

Evolution Mining - Cowal Gold Mine

Recertification Audit: International Cyanide Management Code - Gold Mining Operations Verification Protocol

Summary Audit Findings Report





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GOLD MINING OPERATIONS



SUMMARY AUDIT REPORT

Name of Mine

Cowal Gold Mine

Name of Mine Owner

Evolution Mining (Cowal) Pty Ltd

Name of Mine Operator

Evolution Mining (Cowal) Pty Ltd

Name of Responsible Manager

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LOCATION DETAIL AND DESCRIPTION OF OPERATION

Evolution Mining owns and operates seven gold operations. Four of the operations are located in Queensland, Australia, one in New South Wales and two in Western Australia. Evolution Mining's diversified portfolio combining production and growth has made it become the second largest ASX listed gold miner. In 2015, Evolution Mining acquired 100% interest in the Cowal Project from Barrick Gold Corporation.



The Cowal Gold Mine (Cowal) is located on the western shore of Lake Cowal, approximately 32 km northeast of West Wyalong in Mid-Western New South Wales. The mine commenced operations in 2005 and scheduled to continue until 2025 at current estimates with a remaining life of mine strip ratio of 0.25:1.

The main components of Cowal are:

- An open pit which, on completion of mining, would measure 1000 m by 850 m and 325 m deep;
- A processing plant to extract the gold from the mined ore;
- Waste rock emplacements which would contain mined rock that has no commercial quantities of gold;
- Two tailing storage facilities (TSF) which would contain the slurry residue from the processing plant;
- A lake isolation system to separate the Project from Lake Cowal over the long term;
- A 132 kV electricity transmission line from Temora to the project (some 90 km in length); and
- An access road (approximately 16 km) to the Project.

The Cowal process plant treats sulphide ore and consists of primary crushing, crushed ore stockpiling, grinding, pebble recycle crushing, gravity concentration, intensive cyanide leaching (batch process), flotation, ultra-fine grinding and leaching, elution, electrowinning and smelting. The leach tailings are treated with Sodium Metabisulphate (SMBS) to destroy the cyanide to prescribed limits and then pumped to one of two tailings storage cells.

The process plant was designed to ensure cyanide levels in the TSF would be a maximum of 30 mg/L and, for 90% of the time, would be below 20 mg/L measured as Weak Acid Dissociable (WAD) Cyanide.

Cyanide is delivered to site dry in 22 tonne isotainers of dry sodium cyanide pellets. The cyanide is transferred into the plant by sparging the tankers into the process plant holding tanks.



AUDITOR'S FINDING

This operation is:						
	☑ in full compliance					
	☐ in substantial compliance					
	☐ not in compliance					

with the International Cyanide Management Code Gold Mine Operations Verification Protocol. This operation has not experienced compliance problems during the previous three-year audit cycle.

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21 March 2016

Names and Signatures of Other Auditors

R John McKenna (Technical Specialist)

21 March 2016

Tom Carmichael (Auditor)

21 March 2016

Evolution Mining - Cowal Gold Mine
Name of Mine
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21st March 2016

Date

Signature of Lead Auditor



Date(s) of Audit

Inclusive of the period from 10th – 12th November 2015.

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute and that all members of the audit team meet the applicable criteria established by the International Cyanide Management Institute for Code Verification Auditors.

I attest that this Summary Audit Report accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in accordance with the International Cyanide Management Code Verification Protocol for Gold Mine Operations and using standard and accepted practices for health, safety and environmental audits.



PRINCIPLE 1 – PRODUCTION

Encourage responsible cyanide manufacturing by purchasing from manufacturers who operate in a safe and environmentally protective manner.

Standard of Practice 1.1

Purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide, and to prevent releases of cyanide to the environment.

	☑ in full compliance with					
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 1.1				
	□ not in compliance with					

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with standard of Practice 1.1, requiring the operation purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide and to prevent releases of cyanide to the environment.

Orica is the sole cyanide supplier to the mine operation, the product being produced at the Yarwun facility, Queensland and which was re-certified under the Code on 29th October 2013.

Date



PRINCIPLE 2 – TRANSPORTATION

Protect communities and the environment during cyanide transport.

Standard of Practice 2.1

Establish clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.

☑ in full compliance with
 The operation is
 ☐ in substantial compliance with
 ☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with the Standard of Practice 2.1 requiring that the operation establishes clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.

Orica is the contracted cyanide supplier and is certified under the Code. Orica's Australian Supply Chain was certified as compliant with the ICMC on 26/1/2015.

Standard of Practice 2.2

Require that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.

☑ in full compliance with
 The operation is
 ☐ in substantial compliance with
 ☐ standard of Practice 2.2
 ☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 2.2 requiring that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.

The operation purchases its cyanide from Orica under a written Supply Agreement that designates responsibility for the aspects of cyanide transportation required by the Code.

The Supply Agreement has clear lines of responsibility for safety, security, release prevention, training and emergency response as required by the ICMI Cyanide Transportation Audit Protocol.

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The supply agreement requires that the transporter and its subcontractors comply with the Code.

Orica's Australian Supply Chain (for cyanide transport) was re-certified as compliant with the ICMC on 26/1/2015, based on the recertification audit conducted by Golder Associates during October 2014.



PRINCIPLE 3 - HANDLING AND STORAGE

Protect workers and the environment during cyanide handling and storage.

Standard of Practice 3.1

Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices, quality control/quality assurance procedures, spill prevention and spill containment measures.

	oxdot in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 3.1
	☐ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 3.1 requiring that unloading, storage and mixing facilities are designed and constructed with sound, accepted engineering practices, quality control/quality assurance procedures, spill prevention and spill containment measures.

The cyanide handling and storage facilities have been built to the standards of the mine's cyanide manufacturer and supplier, Orica, in order to receive cyanide via sparge isotainers. The facilities were inspected by an engineering consultant that concluded the unloading, mixing and storage facilities have been designed and constructed in accordance with sound engineering practices and jurisdictional rules. Furthermore, the facilities were inspected by Orica in 2012 and 2013 and deemed to be in full compliance with Orica's cyanide facility guidelines. Engineering inspection reports in 2015 confirmed the structural integrity of the cyanide storage facility.

The unloading and storage areas are located away from people and surface waters. The nearest surface water body is Lake Cowal 1.0 km to the south-east and not hydraulically connected to the unloading and storage areas. All areas permanently occupied by the workforce are not in the vicinity of the facilities. A qualitative risk assessment of the cyanide facilities in the unloading and storage areas in respect to potential for releases to surface water and/or human exposure determined that the facilities and location of the compound provide such protection with the existing controls that no further risk reduction action is currently required.



Cyanide from the sparge isotainer is unloaded on a concrete surface which minimises seepage to the subsurface. The surface has also been designed and constructed to drain any unplanned spillage or hose up solution to the secondary containment that surrounds the cyanide mixing and storage tanks.

There are methods in place to prevent the overfilling of cyanide day (storage) tank and the cyanide (sparge) mixing tank. Both tanks have both been installed with level indicators that display on the DCS in the plant control room. High and High-High level alarms are configured on each tank. Monthly preventative maintenance checks are conducted on the cyanide mixing and storage tank level instruments to manage their reliability.

The cyanide storage and cyanide sparge mixing tanks are located on a concrete surface that can prevent seepage to the subsurface. As-built drawings show that the mixing and storage tanks have been installed on concrete ring beams with compacted fill placed in the annular space, topped by layers of concrete and bitumen to prevent potential leakage reaching the natural subsurface.

Secondary containments for cyanide storage and mixing tanks (i.e. bunding and flooring) are constructed of concrete, which provides a competent barrier to leakage.

Cyanide is stored with adequate ventilation to prevent the build-up of HCN gas. Cyanide is delivered in solid briquette form in isotainers, where it is mixed via the sparging process and stored in the storage tanks. These tanks are installed outdoors (in the open) and both tanks are vented to atmosphere via vent pipes that extend 7 m above ground level.

The mixing and storage tanks are enclosed vessels installed on a competent foundation that ensures they stand above any ponded water under most circumstances and the tank vent designs are such that water ingress cannot occur under normal weather conditions.

The cyanide reagent area is contained within the secured boundaries of the processing plant and has additional fencing around the secondary containment.

The cyanide unloading, mixing and storage area is located away from areas where acids, strong oxidisers and explosives are stored. No food products of any sort are kept within the reagent storage area or processing plant.

Standard of Practice 3.2

Operate unloading, storage and mixing facilities using inspections, preventive maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

☑ in full compliance with

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The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 3.2
	$\hfill\square$ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 3.2 requiring that unloading, storage and mixing facilities are operated using inspections, preventive maintenance and contingency plans to prevent or contain releases and control and respond to worker exposures.

Cyanide briquettes are delivered to site in Orica isotainers. The cyanide is sparged on-site by the delivery driver and returned to Orica on the same vehicle. These isotainers are specifically designed by Orica for transporting and sparging cyanide briquettes. As such, they are not used for any other purpose.

A procedure is in place for the operation of all valves and couplings for mixing the cyanide into liquid form.

The design and handling of the cyanide isotainers is such as to minimise the risk of rupturing or puncturing. The isotainers are not stacked more than one high as specified by a procedure.

A procedure is in place and implemented to clean any cyanide residue from the outside of cyanide containers that are returned to the vendor and securely close them for shipment.

Procedures are in place and implemented to prevent exposures and releases during cyanide unloading and mixing activities. This is addressed in the site's Cyanide Unloading, Mixing and Storage and Responding to Spill Containing Cyanide procedures. Cyanide unloading is undertaken by personnel equipped with appropriate PPE and subject to observation by a second individual from a safe area and by video feed to the control room.



PRINCIPLE 4 – OPERATIONS

Manage cyanide process solutions and waste streams to protect human health and the environment.

Standard of Practice 4.1

Implement management and operating systems designed to protect human health and the environment utilizing contingency planning and inspection and preventive maintenance procedures.

	☑ in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 4.1
	$\ \square$ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 4.1 requiring management and operating systems designed to protect human health and the environment are implemented and include contingency planning and inspection and preventive maintenance procedures.

The operation has a range of written management and operating plans in place to manage cyanide facilities. Operating management plans and procedures were developed and continue to be used for the safe operation in all their cyanide related activities, covering: unloading and storage facilities, leach circuit, tailings impoundments and cyanide treatment and disposal systems.

The Development Consent Conditions for the mine establish regulatory requirements to prevent or control cyanide releases and exposures. These include a requirement that there be no discharge from the site and that regulatory limits in place for WAD CN levels at the compliance monitoring point are not exceeded. The Development Consent Conditions have been amended 12 times since the initial approval in August 2003.

Water management procedures for key cyanide-containing storages have been developed to retain the storage capacity of these facilities. Operations and Maintenance Manuals have been prepared and implemented for the TSFs. An extensive Site Water Management Plan has also been developed for the site. The Cyanide Management Plan includes prescriptions for the management of freeboard in the tailings storage facilities and the concentrations of cyanide permitted to be discharged to these facilities.



The operation has a procedure to identify when changes in a site's processes or operating practices may increase the potential for the release of cyanide and to incorporate the necessary release prevention measures. This procedure is well implemented on site.

Formal cyanide management documents that address contingency procedures for situations when there is an upset in the facility's water balance, inspections and monitoring identify a deviation from design or SOPs and/or when a temporary closure or cessation of the operation may be necessary have been developed and implemented.

Regular inspections are conducted and preventative maintenance carried out in line with a documented schedule to ensure that the potential for cyanide incidents to occur is mitigated against and that they are functioning within design parameters. The inspections include facilities such as unloading, storage, mixing and process areas at tanks; secondary containments; pipelines; pumps; valves and the tailings storage facilities.

Inspections are documented, including the date of the inspection, the name of the inspector, and any observed deficiencies. The nature and date of corrective actions are documented. Records are maintained.

Preventive maintenance inspection schedules have been developed to inspect relevant pieces of equipment on-site to ensure that they are fit for use. Evidence of the implementation of this schedule was reviewed during the audit.

The operation has necessary emergency power resources in the event of an interruption to its primary power source. This includes a back-up generator with an automoatic start-up function and uninterrupted sower sources (UPS') on critical cyanide control equipment.

Standard of Practice 4.2

Introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.

	$\ensuremath{\square}$ in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 4.2
	☐ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 4.2 requiring management and operating systems be introduced to minimise cyanide use, thereby limiting concentrations of cyanide in mill tailings.



The mine has developed an extensive programme, using in-house and consultant firms to ensure that cyanide use is minimised. Ore types changes are well monitored.

The use of in-line, amperiometric analysers is the ideal for cyanide control.

The results from the Bimonthly Speciation Testing by CSIRO are used to further optimise the cyanide addition rate.

This control strategy is loaded into the DCS and automatically adjusts the cyanide addition flow rate. Cyanide usage is reviewed on a daily basis.

Standard of Practice 4.3

Implement a comprehensive water management program to protect against unintentional releases.

	☑ in full compliance with					
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 4.3				
	□ not in compliance with					

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 4.3 requiring that the operation implement a comprehensive water management programme to protect against unintentional releases.

The development of the current water balance is well documented. It has been and is still a Coffey Geotechnics model, having undergone several changes, the proof of its probabilistic nature and undergone recalibration. The model is Code compliant and includes appropriate consideration of:

- the rates of solution deposited to tailings;
- storm duration and surface run-off inflows;
- site specific weather data;
- solution losses;
- power outages; and
- other aspects of facility design that can affect the water balance.

The water balance allows for the successful estimation of water movements and avoidance of overtopping of ponds and TSF. The mine's operating procedures incorporate inspection and monitoring activities to implement the water balance and prevent overtopping of ponds and impoundments and unplanned discharge of cyanide solutions to the environment.

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It is current practice, on a yearly basis, to send data to Coffey Geotechnics for calibration. This frequency is more than is normal for the industry.

Ponds and impoundments are designed and operated with adequate freeboard above the maximum design storage capacity. The operation has its own on-site weather station which provides accurate climatic data which is utilised in water balance calculations.

The mine Water Balance is comprehensive; it is probabilistic and is under frequent review. An alternative Water Balance model has been undergoing trials through 2015 with a view to implementation during the next audit period.

Standard of Practice 4.4

Implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.

	☑ in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 4.4
	☐ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 4.4 requiring measures be implemented to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions.

The operation does not have open waters where WAD CN exceeds 50 mg/L. The operation has strict regulatory conditions applied that limit the value of WAD CN in open waters to:

- 20 mg/L WAD CN (90th percentile averaged over 6 months); and
- 30 mg/L WAD CN (100th percentile never to exceed)

Monitoring results reviewed over the audit period verified that these limits were not exceeded. Maintaining a WAD CN level of less than 50 mg/L in open water bodies is effective in preventing wildlife deaths at the Cowal operations.

Regular wildlife inspections and fauna mortality investigations are conducted to determine that fauna deaths recorded on site are not caused as a result of cyanosis. The vast majority of fauna mortalities on site are attributable to instances of vehicle impact and / or flight misadventure.

Standard of Practice 4.5

Implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.

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	☑ in full compliance with						
The operation is	☐ in substantial compliance w	rith Stand	Standard of Practice 4.5				
	$\hfill\Box$ not in compliance with						
Summarize the b	asis for this Finding/Deficie	encies Ident	ified:				
Cowal is in FULL	COMPLIANCE with Standard	of Practice	4.5 requiring	mea			

Cowal is in FULL COMPLIANCE with Standard of Practice 4.5 requiring measures be implemented to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.

Based on evidence observed it has been determined that Cowal does not have a direct discharge to surface water. Lake Cowal is immediately adjacent to the mining operation and is an ephemeral water body. Within the mining lease there are some small ephemeral drainage lines.

The site is designed such that all water within the site operations area (and therefore potentially contaminated) drains internally towards a range of catchment dams. Water outside of the mine operations is diverted by surface water drainage features around the perimeter of the site.

The site is designed to capture all surface water runoff within the operational area, which is directed to surface water point D5 which is monitored monthly. D5 is a clay lined water storage dam. Both TSF cells are clay-lined and all three locations are engineered to a permeability of no greater than 1×10 -9, as required by government development approvals. D6 (process water dam) is HDPE lined and this was verified during the audit.

All cyanide facilities within the process plant footprint are constructed with secondary containment in place.

A groundwater monitoring bore network is located throughout the mine lease. Groundwater monitoring results were reviewed during the audit period with results below limits of detection. Groundwater flow on-site is towards the pit void, as confirmed by Coffey Geotechnics reports.

Standard of Practice 4.6

Implement	measures	designed	to	manage	seepage	from	cyanide	facilities	to	protect	the
beneficial u	ses of grou	ınd water.									

	☑ in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 4.6
	$\hfill\square$ not in compliance with	

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Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 4.6 requiring measures be implemented to manage seepage from cyanide facilities to protect the beneficial uses of ground water.

The operation has determined that there are no beneficial users of groundwater in the area, other than the water requirements of the operation itself.

Specific studies have determined that there are two groundwater aquifers in the area, one shallow and one deeper. There is no connectivity between these two aquifers.

Specific reports conducted to determine groundwater availability for the operation also determined that there are no other users of groundwater identified in the area.

A groundwater monitoring bore network is located throughout the mine lease. Groundwater monitoring results were reviewed during the audit period with results below limits of detection. Groundwater flow on-site is towards the pit void, as confirmed by Coffey Geotechnics reports.

Cowal does not have numerical standards for cyanide applied to their operation by the regulatory authority. They have a requirement to monitor and report WAD CN levels at various locations but no limits have been established. Cowal were observed to be complying with their requirement to monitor and report WAD CN levels in groundwater in their Annual Return.

Standard of Practice 4.7

Provide spill prevention or containment measures for process tanks and pipelines.		
	☑ in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 4.7
	☐ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 4.7 requiring spill prevention or containment measures be provided for process tanks and pipelines.



Spill prevention or containment measures are provided for all cyanide unloading, storage, mixing and process solution tanks. The cyanide isotainer storage area and unloading area is a concrete pad with appropriate slope and kerbing to direct any spill to the storage containment area. The mixing, storage and process tanks have been designed and constructed such that they sit on a concrete ring beam with compacted fill in the centre and covering layers of concrete and asphalt to prevent potential leakage from migrating to the subsurface.

Secondary containments for cyanide unloading, storage, mixing and process tanks are sized to hold a volume greater than that of the largest tank within the containment and any piping draining back to the tank, and with additional capacity for the design storm event. The mixing and storage tanks are in a concrete bunded area, the volume of which is significantly more than 110% of the combined volume of the two storage tanks. The bunding surrounding the leach and adsorption tanks is capable of storing two of the largest leach tanks, which exceeds the volume required by the Code.

Procedures are in place and being implemented to prevent discharge to the environment of cyanide solution or cyanide-contaminated waters that are collected in the secondary containment areas. Secondary containment areas have been built with dedicated sump pumps and piping to redirect all such water back into the processing plant for reuse.

There are no cyanide process tanks without secondary containment. Nonetheless, procedures have been developed for remediation of contaminated soil to prevent adverse impacts on groundwater.

Spill prevention or containment measures are provided for all cyanide solution pipelines to collect leaks and prevent releases to the environment. A majority of process solution pipelines (with exceptions only in two small areas where pipe racks traverse unsealed areas) have been installed in association with concreted secondary containment areas. The TSF pipeline is contained in a clay-lined bunded trench. Releases from the pipelines that traverse unsealed areas outside of concreted secondary containment areas would be captured within the processing plant drainage system and directed to the impervious storm water catchment pond.

There are no areas where cyanide pipelines present a risk to surface water. Licence conditions require that all water be retained on-site.

Cyanide tanks and pipelines are constructed of materials compatible with cyanide and high pH conditions. In 2007, engineering consultants were engaged by Barrick to inspect the cyanide facilities at Cowal. They undertook a thorough assessment of Cowal in relation to this question and found full compliance at that time.



Standard of Practice 4.8

Implement	quality	contro	l/quality	assurance	procedures	to conf	irm that	cyanide	facilities	are
constructed	accord	ing to	accepted	d engineeri	ng standard	s and sp	ecificat	ions.		

	oxdim I in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 4.8
	□ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 4.8 requiring quality control/quality assurance procedures be implemented to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.

For the Certification Audit a report was prepared based on a review of the original construction quality programme and the then-current operations to provide assurance that operations could continue safely from a cyanide perspective. Since then, there have been a number of plant modifications. Quality assurance and quality control programs are continuing to be applied to new construction and modification works, addressing the suitability of materials, their fabrication and installation. Examples examined during the audit covered two tailings storage expansion works, which were subject to design review, construction QA/QC and post construction inspection by appropriately qualified persons. A concrete pad installed to store solid cyanide isotainers, has been subject to post-construction inspection and testing by independent engineers and a risk assessment with limitations to its use which are considered acceptable.

Standard of Practice 4.9

Implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and ground water quality.

	$\ oxdot$ in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 4.9
	$\ \square$ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 4.9 requiring monitoring programs be implemented to evaluate the effects of cyanide use on wildlife and surface and ground water quality.



The operation has a range of written documentation outlining how monitoring is to be conducted on site, developed by appropriately qualified personnel.

The procedures reviewed outlined requirements for equipment, handling and transportation of collected samples. This document also includes all monitoring locations where samples are to be taken.

A Monitoring Quality Assurance Checklist is utilised to record a range of data including calibration of equipment, chain of custody data and dispatch date. These checklists were reviewed for the audit period and observed to have been completed accurately.

Cowal monitors for cyanide in both surface water and groundwater locations around the site.

Although Cowal does not have a direct discharge of process water to natural surface water, operational surface water locations that may contain cyanide include D5, D6 and both the northern and southern TSF cells. Monitoring of the TSF decant for WAD CN is undertaken twice a day.

Monitoring is conducted at appropriate frequencies to allow any changes needed to be identified in a timely manner.

Quarterly surface water monitoring for cyanide occurrence is undertaken at a range of locations within the operational area and opportunistically in Lake Cowal when water levels are high enough.

A groundwater monitoring bore network is located throughout the mine lease. Groundwater monitoring results were reviewed during the audit period with results below limits of detection.

The operation inspects and records all wildlife mortalities on site, as required under its Development Consent approval.



PRINCIPLE 5 - DECOMMISSIONING

Protect communities and the environment from cyanide through development and implementation of decommissioning plans for cyanide facilities.

Standard of Practice 5.1

Plan and implement procedures for effective decommissioning of the cyanide facilities to protect human health, wildlife and livestock.

	☑ in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 5.1
	$\ \square$ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 5.1 requiring procedures for effective decommissioning of the cyanide facilities be implemented to protect human health, wildlife and livestock.

Decommissioning of cyanide facilities is captured in two primary documents, these being the overall Cowal Gold Mine - Mine Closure Plan (MCP) and the specific Cowal Gold Mine Decontamination and Decommissioning Plan (DDP) – Processing Facilities.

The MCP was most recently updated in December 2014. This document covers overall mine closure requirements, processes and costs, of which the decommissioning of cyanide facilities is part of. The DDP was updated during the audit period (February 2014).

The DDP includes decommissioning of all cyanide facilities on site. The DDP includes an implementation schedule in Table 7. The schedule commences 24 months pre-closure through to 24 months post closure.

Standard of Practice 5.2

Establish an assurance mechanism capable of fully funding cyanide related decommissioning activities.

	☑ in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 5.2
	□ not in compliance with	



Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 5.2 requiring an assurance mechanism be established capable of fully funding cyanide related decommissioning activities.

The operation has developed an estimate of the costs to fully fund third party implementation of its DDP. The costs presented in the DDP are for an external contractor to undertake decommissioning works.

The estimated costs for decommissioning of cyanide facilities were based on two scenarios, one for the processing of primary ore and the other for processing of oxide ore. The cost estimate for primary ore is \$8,339,400 AUD and for oxide ore is \$8,084,800.

The DDP was revised and updated during the audit period (February 2014). Decommissioning costs were previously prepared in 2005 and 2007 by HLA and by Barrick in 2011, which demonstrates that costs are reviewed at least every five years.

Cowal has commissioned a bank guarantee to cover the overall costs of mine closure. Evolution Cowal has an approved \$63.5M bank guarantee from two Australian banks, the NAB and ANZ. NAB has guaranteed an amount of \$35.5M and ANZ an amount of \$28M. This total amount is approved and held by the Department of Resources and Energy and includes enough budget for decommissioning activities which are costed at a maximum of \$8,339,400 AUD.



PRINCIPLE 6 – WORKER SAFETY

Protect workers' health and safety from exposure to cyanide.

Standard of Practice 6.1

Identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.

	☑ in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 6.1
	☐ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 6.1 requiring potential cyanide exposure scenarios be identified and measures taken as necessary to eliminate, reduce and control them.

The operation has developed procedures describing how cyanide related tasks such unloading, mixing, plant operations, entry into confined spaces, and equipment decontamination prior to maintenance should be conducted to minimise worker exposure.

The procedures provided require personnel to don appropriate personal protective equipment (PPE) and to conduct pre-work inspections (Take 5) prior to the commencement of a task. All employees and contractors working on the site are required to undertake a Field Level Risk Assessment (FLRA) prior to undertaking any task.

The operation has procedures to review proposed process and operational changes and modifications for their potential impacts on worker health and safety, and incorporate the necessary worker protection measures. This is captured in the management of change process.

Prior to commencing work at the processing plant, contractors and employees have to complete a General Site Induction and then a Processing Specific Induction. During the inductions and training, the appropriate PPE for the areas, and task specific PPE, is highlighted. A Cyanide Awareness Presentation is included within the induction for workers accessing cyanide areas. This presentation includes details on PPE for cyanide specific tasks. The level of PPE is increased for tasks involving cyanide. The hazards associated with the task, and the PPE required form an integral part of the procedures.



The operation does solicit and actively considers worker input in developing and evaluating health and safety procedures. A review date is selected based on the criticality of the procedure. The review includes consultation with the employees and checks by the supervisor and approval by the manager.

Standard of Practice 6.2

Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

	☑ in full compliance with	
The operation is	$\hfill \square$ in substantial compliance with	Standard of Practice 6.2
	$\hfill\square$ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 6.2 requiring cyanide facilities are operated and monitored to protect worker health and safety and the effectiveness of the health and safety measures are periodically evaluated.

From test work, the operation has determined the appropriate pH for limiting the evolution of HCN. Cyanide is dissolved, by sparging, in the delivered isotainer. A pH level of 11.0 or greater is targeted during mixing.

Where the potential exists for significant cyanide exposure, the operation uses both fixed and personal monitoring devices to confirm that controls are adequate to limit worker exposure to HCN gas. Nine fixed hydrogen cyanide analysers are in place in areas which were determined to be at the highest risk, as an outcome of a risk workshop.

The operation has identified areas and activities where workers may be exposed to cyanide in excess of 10 ppm instantaneously and 4.7 ppm over an 8-hour period and require use of PPE in these areas or when performing these activities.

Portable and fixed HCN monitors are maintained, tested and calibrated as per manufacturer requirements.



Warning signs have been placed in areas identified as being at high risk of being exposed to cyanide. The signs state that cyanide is present, and that smoking, open flame and eating and drinking are not permitted. All reagent strength pipes are painted lilac, labelled as containing cyanide and have the direction of flow indicated. Piping labels are also used on site for other reagent lines, and water lines such as process water, raw water, reverse osmosis water and potable water. These labels include a direction arrow to indicate the direction of flow contained within the pipe.

Showers, low-pressure eyewash stations and dry-powder fire extinguishers are strategically located throughout the operation in the cyanide areas, and are maintained, inspected and tested on a regular basis. Safety Data Sheets (SDS), first aid procedures and informational materials on cyanide safety were available in the language of the workforce (English) in areas where cyanide is managed.

There is a system used for reporting and investigating incidents and an Incident Reporting and Investigation Procedure. Once an incident has been observed, the incident report form is completed by the individual and their supervisor. The information is entered into the QHSE database where corrective actions are developed and tracked to ensure that the relevant personnel close them out.

Standard of Practice 6.3

Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

	oxdot in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 6.3
	$\ \square$ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 6.3 requiring emergency response plans and procedures be developed and implemented to respond to worker exposure to cyanide.

Cowal has the necessary response and communication equipment readily available for use at cyanide unloading, storage and mixing locations, which includes: two-way radios for all process plant operational personnel, closed circuit television in the process plant, potable water, cyanide antidote kits, medical oxygen, resuscitation and defibrillation equipment, trauma kits, and ambulance.



Evidence was observed to show that Cowal does inspect its first aid equipment regularly to ensure that it is available when needed, and materials are stored and/or tested as directed by their manufacturer.

The operation has developed and implemented a site specific cyanide emergency plan to respond to cyanide incidents, including the treatment of exposures.

The operation does have its own on-site capability to provide first aid or medical assistance to workers exposed to cyanide. Cowal is manned by a dedicated emergency response officer (ERO) 24 hours a day seven days a week. There is also a fulltime emergency response coordinator (ERC) working five days a week that is on call 24 hours a day seven days a week. The EROs and the ERC have emergency medical training. In addition, many on-site personnel have senior or advanced first aid training. A first aid room is manned 24 hours a day and is contains resuscitation and defibrillation equipment, as well as a cyanide antidote kit.

The operation has established set routes to transport patients to hospital and advised these to the West Wyalong Hospital and NSW Ambulance Service. In the event of a cyanide exposure incident, an ambulance is called to the site and depending on the circumstances, the operation may despatch its ambulance to transfer the patient at some point along the designated route.

The operation has made formalised arrangements with the West Wyalong Hospital to ensure it is aware of the potential need to treat patients for cyanide exposure, has provided the hospital with two current cyanide antidote kits and provided training about cyanide risks and treatment.

Cowal has regularly conducted mock emergency drills to test response procedures for various cyanide exposure scenarios, and lessons learned from the drills are incorporated into response planning.



PRINCIPLE 7 – EMERGENCY RESPONSE

Protect communities and the environment through the development of emergency response strategies and capabilities.

Standard of Pract	ice 7.1	
Prepare detailed em	ergency response plans for potential of	cyanide releases.
	☑ in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 7.1
	$\hfill\square$ not in compliance with	
Summarize the ba	asis for this Finding/Deficiencies	Identified:
	OMPLIANCE with Standard of Practice prepared for potential cyanide releases	
The Cyanide Emergsupport the respons	gency Plan (CEP) details Emergency e are detailed.	Responses in detail. Systems to
It is a self-contained	d document.	
	onsider the potential cyanide failure so arios. The CEP was designed around to onse actions.	• • •
after containment of	g a spill of cyanide, Orica is notified a of the spill without consultation with mation relevant to the emergency w	Orica. Specific transport route or
CMR Team upon es	notification of potentially affected commodification of a potential incident. Sectifollowed in the event of a cyanide exp	on 5.22 of the CEP details the first
Standard of Pract	ice 7.2	
Involve site personn	el and stakeholders in the planning pr	rocess.
	☑ in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 7.2
	$\hfill\square$ not in compliance with	

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Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 7.2 requiring the involvement of site personnel and stakeholders in the planning process.

The Emergency Response Plan (ERP) and the Cyanide Emergency Procedure (CEP) have involved internal and external stakeholders at every stage of development, implementation and review.

Section 11.5 of the ERP (including the CEP) requires an annual review of the document, plus following emergencies or drills.

ERT members and invited external emergency services are provided with an opportunity to comment on the ERP and CEP during mock drill debriefs as part of a continual improvement process.

The Mine has a mutual aid agreement with the Bland Rural Fire Service and have close ties with the nearby North Parkes Mine. Drills and training sessions are held with these entities and other emergency services agencies. During debrief sessions, suggestions on improving emergency procedures can be made.

The ERP and CEP are updated annually. Consultation and communication with stakeholders regarding updates are conducted through the various committees and drills.

Standard of Practice 7.3

Designate appropriate personnel and commit necessary equipment and resources for emergency response.

	oxdim I in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 7.3
	☐ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 7.3 requiring appropriate personnel are designated and the necessary equipment and resources are committed for emergency response.





The Emergency Response Plan describes in sufficient detail information required for responding to cyanide emergency situations. Content includes subjects such as emergency response coordinators and team members, the training required for team members, contact information and call out procedures, duties of each team member and response equipment required. It ensures that response equipment is inspected and tested and also includes discussion on the role of outside responders.

The mine has confirmed that outside entities are included in the ERP and are aware of their involvement and are included as necessary in mock drills or implementation exercises.

Standard of Practice 7.4

Develop procedure	es for internal and external emergency	notification and reporting.
	☑ in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 7.4
	☐ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 7.4 requiring procedures are developed for internal and external emergency notification and reporting.

The ERP and CEP include procedures and contact information for notifying management, regulatory agencies, outside response providers and medical facilities of the cyanide emergency.

Any formal notification to external agencies will be requested from the site Emergency Controller only with direct consultation with the CMRP Team Leader, OHS Coordinator or Safety, Training and Security Manager.

Section 8.2 Notification of Authorities and Neighbours, Section 11 Interaction with Emergency Services and Section 12.1 Public Relations and Debriefing of the ERP detail communication requirements outside of Cowal. Appendix 5 lists the contact details.

Section 9.4 of the CEP lists the details of external emergency contacts separated into bot non-ERT and active participants.

Standard of Practice 7.5

Incorporate into response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

☑ in full compliance with

Meridealt



The operation is	\square in substantial compliance with	Standard of Practice 7.5
	$\hfill\square$ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 7.5 requiring response plans and remediation measures are incorporated into monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

The CEP and related documents do describe specific remediation measures as appropriate for the likely cyanide release scenarios, such as:

- Recovery or neutralisation of solutions and solids
- Decontamination of soils and other contaminated media
- Management and/or disposal of spill clean-up debris.

The operation has assessed potential for impacts on drinking water concluded that cyanide related incidents on site would not threaten drinking water supplies. Accordingly, provision of an alternate drinking water supply is not deemed necessary.

Considerations are made within the CEP for ground remediation and neutralisation with ferrous sulphate for all relevant scenarios. As stated in the plan it is essential that the Environmental Manager or his/her delegate attends all cyanide related incidents for direct consultation in monitoring, clean up and disposal of all contaminated media. The Cyanide Emergency Procedure states for each neutralisation scenario that:

Under no circumstances shall Ferrous Sulphate & Sodium Hypochlorite be utilised for decontamination or remediation purposes when there is the risk of contaminating water sources.

In Section 10.18 of the Responding to Spills Containing Cyanide Procedure, it is stated that that spills be reported to the Environmental Department so that the required samples are taken and monitoring of the area can be carried out to confirm there is no further contamination issues with the spill site.

Standard of Practice 7.6

Periodically evaluate response procedures and capabilities and revise them as needed.			
	☑ in full compliance with		
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 7.6	
	$\hfill\square$ not in compliance with		

Evolution Mining - Cowal Gold Mine

21st March 2016

Mercrotect

Date



Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 7.6 requiring response procedures and capabilities are periodically evaluated and revised as needed.

The operation does review and evaluate the cyanide related elements of its ERP. Section 11.5 of the ERP requires an annual review of the document, plus following emergencies or drills

Mock emergency drills are scheduled yearly. The most recent was conducted on the 17/11/2015.

The ERC and EROs also schedule weekly training for ERT members in various aspects of emergency response. This includes specific cyanide scenario training, generic hazardous materials training and first aid.

Provisions are in place to evaluate and revise the ERP and associated procedures after any cyanide related emergency requiring its implementation. The ERP states that it is reviewed annually and after each real emergency. To ensure the review occurs, the document is included in Mine's document management system. No cyanide emergency has occurred to date.



PRINCIPLE 8 – TRAINING

Train workers and emergency response personnel to manage cyanide in a safe and environmentally protective manner.

Standard of Practice 8.1

Train workers to understand the hazards associated with cyanide use.			
	$\ensuremath{\square}$ in full compliance with		
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 8.1	
	$\hfill\Box$ not in compliance with		

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 8.1 requiring workers are trained to understand the hazards associated with cyanide use.

The operation does train all personnel who may encounter cyanide in cyanide hazard recognition.

A tiered program of cyanide awareness training is delivered to site personnel, with the amount of training in relation to cyanide increasing in accordance with the risk of exposure of workers to cyanide based on the work they undertake. The training includes:

- General Site Induction for all persons entering the site, which includes information on hazardous chemicals held on-site, including cyanide to make people aware. This is refreshed every two years.
- Cyanide Awareness presentation for all workers which addresses exposure routes, symptoms of poisoning, first aid and safe handling. Refresher training is scheduled to be conducted every 12 months.
- Processing Induction for personnel who are entering the processing area (unless
 escorted by an inducted person) regardless of their work type. This includes an
 information session on the hazardous chemicals that are likely to be encountered onsite, including cyanide. All operations personnel are required to annually read and
 sign-off having read the eight nominated cyanide-related procedures, as documented
 in the Procedure Sign Off Sheet Cyanide Code Compliance.



Cyanide Worker Package for employees who are expected to be at a higher risk of
encountering cyanide, including process operators, gold room operators, maintenance
electricians and fitters and technical staff. This presentation includes further details of
site-specific hazards and control methods that are in place in and around the
processing area. Cyanide Worker Package refresher training is scheduled to be
conducted on an annual basis.

All of these presentations include knowledge assessments that are completed, signed and documented.

Prior to working independently employees are trained in cyanide related tasks. The training is typically conducted one on one by the crew Trainer and Assessors or under the guidance of the Shift Supervisor.

The electronic training data base is currently being transitioned from a Barrick system to an Evolution Mining system. As an interim measure, a Training Compliance Calculator is used by the Process and Process Maintenance Departments to track completion of compliance training, include cyanide code SOPs, Cyanide Awareness and the Cyanide Worker Package.

Cyanide hazard recognition and refresher training is conducted periodically in accordance with the nominated schedules for the particular training package.

Cyanide training records are retained. Training files are maintained for each employee, including hard copies of the assessments undertaken in each area of competency and the evaluation made of each assessment by the Trainer/Assessor.

Standard of Practice 8.2

Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.

	oxdot in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 8.2
	☐ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 8.2 requiring appropriate personnel are trained to operate the facility according to systems and procedures that protect human health, the community and the environment.



The operation trains workers to perform their normal production tasks, including unloading, mixing, production and maintenance, with minimum risk to worker health and safety and in a manner that prevents unplanned cyanide releases.

The operation has a tiered induction process that needs to be completed prior to working with cyanide, which includes a site induction, cyanide awareness training, area inductions (e.g. Processing) and a Cyanide Worker Package and Assessment. This training includes Job Hazard Analysis (JHA) and Take 5 hazard evaluation. On the job training is delivered through one on one sessions, as directed by the applicable Training Plans, which involves following the SOP with the trainee, demonstrating the steps and explaining the hazards. Sign-off forms are used to record training progress. At the time of the audit all personnel on site had been through the required training prior to commencing their jobs on the site.

The training elements necessary for each job involving cyanide management are identified in training materials, which are tiered to reflect different risks of cyanide exposure between different job roles. The training requirements for each job are identified in specific Training Plans that must be completed before the employee is deemed fully competent in their role. The Training Plans reference the SOPs applicable to the tasks being undertaken by each individual including cyanide-related tasks.

Appropriately qualified personnel provide task training related to cyanide management activities. Initial training is provided by the Process Training Supervisor or Maintenance Training Supervisor who hold Certificate IV in Workplace Training and Assessment, with additional training provided by Shift Supervisors.

Refresher training on cyanide management is provided periodically according to defined schedules to ensure that employees continue to perform their jobs in a safe and environmentally protective manner. Refresher training and special topics are also delivered in a group environment during the scheduled training days (five per year – four operational and one safety).

Records of the refresher training and assessments are filed in individual training files and have been recorded in an electronic training system, which is currently transitioning from the Barrick system to an Evolution Mining system, which links competencies to the job title and employee name so that each employee is trained in the required competencies. A Training Compliance Tracker is being used as an interim measure to monitor currency of training and trigger notifications to initiate refresher training.

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The operation evaluates the effectiveness of cyanide training using written assessments and on-the-job observations. All training packages require a competency assessment to be completed which has been recorded electronically as well as hard copies in the site filing system. Following the initial training, all new starters are assigned a buddy until they have been deemed competent in that area.

The operation has mapped training for operators to the Australian Qualifications Framework for Certificate III in Resource Processing and uses a third party registered training organisation for certification. Another method used for evaluating the effectiveness of cyanide training was through the STOP programme until August 2015, which has been replaced by Safety Interactions. Both STOP and Safety Interactions are similar processes which focus on recognising and reinforcing good safety behaviour and gaining commitment to change at-risk behaviour.

Records are retained throughout an individual's employment documenting the training they receive. The records include the names of the employee and the trainer, the date of training, the topics covered, and if the employee demonstrated an understanding of the training materials. Records for all training conducted on-site are captured and recorded in the electronic training system (which is currently transitioning from a Barrick system to an Evolution Mining system) and with hard copies kept in the site filing system.

Standard of Practice 8.3

Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.

	oxdot in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 8.3
	☐ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 8.3 requiring appropriate workers and personnel are trained to respond to worker exposures and environmental releases of cyanide.

Cyanide unloading, mixing, production and maintenance personnel are trained in the procedures to be followed if cyanide is released.



Processing workers are trained in responding to a release of cyanide, including raising the alarm. Response to worker exposures or catastrophic releases of cyanide is responsibility of the ERT and emergency management team. Review and sign-off of procedures by employees and their supervisors in the processing area is undertaken annually.

Cyanide emergency response personnel are trained in decontamination and first aid. Principals of first aid and decontamination are provided within the cyanide awareness presentations that are completed by all personnel working in the processing plant area.

The ERT are the primary responders to cyanide emergencies including worker exposures and hold training certification addressing first aid, mine emergency response and rescue, and rendering hazardous materials safe.

The ERC and EROs also run in-house training for ERT members in various aspects of emergency response. This includes specific cyanide scenario training, generic hazardous materials training and first aid.

The emergency response personnel participate in routine drills to test and improve their performance. Such drills scenarios undertaken since the previous ICMC re-certification audit have included a cyanide spill at the process plant, a loss from an isotainer at the unloading area, cyanide spill from a car / cyanide transport truck crash and a HCN gas release in the process plant.

EROs and ERT members receive training in the procedures contained within the Cyanide Emergency Response Plan (CERP) regarding cyanide, including the use of necessary response equipment.

The operation has made off-site emergency responders, such as community members, local responders and medical providers, familiar with those elements of the ERP related to cyanide (CERP).

Cowal Gold Mine attends six-monthly meetings of the Local Emergency Management Committee (LEMC) which is comprised of representatives of Cowal Gold Mine, the local fire brigade, local Councils, police, ambulance service, local hospital, power utilities and water supply authority. The CERP has been presented to off-site emergency responders at LEMC meetings. The ERC uses the LEMC forum to table the Cowal ERP and CERP for stakeholder comment.

External agencies and rescue professionals are invited to attend periodic emergency mock drills on-site.



Refresher training for response to cyanide exposures and releases is conducted regularly and refresher training records are maintained detailing the names of the employee and the trainer, the date of training, the topics covered, and how the employee demonstrated an understanding of the training materials, which is via observation and/or written assessment.

The operation has conducted mock cyanide emergency response drills involving ERT response to cyanide exposures and spills. Cyanide emergency drills are evaluated from a training perspective to determine if personnel have the knowledge and skills required for effective response. Training procedures are revised if deficiencies are identified.

Following each mock drill or actual incident, the ERT document an Emergency Response Debrief. These briefs highlight any issues associated with the ERT response to an incident or drill, and what corrective actions are required to close out the issues. Typically, the actions referred to further training in an aspect of the drill. Actions are registered and tracked through the site's QHSE Management System.

Records are retained documenting the cyanide training, including the names of the employee and the trainer, the date of the training, the topics covered and how the employee demonstrated an understanding of the training materials.



PRINCIPLE 9 – DIALOGUE

Engage in public consultation and disclosure.

Standard of Practice 9.1

Provide Stakerioider	s the opportunity to communicate issi	des of concern.
	☑ in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 9.1
	$\hfill\square$ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 9.1 requiring stakeholders are provided the opportunity to communicate issues of concern.

Cowal provides a range of opportunities for stakeholders to communicate any issues of concern. The operation employs a Community Relations Senior Advisor who is responsible for stakeholder relations at Cowal.

Evolution Cowal has community complaints details advertised on their website. All statutory approval documents including the Cyanide Management Plan are also available on the website.

The operation also provides additional communication avenues including:

- Adverts in local media publications;
- Community open days;
- Internal and external publications;
- Community group meetings; and
- Information provided on local shire websites.

Standard of Practice 9.2

Initiate dialogue describing cyanide management procedures and responsively address

identified concerns.	·	recourses and responsively	dadic
	☑ in full compliance with		
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 9.2	
	$\hfill\square$ not in compliance with		



Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 9.2 requiring dialogue is initiated describing cyanide management procedures and responsively address identified concerns.

The operation provides a range of opportunities for interaction with stakeholders on cyanide management practices on-site.

Evolution Cowal has community complaints details advertised on their website. All statutory approval documents including the Cyanide Management Plan are also available on the website.

The operation also provides additional communication avenues including:

- Adverts in local media publications;
- Community open days;
- Internal and external publications;
- Community group meetings; and
- Information provided on local shire websites.

The site visitor induction includes cyanide, as does the general environmental induction for all employees and contractors. Cowal maintains a stakeholder engagement list for communication of information to identified stakeholders.

Standard of Practice 9.3

Make appropriate operational and environmental information regarding cyanide available to stakeholders.

	$\ensuremath{\square}$ in full compliance with	
The operation is	$\hfill\Box$ in substantial compliance with	Standard of Practice 9.3
	□ not in compliance with	

Summarize the basis for this Finding/Deficiencies Identified:

Cowal is in FULL COMPLIANCE with Standard of Practice 9.3 requiring appropriate operational and environmental information regarding cyanide is made available to stakeholders.

A range of written descriptions have been developed relating to cyanide management on site which has been made publically available. Much of this information is available on the Evolution Cowal website, including the Cyanide Management Plan and associated addendums.



Written information related to cyanide management is provided at community open days including an Environmental Awareness Handbook.

Cowal also publishes an internal magazine called The Babbler which is distributed on a quarterly basis internally by email and hard copies. The Babbler is also distributed to houses within the local district area. This medium has been utilised to provide cyanide management information previously.

The operation has mechanisms in place to make information publically available on the list of events contained within this Standard of Practice, although has not had to do so in the audit period.

Each year the operation reports environmental information in their Annual Environmental Return (AER). This report includes information related to cyanide management and a summary of all incidents for the reporting year. The AER is publically available on the Evolution Cowal website.