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International Cyanide Management Code Gold Mining Operations

ICMI SUMMARY AUDIT REPORT NEWMONT TANAMI OPERATIONS



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SUMMARY AUDIT REPORT

Name of Mine Newmont Tanami Operations (NTO) (The Granites Gold Mine)

Name of Mine Owner Newmont Asia Pacific (100%)

Name of Mine Operator Newmont Tanami Operations Pty Ltd

Name of Responsible Manager Sharyn Thacker – Senior Project Metallurgist

Address

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Location Detail and Description of Operation

Newmont Mining Corporation is primarily a gold producer, with significant assets or operations in the United States, Australia, Peru, Indonesia, Ghana, Canada, New Zealand and Mexico. Founded in 1921 and publicly traded since 1925, Newmont is one of the world's largest gold producers and is the only gold company included in the Standard and Poor's (S&P) 500 Index and Fortune 500. Headquartered near Denver, Colorado, the company has over 34 000 employees and contractors worldwide.

In 2007, Newmont became the first gold company selected to be part of the Dow Jones Sustainability World Index. Newmont's industry leading performance is reflected through high standards in environmental management, health and safety for its employees and by creating value and opportunity for host communities and shareholders.

Newmont Tanami Operations (NTO) is situated in the Tanami Desert of the Northern Territory and includes a processing plant at the Granites, located 540 km northwest of Alice Springs, and an underground mine at Dead Bullock Soak, approximately 39 km west of the Granites.

Newmont Tanami Operations



Lead Auditor



NTO manages the Granites Gold Mine for Newmont Australia Limited. Cyanide is only used at the Granites processing plant.

The NTO processing facilities comprise crushing and grinding, gravity separation, Carbon-in-Pulp leaching, filtration, Acacia and Gekko intensive leach reactors, electrowinning and a gold room. Tailings are thickened and treated via a Caro's acid cyanide destruct circuit to reduce Weak Acid Dissociable (WAD) cyanide to a target concentration of < 50mg/L prior to disposal to in-pit or paddock tailings storage facilities (TSF). Decant water from the TSF is returned to the processing circuit. NTO also operates a paste plant where harvested tailings from a disused TSF are mixed with filtered tailings from the process plant to produce a paste that is disposed of into the underground workings.

Changes to the CN facilities and operations at NTO since the last audit include:

- changes to the TSF impoundments including tailings lifts;
- completion of construction of the new TSF GTD08 Cell 3 (though no tailings have been deposited as yet); and
- decommissioning and removal of the boxed solids cyanide mixing and unloading area in February 2021 (cyanide is delivered to NTO in solid form within isotainers).

NTO has 1,450 employees and contractors who work on a fly in fly out schedule.

Auditors Finding

The operation is:

	IN FULL COMPLIANCE
	IN SUBSTANTIAL COMPLIANCE with
\times	NOT IN COMPLIANCE

With the International Cyanide Management Code.

This operation was found in non-compliance with the Cyanide Code based on the audit findings discussed in this report under the following Standard(s) of Practice: 4.1 and 6.2

Audit Company

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Date(s) of Audit

The site audit was conducted inclusive of the 14^{th} – 17^{th} February 2023

Newmont Tanami Operations



Lead Auditor



Audit Team

Lead Auditor – John Nielsen (email: jnielsen@ramboll.com)

23rd June 2023

Technical Expert Auditor – John Miragliotta

23rd June 2023

Audit Attestation

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 Mining Operations Verification Protocol and using standard and accepted practices for health, safety and environmental audits.

Newmont Tanami Operations

23 June 2023

Name of Facility

Signature of Lead Auditor

Date





PRINCIPLE 1 – PRODUCTION AND PURCHASE

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.



with Standard of Practice 1.1.

The Operation is in full compliance with Standard of Practice 1.1 requiring that it 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. All cyanide purchased by NTO over the period of certification was manufactured at Orica Australia Pty Ltd. (Orica's) Yarwun facility which is certified as compliant with the Code.





PRINCIPLE 2 – TRANSPORTATION

Protect communities and the environment during cyanide transport.

Standard of Practice 2.1

Require that cyanide is safely managed through the entire transportation and delivery process from the production facility to the mine by use of certified transport with clear lines of responsibility for safety, security, release prevention, training and emergency response.

	IN FULL COMPLIANCE	
The operation is	□ IN SUBSTANTIAL COMPLIANCE with	Standard of Practice 2.1.
	□ NOT IN COMPLIANCE	

The operation is in full compliance with Standard of Practice 2.1 which requires that cyanide is safely managed through the entire transportation and delivery process from the production facility to the mine by use of certified transport with clear lines of responsibility for safety, security, release prevention, training and emergency response. The cyanide delivery records over the period of recertification confirm that all transporters and supply chains responsible for the supply of cyanide from Orica's Yarwun facility to NTO are identified in the delivery documents and the records are maintained by NTO. The delivery records show that all cyanide delivered to NTO over the period of recertification was transported by a contractor who is specified under the certified Orica Australia Supply and Chain and who is individually an International Cyanide Management Institute (ICMI) certified transporter.





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.

	IN FULL COMPLIANCE	
The operation is	□ IN SUBSTANTIAL COMPLIANCE with	Standard of Practice 3.1.
	□ NOT IN COMPLIANCE	

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

Facilities for unloading, storing and mixing cyanide have been designed and constructed in accordance with cyanide producers' guidelines, applicable jurisdictional rules and/or other sound and accepted engineering practices for these facilities. The design and construction of the cyanide unloading and storage facility has been completed in accordance with accepted engineering practices.

Unloading and storage areas for cyanide are located away from people and surface waters. The unloading and storage areas are located approximately 40 m from the store and maintenance shed, while the administration office and medical centre are approximately 70 m from the area. These are the nearest areas usually occupied by people. The nearest surface water body is an ephemeral lake system approximately 30 km to the south-west of the lease.

Liquid cyanide is not delivered to the site. The cyanide unloading area is designed and constructed to contain and recover any leakage from the unloading tanks, by being of sufficient capacity to contain the volume of one sparge trailer load of cyanide within the concrete paved and bunded unloading area, and by directing hose spillage to a concrete lined sump equipped with a pump to transfer spillages to either of the cyanide storage tank or process water tank.

The cyanide storage tanks have ultrasonic high-level indicators and conductivity probe high-high level alarms. Both the ultrasonic high-level indicator and a conductivity probe high-high level indicators are scheduled for three monthly preventative maintenance checks within the site's maintenance scheduling system. The level signals and alarms report to the mill control room, and the local control room used by spotters and truck drivers whilst the cyanide unloading process is being conducted.

The two cyanide storage tanks are located on a concrete plinth foundation and concrete paved and bunded pad that can prevent seepage to the subsurface. The cyanide solution is stored in storage tanks that have adequate natural ventilation to prevent the build-up of hydrogen cyanide gas. Secondary containment for cyanide storage tanks are constructed with concrete material, which is a competent barrier to leakage. Solid cyanide mixing using boxed solid sodium cyanide ceased in February 2021 and these facilities were decommissioned.





Boxed cyanide was delivered and stored in IBCs in sea containers, in an open area with adequate natural ventilation. The cyanide sparge isotainers are sealed vessels which contain solid sodium cyanide which is sparged with water for unloading directly to the cyanide storage tanks.

The closed and sealed shipping containers were stored either on blocks in a built-up and locked store yard. or adjacent to the cyanide storage tank area, which is located within the fenced mine site. The design of the shipping containers kept the boxed cyanide off the ground. The sealed cyanide isotainers are stored off the ground in a dedicated yard away from the cyanide unloading area. The cyanide is stored in fenced and secured areas with restricted access and where public access is prohibited.

Incompatible materials such as sulfuric acid, hydrogen peroxide and diesel are stored in bulk separately from the bulk cyanide storage bund. No food, animal feed or tobacco products are stored in the vicinity of the cyanide.

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.



The operation is in FULL COMPLIANCE with 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.

Empty cyanide containers are prevented from\ being used for any other purpose with bulk solid sodium cyanide being delivered to the site in sparge isotainers which are all returned to the cyanide manufacturer for refilling. Packaging from boxed solid sodium cyanide was delivered to the site until February 2021, was destroyed by burning at a dedicated on site burn pit in accordance with approved management plans. The spent bulky bags used in the boxed packaging were rinsed by vigorously rinsing three times and allowed suitable time to drain prior to being taken to the burn pit. The burn pit was surrounded by a lockable security fence with access restricted to nominated personnel. The cyanide isotainers are rinsed after unloading to ensure any residual cyanide is washed back to the cyanide unloading sump before moving the empty isotainer to the storage yard.

NTO has developed and implemented comprehensive step by step procedures to prevent exposures and releases during cyanide unloading and mixing that include operation and maintenance of valves, hoses and couplings. The unloading operation is recorded through a check sheet and the unloading operation is monitored by the mill control room. Operators are effectively trained in the cyanide unloading procedures.

NTO's unloading procedures are implemented to ensure handing cyanide containers with out rupturing or puncturing. When boxed cyanide was used, the boxes could only be stacked two boxes high within the containers. Cyanide sparge isotainers are not stacked. Any spills that may occur during cyanide unloading are required to be cleaned up immediately in accordance with specified clean up procedures. All cyanide unloading and mixing personnel are required to use personal protective equipment including overalls, rubber gloves, mono-goggles or face shield with





safety glasses, rubber boots, and full face respirator with cyanide compatible canister when connecting and disconnecting hoses, and on hand at all other times. Procedures for all cyanide unloading events require a spotter to be present for the entire cyanide unloading, mixing and storage process. A secure enclosed room is provided for the spotter to observe the unloading process. The observer room has radio contact with the control room. All cyanide delivered to NTO in isotainers has colorant dye added by the cyanide supplier.





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 including contingency planning and inspection and preventive maintenance procedures.

		IN FULL COMPLIANCE	
The operation is		IN SUBSTANTIAL COMPLIANCE with	Standard of Practice 4.1.
	\boxtimes	NOT IN COMPLIANCE	

NTO is in NON-COMPLIANCE with Standard of Practice 4.1, requiring that the operation implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventive maintenance procedures. Written management and operating plans and procedures have been developed and implemented for cyanide facilities (areas that involve cyanide solutions greater than 0.5 mg/L Weak Acid Dissociable (WAD) cyanide) including unloading, mixing and storage facilities, leach plants, cyanide treatment facilities and tailings impoundment. Operational plans and procedures identify and account for the assumptions and parameters on which the design of cyanide facilities was based and applicable regulatory requirements, including environmental permit conditions, as necessary to prevent cyanide releases and exposures consistent with applicable requirements. The site maintains an integrated management system that includes other procedures that impact on cyanide safety and environmental issues, such as inspections, Job Hazard Analysis and an over-riding Permit to Work requirement, without which maintenance tasks cannot be undertaken.

Maintenance procedures are addressed through NTO's maintenance management system in SAP. The procedures are accessed via the site intranet systems which is accessible by all NTO personnel. Procedures are reviewed and updated on a scheduled basis, generally varying between 1 and 3 years, depending upon the risk rating of the activity addressed by the procedure.

NTO's operational plans and procedures identify and account for the assumptions and parameters on which the design of cyanide facilities was based and applicable regulatory requirements, including environmental permit conditions, as necessary to prevent cyanide releases and exposures consistent with applicable requirements.

NTO has plans and procedures that describe the standard practices necessary for the safe and environmentally sound operation of the facility, including the specific measures needed for compliance with the Code, such as inspections and preventative maintenance activities. Inspections are scheduled within the SAP maintenance system are addressed in specific detailed Inspection Procedures and Log Sheets. Preventative maintenance is scheduled for all plant and equipment. Preventative maintenance requirements and their completion are also documented within NTO's SAP-based maintenance management system.

NTO has a procedure to identify when changes in the site's processes or operating practices may increase the potential for the release of cyanide and to incorporate the necessary release prevention measures. Newmont Change Management System is an online process. Procedures are





included to support the online system requiring changes to be assessed and risk control actions to be implemented for operational changes or new activities that may increase risks. The Procedure applies to engineering or technology changes, process or system changes, and organisational changes, including temporary changes. The change management process involves the identification of hazards and assessment of risk, and development of controls prior to the implementation of change following an identified process. There is a change review process the requires identification of health, hygiene, safety, environmental and community relations risks associated with change to the facility, equipment, materials and operating procedures in use at the site. The Change Management System requires environmental and safety personnel to review and sign-off on proposed changes prior to implementation.

NTO has established cyanide management contingency procedures related to an upset in the facility's water balance, and when inspections and monitoring identify a deviation from design or standard operating procedures and/or when a temporary closure or cessation of operations may be necessary. The Tanami Granites Processing Care and Maintenance Plan covers the resourcing and processing requirements when the Granites (GTS) Processing Plant goes into Care and Maintenance for temporary closure or cessation of operations such as work stoppages, lack of ore or other essential materials, economics, civil unrest, or legal or regulatory actions, including procedures for closures due to pandemics.

The operation inspects cyanide facilities on an established frequency sufficient to assure and document that they are functioning within design parameters. Tanks that contain cyanide are visually inspected for signs of corrosion, leakage and integrity every shift by operators who record any issues within the daily log sheets. The tanks are also subject to a full inspection at least every 3 years with emptying of tanks to undertake internal checks for leakage, corrosion and structural integrity. The cyanide storage tanks are emptied for internal checks every 10 years. Inspection of leak detection systems for tanks, cyanide pipeline containment trays occur with operator visual inspection every shift which are recorded in the operator log sheet. Pipeline containment trays on the cyanide delivery lines are subject to weekly planned maintenance. The cyanide pipe trays are subject to 48 week condition inspections for corrosion and integrity. Inspections of concrete secondary containments in the reagents area and cyanide process areas are scheduled on a 12 month frequency. Cyanide pipework, pumps and valves are subject to regular operator inspections for signs of deterioration and leakage and are recorded in the relevant operator log sheets. The cyanide pipeline containment trays are inspected weekly for signs of leaks. Any leakage identified in the operator inspections is addressed through work orders. The cyanide pipeline that delivers cyanide to process areas is pressure tested for leaks every 48 weeks. The tailings storage facility is subject to regular operator shift inspections of the tailing impoundment, tailings system pipework, integrity of surface water diversions and cyanide facility catchment ponds in order to maintain water balance, prevent process slurry losses and ensure no harm to wildlife.

NTO inspects cyanide facilities on an established frequency sufficient to assure and document that they are functioning within design parameters. The frequency of operational inspections is established through the operator shift logs for various work areas which require visual inspections on a per shift basis or more frequent if required. Maintenance inspections are undertaken as defined frequencies specified in the maintenance planning system and which reflect the maintenance strategies established for each facility component. The maintenance strategies are reviewed on the basis of completed maintenance inspections. NTO maintenance and operational inspections are documented, including the date of the inspection, the name of the inspector, and any observed deficiencies. These are recorded in the SAP completed work orders, operator log sheets and route inspection records for inspections being undertaken with the operator using a





computer tablet to complete checks. The nature and date of corrective actions are documented via the completed work order records retained in SAP or stored as hard copy.

NTO has generally implemented preventative maintenance programs and maintains documented records to ensure that equipment and devices function as necessary for safe cyanide management. The maintenance program is managed within the SAP system onsite and relies on work orders being issued to maintenance and operational personnel who undertake the preventative maintenance tasks and inspections. The SAP database is used for planning, scheduling, generating work orders, executing work orders and recording all maintenance related activities. Maintenance strategies have been developed and include the inspection of each tank following a Risk Based Inspection (RBI) schedule.

NTO retains records of inspections a review of these records indicates general compliance with the schedule although there were instances of delayed maintenance in the period of 2020-2021 mainly relating to reduced maintenance personnel onsite during COVID-19 restrictions where alternative working arrangement were in place. However, the scheduled calibrations of 7 fixed HCN monitors located throughout the process plant had no records of calibration for the period from 2020 to 2022. These are scheduled in SAP to be calibrated on a 12 week frequency. NTO undertook an investigation into the failure to routinely calibrate or verify function of the fixed HCN monitors and identified a series of distractions and systematic failures that occurred leading up to and during the period of 2020-2022. NTO identified an erosion of preventative maintenance routines regarding the fixed HCN monitors occurred as a result if poor change management and failure to recognise the downstream impacts if changes to the preventative maintenance routines and systems prior to transferring responsibility for the assigned preventative maintenance calibration task from the Process Maintenance Team to the Metallurgy team. The audit reviewed this failure against the ICMI auditor guidance and found that NTO is non-compliant with Standard of Practice 4.1 requiring that the operation implement management and operating systems designed to protect human health and the environment including contingency planning and inspection and preventive maintenance procedures. The failure to undertake the scheduled maintenance calibrations of the 7 fixed HCN monitors over the period of recertification represents a significant systematic failure for equipment that is used to identify unsafe working conditions and could potentially result in increased risk to workers due to the lack of calibration and maintenance of these instruments. NTO failed to identify this deficiency during the period of recertification. NTO has since rectified the deficiency and re-established the calibrations inspections of these instruments.

NTO has necessary emergency power resources to operate pumps and other equipment to prevent unintentional releases and exposures in the event its primary source of power is interrupted. The back-up generating equipment is continually operating and is maintained and tested. All power is generated on-site. In the event of a power outage, a backup generator automatically starts to provide power to the fire water main and potable water main for safety shower availability. The back-up generator does not have sufficient capacity to operate all pumps and other related equipment which provides containment of process water. NTO advised that the current design of the plant is such that there is little or no need for back-up power generating capability as the drain down into the tailings thickener is likely to flow into the containment pond without the need for pumping capability. Overflow from the tailings thickener gravitates to the containment pond. In the event of loss of power, pumps stop working, therefore no flow occurs from pumps.





Standard of Practice 4.2

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

	IN FULL COMPLIANCE	
The operation is	□ IN SUBSTANTIAL COMPLIANCE with	Standard of Practice 4.2.
	□ NOT IN COMPLIANCE	

NTO is in FULL COMPLIANCE with Standard of Practice 4.2 requiring that it introduce management and operating systems to minimise cyanide use, thereby limiting concentrations of cyanide in mill tailings.

NTO conducts a program to determine the optimal cyanide addition rates in the mill and evaluates and adjusts addition rates as necessary when ore types or processing practices change cyanide requirements. Addition rates are managed to set points and the automated control system adjusts the addition rate. Set points are reviewed against gold recovery, tailings WAD cyanide concentrations and cyanide usage is assessed weekly and monthly. Changes are made to process parameters depending on recovery results, daily plant tailings re-leach results, and plant cyanide and pH conditions. NTO has presented data showing cyanide set points for the leach circuit along with actual cyanide concentrations measured in the circuit against the WAD CN analysed in the post Caros acid treatment that demonstrates that cyanide addition rates are optimised over the period of recertification.

Standard of Practice 4.3

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



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

NTO has developed a comprehensive, probabilistic water balance for parts of its operation that are cyanide facilities (i.e. active paddock style Tailings Storage Facilities (TSFs), in-pit TSFs and process water storage facilities). The model addresses all the elements detailed within the ICMI Auditor Guidance Notes, which relate to the model being both comprehensive and probabilistic. The model recognises that there are no leach pads at NTO and recognises the tailings impact on the water balance and the behaviour of the TSFs. Inputs include thickener underflow, % solids and plant throughput. NTO is situated in an arid climate, where maximum and minimum winter temperatures are above freezing and thus negate the need to consider freezing and thawing conditions in the model. NTO uses probabilistic means to manage the uncertainty and variability of the prediction of precipitation by managing their TSFs so that they can accept 1 in 1 000 and 1 in 3,000 year, 72 hour rainfall events. The new (third) cell for TSF GTD08 has been incorporated into the model.





The paddock style TSF GTD08 consists of two cells, which are of the same height. There is no potential during a storm event for one cell to flow into another. Based on-site topography, surface runoff from the up-gradient watershed has been discounted for the in-pit TSFs. The only TSF with a watershed used in the last 3 years is GTD03, which receives water from GTD01 and GTD02. This is the only TSF in the water balance model that incorporates a watershed as all others only receive rainfall that falls on the TSF or pond surface.

A representation of infiltration and seepage has not been included in this model due to the lack of supporting hydraulic data. By not taking into account any solution losses via seepage, the operation's water balance overestimates the amount of water in the TSFs, thus causing the operation to manage the facilities more conservatively.

Drain down pumping capacities and power outages are not specifically included in the model. All return water pumps are diesel operated and are not affected by any power outages that may be experienced by the process plant. To simulate pump failures, the return water from the TSFs can be set to zero, thus resulting in no water leaving the facilities.

There are no surface water discharges at NTO. The effects of increases in storage capacity due to tailings harvesting for paste plant are not incorporated into model – therefore the model provides conservative estimates of storage capacity. The changes to the process plant in 2017 (Tanami Expansion Project) have not increased the volumes of discharge to the TSFs beyond the model parameters. NTOs 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. Process personnel inspect the inuse TSFs every three hours. The inspection includes pipeline and pump integrity, tailings level and embankment crest, pond sizes, embankment integrity and seepage. In addition, the Senior Project Metallurgist carries out inspections of all TSFs fortnightly or in the event of significant rainfall or earthquakes. At a corporate level, Newmont has introduced a Tailings Management Escalation and Communication Matrix Procedure, which triggers the reporting escalation to corporate management levels for a range of TSF scenarios.

NTOs ponds and impoundments are operated with adequate freeboard above the maximum design storage capacity determined to be necessary from water balance calculations. NTO operate their in-pit TSFs with a minimum freeboard of 300 mm. The process water dam is operated with a 350 mm minimum freeboard capable of accepting a 1 in 3,000 year, 72 hour rainfall event. The facilities are inspected eight times per day, checking, among other things, the freeboard. NTO compares precipitation results to design assumptions and revises operating practices as necessary. Precipitation intensity data is obtained from the Bureau of Meteorology (BoM) weather station at Rabbit Flat, approximately 40 km north of the mine lease. The BoM updates this precipitation intensity data on a biennial basis. NTO monitors the BoM website periodically (approximately every six months) to check for updates. Weather forecasts are checked daily to ascertain the likelihood of storm events. Based on this likelihood, the model is run with the appropriate rainfall intensity for that storm. There have not been any uncontrolled discharges from the TSFs. During the site inspection, the TSFs, process and stormwater ponds were observed to have adequate freeboard.

Standard of Practice 4.4

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



Newmont Tanami Operations



Lead Auditor



The operation is	□ IN SUBSTANTIAL COMPLIANCE with	Standard of Practice 4.4.

□ NOT IN COMPLIANCE

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

There are no TSFs or water bodies within the NTO operations with WAD cyanide levels consistently in excess of 50 mg/L. As such, other than fencing of the mine site and gas cannons are located around the TSF to haze birds, no efforts other than netting and fencing of the Process Water Pond (PVC Pond), have been made to restrict wildlife. There have been 19 occurrences out of 3421 sample results in which the concentration of cyanide in the tailings discharge line exceeded 50 mg/L WAD cyanide limit since January 2020. The exceedances of 50 mg/L represented 4 occurrences that involved more than one consecutive sample. The exceedances were resolved in each instance within 24 hours. In comparison, based on sampling and analysis 3 times per day, the maximum decant pond concentration from 1 January 2020 to 12 February 2023 inclusive was 37.9 mg/L WAD CN from Cell 2 of GTD08 on 15 September 2020. This highlights that significant degradation of cyanide occurs in the tailings between the sampling point in the tailings discharge line and at the decant ponds.

NTO implements the Caro's Acid System and WAD Cyanide Control procedure whereby if upsets in the Caro's Acid plant occur, then the mill is shutdown in order to prevent the discharge of tailings above 50 mg/L. Maintaining a WAD cyanide concentration of 50 mg/L or less in open water is effective in preventing significant wildlife mortality at NTO. From October 2019 to January 2023, NTO recorded 2,014 wildlife visitations with only 2 deaths. This equates to 0.10% mortalities per visitation over the recertification period. None of the mortalities correlated with a concentration of WAD CN in the decant pond exceeding 50 mg/L. Due to these concentrations of WAD CN, it is considered likely that the mortalities were not related to cyanide. Given that the ratio of fauna deaths to visitations since October 2010 has been 0.10%, the Auditor has surmised that the number of fauna deaths at cyanide bearing water bodies is not significant. The operation does not operate a heap leach pad.

Standard of Practice 4.5

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

	IN FULL COMPLIANCE	
The operation is	□ IN SUBSTANTIAL COMPLIANCE with	Standard of Practice 4.5.
	□ NOT IN COMPLIANCE	

NTO does not have direct or indirect discharges to surface water. The nearest water body is an ephemeral lake system 30 km south-west of the operation. This distance involved and the intermittent nature of the lake system suggest that there is no need to test WAD cyanide levels.

Standard of Practice 4.6

Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of ground water.





IN FULL COMPLIANCE

The operation is IN SUBSTANTIAL COMPLIANCE with Standard of Practice 4.6.

□ NOT IN COMPLIANCE

NTO is in FULL COMPLIANCE with Standard of Practice 4.6, requiring operations to implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of groundwater beneath and/or immediately down gradient of the operation. There are no legislated beneficial uses down gradient of the NTO lease. Furthermore, the Northern Territory Government has not set any groundwater quality limits for the site. The Jumbuck and Billabong borefields, where NTO takes groundwater from, are down gradient of the site, but are located approximately 40 km away and are unlikely to be affected by the NTO's cyanide facilities. Nevertheless, groundwater monitoring for WAD CN is undertaken at a significant number of groundwater monitoring bores around the mill and operational and decommissioned TSFs (both up and down gradient of the facilities).

Monitoring is undertaken bi-annually by site personnel, and external consultants prepare annual groundwater monitoring reports. Numerical modelling of the transport and fate of cyanide indicates that the exceedances of SSTVs (site specific trigger values) observed in 2019, 2020 and 2021 for total cyanide are unlikely to have a long-term detrimental impact on groundwater quality. The nearest actual beneficial groundwater use occurs at a fresh water bore (i.e. Henry's Bore), located approximately 8 km east of the site, which the indigenous population uses intermittently. The regional groundwater flow through the NTO site is in a northerly direction, and so this bore is not down gradient of the operation or subject to risk of adverse impact from NTO.

NTO harvests tailings from a disused TSF for and mixes it with deslimed tails slurry for use in the development of paste for underground backfill. The paste is produced on-site at a paste plant. Raw materials used are harvested tailings, binder (a low heat slag based cement) and raw water. Test work undertaken on harvested tailings indicates that little, if any, hazardous forms of cyanide remain within the tailings. Leachability test work on the tailings and paste suggest that cyanide concentrations would be negligible in any resultant leachate. This is supported by the results of sump water monitoring near backfill areas in the underground mine. HCN monitoring is undertaken at the paste plant on an hourly basis as the agitation involved in the process is most likely to result in the evolution of gas.

Standard of Practice 4.7

Provide spill prevention or containment measures for process tanks and pipelines.

 IN FULL COMPLIANCE

 The operation is
 IN SUBSTANTIAL COMPLIANCE with Standard of Practice 4.7.

 NOT IN COMPLIANCE

NTO is in FULL COMPLIANCE with Standard of Practice 4.7 to Provide spill prevention or containment measures for process tanks and pipelines. Spill prevention and containment measures are provided for all cyanide unloading, storage, mixing and process solution tanks with the exception of two ring beam tanks. The process tanks are constructed on concrete plinths

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except for the paste plant wheel wash recycling tanks, which are located on the contained clay lined paste drying pads at Dead Bullock Soak (DBS) and Granites. For the ring beam tanks a Risk Based Inspection system was developed in accordance with accepted industry standards and codes. And these inspections have continued over the period of recertification. 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 tank secondary containments were reviewed during the previous Recertification Audits and there has been no change to those secondary containment structures or the layouts within the secondary containments since the last recertification audit. Procedures in place and being implemented to prevent discharge to the environment of any cyanide solution or cyanide-contaminated water that is collected in a secondary containment area. The Water and Fluid Management Plan references the Mining Management Plan detailing additional measures to prevent potentially contaminated water from operational areas from entering the environment. The cyanide process tanks at NTO have secondarily containments in place with secondary containment for the leach area provided by an appropriately sized and lined containment pond used in emergency situations. Appropriate cyanide spill clean-up procedures are in place should there be an overflow from the leach area to the lined containment pond. NTO spill clean up procedures apply to all process slurry releases around the process plant and tailings lines. Process solutions spills to an earthen containment area are allowed to run to the Process Area Catchment Pond, or pumped to the process plant or a suitable reservoir which can then be emptied into the current tailings storage facility.

NTO has provided spill prevention or containment measures for all cyanide process solution pipelines to collect leaks and prevent releases to the environment. The cyanide dosing pipeline provides reagent strength cyanide to the processing areas with pipework contained in spill trays that have tell-tale pipelines installed and monitored regularly by maintenance and production personnel. The cyanide dosing pipeline from the Acacia to the Gold Room is 'pipe in pipe'. The return pipeline from the pregnant solution and barren solution holding tanks) back to the Gold Room is in a heatshield secondary containment. Process slurry pipelines are contained in a semi bunded area and will spill into the bund or catchment area for the containment ponds. Tailing pipelines run over un-bunded area that slopes towards the catchment area as they leave the process plant. An earth bund is provided along the tailings pipeline corridor to the tailings storage facility. Process water, tailings and return water lines under a road crossing are pipe-in-pipe. The filter plant feed pipeline transfers process slurry and is contained within an earthen bund with capacity to contain a 4-hour tailings line along the whole tails line route from the mill to the filter plant to the TSF. NTO has not identified any areas where cyanide pipelines present a risk to surface water and consequently there has not been any additional need to evaluate the requirement for additional protection needs. Cyanide tanks and pipelines are constructed of materials compatible with cyanide and high pH conditions. All process tanks have been constructed with mild steel which is compatible with cyanide and high pH environment. Reagent grade cyanide pipelines are constructed of mild steel within the reagent yards and High Density Polyethylene HDPE outside the reagent yard towards the leaching circuit and gold room. Independent engineering reports referenced in the previous recertification audits reports identify material used for tanks and pipelines as being compatible with cyanide and high pH conditions.

Standard of Practice 4.8

Implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.





☑ IN FULL COMPLIANCE



- IN SUBSTANTIAL COMPLIANCE with Standard of Practice 4.8.
- □ NOT IN COMPLIANCE

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

Quality control and quality assurance (QA/QC) programmes have been implemented during construction of all new cyanide facilities and modifications to existing facilities, including cyanide unloading, storage, mixing facilities and other cyanide facilities. Evidence of quality control and quality assurance programmes for cyanide facilities existing up until the 2019 Recertification Audit were reviewed as part of the Certification and Recertification Audit Processes and have not been reviewed during this audit. During the current Certification Period, 2020 to 2023, NTO completed construction works for cyanide facilities include the expansion of the tailings storage facility with the completion of Cell 3 starter embankment and raising of Cell 1. Engineering and design reports for these works have been reviewed and contain details of the quality assurance and quality control programs implemented during these works. Quality control and quality assurance programs addressed the suitability of materials and adequacy of soil compaction for earthworks such as details of starter embankment foundation preparation, synthetic liner installation and the installation and calibration of piezometers. NTO has retained all quality control and quality assurance records relating to the construction or changes to cyanide facilities. Appropriately qualified personnel have reviewed cyanide facility construction and provided documentation that the facility has been built as proposed and approved.

Standard of Practice 4.9

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



NTO is in FULL COMPLIANCE with Standard of Practice 4.9 requiring that operations implement monitoring programmes to evaluate the effects of cyanide use on wildlife, surface and groundwater quality. NTO has developed written standard procedures for monitoring of wildlife, groundwater and surface water. These have been developed and reviewed by NTO personnel with intimate knowledge of the site and qualified in the relevant area of expertise. Following review, all procedures are approved by relevant department managers.

NTO has procedures and management plans that outline how and where samples should be taken, sample preservation techniques, chain of custody procedures, shipping instructions and cyanide species to be analysed. Each specific procedure outlines, if appropriate, where samples are to be taken (either within the procedure or by referencing a document or map), the steps involved and the cyanide species to be analysed. Chain of custody, QA/QC and shipping instructions are also included in the procedures. In addition, the Dispatch of Samples to External Laboratories





procedure further outlines chain of custody and shipping requirements. Sampling conditions (e.g. weather, livestock/wildlife activity, anthropogenic influences, etc), and procedures are also documented in writing for all monitoring activities. A review of Daily TSF Log sheets indicated that the sampling conditions were being met.

There are approximately 74 bores situated around the process plant, process water dam and the TSFs (both operational and rehabilitated). All facilities have bores both up and down gradient of the overriding groundwater flow, and the localised groundwater flow. NTO monitor these bores on bi-annual frequencies for a range of parameters, including WAD cyanide.

The mine is located in a desert environment and the operation does not have a direct or indirect discharge to surface waters and so no monitoring of surface water is required. Nonetheless a surface water monitoring regime has been implemented. The surface water monitoring network includes low lying areas that accumulate rainwater and operational runoff, pit water and seepage collection ponds (e.g. wheel wash sumps).

NTO mill personnel inspect for wildlife mortality on all water bodies potentially containing cyanide on a daily basis. Sampling conditions are recorded on the wildlife inspections sheets and log sheets for water sampling. The operation inspects for and records wildlife mortalities related to contact with and ingestion of cyanide solutions. Fauna monitoring was carried out daily by Environment Team up until December 2017, when the task was transferred to the Mill Technicians. Monitoring is undertaken at frequencies adequate to characterise the medium being monitored and to identify changes in a timely manner.





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, livestock and the environment.

	IN FULL COMPLIANCE	
The operation is	□ IN SUBSTANTIAL COMPLIANCE with	Standard of Practice 5.1.
	□ NOT IN COMPLIANCE	

NTO is in FULL COMPLIANCE with Standard of Practice 5.1 requiring that operations plan and implement procedures for effective decommissioning of cyanide facilities to protect communities and the environment. The NTO Closure and Reclamation Plan discusses closure of cyanide facilities including TSFs, ponds and mill infrastructure throughout Section 8 of Plan. The Plan was prepared in 2017 and revised in 2018.

The NTO Closure and Reclamation Plan references NTO's Cyanide Decontamination and Decommissioning Plan (Decommissioning Plan) for cyanide facilities at the operation. The Decommissioning Plan was updated in October 2014 and details the actions to be taken at cessation of operations and addresses the ore processing facility including the cyanide mixing facility, grinding circuit, leaching circuit, acacia and gecko intensive leach reactors, gold room and electrowinning circuit, and associated cyanide mixing facilities, and supporting infrastructure such as pipelines. The plan details the purpose, scope, cyanide facilities, strategy, implementation and costing.

The Decontamination of Cyanide Equipment procedure addresses decontamination of equipment that has come into contact with cyanide. The procedure is applied throughout the life-of-mine and referenced in NTO's Closure and Reclamation Plan. The procedure is reviewed every 2 years. The schedule for decommissioning activities is presented in Appendix E of the Decommissioning Plan. The schedule includes activities prior to, during and post-decommissioning. The implementation actions are conceptual due to the life of mine but are considered to be commensurate for the remaining life of mine (currently to 2037).

Standard of Practice 5.2

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







NTO is in FULL COMPLIANCE with Standard of Practice 5.2 requiring that the operation establish an assurance mechanism capable of fully funding cyanide related decommissioning activities. An external consultancy developed a costed decommissioning plan for NTO, using third party rates, in 2011 and revised the costs in 2014. The operation does revise the cost estimates at least every five years and when revisions to the plan are made that affect cyanide-related decommissioning activities. An external demolition contractor has provided estimates of costs for decontamination and demolition of plant and equipment for mine closure in 2012, 2013, 2017 and 2018. These costs are collated and revised annually by NTO.

A security is required under section 43 of the Mining Management Act 2001 to enable the Minister to prevent, minimise or rectify environmental harm resulting from mining activities. Whilst not specifically for decommissioning, the security can also be accessed by the Minister for government costs incurred in the act of rehabilitation of a mining site. NTO has provided such security to the relevant entity – the Northern Territory Department of Primary Industry and Resources.





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.



NTO is in FULL COMPLIANCE with Standard of Practice 6.1 requiring it to identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce and control them.

NTO has developed procedures that describe how cyanide-related tasks such as unloading, mixing, plant operations, entry into confined spaces, and equipment decontamination prior to maintenance will be conducted to minimise worker exposure. Newmont has developed and implemented a safety management system. All documents were found to be located on the Newmont shared drive (SharePoint) and are controlled within a document control process that includes document validity and which identifies when documents are due to be reviewed. Supporting the high level management system documents are a number of Standard Operating Procedures (SOPs) for cyanide related activities. NTO's Standard operating procedures do address the use of personal protective equipment and addresses pre-work inspections. The procedures have been developed and implemented by NTO for the management of risk and include a description of the type of PPE required to accomplish each task. The procedures also include hazard identification, pre-work place inspections such as making sure that safety showers and fire extinguishers are in good working condition prior to starting a task. NTO solicits and actively considers worker input in developing and evaluating health and safety procedures. The development and review of health and safety procedures requires shift supervisor and affected workers to be part of the review of any standard operating procedures associated with work activities in the area.

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	
The operation is	□ IN SUBSTANTIAL COMPLIANCE with	Standard of Practice 6.2.
	NOT IN COMPLIANCE	

NTO is in NON-COMPLIANCE with Standard of Practice 6.2, requiring that the operation operates and monitors cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.





NTO has determined the appropriate pH for limiting the evolution of HCN gas on the production process plant is 9.8 or above with the leach circuit set points set at 10.1 for the period of recertification. NTO has identified areas and activities where workers may be exposed to hydrogen cyanide gas or cyanide dust in excess of 10 parts per million (ppm) (11 mg/m3) on an instantaneous basis and 4.7 ppm (5 mg/m3) continuously over an 8-hour period, as cyanide, and requires use of personal HCN monitors to be worn at all times when working in these areas. Fixed and Personal HCN monitors alarm at 10ppm (high alarm) and at 4.7ppm (time-weighted average (TWA) alarm). Personnel are required to leave the work area immediately if either the 10ppm high alarm or 4.7ppm TWA alarm is activated (Tanami Gas Detectors Issuing and Calibration procedure).

A risk assessment was undertaken by NTO to identify areas of plant and activities for which workers are required to wear personal monitors. These areas are identified by signs and are identified in the area induction training materials provided to all personnel who may be required to enter these areas. Where the potential exists for significant cyanide exposure, NTO uses ambient or personal monitoring devices to confirm that controls, including the specified personal protective equipment, are adequate to limit worker exposure to hydrogen cyanide gas and sodium, calcium or potassium cyanide dust to 10 ppm on an instantaneous basis and 4.7 ppm continuously over an 8-hour period, as cyanide. NTO has installed seven fixed continuous HCN monitors at the following locations: elution area, next to the acacia, alongside screen SW008, deslime area, cyanide yard, and the filter plant. The fixed monitors have alarms associated with them set at 10ppm. NTO has assessed the risks for emission of cyanide dusts and undertakes monitoring of dust exposure to workers using personal air pump devices. Where inhalable dust results reach a predefined level the dust profile is analysed for at-risk compounds, such as cyanide. Data for monitoring of worker exposure at both the tailings dam and the process plant has confirmed that the cyanide exposures from dust are less than the applicable criteria based on a 12 hour shift. Personal HCN monitors are calibrated weekly in accordance with a work order raised in the preventative maintenance system and in accordance with standard operating procedures. Records of the personal HCN monitor calibration, including the calibration results and supporting information, are retained for 3 years.

The scheduled calibrations of 7 static HCN monitors located throughout the process plant had no records of calibration for the period from January 2020 to February 2023. These are scheduled in the NTO maintenance system, SAP, to be calibrated on a 12 week frequency. NTO undertook an investigation into the failure to routinely calibrate or verify function of the static HCN monitors and identified a series of distractions and systematic failures that occurred leading up to and during the period of 2020-2022. NTO identified an erosion of preventative maintenance routines regarding the fixed HCN monitors occurred as a result of poor change management and failure to recognise the downstream impacts if changes to the preventative maintenance routines and systems prior to transferring responsibility for the assigned preventative maintenance calibration task from the Process Maintenance Team to the Metallurgy team. The audit reviewed this failure against the ICMI auditor guidance and found that NTO is non-compliant with Standard of Practice 6.2 requiring that NTO operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures. The failure to calibrate the 7 static HCN monitors over the period of recertification represents a significant systematic failure for equipment that is used to identify hazardous working conditions and could potentially result in increased risk of HCN exposure to workers due to the lack of function of these instruments. NTO failed to identify this deficiency during the period of recertification. The audit notes that NTO initiated immediate actions to rectify the deficiency following the recertification site audit.



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Warning signs are in place at NTO where cyanide is used, including at the deslime area access, tailings storage facility and associated pipelines advising workers that cyanide is present, and that smoking and eating are not allowed, and that, if necessary, suitable protective equipment or monitoring equipment must be worn. Safety showers, low pressure eye wash stations and dry powder fire extinguishers are located at strategic locations throughout the operation and are maintained, inspected and tested on a regular basis. Monthly area inspections are schedule in the maintenance system and operators are also required to visibly check safety showers, eye wash stations and for extinguishers during shift rounds which are recorded in the operator logs. Records of operator shift checks and the Route Inspections are retained. The fire extinguishers at NTO are subject to regular inspection by an external vendor who attach inspection tags indicating inspections undertaken on a 6-monthly basis. Unloading, storage, mixing and process tanks and piping containing cyanide is identified to alert workers of their contents, and the direction of cyanide flow in pipes is designated. NTO has in place MSDS, first aid procedures and other informational materials on cyanide safety in the language of the workforce are available in areas where cyanide is managed. Hard copy MSDS and first aid procedures are located at the cyanide unloading and storage facility and in the process control rooms. Procedures are in place and implemented to investigate and evaluate cyanide exposure incidents to determine if the operation's programs and procedures to protect worker health and safety, and to respond to cyanide exposures, are adequate or need revising. All incidents are recorded in the site safety database in accordance with the NTO safety management systems and procedures.

Standard of Practice 6.3

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

	IN FULL COMPLIANCE	
The operation is	□ IN SUBSTANTIAL COMPLIANCE with	Standard of Practice 6.3.
	□ NOT IN COMPLIANCE	

NTO is in FULL COMPLIANCE with Standard of Practice 6.3 to develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

NTO has water, oxygen, resuscitators, antidote kits and radio communications with the control room, telephone, alarm systems and emergency notification readily available for use at cyanide unloading, storage locations and elsewhere in the process plant. The site has potable water reticulated available including for drinking stations and emergency shower/eye wash stations. The site has a medical clinic with oxygen cylinders, a resuscitator, cyanide antidote kits, a radio, fixed telephone and mobile phones. The process areas have audible and visible alarms that are triggered when HCN monitors exceed criteria or triggered manually by the control room personnel. The site also has a well equipped ambulance with medical oxygen supply.

NTO undertakes regular inspection of its first aid equipment to ensure its availability when needed. Checks of first aid equipment are scheduled in the maintenance system and are completed by the clinic staff for the equipment in the medical clinic while first aid equipment in the process plant is undertaken by the process personnel as part of the monthly area inspections. Four Cyanokit cyanide antidote kits are kept at NTO in the medical clinic in accordance with manufacturers requirements in case of an emergency. The antidote kits are replaced once expired (as shown on the packaging) and are inspected regularly by medical clinic staff to ensure that these are within the expiry date.





NTO has developed plans to address potential cyanide exposure that may occur on site or may otherwise require response. The Cyanide Emergency Response Plan and Cyanide Quick Action Plan specifically address cyanide-related emergencies, including cyanide exposure incidents. NTO has an onsite medical clinic with qualified paramedics who provides a 24 hour on-call service. The on-site facility is equipped to respond to provide first aid assistance to workers who have been exposed to cyanide and the operation has developed procedures to transport workers exposed to cyanide to locally available qualified offsite medical facilities should the required treatment or first aid response exceed the capacity of the onsite medical facilities.

Transport facilities comprise the site's ambulance and access to the Royal Flying Doctor Service which is available to transport workers exposed to cyanide to the hospital in Alice Springs if required. Letters have been sent to both the Royal Flying Doctor Service (RFDS) and Alice Springs Hospital, advising of potential need to treat workers for CN exposure. The written correspondence with hospitals Alice Springs and with RFDS is dated December 2022. NTO has identified, through the Cyanide Medical Treatment and Evacuation Protocol, Alice Springs Hospital and the Royal Flying Doctor Service as having adequate, qualified staff, equipment and expertise to respond to cyanide exposures.





PRINCIPLE 7 – EMERGENCY RESPONSE

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

Standard of Practice 7.1

Prepare detailed emergency response plans for potential cyanide releases.

	IN FULL COMPLIANCE	
The operation is	□ IN SUBSTANTIAL COMPLIANCE with	Standard of Practice 7.1.
	□ NOT IN COMPLIANCE	

NTO is in FULL COMPLIANCE with Standard of Practice 7.1 requiring the operation to Prepare detailed emergency response plans for potential cyanide releases.

NTO has developed a plan to address potential accidental releases of cyanide that may occur on site or may otherwise require response. This is driven by an emergency management plan that drives an emergency response plan. The application of these plans is via the use of an electronically based Rapid Response System, this includes criteria for level of activation required and associated instruction for various roles. The Cyanide Emergency Response Plan and Cyanide Quick Action Plan specifically address cyanide-related emergencies. Detail on the application of emergency response is included in various procedures and work instructions that clearly articulate emergency response actions.

The Cyanide Quick Action Plan considers the potential failure scenarios as appropriate for its sitespecific environmental and operating circumstances, including the following,

- Catastrophic release of hydrogen cyanide (HCN) from storage or process facilities
- Transportation accidents
- Releases during unloading and mixing
- Releases during fires and explosions
- Pipe, valve and tank ruptures
- Power outages and pump failures
- Uncontrolled seepage
- Failure of tailings impoundments, heap leach facilities and other cyanide facilities

Overtopping of ponds and impoundments is addressed through the TSF operations manual.

Failure of cyanide treatment, destruction or recovery systems is not addressed as a specific scenario, however the consequences of such a failure are addressed through the Cyanide Emergency Response Plan, Hazardous Material Procedure and Cyanide Related Emergency Quick Response Plan.

The only potential exposure that communities face is a transport related incident. NTO engages Orica to transport their cyanide to site in solid form in Isotainers. Orica is deemed responsible for the response to an incident between the supply depot and NTO, ensuring that the route taken is appropriate. Orica is a certified cyanide transportation company. If the incident is off-lease, NTO will assist in the event that Orica requests assistance. Orica has an Emergency Response Guide which details their controls.





Standard of Practice 7.2

Involve site personnel and stakeholders in the planning process.

	IN FULL COMPLIANCE	
The operation is	□ IN SUBSTANTIAL COMPLIANCE with	Standard of Practice 7.2.
	□ NOT IN COMPLIANCE	

NTO is in Full Compliance with Standard of Practice 7.2 requiring the operation to involve its workforce and stakeholders, including potentially affected communities, in the cyanide emergency response planning process.

NTO has involved its workforce and stakeholders, including potentially affected communities, in the cyanide emergency response planning process, with the purpose of ensuring awareness and keeping the plan current and applicable. In terms of nearby community stakeholders, there are Four Traditional Owner (TO) communities, the closest being 260km and two stations, 60 and 150 km away. As such, the most likely scenario is via cyanide transport interaction. NTO engages Orica to transport their cyanide to site, either in solid form in isotainers. Orica is deemed responsible for the response to an incident between the supply depot and NTO, ensuring that the route taken is appropriate. Orica is a certified as being compliant with the code. Involving of communities in the planning process involves the use of meetings with community representatives and involvement of workers employed form the local communities. The main avenue for workforce involvement in emergency response planning is through participation in the Emergency Response Team (ERT), which is drawn from employees across departments and functional areas. Safety issues are also discussed during daily pre-start meetings; Health, Safety, Environment and Community (HSEC) committee meetings (monthly); Major Hazard Facility (MHF) risk reviews (quarterly) and the site-wide general risk reviews (annually). Following all events or mock drills, there is a debrief and lessons learned exercise which has as its key focus, the improvement of the emergency response plan. Because of its remoteness, no external services have direct involvement in emergency response, at Tanami events. These are handled internally by NTO with support from Corporate and Orica.

RFDS and Alice Springs Hospital have role in evacuating and stabilising injured persons. Letters have been sent to both the RFDS and Alice Springs Hospital, advising of potential need to treat workers for CN exposure.

Standard of Practice 7.3

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

 IN FULL COMPLIANCE

 The operation is
 IN SUBSTANTIAL COMPLIANCE with Standard of Practice 7.3.

 NOT IN COMPLIANCE

NTO is in FULL COMPLIANCE with Standard of Practice 7.3 requiring the operation to designate appropriate personnel and commit necessary equipment and resources for emergency response.

NTO's Emergency Management Plan and Emergency Response plan provides the plan for emergency response. These are supported by the Rapid Response System which includes all





processes for designating and directing ERT. Roles of ERT team members including responsibilities and authority, and in specific the allocation of suitable resources is described in Rapid Response. Elements of the NTO's emergency management plan and cyanide emergency response plan, procedures and rapid response:

- Designate primary and alternate emergency response coordinators whom have explicit authority to commit the resources necessary to implement the Plan
- Identify Emergency Response Teams
- Require appropriate training for emergency responders
- Include call-out procedures and 24-hour contact information for the coordinators and response team members
- Specify the duties and responsibilities of the coordinators and team members
- List emergency response equipment, including personal protection gear, available along transportation routes and/or on-site
- Include procedures to inspect emergency response equipment to ensure its availability
- Describe the role of outside responders, medical facilities and communities in the emergency response procedures

Given the remote nature of the site outside entities are largely self-sufficient with respect to emergency response. The following assistance is likely to be required

- Hospital care
- Transport to hospital and
- Medical advice.

These are managed via communication and or contracts. Letters have been sent to both the RFDS and Alice Springs Hospital informing them of the nature of their potential involvement and there is a contract is in place with an organisation to provide medical services including 7 day a week, 24 hour access to a doctor.

Standard of Practice 7.4

Develop procedures for internal and external emergency notification and reporting.

☑ IN FULL COMPLIANCE

The operation is

IN SUBSTANTIAL COMPLIANCE with Standard of Practice 7.4.

NTO is in Full Compliance with Standard of Practice 7.4 requiring the operation to develop procedures for internal and external emergency notification and reporting.

Notification of an emergency is captured within the Emergency Response Plan (ERP) and the Emergency Management Plan (EMP). Contact procedures and details for site management and personnel and the external agencies are captured within these documents. Additional information and procedures for notification are included in the Rapid Response system. Additionally, the Duty ERT Leader has a phone with emergency contact numbers entered. Due to the remote location of the site, no communities are deemed to be affected. However, if the need arises this would be conducted in accordance with the EMP and ERP. Communications with local communities in the event of an emergency would be driven by Telstra Integrated Messaging System (TIMS) activation of the Rapid Response System and in accordance with the requirements of the Consolidated Mining Agreement (Central Lands Council). Duty cards for the External Relations Site Response





Team (SRT) role and the Community Relations SRT role define the responsibilities for liaison with external stakeholders. Contacting ICMI within 24hrs of Significant event is documented in Section 6.1 of the EMP. Contact details listed on Discovery under Rapid Response System. There were no significant cyanide incidents during the audit period.

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.



NTO is in Full Compliance with Standard of Practice 7.5 requiring the operation to incorporate into response plans and remediation measures, monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

The Emergency Response Plan and associated response guidelines outline how to neutralise, recover and decontaminate spill residues. In particular it suggests that the strategy for clean-up and neutralisation is in accordance with the SDS and or the suppliers instruction. This is supported by the rapid response system and particular procedures including but not limited to:

- The Manage Concentrated Cyanide Spill (under 30ppm) Procedure; and
- Decontamination of cyanide equipment task procedure

Together, these cover the recovery or neutralisation of solutions or solids; decontamination of soils or other contaminated media; and management and/or disposal of spill clean-up debris. Procedures also detail ferrous sulphate storage and the appropriate ratio to be used.

The Cyanide ERP and Hazardous Materials Procedure state that neutralisation should only be considered as an item of last resort and that every effort to recover all spillage and transfer to the grinding circuit should be made first. The system clearly states that Sulphate, Sodium Hypochlorite or Hydrogen Peroxide is not to be used in or near any natural surface water. There are no surface water bodies near site that may be affected by a cyanide spill. Water is provided on site through a piped system from the site Reverse Osmosis (RO) plant and cannot be contaminated by a spill. As such, there is no need for the provision of an alternate drinking water supply.

It is a requirement to consult with the Environmental Department before using any neutralising agents. The emergency response plan requires the management of any releases via dilution and or neutralisation. The responsibility to ensure the management has been appropriate and that the levels are acceptable lies with the environmental department and requires the testing, analysis and decision making based on this data.

Standard of Practice 7.6

Periodically evaluate response procedures and capabilities and revise them as needed.

The operation is

IN FULL COMPLIANCE

IN SUBSTANTIAL COMPLIANCE with Standard of Practice 7.6.





□ NOT IN COMPLIANCE

NTO is in Full Compliance with Standard of Practice 7.6 requiring the operation to Periodically evaluate response procedures and capabilities and revise them as needed. The emergency response plan and the emergency management plan are reviewed on a 2 yearly and annual basis respectively. In addition to this, mock emergency drills are conducted periodically to test response procedures for various cyanide exposure scenarios, and lessons learned from the drills are incorporated into response planning.

In June 2021, midway through NTO's certification period, the Cyanide Code was updated to require that the entire cyanide emergency response process is tested as a drill annually. Prior to June 2021, Cyanide Code guidance indicated that 'Many of the more general provisions of the Emergency Response Plan, such as call-out procedures for the Emergency Response Team, are tested regardless of the nature of the simulated emergency, so all drills need not be related to cyanide incidents'.

NTO's records of emergency response drills indicate compliance with the Cyanide Code both before and after the June 2021 update. The updated requirements for full testing of the entire cyanide emergency response process annually has been incorporated into Section 4.7 of the EMP and onto Enablon, which is used to schedule and track emergency response training and drills.

Drill reports were available to record that demonstrated the success or otherwise of the drill response and there was evidence of lessons learned being fed into the continuous improvement cycle. Drill records indicated that drills adequately addressed release and exposure scenarios appropriate for the operation and involved onsite personnel that may be expected to respond to cyanide incidents. Drill records are maintained in Enablon along with evidence of associated action.

No cyanide incidents have occurred at NTO which have required implementation of the ERP. Therefore, no revision of EMP or other procedures possible arising from CN incidents. However, the EMP has a requirement for debriefing and incident investigation following all emergency response events.





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.

	IN FULL COMPLIANCE	
The operation is	□ IN SUBSTANTIAL COMPLIANCE with	Standard of Practice 8.1.
	□ NOT IN COMPLIANCE	

NTO is in FULL COMPLIANCE with the Standard of Practice 8.1 requiring the operation to train workers to understand the hazards associated with cyanide use.

NTO trains all personnel who may encounter cyanide in cyanide hazard recognition. All personnel who may encounter cyanide including process operators, metallurgy, maintenance, trainers, environment, safety and emergency response personnel are required to undertake Cyanide Awareness Training. The mandatory Cyanide Awareness Training includes cyanide hazard recognition including, recognition of cyanide poisoning symptoms, safe handing, use of personal protective equipment, first aid, cyanide emergency response and decontamination. The Processing Mill Induction is required for all personnel accessing the plant, including shut down workers who undertake short term contract work, which includes a walk through the cyanide risk areas, HCN alarms and site specific risks.

All personnel who work or visit NTO, including contractors, are required to undertake a General Induction which includes general cyanide awareness identifying where cyanide is used and stored and actions required to be followed in an emergency situation. Cyanide Awareness Training is required to be undertaken every two years by all NTO personnel who may encounter cyanide including process operators, metallurgy, maintenance, trainers, environment, safety and emergency response personnel. The Processing Mill Induction is required to be refreshed every 5 years. Cyanide training records are retained in employee and contractor personnel files while NTO employee training records are also maintained within the training data management system.

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.

	IN FULL COMPLIANCE	
The operation is	□ IN SUBSTANTIAL COMPLIANCE with	Standard of Practice 8.2.
	□ NOT IN COMPLIANCE	

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





NTO has an established process for training personnel in production tasks for various operational areas based on standard operating procedures. Production personnel are required to undertake the training and successfully complete both theory and practical assessments prior to being deemed competent to undertake the production tasks alone. Training elements necessary for each job involving cyanide management are identified in the training materials. The training materials are specifically developed learning packages comprised of different process related operational areas and their associated operating procedures. The operating procedures form the basis of task related training and there are individual procedures for most tasks involving cyanide. The training modules observed were detailed and clearly required assessment in the elements necessary for each job involving cyanide. Task training related to cyanide management activities is provided by identified subject matter experts who are senior level operators with substantial experience and familiarisation with the operations and requirements of the operational procedures.

The NTO Learning and Development Department includes qualified competency assessors who undertake the competency assessment of trainees with input from the subject matter experts. A review of training records demonstrates that these operational personnel who work with cyanide have either completed the required level of training and have been assessed as competent or are currently trainees working under supervision. All personnel working with cyanide, including processing trainees, have completed the mandatory training including the Cyanide Awareness Training, Mill Processing Induction and the NTO General Induction prior to undertaking any cyanide related tasks.

Refresher training on cyanide management is provided to ensure that employees continue to perform their jobs in a safe and environmentally protective manner. Training is undertaken every two years, through the use of the Cyanide Awareness Training module and documented training on cyanide management through the operating procedures is scheduled to occur every five years as a minimum. NTO evaluates the effectiveness of cyanide training by testing and observation completed as part of the assessment of competency. Training is evaluated by the conduct of written assessments, with these being retained as records upon successful completion. Training on cyanide related procedures is assessed through a combination of written assessment and on the job sign off of tasks by a recognised subject matter expert plus a qualified training assessor.

NTO maintains training records through the learning management system (INX) and through personal training files that provide detailed documentation of the training completed including 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.

Standard of Practice 8.3

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

	IN FULL COMPLIANCE	
The operation is	□ IN SUBSTANTIAL COMPLIANCE with	Standard of Practice 8.3.
	□ NOT IN COMPLIANCE	

NTO is in FULL COMPLIANCE with SOP 8.3 requiring it to train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.





All cyanide unloading, mixing and production and maintenance personnel are trained in the procedures to be followed if cyanide is released, including decontamination and first aid procedures. NTO Mill and Processing Induction materials are required to be completed for all cyanide unloading, production and maintenance personnel and this includes actions to be taken in case of leaks, spills and release of HCN gas. Further details on cyanide release response including first and decontamination is included in the mandatory Cyanide Awareness Training provided to all personnel who work with cyanide and in the operator training materials which reference the standard operating procedures for responding to spills of liquid cyanide and HCN gas release.

Training of the Emergency Response Coordinators and the Emergency Response Team (ERT) in responding to hazardous material emergencies identified in the NTO Emergency Response Plans is undertaken by external training providers once per year for each emergency response crew. The training includes the specific response requirements for cyanide related incidents including the use of equipment. The ERT members undertake advanced first aid training and are required to complete the Cyanide Awareness Training every two years, the Mill and Processing Induction every 5 years, the HAZMAT emergency response training every two years and the first aid training every two years.

Because of its remoteness, no external services have direct involvement in emergency response at Tanami. However, the RFDS and Alice Springs Hospital have role in evacuating and stabilising injured persons. Letters have been sent to both the RFDS and Alice Springs Hospital, advising of potential need to treat workers for cyanide exposure in case of emergency. NTO maintains training records through the learning management system (INX) and through personal training files that provide detailed documentation of the training completed including 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.





PRINCIPLE 9 – DIALOGUE

Engage in public consultation and disclosure.

Standard of Practice 9.1

Promote dialogue with stakeholders regarding cyanide management and responsibly address identified concerns.

	IN FULL COMPLIANCE	
The operation is	□ IN SUBSTANTIAL COMPLIANCE with	Standard of Practice 9.1.
	□ NOT IN COMPLIANCE	

NTO is in Full Compliance with Standard of Practice 9.1 requiring the operation to provide stakeholders the opportunity to communicate issues of concern.

In terms of community stakeholders, there are Four Traditional Owner (TO) communities the closest being 260km away and two stations, one 60km and one 150km away. The most likely scenario is via cyanide transport interaction.

Stakeholder engagement and management is driven by the Social impact assessment. The key operational documents in use in this context is the Newmont social responsibility commitment and sustainability and stakeholder engagement policy and related corporate documents. These together with the social impact assessment drive the stakeholder communication and consultation process which includes but is not limited to:

- Tanami traditional owner liaison committee (TOLC) meetings
- Tanami desert 10 year plan steering committee meeting
- Stakeholder communication log
- Community poster- Cyanide
- Cross cultural awareness training
- Australian regional S & ER leadership meeting (Monthly)
- Having the "YAPA" team available for communication with community members (Front gate interactions)
- NTO External Complaints Procedure

The meetings listed above and the access to the front gate for interactions are the mechanisms whereby stakeholders are able to communicate issues of concern regarding the management of cyanide.

Standard of Practice 9.2

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

IN FULL COMPLIANCE

The operation is

- IN SUBSTANTIAL COMPLIANCE with Standard of Practice 9.2.
- □ NOT IN COMPLIANCE





NTO is in Full Compliance with Standard of Practice 9.2 requiring the operation to make appropriate operational and environmental information regarding cyanide available to stakeholders.

Stakeholder engagement and management is driven by the Social impact assessment. The key operational documents in use in this context is the Newmont social responsibility commitment and sustainability and stakeholder engagement policy and related corporate documents. These together with the social impact assessment drive the stakeholder communication and consultation process which includes but is not limited to:

- Tanami traditional owner liaison committee (TOLC) meetings
- Tanami desert 10 year plan steering committee meeting
- Community poster- Cyanide
- Cross cultural awareness training
- Australian regional S & ER leadership meeting (Monthly)
- Having the "YAPA" team available for communication with community members (Front gate interactions)
- NTO External Complaints Procedure

Examples of NTO's written description of its management of cyanide includes the Community poster- Cyanide, and presentation slides in the TOLC meetings. Examples of NTO's verbal communications regarding its management of cyanide includes Tanami desert 10 year plan steering committee meetings and TOLC meetings.

Newmont Corporation compiles data on cyanide-related incidents and their environmental, social or community impacts and makes these data publicly available through its annual Sustainability Reports. These data were presented on p130 in the 2019 Sustainability Report, p140 in the 2020 Sustainability Report, and p140-141 and 156 in the 2021 Sustainability Report. The data identifies incidents at each site for the following scenarios: Release off-site requires response or remediation; Adverse effects on human health; Adverse effects to the environment; Required reporting under applicable regulations; Exceedances of applicable limits of the Cyanide Code; and Impacts to biodiversity.

