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# **SUMMARY AUDIT REPORT**

**QUBE BULK PTY LTD**

**ICMI CYANIDE TRANSPORTATION  
VERIFICATION PROTOCOL  
RECERTIFICATION AUDIT  
SEPTEMBER 2024**

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## APPROVAL & CHANGE HISTORY

Approval and Change History					
Rev	Description	Approval			
		Date	By		
			MSA	MSA	Qube
A	Issued for Qube Bulk PL Concurrence	07 October 2024	MS	SAZ	NF
0	Issued for Information	31 January 2025	MS	SAZ	NF

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## 1. INTRODUCTION

### 1.1. Operator Details

Name of Transport Operation:	Qube Bulk Pty Ltd
Name of Facility Owner:	Qube Bulk Pty Ltd
Name of Facility Operator:	Qube Bulk Pty Ltd
Name of Responsible Manager:	Nat Fielding National Safety, Health and Sustainability Manager, Qube Bulk.
Address:	Level 2, Kings Park Road, West Perth WA 6005
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Country:	Australia
Telephone:	(+61 8) 6141 1900
Mobile phone:	(+61) 436 411 198
Email:	Nat.Fielding@qube.com
Audit Protocol Employed:	International Cyanide Management Institute, Cyanide Transportation Verification Protocol, June 2021 <a href="http://www.cyanidecode.org">www.cyanidecode.org</a>

### 1.2. Description of Operation

Qube Bulk Pty Ltd (Qube) transports cyanide by road in various forms on behalf of Australian Gold Reagents Pty Ltd (AGR) in Western Australia.

AGR, an ICMI certified cyanide producer, is the consignor for cyanide manufactured at the AGR facility in Kwinana, Western Australia.

Qube is contracted to provide road transport of cyanide products from AGR's manufacturing plant in Kwinana, and from the Aurizon rail terminal in Kalgoorlie to various mine sites in Western Australia. The cyanide is transported in solid form in either Portable Tanks as solids to solution tanks (SST) or in IBCs packed in freight containers. Cyanide is also transported as a liquid solution (30% cyanide) in Portable Tanks (Isotainers).

Two divisions of Qube Holdings Ltd are used for cyanide transport: Qube Logistics and Qube Bulk. As part of the same company, they both work to the same management procedures.

Qube's operations at Kwinana and Kalgoorlie are similar. Both are large, fenced areas with administration activities, large workshops and ample open spaces for vehicle manoeuvring. At each depot vehicles are routinely parked in designated areas according to a vehicle management plan. The workshops are used for standard maintenance activities; specialist work is contracted out to others.

When advised that cyanide is needed at a mine, Qube organises and dispatches appropriate vehicles to the collection point which will be either AGR premises in Kwinana or the Kalgoorlie rail container terminal. Prior to leaving the Qube depot, drivers log into the in-vehicle management system (IVMS). Following collection of the cyanide, vehicles depart for the mine using the specified routes advised by the consignor. Upon arrival drivers follow the appropriate procedure as required by the mine, then assist with the unloading of the cyanide before returning to the relevant depot.

## 2. AUDIT TEAM FINDINGS AND ATTESTATION

Qube Bulk Pty Ltd Transport Operations is:

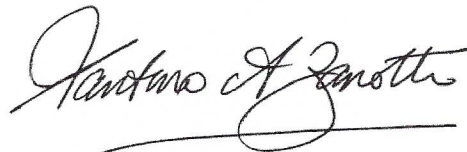
- ☒ in full compliance with the International Cyanide Management Code  
☐ in substantial compliance  
☐ not in compliance

**This Operation has not experienced any compliance issues during the previous three-year audit cycle.**

**This Operation experienced one significant cyanide incident during the preceding audit cycle which is discussed in this report under Transport Practice 3.3.**

The supporting information and the rationale for these audit findings are detailed in Section 3 of this report.

Audit Company:	MSA Consulting WA
Date(s) of the Audit	16 <sup>th</sup> to 25 <sup>th</sup> September 2024
Audit Team Leader:	Michael Sputore
E-mail:	mikesputore@outlook.com
Names and Signatures of Other Auditors:	Santino Zanotti



31 January 2025

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Certification 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 Certification Auditors.

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

Signature of Lead Auditor: Michael Sputore



31 January 2025



Signature of Lead Auditor

### 3. AUDIT FINDINGS

**1. TRANSPORT:** *Transport cyanide in a manner that minimizes the potential for accidents and releases.*

Transport Practice 1.1: *Select cyanide transport routes to minimize the potential for accidents and releases.*

**Qube Bulk Pty Ltd is:**

- ☒ **in full compliance with Transport Practice 1.1**  
☐ in substantial compliance with  
☐ not in compliance with

*Basis for this Finding:*

Qube's transport routes are selected and prescribed by Australian Gold Reagents, (AGR) as the cyanide transport consignor for AGRs certified Australian Supply Chain. Qube has developed Journey Management Plans (JMP) for each route specified by AGR. Each JMP considers population density, infrastructure construction and condition, pitch and grade and prevalence and proximity of water bodies and fog. The JMP contain photographs to highlight specific road conditions, important signage and specific conditions for access to mine sites.

At various waypoints, the Fleet Monitoring Centre (FMC) signals drivers that they are approaching an identified hazard. Drivers have the ability to communicate with the FMC to deviate from the JMP in response to changed circumstances.

AGR has conducted a risk assessment on all the routes that Qube has to transport sodium cyanide. The risk assessment established the risk for each route and provides input into the JMP to manage the risks identified covering all of AGR's transport routes.

The JMP for each transport route is re-evaluated on a continuous basis. Qube personnel receive a weekly Main Roads WA (MRWA) road condition report. Qube supervisors also routinely check road conditions reports from Local Government web sites for road conditions. Drivers also advise on local conditions during each journey through the FMC.

AGR as the transport consignor prescribes the preferred routes to Qube. Qube seeks input from Main Roads Western Australia (MRWA) and Local Government web sites on daily road conditions for its individual JMP. Qube is obliged to work through AGR for any external stakeholder consultation regarding journey selection. The Department of Energy, Mines, Industry Regulation and Safety (DMIRS) sets route restrictions for dangerous goods such as sodium cyanide.

There are no security or safety circumstances warranting the use of convoys for routes prescribed by AGR. However, a convoy management procedure has been developed should the circumstances change for any of the AGR prescribed routes. The Qube Transport Management Plan (TMP) includes reference to the convoy management procedure. Monitoring of security levels is through liaison with the government DG safety regulator.

No subcontracting of transport operations is carried out by Qube.

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.*

**Qube Bulk Pty Ltd is:**

- ☒ **in full compliance with Transport Practice 1.2**  
☐ in substantial compliance with  
☐ not in compliance with

*Basis for this Finding:*

Qube uses only drivers who have the required training, qualifications and licenses as set out in the Transport Management Plan.

Qube operates a training management system (called Rapid) which manages all training and licensing requirements for drivers. Individual records are kept for every driver.

All Qube personnel involved in handling and transport of cyanide have had specific training to minimise the potential for cyanide releases and exposures.

Training involves the use of the "buddy system" where new drivers work with an experienced driver for a specified time. The drivers used to mentor new drivers are approved Qube Bulk Trainers. The new driver will be assessed as competent by one or more experienced driver and the DG Co-ordinator/Transport Supervisor will complete the final assessment and sign off the driver as competent.

Transport Practice 1.3:      *Ensure that transport equipment is suitable for the cyanide shipment.*

**Qube Bulk Pty Ltd is:**

- ☒ **in full compliance with Transport Practice 1.3**  
☐ in substantial compliance with  
☐ not in compliance with

*Basis for this Finding:*

Qube operates a fleet of vehicles at its Kalgoorlie and Rockingham operations licensed to carry dangerous goods in Western Australia.

Qube is part of the regulatory MRWA Heavy Vehicle Accreditation System which is audited triennially by MRWA accredited auditors.

Qube operates a scheduled maintenance program, MAINPAC, with programmed servicing of the prime movers and trailer sets. All isotainers for liquid sodium cyanide are supplied by AGR and their maintenance is the responsibility of AGR.

All loads of liquid sodium cyanide are standard loads with minimal deviation and loads are less than the trailer carrying capacity. Axle loads are checked to ensure that they are not exceeded.

All isotainer loads of liquid sodium cyanide are standard loads such that the gross weight of the isotainer is not exceeded. The gross weight of a full isotainer is well within the load carrying capacity of the individual trailer. Qube truck and trailer combination picking up sodium cyanide from CSBP operations must go over CSBP's weighbridge where axle loading and gross weight are checked and recorded to ensure compliance to WA road regulations.

  
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Transport Practice 1.4:      *Develop and implement a safety program for transport of cyanide.*

**Qube Bulk Pty Ltd is:**

- ☒ **in full compliance with Transport Practice 1.4**  
☐ in substantial compliance with  
☐ not in compliance with

*Basis for this Finding:*

All the liquid sodium cyanide containers are the property of AGR and maintained by them. AGR is fully certified by ICMI as the transport consigner and Qube uses only AGR isotainers for its road transport operations.

Daily pre-start checks before each trip are conducted by the drivers which include checks on the integrity of the isotainers, such as checks for any damage or leaks from the isotainer.

The isotainers are checked prior to departure from Kalgoorlie and Kwinana and prior from the customer's mine-site using the checklist and form "Sodium Cyanide Solution Isotainer Driver's Checklist" which accompanies each isotainer and is returned to AGR with the empty isotainers.

All transport loads are placarded in accordance with the Australian Dangerous Goods Regulations and as specified in The Transport Management Plan.

Prestart inspections are conducted prior to each trip of cyanide loads. The MT Data System will remind drivers if they have not completed the pre-start checks.

Qube Rockingham and Kalgoorlie implement a preventive maintenance programme with scheduled servicing of the prime movers and associated trailer set. The preventive maintenance system is administered by the MAINPAC system.

Limitations on driver hours is governed by Qube's Heavy Vehicle Fatigue Management (West Australian Specific) procedure.

Drivers are monitored while driving for fatigue by a surveillance camera via the Driver Safety System, "Gurdian," which detects distractions and the driver falling asleep.

MT Data also monitors the time the vehicle is in motion and informs the driver when rest breaks are required. If the driver fails to comply with the rest breaks, MT Data alerts the Transport Supervisor/DG Coordinator of the breach.

All isotainers are secured to the trailers by twist locks. Inspection of the isotainers to ensure the twist-locks are securely engaged is undertaken before departure from Kwinana and Kalgoorlie and recorded on Sodium Cyanide Solution Isotainer Drivers Checklist.

The Transport Management Plan includes provision for route changes or suspension of transport due to weather or flooding.

The regulatory MRWA HV Accreditation System includes drug controls in its accreditation system. This is in conjunction with Qube's procedure Alcohol and Drug Management. Every person who accesses the site at Kalgoorlie and Rockingham must undergo an alcohol breathalyser test.

A random sample of employees are tested for drugs on a regular basis.

All records of drug and alcohol testing are maintained in Qube's document management system.



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Transport Practice 1.5: Follow international standards for transportation of cyanide by sea.

**Qube Bulk Pty Ltd is:**

- ☒ **in full compliance with Transport Practice 1.5**  
☐ in substantial compliance with  
☐ not in compliance with

*Basis for this Finding:*

This Transport Practice is not applicable to Qube's operations.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport.

**Qube Bulk Pty Ltd is:**

- ☒ **in full compliance with Transport Practice 1.6**  
☐ in substantial compliance with  
☐ not in compliance with

*Basis for this Finding:*

All Qube prime movers are fitted with an In-Vehicle Monitoring System (IVMS), which monitors the position, speed and driving behaviours of all drivers continuously from the centralised fleet monitoring centre.

Each vehicle has available communications with suppliers, customers and emergency responders via mobile and satellite telephones and UHF radio along all routes.

Communication equipment is checked as part of vehicle pre-start checks or by scheduled pre-arranged calls back to the respective operation.

There are two blackout areas identified on Qube's delivery routes and communications in these areas is covered by satellite phones.

Prior to departure drivers confirm that the IVMS and other communication equipment is functioning.

Qube maintains inventory control of the volumes of sodium cyanide transported through consignment documentation and through ensuring all isotainers locks remain intact until point of delivery.

Shipping records indicating the amount of cyanide in transit and Safety Data Sheets (SDS) are available during each shipment in each vehicle and from the Fleet Monitoring Centre.

**2. INTERIM STORAGE: Design, construct and operate cyanide interim storage sites to prevent releases and exposures.**

Transport Practice 2.1: Store cyanide in a manner that minimizes the potential for accidental releases.

**Qube Bulk Pty Ltd is:**

- ☒ **in full compliance with Transport Practice 2.1**
- ☐ in substantial compliance with
- ☐ not in compliance with

*Basis for this Finding:*

Qube does not have trans-shipping depots or interim storage of cyanide as part of its cyanide transport Operations.

At Kalgoorlie occasionally, truck and trailer with fully loaded isotainers will be parked at the depot overnight "enroute" to the mine-site. The Kalgoorlie site has a secure perimeter fence with 24/7 CCTV coverage. CCTV imaging is available to the Operations Manager, Rail Operations Manager and Mechanical Supervisor.

At Rockingham, trucks do not stay at the depot loaded.

  
Signature of Lead Auditor

**3. EMERGENCY RESPONSE: Protect communities and the environment through the development of emergency response strategies and capabilities.**

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases.

**Qube Bulk Pty Ltd is:**

- ☒ **in full compliance with Transport Practice 3.1**  
☐ in substantial compliance with  
☐ not in compliance with

*Basis for this Finding:*

Qube has a dedicated sodium cyanide specific Emergency Response Plan (ERP) for its cyanide operations.

AGR have an agreement with Qube for CSBP to be Qube's approved emergency responder for sodium cyanide. AGR, through CSBP's emergency response team, provides the offsite support in the event of an incident involving its sodium cyanide product.

The ERP is appropriate for the road transport of liquid and solid sodium cyanide and includes all feasible emergency scenarios related to cyanide transport or all of Qube's Western Australian routes. It details the planned response to all emergency scenarios that could occur during transport, handling, loading and unloading of sodium cyanide product from the CSBP terminal to the various gold mines sites located around Western Australia.

The ERP includes comprehensive description of response actions for identified feasible emergency scenarios. It has clear instructions about the roles of all participants. The major emergency response actions are allocated to AGR which has the dedicated cyanide emergency response capability.

The ERP has clear instructions about the role of all participants. The ERP's role descriptions for external providers are tested through emergency drills.

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

**Qube Bulk Pty Ltd is:**

- ☒ **in full compliance with Transport Practice 3.2**  
☐ in substantial compliance with  
☐ not in compliance with

*Basis for this Finding:*

The Emergency Response Plan sets out training requirements for first aid, fire extinguisher awareness, hazardous substances, dangerous goods and spill management and annual sodium cyanide awareness refresher training.

Specific emergency response duties, responsibilities and actions for Qube personnel are detailed in the ERP. These are supplemented in the JMP for each journey and the Vehicle Operators Handbook.

A list of emergency response equipment available during transport is detailed in ERP. The list of all emergency response equipment that should be available during transport is located in every prime mover and trailer set.

Every prime mover and trailer set is inspected monthly to ensure the emergency response equipment is present and in good order.

Transport Practice 3.3:      *Develop procedures for internal and external emergency notification and reporting.*

**Qube Bulk Pty Ltd is:**

- ☒ **in full compliance with Transport Practice 3.3**  
☐ in substantial compliance with  
☐ not in compliance with

*Basis for this Finding:*

The Emergency Response Plan contains procedures for Qube personnel on what action to take in case of an emergency, including contacting the consignor and the appropriate emergency services.

The plan includes the responsibility of AGR as the consignor to undertake all further notifications including customers, external responders, medical facilities, regulatory agencies and potentially affected communities.

AGR co-ordinates all emergency response notification following the initial notification in case of an emergency involving a Qube transport operation within the AGR supply chain.

The ERP is reviewed annually, after exercises or post incidents as necessary. It details the review elements to be considered.

A cyanide incident occurred on 20/07/2022 where a driver, while unloading cyanide at a mine site became affected by cyanide vapours due to a small uncontrolled discharge. The incident was reported to the regulator and the consignor, but not to the ICMI.

As part of this recertification audit preparation, Qube became aware of this and immediately took action to rectify the matter by notifying ICMI. Furthermore, the reporting procedure was strengthened by the creation of a visual flow chart to indicate reporting actions to ICMI, consignor and the regulator to supplement the information in the ERP.

Transport Practice 3.4:      *Develop procedures for remediation of releases that recognize the additional hazards of cyanide treatment chemicals.*

**Qube Bulk Pty Ltd is:**

- ☒ **in full compliance with Transport Practice 3.4**  
☐ in substantial compliance with  
☐ not in compliance with

*Basis for this Finding:*

The Qube Emergency Response Plan includes details of specific emergency response duties, responsibilities and actions for remediation, recovery of and neutralization of solutions and solids, decontamination of soils or other contaminated media and management and/or disposal of spill clean-up debris.

The Plan details the prohibition of sodium hypochlorite, ferrous sulphate and hydrogen peroxide to treat cyanide discharge in surface water and ensures that the driver or site representative only completes treatment under the direction of an approved emergency responder.

CSBP as the approved emergency responder for sodium cyanide, has procedures in place for the remediation, recovery, neutralisation, decontamination and disposal of sodium cyanide and has procedures in place that prohibit the use of sodium hypochlorite, ferrous sulphate and hydrogen peroxide to treat cyanide that has been released into surface water.

Transport Practice 3.5: Periodically evaluate response procedures and capabilities and revise them as needed.

**Qube Bulk Pty Ltd is:**

☒ **in full compliance with Transport Practice 3.5**

☐ in substantial compliance with

☐ not in compliance with

*Basis for this Finding:*

The Emergency Response Plan prescribes a review of the plan annually, after exercises or post incidents as necessary. Examination of the version control history of the ERP indicates reviews conducted are consistent with the requirements specified.

The Emergency Response Plan prescribes biannual emergency exercises including Qube, AGR/CSBP personnel and state emergency services.

The plan recommends a range of emergency scenarios on which the emergency drills can be based.

A review of emergency drills conducted at Rockingham and Kalgoorlie included exercises that covered both release of sodium cyanide and exposure to sodium cyanide.