

International Cyanide Management Code

Transport Recertification Audit

Summary Audit Report

Name of Cyanide Transportation Facility: **Qube Bulk Pty Ltd
Cyanide Transport**

Name of Facility Owner: **100% owned by Qube Bulk Pty Ltd**

Name of Facility Operator: **Qube Bulk Pty Ltd**

Name of Responsible Manager: **Elena Rusca, National HSE Advisor**

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Date of audit **9 to 19 November 2021.**

Submitted to International Cyanide Management Institute
1400 I Street, NW, Suite 550, Washington, DC, 20005, USA

Copy to Qube Bulk Pty Ltd

Cyanide Transport Operation Qube Bulk Pty Ltd	Signature of Lead Auditor 	Date 1 February 2022
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Audit Scope

The scope of this audit report is limited to the road transport of cyanide in Western Australia by Qube Bulk Pty Ltd as described below. This transport operation was last certified in November 2018.

Location Detail and Description of Operations

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.


Two divisions of Qube Holdings Ltd are used for cyanide transport: Qube Logistics and Qube Bulk. As part of the same company 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.

Auditor's Comments

Qube has been compliant in the past and the deficiencies in Qube's operations that are identified in the audit report are already being worked on and should be easily correctable within three months given Qube's experience with cyanide transport.

There is no immediate threat of substantial risk to health, safety or environment from Qube's position of substantial-compliance.

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Auditor's Finding

This Section of Qube's cyanide transport operation is:

- in full compliance with the International Cyanide Management Code ~~in substantial compliance~~
 ~~not in compliance.~~

This operation has experienced compliance issues during the previous three-year audit cycle which are discussed in this report under Transport Practices 1.2, 3.2 and 3.5. All issues have been satisfactorily resolved prior to submission and acceptance by ICMI of the finalised report.

There was no immediate threat of substantial risk to health, safety or environment resulting from the deficiencies identified during the audit and corrected prior to submission of this report.

During the previous three-year audit cycle, this operation experienced no noncompliance with Code requirements, no significant cyanide incidents requiring notification to ICMI and no cyanide exposures or releases that would require disclosure under Item 9.3.3 of the Mining Operations Verification Protocol.

Further information and the rationale for the auditor's finding are provided under Various Standards of Practice below.

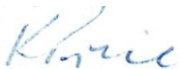
A Corrective Action Plan to bring the operation into full compliance was **previously submitted with the Draft Summary Audit Report**. Qube fully implemented the Corrective Action Plan prior to submission to ICMI of the finalized audit documents.

Audit Company:	Riskom International Pty Ltd
Audit Team Leader:	Ken Price
E-mail:	ken@riskom.com.au
Names and Signatures of Other Auditors:	NA
Date(s) of Audit:	9 – 19 November 2021

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

I attest that this Summary Audit Report accurately describes the findings of the verification audit.

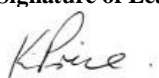
I further attest that the verification audit was conducted in a professional manner in accordance with the International Cyanide Management Code Verification Protocol for Cyanide Transportation Operations and using standard and accepted practices for health, safety and environmental audits.



Signature of Lead Auditor

1 February 2022

Name of Facility	Qube Bulk Pty Ltd Western Australian Transport Operations
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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's operation in FULL COMPLIANCE with Transport Practice 1.1

Qube's transport routes are selected and prescribed by Australian Gold Reagents Pty Ltd (AGR) as the cyanide transport consignor for AGR's certified Western Australian Supply Chain. Qube has developed Journey Management Plans (JMPs) for each route based on their own Cyanide Transport Management Plan (TMP). Each JMP considers: population density; infrastructure construction and condition; pitch and grade, and; prevalence and proximity of water bodies and fog. Drivers have the ability to communicate with the Qube Fleet Monitoring Centre to deviate from, and subsequently adjust if necessary, the JMP in response to changed circumstances. The Qube JMP is a document specific to each route and includes specific information regarding the measures taken for risks identified for that route, such as railway crossings, potential road closures, flooding, alternate routes and information obtained from road condition reports. The hard copy JMP is supplemented with specific notification through the FMC when drivers approach specific hazards that have been identified during the route assessments. There are no security or safety circumstances warranting use of convoys for the routes prescribed by AGR. However a Convoy Management Procedure has been developed should the circumstances change for any of the AGR prescribed transport routes. AGR, as the certified transport consignor for the Western Australian Supply Chain, is responsible for consultation with and provision of advice to external responders, medical facilities and communities in regard to emergency response roles. 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 is in Full COMPLIANCE with Transport Practice 1.2


Qube only uses drivers who have the required training, qualification and licensing as set out in the TMP. Qube runs a training management system (Rapid) which manages all training and licensing requirements for drivers and individual records are kept for every driver. Training covers Heavy vehicle licences, Dangerous Goods Transport licences, CN awareness, first aid, Fire Extinguisher use, and Emergency response. The Company manages and monitors the currency of all licences for drivers. All Qube personnel involved in handling and transport for cyanide have had specific training to minimise the potential for cyanide releases and exposures. A training matrix identifies the specific training required for each operational position. The Kalgoorlie based drivers are also inducted into all mines where cyanide delivery takes place and all have undergone cyanide awareness training and training to unload cyanide.

At the time of the audit, several drivers operating out of Kalgoorlie did not have current certificates of competency to unload cyanide. Convoy Management, Emergency response, Transport Management Plan, First Aid Training (Site Induction), Fire Extinguisher and Hazardous Substances training has now been completed for drivers at Kalgoorlie and certificates of competence have been issued.

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

Qube is in FULL COMPLIANCE with Transport Practice 1.3

Qube operates a fleet of vehicles licensed to transport in Western Australia, which, as such, are designed to operate within the loads it will be carrying. Qube implements procedures to verify the adequacy of equipment for each load. All Qube trucks are weighed for each load and records are maintained to verify compliance and to prevent overloading.

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

Qube is in FULL COMPLIANCE with Transport Practice 1.4.

In accordance with the Transport Management Plan, Qube drivers inspect the liquid cyanide isotainers prior to and during each transport consignment to ensure the integrity of the container is maintained. All liquid sodium cyanide isotainers are property of AGR and maintained by AGR through a preventative program.

All transport loads are placarded in accordance with Australian Dangerous Goods Code and as specified in the TMP. Qube has implemented a safety program as documented in its TMP that includes: documented prestart checks for each transport event; a scheduled vehicle maintenance program with programmed servicing of prime movers and trailers; a driver fatigue management program in accordance with regulatory requirements; procedures for securing of all loads; provisions for route changes or suspension of transport due to weather and flooding, and; alcohol and drug testing program for drivers and other Qube personnel

All records of the above controls are kept in Qube's document management system.

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


This Transport Practice is not applicable to this audit as there is no transport by sea or air within the scope of the audit.

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

Qube is in FULL COMPLIANCE with Transport Practice 1.6.

All Qube trucks 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 in West Perth. Each vehicle has available communications with suppliers, customers and emergency responders via mobile and satellite telephones along all routes. There are no blackout areas on Qube's delivery routes. 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.

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2. INTERIM STORAGE: Design, construct and operate cyanide trans-shipping depots and interim storage sites to prevent releases and exposures.

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

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

Qube is in FULL COMPLIANCE with Transport Practice 2.1


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

At Kalgoorlie, the trucks usually do not stay at the depot loaded. Trucks routinely stay at the depot, nominally empty, overnight. Loaded trucks will only stay at most a few hours at the depot overnight (with the depot locked) and therefore does not meet the definition of “interim storage” as defined in the protocols and listed above.

For Kalgoorlie, even though the definition is not met, any overnight loads have the following controls; placarding is present, signage is available on the outside of the premises and separation protocols are listed on the traffic management plan for the site (keeps the cyanide separate from other loads).

Also as per the protocols – sleeping in the cab when out on route does not constitute interim storage.

Qube also follows security protocols including locks on valves and other security as needed to ensure no unauthorized access.

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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 is in FULL COMPLIANCE with Transport Practice 3.1

Qube has prepared a detailed Sodium Cyanide Specific Emergency Response Plan (ERP) for its cyanide transport operations that is appropriate for all aspects its prescribed transport routes, the road transport methods and equipment and is appropriate for the liquid and solid cyanide products transported. The ERP includes comprehensive descriptions of response actions for all identified feasible emergencies. This is supplemented by information in the JMP for each journey and information in the Driver Information Booklet. The ERP has clear instructions about the roles of all participants including outside emergency responders, medical facilities and communities

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

Qube is in FULL COMPLIANCE with Transport Practice 3.2.

The Qube Emergency Response Plan sets out emergency response training requirements for Qube and mock exercise schedules. Qube has provided this training for all drivers. All drivers have also been through Qube induction and minesite inductions for all mines they deliver to. All these inductions include emergency response training.


The Emergency Response Plan sets out the roles and responsibilities of Qube personnel and external providers in case of a cyanide emergency. The emergency response equipment required for each cyanide shipment is specified in the Emergency Response Plan. The equipment is subject to frequent checks to ensure its ongoing availability and suitable condition.

The emergency response training is required to be refreshed periodically and there was no evidence that this has been done at Kalgoorlie at the time of the audit. Emergency response training has now been completed for drivers at Kalgoorlie..

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

Qube is in FULL COMPLIANCE with transport practice 3.3.

The Qube Emergency Response Plan contains procedures for Qube to immediately notify the consignor (AGR) and Emergency Services of any emergency. 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. The Emergency Responses Plan and the Driver Information Booklet provides clear detail of the required contact information to AGR and Emergency Services for initial notification. The contact details for emergency notification are frequently checked to ensure currency..

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

Qube is in FULL COMPLIANCE with Transport Practice 3.4.

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 hypochlorite, ferrous sulfate 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.


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

Qube is in FULL COMPLIANCE with Transport Practice 3.5.

The Qube Emergency Response Plan prescribes a review of the plan annually and after exercises or incidents to incorporate lessons learned. The revision history is consistent with the prescribed revision requirements.

The Emergency Response Plan prescribes biannual mock emergency exercises involving Qube, AGR and emergency service providers. Mock exercises have been completed as prescribed in the Plan at Kwinana but not so in Kalgoorlie. Records of mock exercises have been retained including documentation where improvements to emergency response have been identified.

At the time of the audit there appeared to be a gap of approximately 18 months with no emergency response drills in Kalgoorlie. Evidence has now been produced that emergency response drills for Kalgoorlie were conducted on 14 July 2021 and 24 November 2021.

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