of hazardous product in which there is a potential for that product to enter a waterway, and any release that results in dysfunction from lack of oxygen or poisoning. In addition, as noted in the Eagle Gold Project Emergency Response Plan, a designated member of SGC’s senior management team will serve as a single point of contact with the media for specific information on any such exposure or release, associated corrective measures, and preventive measures taken the reduce or prevent the recurrence of similar incidents in future.
11 REFERENCES


