INTERNATIONAL CYANIDE MANAGEMENT CODE TRANSPORT AUDIT

PT. Nusa Halmahera Minerals. Gosowong Mine Supply Chain Recertification Audit Summary Audit Report – Addendum

Submitted to:
International Cyanide Management Institute (ICMI)
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UNITED STATES OF AMERICA

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Electronic Copy – PT. Nusa Halmahera Minerals
Electronic Copy – Golder Associates

Golder Associates
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APPENDIX A

Important Information
1.0 INTRODUCTION

1.1 Operational information

Name of Mine: Gosowong Mine Supply Chain
Name of Mine Owner: Newcrest Mining Limited
Name of Mine Operator: PT Nusa Halmahera Minerals
Name of Responsible Manager: Mark Kaesehagen, Deputy Operations Director
Address: PT Nusa Halmahera Minerals
Gosowong Gold Mine
Halmahera Island
State/Province: North Maluku Province
Country: Indonesia
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1.2 Description of operation

1.2.1 Sodium cyanide transportation

The scope of the Addendum Audit was the Gosowong Mine Supply Chain (Supply Chain) defined as:

- Transportation from Orica’s sodium cyanide production facility in Yarwun, Australia, to the Port of Brisbane, Australia. This is covered by the ICMC Certified Supply Chain Orica Australia Supply Chain.

- Transportation from the Port of Brisbane, Australia to the Port of Surabaya, Indonesia via shipping companies Mediterranean Shipping Company (MSC), K Line Shipping (K Line), Mitsui O.S.K. Lines (MOL), Orient Overseas Container Line (OOCL) and Pacific International Lines (Pacific Asia Express). This is covered by ICMC Certified Supply Chain Orica Asia Supply Chain.

- Transportation between the International and Domestic Ports of Surabaya, shipping between the Domestic Port of Surabaya to the Port of Barnabas (via the Port of Bitung as alternative route). This is covered by the ICMC Certified Supply Chain PT Trans Continent (PTTC).

- Port of Barnabas (owned and operated by NHM).

- Road transport between the Port of Barnabas and Gosowong Gold Mine using NHM trucks.
1.3 Newcrest Mining Limited

Newcrest Mining Limited (Newcrest) is headquartered in Melbourne, Australia and is the largest gold producer listed on the Australian Stock Exchange (ASX).

The origins of Newcrest date back to 1966, when Newmont Mining Limited established an Australian subsidiary, Newmont Australia Limited. In 1990, Newmont Australia Limited acquired Australmin Holdings Ltd, and subsequently merged with BHP Gold Limited in late 1990, changing its name to Newcrest Mining Limited. The Company has been listed on the ASX since 1987 – initially as Newmont Australia Limited.

Newcrest owns and operates six mines including Gosowong. Two of these are located in Australia; Cadia near Orange in New South Wales and Telfer in the Pilbara region of Western Australia. Newcrest also has the Lihir and Hidden Valley Gold Operations in Papua New Guinea as well as the Bonikro operation in Côte d'Ivoire in West Africa.

1.4 PT. Nusa Halmahera Minerals

NHM is the joint venture company formed to manage the Gosowong Gold Mine. NHM is 75% owned by Newcrest, with PT. Aneka Tambang owning the remaining 25%. The Gosowong Gold Mine is located within the Gosowong gold province, which covers an area of approximately 30,000 ha. The mine is situated on Halmahera Island, in the North Maluku Province, Indonesia and is approximately 2450 km north-east of the national capital, Jakarta.

Kencana is the third mine to be developed by Newcrest at the Gosowong site and the first underground mine. Kencana is located 1 km south of the original Gosowong pit. Underground development of the Kencana mine commenced in February 2005 with the first underground ore mined in March 2006.

The existing Gosowong processing plant is used to process Kencana ore. The processing plant comprises a primary jaw crusher followed by two units of SAG Mills and one unit of Ball Mill ahead of a cyanide leach circuit. Gold and silver is recovered from the pregnant solution using the Merrill-Crowe (zinc precipitation) process before smelting to produce doré bars.

Materials required for the operation of the mine are imported through the Port of Barnabas and trucked to the mine site. NHM owns and manages the Port of Barnabas as well as the vehicles used to transport products between the Port of Barnabas and the Gosowong Mine Site.
2.0 GOSOWONG MINE SUPPLY CHAIN

2.1 Cyanide transportation to Gosowong Mine – prior to 2014

Prior to 2014 NHM purchased cyanide from Tongsuh. The cyanide product was manufactured and packed by Tongsuh, an ICMC-certified producer in South Korea. The product was packed firstly into intermediate bulk containers (IBCs) and then into shipping containers for transport to Tongsuh customers in Indonesia. To transport the product from Tongsuh to the mine, the Gosowong Mine Supply Chain comprised of the following elements:

- Port of Ulsan, South Korea.
- Shipping between the Port of Ulsan, South Korea and the international Port of Surabaya, Republic of Indonesia by WHL.
- ICMC Certified Supply Chain PTTC. The PTTC Supply Chain is comprised of:
  - International Port of Surabaya.
  - Road Transport between the International and Domestic Ports of Surabaya.
  - Transit storage at the Domestic Port of Surabaya.
  - Domestic Port of Surabaya.
  - Shipping between the Domestic Port of Surabaya to the Port of Barnabas (including custom clearance and stevedoring operations).
  - Shipping between the Domestic Port of Surabaya to the Port of Barnabas via the Port of Bitung (alternative route).
  - Port of Bitung.
- Port of Barnabas (owned and operated by NHM).
- Road transport between the Port of Barnabas and Gosowong Gold Mine using NHM trucks.

2.2 Cyanide transportation to Gosowong Mine – January 2014 to October 2015

Between January 2014 and October 2015, NHM purchased cyanide from AGR. To transport the product from AGR’s Kwinana facility to the mine, the following supply chains were used:

- ICMC Certified AGR West Australian Supply Chain. The AGR West Australian Supply Chain is comprised of:
  - Rail or road transportation from AGR’s Kwinana production facility to the Port of Fremantle, Australia.
  - Port of Fremantle, Australia (including the stevedory operation).
- ICMC Certified AGR Ocean Freight Supply Chain. The Ocean Freight Supply Chain is comprised of:
  - Shipping between the Port of Fremantle, Australia and the Port of Surabaya, Indonesia via MSC, Maersk Australia, Hapag-Lloyd, and K Line to the Port of Surabaya, Indonesia.
ICMC Certified PTTC Supply Chain. The PTTC is comprised of:
- International Port of Surabaya.
- Road Transport between the International and Domestic Ports of Surabaya.
- Transit storage at the Domestic Port of Surabaya.
- Domestic Port of Surabaya.
- Shipping between the Domestic Port of Surabaya to the Port of Barnabas (including customs clearance and stevedoring operations).
- Shipping between the Domestic Port of Surabaya to the Port of Barnabas via the Port of Bitung (alternative route).
- Port of Bitung.

Port of Barnabas (owned and operated by NHM).

Road transport between the Port of Barnabas and Gosowong Gold Mine using NHM trucks.

2.3 Cyanide transportation to Gosowong Mine – October 2015 to Current

Since October 2015, NHM purchased cyanide from Orica in Australia. The Gosowong Supply Chain has been redefined as including the following elements:
- ICMC Certified Orica Australia Supply Chain. The Orica Australia Supply Chain is comprised of:
  - Road or rail transportation from Orica’s sodium cyanide production facility in Yarwun, Australia, to the Port of Brisbane, Australia.
- ICMC Certified Orica Asia Supply Chain. The Orica Asia Supply Chain is comprised of:
  - Shipping from the Port of Brisbane, Australia to the Port of Surabaya, Indonesia via shipping companies MSC, K Line, MOL, OOCL and Pacific International Lines (Pacific Asia Express).
- ICMC Certified Supply Chain PTTC. The PTTC Supply Chain is comprised of:
  - International Port of Surabaya.
  - Road Transport between the International and Domestic Ports of Surabaya.
  - Transit storage at the Domestic Port of Surabaya.
  - Domestic Port of Surabaya.
  - Shipping between the Domestic Port of Surabaya to the Port of Barnabas (including customs clearance and stevedoring operations).
  - Shipping between the Domestic Port of Surabaya to the Port of Barnabas via the Port of Bitung (alternative route).
  - Port of Bitung.
- Port of Barnabas (owned and operated by NHM).
Road transport between the Port of Barnabas and Gosowong Gold Mine using NHM trucks.

2.4 Auditors findings and attestation

- in full compliance with The International Cyanide Management Code

The Supply Chain is:

- in substantial compliance with

- not in compliance with

Audit Company: Golder Associates Pty Ltd
Audit Team Leader: Mike Woods, Exemplar Global (113792)
Email: MWoods@golder.com.au

No significant cyanide incidents or releases were noted as occurring during the audit period.

Name and signatures of other auditors

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mike Woods</td>
<td>Lead Auditor and Technical Specialist</td>
<td></td>
<td>03 April 2018</td>
</tr>
</tbody>
</table>

2.5 Dates of audit

The Addendum Audit was undertaken on 9 October 2017.

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

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 Cyanide Transportation Operations and using standard and accepted practices for health, safety and environmental audits.
3.0 CONSIGNOR SUMMARY

3.1 Principle 1 – Transport

Transport Cyanide in a manner that minimises the potential for accidents and releases.

3.1.1 Transport Practice 1.1

Select cyanide transport routes to minimise the potential for accidents and releases.

☑ in full compliance with

☐ in substantial compliance with

☐ not in compliance with

Transport Practice 1.1

Summarise the basis for this Finding/Deficiencies Identified:

The NHM Gosowong Mine Supply Chain is in FULL COMPLIANCE with Standard of Practice 1.1 requiring NHM to select cyanide transport routes to minimise the potential for accidents and releases.

PT. Nusa Halmahera Minerals

NHM has developed procedures for the selection of transport routes that minimise the potential for accidents and releases or the potential impacts of accidents and releases:

- GSWP-SL-01 Cyanide Transportation
- GSWP-SL-04 Escort of Material from Port to Site
- GSWP-SL-03 Transport Route Selection and Transportation.

These procedures focus on road transportation on Halmahera Island between the Port of Barnabas and the mine site. They also consider elements between the supplier and mine site.

A risk assessment was conducted to determine the most suitable route of transporting cyanide from the supplier to Gosowong. The risk assessment considered the following factors:

- Population density along the road
- Bridges and proximity to surface waterways
- Proximity to marine waters
- Blind spots and bends
- Pitch of the road and areas of erosion
- Condition of the road.

A road survey (Port of Barnabas and mine site) is conducted as part of the risk assessment.

The Port of Barnabas is owned by NHM and managed using NHM processes and procedures. The Port was selected as part of the supply chain as it is owned and controlled by NHM and is the closest suitable port facility to the mine.
NHM implements a procedure to evaluate risks of selected cyanide transport routes and take the measures necessary to manage these risks. An initial Bowtie risk assessment exercise was conducted during the Certification Audit to identify and control the risk of the cyanide supply chain failure between the Port of Barnabas and the Mine. The controls were documented in the GSWP-SL-03 Transport Route Selection procedure. Following this initial assessment, the risks and controls were reviewed as per the procedural requirements. A process is also in place to continuously monitor risks along the route. The daily use of the route by the Supply and Logistics Department allows hazards to be reported and assessed as they arise and they appear to be managed appropriately.

External to Halmahera Island, the main process to minimise risks to the transportation of cyanide is through the procurement of cyanide from certified producers and the transportation of cyanide along ICMC-certified supply chains, which currently comprise:

- PTTC Supply Chain
- Orica Australia Supply Chain
- Orica Asia Supply Chain.

NHM has implemented a procedure to periodically re-evaluate routes used for cyanide deliveries.

The GSWP-SL-03 Transport Route Selection procedure requires an audit of the roads and bridges to be completed periodically. The Transport Supervisor conducts a visual inspection 2-3 days before each shipment arrives at the Port. Drivers are to advise the Transport Supervisor of any changes or hazards to the route from the Port of Barnabas to Gosowong site on a daily basis. Hazards identified are reviewed, reassessed and closed immediately.

The GSWP-SL-01 Cyanide Transportation procedure states that cyanide shall not be transported during fog, bad weather or civil unrest between the Port of Barnabas and Gosowong Gold Mine.

NHM has documented the measures taken to address risks identified with the selected routes within procedures.

NHM seeks input from stakeholders (community leaders and police) and applicable government agencies as necessary in the selection of routes and development of risk management measures. NHM’s operations have been assessed and approved by relevant Government Departments. The police have a permanent presence at the Gosowong site and work closely with NHM.

NHM has a Corporate Social Responsibility (CSR) Department, based at Gosowong, with responsibility for the development and implementation of a communications system, which incorporates stakeholder engagement with respect to cyanide. The CSR Department communicate directly with the community.

The CSR Team live within the surrounding communities; there are five subdistricts with two CSR members per subdistrict. Quarterly community meetings are held, which provide a platform for the local villages during which they can ask questions and raise concerns.

The transport route does not present special safety or security concerns. Despite this, NHM uses convoys to transport its cyanide from the Port of Barnabas to the Mine. The convoy process is described within GSWP-SL-04 Escort of Material from Port to Site.

The convoy is led by an escort vehicle with flashing lights on roof and siren sounding throughout the trip from the Port to the Mine. A fully equipped emergency response vehicle follows approximately 75 metres behind the convoy. Police accompany the convoy.
NHM has established self-sufficient emergency response capabilities on the island. As such, there are no external responders and medical facilities to consult in the cyanide emergency planning and response process. NHM has contracted ISOS to provide 24/7 medical coverage on site at the site clinic. The clinic is staffed with professional nurses and paramedic staff as well as a full time doctor. Equipment and capabilities at the clinic includes a basic medical laboratory, x-ray machine, audiometer, and spirometer machine, defibrillator, oxygen, cyanokits and two ambulances.

The community has not been allocated a role in the event of an emergency.

NHM does subcontract the transport of cyanide to PTTC between the Surabaya International Port and the Port of Barnabas. PTTC transports cyanide for NHM under a Services Contract. The text of the Services Contract does not specifically document all of the transportation responsibilities required in this question. However, Clause 1a of Appendix 4 of the Services Contract requires PTTC to comply with the ICMC.

**Port of Barnabas**

Refer to NHM section above.

**PTTC Supply Chain**

The PTTC Supply Chain was recertified as being in full compliance with the ICMC on 2 December 2014.

**Orica Australian Supply Chain**

The Orica Australia Supply Chain was recertified as being in full compliance with the ICMC on 26 January 2015.

**Orica Asia Supply Chain**

The Orica Asia Supply Chain was recertified as being in full compliance with the ICMC on 29 September 2014.

**Orica Global Marine Supply Chain**

The Orica Global Marine Supply Chain was certified as being in full compliance with the ICMC on 16 January 2018.

### 3.1.2 Transport Practice 1.2

Ensure that personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment.

- ☑ in full compliance with
- ☐ in substantial compliance with
- ☐ not in compliance with

**Transport Practice 1.2**

**Summarise the basis for this Finding/Deficiencies Identified:**

The NHM Gosowong Mine Supply Chain is in FULL COMPLIANCE with Standard of Practice 1.2 requiring personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment.
PT. Nusa Halmahera Minerals

NHM only uses trained, qualified and licensed operators to operate its transport vehicles. Under Indonesian law, drivers are required to have a licence issued to them by the National Police for the classes of vehicle they intend to drive (NHM truck drivers require a BII licence). Upon employment with NHM, drivers are required to pass an on-site driving test conducted by the Safety Department. Upon successful completion of the driving test, employees are given a site licence. A site licence will not be issued unless the member holds a valid Indonesian licence. Drivers must carry their licence with them at all times whilst driving.

NHM only uses trained, qualified and licensed operators to operate its mobile crane at the Port of Barnabas. This crane is the only piece of equipment used to unload cyanide containers from vessels and onto the transport vehicles.

NHM personnel operating cyanide transport equipment have been trained to perform their jobs in a manner that minimises the potential for cyanide releases and exposures. NHM has elected to give all permanent employees Sodium Cyanide Safe Handling Guideline training.

Selected personnel from across the site have also received training in the Cyanide Emergency Response Plan (CERP).

NHM subcontracts PTTC to transport cyanide to between the Surabaya International Port and the Port of Barnabas. The contract requires PTTC to comply with the ICMC.

Port of Barnabas

Refer to NHM section above.

PTTC Supply Chain

The PTTC Supply Chain was recertified as being in full compliance with the ICMC on 2 December 2014.

Orica Australian Supply Chain

The Orica Australia Supply Chain was recertified as being in full compliance with the ICMC on 26 January 2015.

Orica Asia Supply Chain

The Orica Asia Supply Chain was recertified as being in full compliance with the ICMC on 29 September 2014.

Orica Global Marine Supply Chain

The Orica Global Marine Supply Chain was certified as being in full compliance with the ICMC on 16 January 2018.

3.1.3 Transport Practice 1.3

Ensure that transport equipment is suitable for the cyanide shipment.

☑ in full compliance with

☐ in substantial compliance with

☐ not in compliance with

Transport Practice 1.3
Summarise the basis for this Finding/Deficiencies Identified:

The NHM Gosowong Mine Supply Chain is in FULL COMPLIANCE with Standard of Practice 1.3 requiring that transport equipment is suitable for the cyanide shipment.

**PT. Nusa Halmahera Minerals**

NHM only uses equipment designed and maintained to operate within the cyanide loads it will be handling at the Port of Barnabas and along the road transport route.

**GSWP-SL-01 Cyanide Transportation** notes only equipment that is fit for purpose shall be used in the transportation of cyanide to Gosowong.

The mobile crane container lift cradle had a safe working load rating of 35 tonnes.

Vehicle power, axle loadings and other parameters are set by the manufacturer and the single 20 foot container loads are within the capacities of the vehicles and legal capacities of the public roads.

NHM vehicles and equipment are subject to a preventative maintenance programme managed through SAP. Inspection and maintenance records for the duration of the Recertification Audit Period were viewed for trucks, cranes and light vehicles.

Daily pre-start and after-start checklists are also completed for the trucks and cranes.

The adequacy of equipment is verified through NHM’s scheduled weekly service and maintenance programme. These include the structural integrity of the equipment to identify signs of stress or overloading.

NHM does have procedures to prevent overloading of the transport vehicle being used for handling cyanide at the Port of Barnabas and along the road transport route. The design of the vehicles that handle cyanide prevent overloading as the trucks and cranes can only handle one container at a time.

NHM subcontracts PTTC to transport cyanide to between the Surabaya International Port and the Port of Barnabas. The contract requires PTTC to comply with the ICMC.

**Port of Barnabas**

Refer to NHM section above.

**PTTC Supply Chain**

The PTTC Supply Chain was recertified as being in full compliance with the ICMC on 2 December 2014.

**Orica Australian Supply Chain**

The Orica Australia Supply Chain was recertified as being in full compliance with the ICMC on 26 January 2015.

**Orica Asia Supply Chain**

The Orica Asia Supply Chain was recertified as being in full compliance with the ICMC on 29 September 2014.

**Orica Global Marine Supply Chain**

The Orica Global Marine Supply Chain was certified as being in full compliance with the ICMC on 16 January 2018.
3.1.4 Transport Practice 1.4

Develop and implement a safety program for transport of cyanide.

☑ in full compliance with

☐ in substantial compliance with

☐ not in compliance with

Transport Practice 1.4

Summarise the basis for this Finding/Deficiencies Identified:

The NHM Gosowong Mine Supply Chain is in FULL COMPLIANCE with Standard of Practice 1.4 requiring an implemented safety program for transport of cyanide.

PT. Nusa Halmahera Minerals

NHM has procedures to ensure that the cyanide is transported in a manner that maintains the integrity of the producer’s packaging at the Port of Barnabas and for the road transportation to Gosowong.

GSWP-SL-01 Cyanide Transportation requires the sea containers to be inspected whilst being loaded onto the truck for any damage, such as leakage, surface damage and signs of any other physical damage. If a container is suspected of damage or damaged during unloading, it is transferred to a temporary storage bund located within the compounds of the Port.

During transport, all containers are held in place on the vehicles using twist locks and they are not opened prior to arrival at the Gosowong Gold Mine.

NHM ensures placards or other signage used to identify the shipment as cyanide, as required by local regulations or international standards. All cyanide is purchased from ICMC certified suppliers and is packaged in accordance with the IMDG Code.

NHM implements a safety programme for cyanide transport that includes the following:

Vehicle inspections prior to each departure/shipment:

GSWP-SL-04 Escort of Material from Port to Site states that all drivers must complete a pre-start check for each vehicle, and must check for MSDS.

Weekly services are undertaken on trucks and cranes. The checks include structural integrity and signs of stress and overloading.

A preventive maintenance programme:

NHM vehicles are subject to a weekly service and maintenance programme. NHM light vehicles are subject to monthly checks. Inspection and maintenance records for the duration of the Recertification Audit Period were viewed for trucks, cranes and light vehicles.

Limitations on operator or drivers’ hours:

Loads are transported periodically and convoys travel only during daylight hours. The route is 15.2 km long; therefore the need for driver breaks is not required.
Procedures to prevent loads from shifting:

Cyanide is stowed into the freight containers by the manufacturer. Solid cyanide is packed into UN-approved composite IBCs that are stowed to minimise movement in transport. These are secured using twist locks. Observations of containers being unpacked showed appropriate use of strapping and dunnage to prevent movement during transport.

Procedures by which transportation can be modified or suspended if conditions such as severe weather or civil unrest are encountered:

The GSWP-SL-01 Cyanide Transportation states that cyanide shall not be transported during fog, bad weather or civil unrest between the Port of Barnabas and Gosowong Gold Mine.

A drug abuse prevention program:

Newcrest 100-900-HE-GUI-0004 Fitness for Work and Wellbeing Guideline states that there is a zero tolerance policy for alcohol and illicit drug use in the workplace. NHM undertake random testing. The frequency of testing shall be sufficient to fulfil the function of random testing as a deterrent.

Retention of records documenting that the above activities have been conducted:

Records are maintained and were inspected for all relevant parts of this element as indicated adjacent to each finding.

NHM subcontracts PTTC to transport cyanide to between the Surabaya International Port and the Port of Barnabas. The contract requires PTTC to comply with the ICMC.

Port of Barnabas
Refer to NHM section above.

PTTC Supply Chain

The PTTC Supply Chain was recertified as being in full compliance with the ICMC on 2 December 2014.

Orica Australian Supply Chain

The Orica Australia Supply Chain was recertified as being in full compliance with the ICMC on 26 January 2015.

Orica Asia Supply Chain

The Orica Asia Supply Chain was recertified as being in full compliance with the ICMC on 29 September 2014.

Orica Global Marine Supply Chain

The Orica Global Marine Supply Chain was certified as being in full compliance with the ICMC on 16 January 2018.
3.1.5 Transport Practice 1.5

Follow international standards for transportation of cyanide by sea and air.

☑ in full compliance with

☐ in substantial compliance with

☐ not in compliance with

Transport Practice 1.5

Summarise the basis for this Finding/Deficiencies Identified:

The NHM Gosowong Mine Supply Chain is in FULL COMPLIANCE with Transport Practice 1.5 requiring the operation follow international standards for transportation of cyanide by sea and air.

PT. Nusa Halmahera Minerals

All cyanide is purchased from ICMC certified suppliers and is transported in accordance with the IMDG Code. Containers transported by NHM were placarded at the Tongsuh cyanide production facility in South Korea, AGR’s facility in Western Australia or Orica’s facility in Queensland in accordance with the requirements of the IMDG Code.

All containers have documentation prepared in accordance with the IMDG code, which is faxed to the shipping agent. A copy of the marine documentation is retained with the cargo at all times.

Port of Barnabas

Refer to NHM section above.

PTTC Supply Chain

The PTTC Supply Chain was recertified as being in full compliance with the ICMC on 2 December 2014.

Orica Australian Supply Chain

The Orica Australia Supply Chain was recertified as being in full compliance with the ICMC on 26 January 2015.

Orica Asia Supply Chain

The Orica Asia Supply Chain was recertified as being in full compliance with the ICMC on 29 September 2014.

Orica Global Marine Supply Chain

The Orica Global Marine Supply Chain was certified as being in full compliance with the ICMC on 16 January 2018.
3.1.6 Transport Practice 1.6
Track cyanide shipments to prevent losses during transport.

☒ in full compliance with

The Supply Chain is ☐ in substantial compliance with ☐ not in compliance with

Transport Practice 1.6

Summarise the basis for this Finding/Deficiencies Identified:

The NHM Gosowong Mine Supply Chain is in FULL COMPLIANCE with Standard of Practice 1.6 requiring Tracking of cyanide shipments to prevent losses during transport.

PT. Nusa Halmahera Minerals

NHM has processes and equipment to ensure transport vehicles have means to communicate with the mining operation and emergency responders.

The shipment is transported in convoy. Communication is coordinated by the escort vehicle. The truck drivers carry hand held radios, while the escort vehicle has a radio and mobile telephone. The Lead Driver communicates with the Port and Mine when in transit, and in an emergency it is the responsibility of the Lead Driver to contact the Emergency Response Team (ERT).

GSWP-ST-04 Escort of Material from Port Site details the requirement use of radio communication between the vehicles and Project Safety Officer before commencing a convoy.

NHM tests the communication equipment through continuous use.

NHM has identified communication blackout areas and these are detailed within GSWP-SL-O1 Cyanide Transportation procedure. The ERT and/or Lead Driver of the convoy communicate to Site Safety and Security that trucks have departed the Port of Barnabas using a two-way radio and mobile phone, which have coverage at the Port of Barnabas. The ERT and/or the Lead Driver will communicate by mobile phone to Site Safety and Security when the trucks leave the communication blackout area.

NHM does track of the progress of cyanide shipments through communications using two-way radios and mobile telephones. NHM keep up to date of the scheduled arrival of the shipment up to three months in advance. Shipping vessels are tracked with GPS, as only vessels with GPS are contracted by the Freight Forwarding Agent (PTTC). PTTC is responsible for updating NHM on the progress of the cargo voyage by email and mobile phone.

Vessels are obligated to report their positions to the Indonesian Navy, and Port Authority daily.

NHM does implement inventory controls and/or chain of custody documentation to prevent the loss of cyanide during shipment. The operation has chain of custody records identifying all elements of the supply chain (producer and transporter) that handle the cyanide brought to its site. The cargo weights are verified against the manifest by the Port Supervisor. During truck loading at the Port of Barnabas, containers are inspected for any damage such as leakage, surface damage or signs of any other physical damage.

Shipping records indicating the amount of cyanide in transit and Material Safety Data Sheets are available during transport. The MSDS is available in both Bahasa and English.

NHM subcontracts PTTC to transport cyanide to between the Surabaya International Port and the Port of Barnabas. The contract requires PTTC to comply with the ICMC.

Port of Barnabas
Refer to NHM section above.

**PTTC Supply Chain**
The PTTC Supply Chain was recertified as being in full compliance with the ICMC on 2 December 2014.

**Orica Australian Supply Chain**
The Orica Australia Supply Chain was recertified as being in full compliance with the ICMC on 26 January 2015.

**Orica Asia Supply Chain**
The Orica Asia Supply Chain was recertified as being in full compliance with the ICMC on 29 September 2014.

**Orica Global Marine Supply Chain**
The Orica Global Marine Supply Chain was certified as being in full compliance with the ICMC on 16 January 2018.
3.2 Principle 2 – Interim Storage
Design, construct and operate cyanide trans-shipping depots and interim storage sites to prevent release and exposures.

3.2.1 Transport Practice 2.1
Store cyanide in a manner that minimises the potential for accidental releases.

☒ in full compliance with

☐ in substantial compliance with

☐ not in compliance with

Transport Practice 2.1

Summarise the basis for this Finding/Deficiencies Identified:

The NHM Gosowong Mine Supply Chain is in FULL COMPLIANCE with Standard of Practice 2.1 requiring cyanide to be stored in a manner that minimises the potential for accidental releases.

PT. Nusa Halmahera Minerals

Storage facilities are available at the Port of Barnabas; however, these are only used in case of emergencies.

Warning signs advising workers that cyanide is present and that, if necessary, suitable Personal Protective Equipment (PPE) must be worn, are located at the Port of Barnabas. Additional signs are displayed at the entrance to the storage area to prohibit smoking, eating and drinking. These messages are reinforced in the Cyanide Storage Induction. Observations made during the audit were consistent with these prohibitions.

Security measures are in place to prevent unauthorised access to cyanide, such as lockouts on valves, and fenced and locked storage of solids.

When a vessel arrives at the Port of Barnabas, cyanide is either unloaded directly onto a truck for transport to the Gosowong Mine Site or it is stored on the LCT until transport resumes. No cyanide containers are stored at the Port of Barnabas during normal operational activities.

The Port of Barnabas area is fenced, with guards placed at the entry point. Correct identification is required to gain access to the Port of Barnabas.

All containers are kept locked until they are unloaded at the Gosowong Gold Mine.

Cyanide is separated from incompatible materials. All cyanide is packed by a Code certified producer into IBCs and placed with shipping containers. No other product is stored within the containers.

At no point during transport are the containers opened.

Cyanide is stored in a manner designed to minimise the potential for contact of solid cyanide with water. Cyanide is stored in IBCs within fully enclosed shipping containers. There is negligible potential for contact with water.

The Port of Barnabas containment area is located in an open yard with suitable separation distances for buildings and other containers, which allows natural ventilation to prevent the build-up of hydrogen cyanide gas.
Port of Barnabas
Refer to NHM section above.

PTTC Supply Chain
The PTTC Supply Chain was recertified as being in full compliance with the ICMC on 2 December 2014.

Orica Australian Supply Chain
The Orica Australia Supply Chain was recertified as being in full compliance with the ICMC on 26 January 2015.

Orica Asia Supply Chain
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Orica Global Marine Supply Chain
The Orica Global Marine Supply Chain was certified as being in full compliance with the ICMC on 16 January 2018.
3.3 Principle 3 – Emergency Response

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

3.3.1 Transport Practice 3.1

Prepare detailed Emergency Response Plans for potential cyanide releases.

☐ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

Transport Practice 3.1

Summarise the basis for this Finding/Deficiencies Identified:

The NHM Gosowong Mine Supply Chain is in FULL COMPLIANCE with Standard of Practice 3.1 requiring a detailed emergency response plan for potential cyanide releases.

PT. Nusa Halmahera Minerals

NHM has developed a Cyanide Emergency Response Plan (CERP) that encompasses response to cyanide emergencies at the mine, along the transport route and at the Port.

This plan is dedicated to cyanide emergencies. The CERP sits beneath the overarching Emergency Management Plan (EMP), which regulates the management of all emergencies involving the site at Gosowong, Manado office and Jakarta office. The CERP is appropriate for emergencies which falls within Gosowong Gold Mine’s area of responsibility and where PT Nusa Halmahera Minerals (NHM) has legal, ethical or community responsibilities. The CERP covers responses to emergencies involving cyanide at the mine, along the transport route and at the Port.

The CERP considers port facilities and road transportation of solid cyanide via truck to the mine. The CERP details response actions for ERT personnel.

The CERP considers aspects of transport infrastructure and design of the transport vehicle.

The CERP describes the response actions for various transport emergency situations, including:

- Solid sodium cyanide spill to water
- Uncontained spills
- Contained spills.

The plan considers both off-site and on-site transport emergencies.

NHM has established self-sufficient emergency response capabilities on the island. As such, there are no external responders and medical facilities used in the cyanide emergency planning and response process.

The community has not been allocated a role in the event of an emergency.

Port of Barnabas

Refer to NHM section above.

PTTC Supply Chain

The PTTC Supply Chain was recertified as being in full compliance with the ICMC on 2 December 2014.
Orica Australian Supply Chain
The Orica Australia Supply Chain was recertified as being in full compliance with the ICMC on 26 January 2015.

Orica Asia Supply Chain
The Orica Asia Supply Chain was recertified as being in full compliance with the ICMC on 29 September 2014.

Orica Global Marine Supply Chain
The Orica Global Marine Supply Chain was certified as being in full compliance with the ICMC on 16 January 2018.

3.3.2 Transport Practice 3.2
Designate appropriate response personnel and commit necessary resources for emergency response.

☒ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

Transport Practice 3.2

Summarise the basis for this Finding/Deficiencies Identified:

NHM is in FULL COMPLIANCE with Standard of Practice 3.2 requiring designated appropriate response personnel and committed resources for emergency response.

PT. Nusa Halmahera Minerals

Each convoy includes an ERT which is responsible for responding to all transport emergency incidents, including those related to cyanide. Non-ERT members (such as drivers and Port employees) are not required to respond to cyanide incidents if they have not been appropriately trained to do so.

The EMP designates the General Manager (GM) as the Emergency Management Team (EMT) Leader or a suitable/appointed Department Head as an alternate if the GM is unavailable. The EMT Leader retains overall control of the event and site/operations, including the activation of resources.

The CERP lists the equipment that should be available for emergency response during transport and unloading at the Port. This includes:

- PPE
- Containment equipment
- Treatment chemicals
- Communication equipment
- Monitoring equipment.

In addition, several inspection sheets maintained by the ERT and site clinic list the equipment available to them.
NHM does have the necessary emergency response and health and safety equipment available during transport. The ERT escort vehicle carries PPE, containment and communications equipment to allow first response in the event of a cyanide emergency. In addition, further equipment is available on site, which is approximately 15.2 km from the Port.

Each convoy includes an ERT escort that is responsible for responding to all transport emergency incidents, including those related to cyanide. Non-ERT members (such as drivers and Port employees) are not required to respond to cyanide incidents if they have not been appropriately trained to do so.

Evidence was observed to show that NHM 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.

Medical staff in the clinic inspect the cyanokits daily and monthly. The medical staff inspect the contents of the ambulances on a weekly basis.

Oxygen is inspected on a daily and monthly basis by medical staff (those located in the clinic and ambulance), whilst the ERT inspect oxygen at all other locations on a weekly basis. During the first week of every month, the ERT inspects the ERT equipment.

NHM subcontracts PTTC to transport cyanide to between the Surabaya International Port and the Port of Barnabas. The contract requires PTTC to comply with the ICMC.

**Port of Barnabas**

Refer to NHM section above.

**PTTC Supply Chain**

The PTTC Supply Chain was recertified as being in full compliance with the ICMC on 2 December 2014.

**Orica Australian Supply Chain**

The Orica Australia Supply Chain was recertified as being in full compliance with the ICMC on 26 January 2015.

**Orica Asia Supply Chain**

The Orica Asia Supply Chain was recertified as being in full compliance with the ICMC on 29 September 2014.

**Orica Global Marine Supply Chain**

The Orica Global Marine Supply Chain was certified as being in full compliance with the ICMC on 16 January 2018.
3.3.3 Transport Practice 3.3

Develop procedures for internal and external emergency notification and reporting.

☑ in full compliance with

The Supply Chain is ☐ in substantial compliance with Transport Practice 3.3
☐ not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The NHM Gosowong Mine Supply Chain is in FULL COMPLIANCE with Standard of Practice 3.3 requiring procedures for internal and external emergency notification and reporting.

PT. Nusa Halmahera Minerals

NHM’s emergency documentation includes procedures and contact information for notifying management, regulatory agencies, outside response providers and medical facilities of the cyanide emergency during transport.

In the event of an emergency, personnel are instructed to raise the alarm via the emergency radio channel or the emergency phone number. These contact points are manned 24 hours a day by ERT members, who assess what facets of emergency response are required. The ERT Captain is then required to contact the Duty Safety Officer, who will in turn contact the EMT Leader (GM or appointed Department Head). A decision will then be made on whether the EMT requires activation. The EMT has personnel responsible for internal and external communication.

Key internal and external contact information is contained within the CERP. Contact information for ISOS is contained within the Medical Evacuation Plan. Whilst not specifically referring to internal and external contact information, section 1.2 of the CERP states:

The cyanide emergency plan shall be reviewed every year to ensure that it is current and applicable to changes to other procedures, plant and equipment.

The CERP document revision history demonstrates that the CERP was not reviewed between 8 April 2011 and 2 October 2014. The most recent version of the CERP (version 7) was provided on 22 May 2015.

NHM has subsequently expressed that there was no change to the process and that the document still remained suitable to operations during this period.

Port of Barnabas

Refer to NHM section above.

PTTC Supply Chain

The PTTC Supply Chain was recertified as being in full compliance with the ICMC on 2 December 2014.

Orica Australian Supply Chain

The Orica Australia Supply Chain was recertified as being in full compliance with the ICMC on 26 January 2015.

Orica Asia Supply Chain

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Orica Global Marine Supply Chain

The Orica Global Marine Supply Chain was certified as being in full compliance with the ICMC on 16 January 2018.

3.3.4 Transport Practice 3.4

Develop procedures for remediation of releases that recognise the additional hazards of cyanide treatment.

☐ in full compliance with
The Supply Chain is ☐ in substantial compliance with ☐ not in compliance with
Transport Practice 3.4

Summarise the basis for this Finding/Deficiencies Identified:

The NHM Gosowong Mine Supply Chain is in FULL COMPLIANCE with Standard of Practice 3.4 requiring procedures for remediation of releases that recognise the additional hazards of cyanide treatment.

PT. Nusa Halmahera Minerals

The CERP contains procedures during transport and cyanide handling at the Port for remediation, such as recovery or neutralisation of solutions or solids, decontamination of soils or other contaminated media and management and/or disposal of spill clean-up debris.

The CERP prohibits the use of chemicals to treat cyanide that has been released into surface water along the transport route. Section 4.5 of the CERP states:

“Treatment of any spill of cyanide, whether in pellet form or in solution, to flowing water sources other than water which is contained within the metallurgical water circuit should not be attempted. Such interventions are generally ineffective due to the inability to ensure effective mixing or treatment chemicals with contaminated water [sic]. Treatment chemicals themselves are also harmful to aquatic fauna and water users. Emergency response efforts should in such cases be aimed at emergency management measures to limit the effects of the spill on humans and biota.”

The CERP allows the use of sodium hypochlorite to neutralise spills to soil. However, it prohibits the use of this chemical or other neutralising agents in surface drainage areas.

Port of Barnabas

Refer to NHM section above.

PTTC Supply Chain

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Orica Australian Supply Chain

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Orica Asia Supply Chain

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Orica Global Marine Supply Chain

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3.3.5 Transport Practice 3.5

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

☒ in full compliance with
☐ in substantial compliance with
☐ not in compliance with

Transport Practice 3.5

Summarise the basis for this Finding/Deficiencies Identified:

The NHM Gosowong Mine Supply Chain is in FULL COMPLIANCE with Standard of Practice 3.5 requiring periodically evaluating response procedures and capabilities and revising them as needed.

PT. Nusa Halmahera Minerals

As noted in 3.3.2, the CERP contains provisions for periodic review and evaluation.

A passage in the CERP requires it to be reviewed on an annual basis. The CERP document revision history demonstrates that the CERP was not reviewed between 8 April 2011 and 2 October 2014. The most recent version of the CERP (version 7) was provided on 22 May 2015.

NHM has subsequently expressed that there was no change to the process and that the document still remained suitable to operations during this period.

NHM only conducted a single cyanide transportation emergency drill (13 December 2014) for the duration of the Recertification Audit Period. This drill involved the ERT responding to a cyanide transportation incident. Meeting minutes of the drill debriefing and evaluation session were kept.

The CERP states:

“Cyanide Emergency Response Training including mock drills shall be conducted annually to provide adequate skills to respond to a cyanide incident on site and off site”.

The CERP has a requirement for review following its activation for a cyanide related emergency. There have been no transport incidents requiring the activation of the CERP for the duration of the audit period.

Port of Barnabas

Refer to NHM section above.

PTTC Supply Chain

The PTTC Supply Chain was recertified as being in full compliance with the ICMC on 2 December 2014.

Orica Australian Supply Chain

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Orica Asia Supply Chain
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Orica Global Marine Supply Chain

The Orica Global Marine Supply Chain was certified as being in full compliance with the ICMC on 16 January 2018.
4.0 IMPORTANT INFORMATION

Your attention is drawn to the document titled – “Important Information Relating to this Report”, which is included in Appendix A of this report. The statements presented in that document are intended to inform a reader of the report about its proper use. There are important limitations as to who can use the report and how it can be used. It is important that a reader of the report understands and has realistic expectations about those matters. The Important Information document does not alter the obligations Golder Associates has under the contract between it and its client.
GOSOWONG MINE SUPPLY CHAIN RECERTIFICATION AUDIT: SUMMARY AUDIT REPORT – ADDENDUM

Report Signature Page

GOLDER ASSOCIATES PTY LTD

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ICMC Lead Auditor/Technical Specialist

MCW/EH/ds

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APPENDIX A

Important Information
IMPORTANT INFORMATION RELATING TO THIS REPORT

The document ("Report") to which this page is attached and which this page forms a part of, has been issued by Golder Associates Pty Ltd ("Golder") subject to the important limitations and other qualifications set out below.

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The scope of Golder's Services and the period of time they relate to are determined by the Contract and are subject to restrictions and limitations set out in the Contract. If a service or other work is not expressly referred to in this Report, do not assume that it has been provided or performed. If a matter is not addressed in this Report, do not assume that any determination has been made by Golder in regards to it.

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Golder accepts no responsibility for and makes no representation as to the accuracy or completeness of the information provided to it by or on behalf of the Client or sourced from any third party. Golder has assumed that such information is correct unless otherwise stated and no responsibility is accepted by Golder for incomplete or inaccurate data supplied by its Client or any other person for whom Golder is not responsible. Golder has not taken account of matters that may have existed when the Report was prepared but which were only later disclosed to Golder.

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Any uncertainty as to the extent to which this Report can be used or relied upon in any respect should be referred to Golder for clarification.
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