



May 2014

INTERNATIONAL CYANIDE MANAGEMENT CODE

Hidden Valley Transport, Pre-Operational Transport Certification Audit, Papua New Guinea, Summary Audit Report

Submitted to:

International Cyanide Management
Institute (ICMI)
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UNITED STATES OF AMERICA

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REPORT

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Distribution:

- 1 Copy - ICMI (+1 Electronic)
- 1 Electronic Copy - Hidden Valley Transport
- 1 Electronic Copy - Golder Associates Pty Ltd





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APPENDICES

APPENDIX A

Limitations



1.0 INTRODUCTION

1.1 Operational Information

Name of Transportation Facility: Hidden Valley Transport Ltd
Name of Facility Owner: Not Applicable
Name of Facility Operator: Hidden Valley Transport Ltd
Name of Responsible Manager: Dale Unicomb, Group Health, Safety, Environment Manager
Address: Erica St, Sect: 83 Lot: 6
PO Box 1559
Lae
State/Province: Morobe Province
Country: Papua New Guinea
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1.2 Hidden Valley Transport

Hidden Valley Transport (HVT) is a transportation and logistics company engaged in the transportation of goods within the Morobe Province of Papua New Guinea. HVT is an ICMC signatory.

The scope of the HVT Certification Audit has been limited to road transportation of cyanide from the Port of Lae, PNG to customer mine sites within PNG. The Port of Lae is not included. At the time of the Transport Certification Audit, HVT had not commenced transportation of cyanide.

1.3 Transit Storage

Within the scope of this audit, there are no trans-shipping depots or interim storage sites, as defined in the audit protocol.

Storage in transit may occur at HVT's Lae Depot in the event that receipt at the port is delayed. In this event containers will not be removed from the trailers and the vehicles will only be parked for a maximum of 24 hours.

Hidden Valley Transport

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Signature of Lead Auditor

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1.4 Auditors Findings and Attestation

in full compliance with

Hidden Valley Transport is: in substantial compliance with **Cyanide Management Code**



not in compliance with

Audit Company: Golder Associates Pty Ltd

Audit Team Leader: Edward Clerk, CEnvP (112), Exemplar Global (020778)

Email: eclerk@golder.com.au

1.5 Name and Signatures of Other Auditors:

Name	Position	Signature	Date
Edward Clerk	Lead Auditor and Technical Specialist		13 May 2014
Jaclyn Ennis-John	Auditor		13 May 2014

1.6 Dates of Audit

The ICMC Certification Audit was conducted over two days between 17 and 18 September 2013.

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 Pre-Operational Verification Protocol for Cyanide Transportation Operations* and using standard and accepted practices for health, safety and environmental audits.

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Signature of Lead Auditor

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Date



2.0 CONSIGNOR SUMMARY

2.1 Principle 1 - Transport

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

2.1.1 Transport Practice 1.1

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

HVT is in full compliance with **Transport Practice 1.1**
 in substantial compliance with
 not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

HVT is in FULL COMPLIANCE with Transport Practice 1.1 requiring the transport of cyanide in a manner that minimises the potential for accidents and releases.

HVT has implemented a *Cyanide Transport Management Plan (CTMP)* and *Cyanide Emergency Response Plan (CERP)* to guide the selection and review of transport routes to minimise the potential for accidents and releases or the potential impacts of accidents and releases.

HVT use the CTMP and the *Access Route Assessment Procedure* to detail the process for conducting a route assessment. This procedure describes the process used to develop a Master Route Assessment and key elements to be discussed in the Route Assessment Drivers Journey Management Toolbox Meeting.

The CTMP details the process for conducting a route assessment. It includes the equipment required, the people who completed the route assessment and the documents used to conduct the assessment.

HVT utilise the *Access Route Assessment Procedure* to guide the risk evaluation of selected cyanide transport routes and take the measures necessary to manage these risks.

The following documents were used to conduct the route risk assessments:

- The Australian Risk Assessment Standard AS 4360: 2004 "Risk Management"
- Hidden Valley Transport Risk Assessment Workbook
- HSES-MP-PRO-001 Hazard Identification, Risk Assessment and Control Procedure
- HSES-CTMP-PRO-001 Master Route Assessment From Hidden Valley Transport Depot To Hidden Valley Mine
- HSES-CTMP-FO-001 Hidden Valley Mine Access Route Assessment.

HVT has implemented a process and procedure to periodically re-evaluate routes used for cyanide deliveries. The CTMP requires a full route risk assessment to be conducted every two years and reviewed annually as a part of the CTMP review.

Additionally, after every convoy the Escort Commander will note changes along the route and advises the other Escort Commanders of changes. These will be noted in the convoy report and communicated to the delivery team as part of the Journey checklist package (prestart process).

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HVT has documented the measures taken to address risks identified within procedures, training modules, CTMP and CERP. The *Steep Terrain Wet and Dry Conditions Procedure* is an example of specific procedures that deal with route risks. This procedure addresses the risks when experiencing difficulties on steep inclines whilst travelling on the Lae-Bulolo highway/Hidden Valley Access Roads and Hidden Valley Mine Site Roads and lists the steps to take if loss of traction occurs.

HVT has sought input from stakeholders in the selection of routes and development of risk management measures. The CTMP states that it will be reviewed in response to stakeholder consultation. Both the CTMP and CERP detail the stakeholders that have responsibilities in the plans and each stakeholder is given a copy of the plan and updates as required.

HVT has advised external responders and medical facilities of their roles and/or mutual aid during an emergency response. The key stakeholders have been provided with a copy of the CTMP and CERP and have signed the distribution list stating they have received the document. By being provided with these documents they have been provided by HVT with an opportunity to provide comment and been advised of their role during an emergency response.

Where routes present special safety or security concerns, HVT requires convoys, escorts and other additional safety and security measures to address the concern.

HVT does not currently subcontract handling or transportation of cyanide. However, HVT may utilise a Pagini Group of Companies (Pagini) to transport cyanide. Pagini is a parent company of HVT and both companies operate out of the same depot. As a mechanism to ensure compliance with the ICMC, when subcontracting to Pagini, HVT will manage Pagini employees as their own and subject them to the same processes and procedures as HVT employees. Also, during transport operations, of Pagini's vehicles and drivers will be under the direction of a HVT Escort Commander who will provide assurance of compliance with procedural requirements.

HVT has a *Contractor Management Procedure* that specifies HVT will only use Pagini's drivers and vehicles to supplement its own in the transportation of cyanide. The procedure requires that Pagini follow the CTMP and other HVT procedures, Pagini employees are trained the same as HVT employees and that their vehicles undergo pre and post trip inspections. The procedure also states that the contractor's performance is to be monitored and re-evaluated by HVT to ensure compliance.

Section 2.9 of the CTMP states that HVT will:

...ensure that any other driver, escort commander and vehicle and or mobile equipment is trained and serviced to comply with the Cyanide Transport Management Plan that Hidden Valley Transport has implemented.

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2.1.2 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.

HVT is in full compliance with **Transport Practice 1.2**
 in substantial compliance with
 not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

HVT is in FULL COMPLIANCE with Transport Practice 1.2 requiring personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment.

HVT only uses trained, qualified and licensed operators to operate its transport vehicles. All HVT drivers must hold a Class 4 PNG Driver’s License that is valid and in date. All drivers must be experienced in driving trucks. A review of the Training Matrix showed that all Truck Drivers had a current drivers licence.

HVT has set minimum training requirements for all personnel operating cyanide handling and transport equipment to allow them to be trained to perform their jobs in a manner that minimises the potential for cyanide releases and exposures. These are:

- Pagine Group of Companies Induction
- Hazard risk identification
- Fatigue management
- Dangerous goods awareness
- Load restraint
- Defensive driving.

All personnel in handling and transporting cyanide, including drivers are also trained in

- Cyanide Awareness
- Hazard Identification
- Defensive Driving
- Dangerous Goods Awareness
- Basic First Response
- Oxygen Therapy
- Mock Drills.

Training attendance sheets were observed for the minimum training requirements.

The CTMP commits HVT to annual refresher training.

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HVT does not currently subcontract handling or transportation of cyanide. However, HVT may utilise a Pagini Group of Companies (Pagini) to transport cyanide. Pagini is a parent company of HVT and both companies operate out of the same depot. As a mechanism to ensure compliance with the ICMC, when subcontracting to Pagini, HVT will manage Pagini employees as their own and subject them to the same processes and procedures as HVT employees. Also, during transport operations, of Pagini’s vehicles and drivers will be under the direction of a HVT Escort Commander who will provide assurance of compliance with procedural requirements.

HVT has a *Contractor Management Procedure* that specifies HVT will only use Pagini’s drivers and vehicles to supplement its own in the transportation of cyanide. The procedure requires that Pagini follow the CTMP and other HVT procedures, Pagini employees are trained the same as HVT employees and that their vehicles undergo pre and post trip inspections. The procedure also states that the contractor’s performance is to be monitored and re-evaluated by HVT to ensure compliance.

Section 2.9 of the CTMP states that HVT will:

...ensure that any other driver, escort commander and vehicle and or mobile equipment is trained and serviced to comply with the Cyanide Transport Management Plan that Hidden Valley Transport has implemented.

2.1.3 Transport Practice 1.3

Ensure that transport equipment is suitable for the cyanide shipment.

HVT is in full compliance with **Transport Practice 1.3**
 in substantial compliance with
 not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

HVT is in FULL COMPLIANCE with Transport Practice 1.3 requiring that transport equipment is suitable for the cyanide shipment.

Both the CTMP and CERP detail the equipment used to transport cyanide. HVT will only use Mercedes Trucks 6 x 6 wheel drive with step deck trailers to transport the cyanide. The load weight is in accordance with the manufacture’s specification for the truck and trailer.

The Fleet Maintenance Manager is responsible for all mechanical maintenance on equipment and keeps current maintenance records. The Fleet Maintenance Manager also ensures that all vehicles are pre post trip check is performed by a mechanic.

The Fleet Workshop Maintenance Manager also is responsible for servicing of mobile plant equipment. A service record is kept on all maintenance activities.

Vehicles are serviced as part of a preventative maintenance program managed by the Fleet maintenance Manager. This system involves an “A, B and C” service pattern for Prime Movers and Trailers.

Workshop Monthly Maintenance Inspection Checklist requires the review and inspection of trucks, light vehicle, barrel tank and trailers. Completed truck reports and pre departure inspection forms were sighted for several HVT vehicles.

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HVT has procedures to verify the adequacy of the equipment for the load it must bear. The Trailer/Dog Trailer pre-departure trip check includes line items related to the load bearing capacity including trailer damage, twist locks, main frame, legs and operation. All items on the check list are listed as a pass or fail. If any item records a fail the equipment does not pass and cannot be used and requires attention.

All checks are completed by a Mechanic. Mechanics are licensed and competent.

The *Drivers Pre Departure Checklist-1* also includes a requirement to confirm weight and dimensions do not exceed Highlands Highway limitations, or requirements on obtained permits.

HVT does not currently subcontract handling or transportation of cyanide. However, HVT may utilise a Pagini Group of Companies (Pagini) to transport cyanide. Pagini is a parent company of HVT and both companies operate out of the same depot. As a mechanism to ensure compliance with the ICMC, when subcontracting to Pagini, HVT will manage Pagini employees as their own and subject them to the same processes and procedures as HVT employees. Also, during transport operations, of Pagini's vehicles and drivers will be under the direction of a HVT Escort Commander who will provide assurance of compliance with procedural requirements.

HVT has a *Contractor Management Procedure* that specifies HVT will only use Pagini's drivers and vehicles to supplement its own in the transportation of cyanide. The procedure requires that Pagini follow the CTMP and other HVT procedures, Pagini employees are trained the same as HVT employees and that their vehicles undergo pre and post trip inspections. The procedure also states that the contractor's performance is to be monitored and re-evaluated by HVT to ensure compliance.

Section 2.9 of the CTMP states that HVT will:

...ensure that any other driver, escort commander and vehicle and or mobile equipment is trained and serviced to comply with the Cyanide Transport Management Plan that Hidden Valley Transport has implemented.

2.1.4 Transport Practice 1.4

Develop and implement a safety program for transport of cyanide.

in full compliance with

HVT is

in substantial compliance with

Transport Practice 1.4

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

HVT is in FULL COMPLIANCE with Transport Practice 1.4 requiring the operation develop and implement a safety programme for transport of cyanide.

HVT has procedures to ensure that the cyanide is transported in a manner that maintains the integrity of the producer's packaging. The *Cyanide Container Drivers Checklist* includes checking for container numbers and seals.

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As part of the *Mandatory Rest Point Activity Check Sheet*, the driver has to check the vehicle prior to commencing the journey. This includes checking the

- Truck and trailer wheel nuts and studs
- Truck and trailer tyres
- Chain, twist locks, seals and dogs are secure.

Placards or other signage are used to identify the shipment as cyanide, as required by local regulations or international standards.

The CTMP details that:

Cyanide isocontainer labelling shall be the responsibility of the transporter. Labelling protocols shall conform to UN standards as defined in Recommendations on the Transport of Dangerous Goods.

The *Drivers Pre Departure Checklist-1* includes the requirement to check that:

- Weight and dimensions do not exceed Highlands Highway limitations, or permits that have been obtained.
- Dangerous goods placards and labels fitted to both truck and load.

The *Journey Management Plan Cover* includes a check to ensure all trucks and trailers been fitted with correct Placards and Labels.

HVT implement inspection process prior to each departure. There is an inspection program for trucks, trailers, light vehicles and barrel tanks.

The Truck Driver Pre Departure checklist and Journey Management Plan, also include the requirement for vehicle inspections.

HVT implements a preventative maintenance program based on an "ABC" and trip service regime.

HVT implements limits on drivers hours. Driver training includes a specific module on Driver Fatigue Management. The CTMP addresses fatigue management and refers the reader to the *Fatigue Management Plan*. The Fatigue Management Plan specifies that drivers and plant operators are not to exceed an average of more than 14 hours per 24 hours over a 12 days period. Continuous periods of driving or plant operation are not to exceed five hours.

At the Journey Management Toolbox Drivers must sign a *Drivers Declaration* stating they are fit for work.

Driver training includes a specific Load Restraints module. The content of this training was observed to contain a section on preventing loads from shifting. The Driver is also required to check the loads after every rest stop as part of the *Mandatory Rest Point Activity Check Sheet*.

Cyanide transport can be modified or suspended in certain conditions. The CTMP states that:

Transportation of Solid Sodium Cyanide shall be modified or suspended during severe weather conditions and if civil unrest is encountered. The Cyanide Management Response Plan shall be used as a guiding principle.

The *Steep Terrain Wet and Dry Conditions* Procedure details the actions to take, including stopping the transportation if weather conditions result in hazardous road conditions.

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HVT implements a drug prevention program. The CTMP notes the requirement for strict sobriety during transport. This includes alcohol testing for drivers/equipment operators.

The Auditor reviewed records confirming the above activities have been conducted.

HVT does not currently subcontract handling or transportation of cyanide. However, HVT may utilise a Pagini Group of Companies (Pagini) to transport cyanide. Pagini is a parent company of HVT and both companies operate out of the same depot. As a mechanism to ensure compliance with the ICMC, when subcontracting to Pagini, HVT will manage Pagini employees as their own and subject them to the same processes and procedures as HVT employees. Also, during transport operations, of Pagini's vehicles and drivers will be under the direction of a HVT Escort Commander who will provide assurance of compliance with procedural requirements.

HVT has a *Contractor Management Procedure* that specifies HVT will only use Pagini's drivers and vehicles to supplement its own in the transportation of cyanide. The procedure requires that Pagini follow the CTMP and other HVT procedures, Pagini employees are trained the same as HVT employees and that their vehicles undergo pre and post trip inspections. The procedure also states that the contractor's performance is to be monitored and re-evaluated by HVT to ensure compliance.

Section 2.9 of the CTMP states that HVT will:

...ensure that any other driver, escort commander and vehicle and or mobile equipment is trained and serviced to comply with the Cyanide Transport Management Plan that Hidden Valley Transport has implemented.

2.1.5 Transport Practice 1.5

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

in full compliance with

HVT is

in substantial compliance with

Transport Practice 1.5

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

Standard of Practice 1.5 requiring the operation to follow international standards for transportation of cyanide by sea and air is NOT APPLICABLE to HVT.

HVT does not intend to transport consignments of cyanide by sea or air within the scope of this audit.

2.1.6 Transport Practice 1.6

Track cyanide shipments to prevent losses during transport.

in full compliance with

HVT is

in substantial compliance with

Transport Practice 1.6

not in compliance with

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Summarise the basis for this Finding/Deficiencies Identified:

HVT is in FULL COMPLIANCE with Transport Practice 1.6 requiring the tracking of cyanide shipments to prevent losses during transport.

HVT transport vehicles have means to communicate with the transport company, the mining operation, the cyanide producer or distributor and/or emergency responders.

The CTMP details that communication between the convoys is facilitated using the radios, long range radios, mobile phones and satellite phones. Satellite phones are to be used in emergency situations where there is no mobile coverage.

All of this equipment is checked as part of the prestart check and issues are reported to the Escort Commander for repair prior to departure.

The use of different mobile phone carriers, radios and satellite phones has limited the presence of communication blackout areas along the transport routes. The CTMP route assessment process aims to identify blackout spots during the planning stage. No blackout spots for all communication devices have been identified.

HVT utilise an online vehicle tracking system to track the progress of cyanide shipments. Fleet RAQ that tracks the location of their fleet through a GPS. This system is monitored by the Fleet Manager. As part of this system alerts are issued to the Operations Manager and the HSES Manager when vehicles are stopped, speeding or deviate from general route area.

HVT does implement inventory controls and/or chain of custody documentation to prevent loss of cyanide during shipment. HVT utilised an online vehicle tracking system, Fleet RAQ. In addition, as part of the *Mandatory Rest Point Activity Check Sheet*, the driver also has to check the vehicle prior to commencing the journey. This includes checking the chain, twist locks, seals and dogs are secure. All visual defects are to be reported to the Convoy Commander.

HVT use load sheets to also track a shipment. The load sheets list the trip number, drivers name, truck and trailer numbers, operator/subcontractor, date and details regarding the load (shipment number, charge code, to/from location, cargo description, number of packages and DWT MP). It is also signed by the HVT authority and dated and signed by the person receiving the cargo.

Shipping records indicating the amount of cyanide in transit and Material Safety Data Sheets are available during transport.

A delivery docket related to the chemical travels with the product in the vehicle. It includes information related to: delivery date, delivery instructions, customer order number, item code, item description and quantity (including weight).

MSDSs are available during transport. The presence of these is checked prior to each delivery as part of the *Journey Management Plan Cover Sheet* and the *Pre-departure Checklist*. The MSDS is provided to the Escort Commander.

HVT does not currently subcontract handling or transportation of cyanide. However, HVT may utilise a Pagini Group of Companies (Pagini) to transport cyanide. Pagini is a parent company of HVT and both companies operate out of the same depot. As a mechanism to ensure compliance with the ICMC, when subcontracting to Pagini, HVT will manage Pagini employees as their own and subject them to the same processes and procedures as HVT employees. Also, during transport operations, of Pagini's vehicles and drivers will be under the direction of a HVT Escort Commander who will provide assurance of compliance with procedural requirements.

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HVT has a *Contractor Management Procedure* that specifies HVT will only use Pagini’s drivers and vehicles to supplement its own in the transportation of cyanide. The procedure requires that Pagini follow the CTMP and other HVT procedures, Pagini employees are trained the same as HVT employees and that their vehicles undergo pre and post trip inspections. The procedure also states that the contractor’s performance is to be monitored and re-evaluated by HVT to ensure compliance.

Section 2.9 of the CTMP states that HVT will:

...ensure that any other driver, escort commander and vehicle and or mobile equipment is trained and serviced to comply with the Cyanide Transport Management Plan that Hidden Valley Transport has implemented.

2.2 Principle 2 - Interim Storage

Design, construct and operate cyanide trans-shipping depots and interim storage sites to prevent release and exposures.

2.2.1 Transport Practice 2.1

Store cyanide in a manner that minimises the potential for accidental releases.

HVT is in full compliance with **Transport Practice 2.1**
 in substantial compliance with
 not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

Transport Practice 2.1 requiring transporters design, construct and operate cyanide trans-shipping depots and interim storage sites to prevent release and exposures is NOT APPLICABLE to HVT.

Within the scope of this audit, there are no trans-shipping depots or interim storage sites, as defined in the audit protocol.

Storage in transit may occur at HVT’s Lae Depot in the event that receipt at the port is delayed. In this event, containers will not be removed from the trailers and the vehicles will only be parked for a maximum of 24 hours.

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2.3 Principle 3 - Emergency Response

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

2.3.1 Transport Practice 3.1

Prepare detailed Emergency Response Plans for potential cyanide releases.

in full compliance with

HVT is

in substantial compliance with

Transport Practice 3.1

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

HVT is in FULL COMPLIANCE with Transport Practice 3.1 requiring the operation prepare detailed Emergency Response Plans for potential cyanide releases.

HVT has a CERP that is appropriate for the transport route. The scope of the CERP states that it applies to the transportation of cyanide between Lae and the Morobe Mining Joint Venture (MMJV) Hidden Valley Mine.

The HVT CERP considers the physical and chemical forms of cyanide. The CERP discusses the transport of solid sodium cyanide in isotainers by road. The general emergency response is suitable for the solid cyanide and HCN.

The plan does consider the method of transport. HVT's CERP is only applicable to road transport.

HVT's CERP together with the CTMP does consider all transport infrastructure. The consideration of transport infrastructure has also been undertaken by HVT through route risk assessments. Route risk assessments detail the condition of the road, traffic hazards, intersections and issues to be managed. These have been considered in the CERP.

The CERP states that the cyanide is transported as solid sodium cyanide (UN1689 Class 6.1 Packing Group I) and is packaged in isotainer designed to Australian Standards. The emergency response actions relate to incidents involving isotainer.

HVT's CERP does include descriptions of response actions for anticipated emergency situations, including the requirement to seek advice from technical specialists. The CERP contains emergency response situations relevant to transporting isotainers by truck. These were determined through a risk assessment. The CERP includes response situations for the following

- Vehicle collision (multiple vehicle)
 - Loss of containment unlikely, isotainers remains intact – Dry Conditions
 - Isotainer falls into river – Wet Conditions
- Vehicle roll over (break failure, tyre puncture etc.)
 - Loss of containment due to steep terrain (unlikely due to control measures in place, speed limit of 40 km or less in steep terrain)
 - No loss of containment

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- Non cyanide related fire hazard
- Cyanide related fire hazard
- Fire or explosion.

These response plans detail the step by step actions to be taken, including the requirement to get professional advice (from MMJV and Orica).

The CERP does identify roles for outside responders and medical facilities. Those that have been identified as stakeholders and having a role in emergency response have been provided with a copy of the CTMP and CERP and have signed the distribution list stating they have received the document. By being provided with these documents they have been advised by HVT of their roles in an emergency.

2.3.2 Transport Practice 3.2

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

in full compliance with

HVT is

in substantial compliance with

Transport Practice 3.2

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

HVT is in FULL COMPLIANCE with Transport Practice 3.2 requiring the operation designate appropriate response personnel and commit necessary resources for emergency response.

All Drivers including Escort Commanders are trained and assessed by trainers on site before driving a vehicle. Drivers are taken through mandatory modules which include:

- Cyanide Awareness
- Hazard Identification
- Defensive Driving
- Dangerous Goods Awareness
- Basic First Response
- Oxygen Therapy
- Mock Drills.

These modules are presented in a presentation format followed by a written assessment. Anyone who does not succeed to pass is reassessed at another time. The training courses are refreshed annually. Training attendance sheets were observed for Oxygen Administration, Basic First Responder Training and Cyanide Awareness.

Cyanide Awareness is provided to all HVT employees.

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The CERP also details training provided to outside responders. HVT provides cyanide awareness training to the local police authorities and Lae Fire Department as they may be attendant on site in the event of an off-site transportation emergency. This will be conducted annually or on an as needed basis (for new employees) and consists of the same awareness training materials provided to site employees and contractors.

Hidden Valley Transport provides cyanide-related training to the medical staff based at the Lae International Hospital in respect to cyanide poisoning and the administration of the CYANOKIT. This training will be provided to new staff and on a biannual refresher to all medical staff.

The CERP provides descriptions of the specific emergency response duties and responsibilities of personnel. The CERP details the emergency management responsibilities and duties during an incident and accident for:

- HVT
- MMJV Hidden Valley Mine
- Executive Security Services
- Lae International Hospital
- Disaster and Emergency Service.

Section 4.4 of the CERP details the HVT Emergency Response Duties.

HVT's procedures and plans do provide a list of all emergency response equipment that should be available during transport or along the transportation route.

HVT has an equipped emergency response vehicle dedicated to accompany the cyanide convoy. The vehicle is equipped for first response in the event of an emergency. The CERP lists the emergency response equipment required in the vehicle.

The emergency response equipment is checked prior to each departure as part of the Journey Planning process. The journey checklist includes the *Pre Departure Checklist 1 – Escort Vehicle Emergency Equipment* and *Pre Departure Checklist 2 – Escort Vehicle Emergency Equipment*. This process also includes checking the first response kits are provided to Escort Commanders.

HVT does not currently subcontract handling or transportation of cyanide. However, HVT may utilise a Pagini Group of Companies (Pagini) to transport cyanide. Pagini is a parent company of HVT and both companies operate out of the same depot. As a mechanism to ensure compliance with the ICMC, when subcontracting to Pagini, HVT will manage Pagini employees as their own and subject them to the same processes and procedures as HVT employees. Also, during transport operations, of Pagini's vehicles and drivers will be under the direction of a HVT Escort Commander who will provide assurance of compliance with procedural requirements.

HVT has a *Contractor Management Procedure* that specifies HVT will only use Pagini's drivers and vehicles to supplement its own in the transportation of cyanide. The procedure requires that Pagini follow the CTMP and other HVT procedures, Pagini employees are trained the same as HVT employees and that their vehicles undergo pre and post trip inspections. The procedure also states that the contractor's performance is to be monitored and re-evaluated by HVT to ensure compliance.

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Date



Section 2.9 of the CTMP states that HVT will:

...ensure that any other driver, escort commander and vehicle and or mobile equipment is trained and serviced to comply with the Cyanide Transport Management Plan that Hidden Valley Transport has implemented.

2.3.3 Transport Practice 3.3

Develop procedures for internal and external emergency notification and reporting.

in full compliance with

HVT is

in substantial compliance with

Transport Practice 3.3

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

HVT is in FULL COMPLIANCE with Transport Practice 3.3 requiring the operating develop procedures for internal and external emergency notification and reporting.

HVT has procedures and current contact information for notifying the receiver/consignee, regulatory agencies, outside response providers, medical facilities and potentially affected communities of an emergency.

The CERP details the HVT first response team notification numbers and external notification numbers, including Orica Mining, Mining Companies, Disaster and Emergency Services, Police, Hospitals and Clinics and Fire Service Stations.

There are systems in place to ensure that internal and external emergency notification and reporting procedures are kept current. The numbers are stored in the CERP that is reviewed (every 3 years) and/or in response to incidents involving cyanide and/or the outcomes of scheduled emergency response drills. Additionally, a periodic review of the numbers is completed periodically by a Safety Supervisor assigned to the task.

2.3.4 Transport Practice 3.4

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

in full compliance with

HVT is

in substantial compliance with

Transport Practice 3.4

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

HVT is in FULL COMPLIANCE with Transport Practice 3.4 requiring the operation develop procedures for remediation of releases that recognise the additional hazards of cyanide treatment.

HVT has procedures 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. Section 6.4 of the CERP details remediation actions for “spill to soil”, “spill to water” and post incident monitoring.

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“Spill to soil” provides a step by step process including the application of ferrous sulphate and testing the soil until the cyanide level falls below 10 ppm.

The CERP does prohibit the use of chemicals such as sodium hypochlorite, ferrous sulphate and hydrogen peroxide to treat cyanide that has been released into surface water. The spill to water clean-up section provide a step process and specifically states that:

Ferrous sulphate must never be used to treat cyanide that has been released into natural surface water bodies as it is toxic to aquatic life.

The CERP also provides a general warning noting that sodium hypochlorite, ferrous sulphate and hydrogen peroxide should not be used if there is a risk of the chemical entering waterways.

2.3.5 Transport Practice 3.5

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

in full compliance with

HVT is

in substantial compliance with

Transport Practice 3.5

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

HVT is in FULL COMPLIANCE with Transport Practice 3.5 requiring the operation periodically evaluate response procedures and capabilities and revise them as needed.

The CERP has provisions for periodically reviewing and evaluating its adequacy and are they being implemented. The CERP is subject to periodic review and updated in response to internal and external reviewer comments, stakeholder consultation, internal performance verification and management review results, and other factors. It is reviewed at least every three years and/or in response to incidents involving cyanide and/or the outcomes of scheduled emergency response drills.

The CERP was first issued in June 2013 and has been revised again in October 2013.

There are provisions for periodically conducting mock emergency drills and are they being implemented. The training requirements require mock drills. Evidence was provided in the form of mock drill reports that they have been conducted. A desktop drill was undertaken in July 2013 and a mock drill in August 2013. Both drills involved HVT as well as outside responders (e.g. MMJV, Police and the Lae International Hospital).

There are procedures to evaluate the Plan’s performance after its implementation and revise it as needed and they been implemented. The CERP is reviewed in response to incidents involving cyanide and/or the outcomes of scheduled emergency response drills. The drill reports contain a debrief section which included a recommendation to update sections of the CERP. It was noted that following the drill a review of the CERP was made and recommendations from the drill were addressed.

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3.0 LIMITATIONS

Your attention is drawn to the document - "Limitations", which is included as Appendix A to this report. This document is intended to assist you in ensuring that your expectations of this report are realistic, and that you understand the inherent limitations of a report of this nature. If you are uncertain as to whether this report is appropriate for any particular purpose please discuss this issue with us.

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A handwritten signature in black ink, appearing to read "E. L. L. L.", positioned above a horizontal line.

Signature of Lead Auditor

13 May 2014

Date



Report Signature Page

GOLDER ASSOCIATES PTY LTD

A handwritten signature in black ink, appearing to read 'Ed Clerk'.

Ed Clerk
Associate, ICMC Lead Auditor and ICMC Transportation Expert

JEJ/EWC/asu

A.B.N. 64 006 107 857

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APPENDIX A

Limitations



LIMITATIONS

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