



***INTERNATIONAL CYANIDE  
MANAGEMENT INSTITUTE***

***Cyanide Transportation***

***Summary Audit Report***

***For***


***Transportes Meridian S.A.C.***

***2019***

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Name of Cyanide Transport Operation:	Transportes Meridian SAC	
Name of the Company Ownership	Transportes Meridian SAC	
Name of Operating Company:	Transportes Meridian SAC	
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## Location and Description of the Operation

Transportes Meridian S.A.C. (Meridian) is a trucking company that belongs to *Grupo Transmeridian*, an important organization in the articulation of service platforms for national and international commercial sector which includes maritime agency, customs agency and represents shipping companies, among other services

Meridian trucks transport light, heavy and oversized cargo in Peru, including hazardous materials. The scope of this audit is the cyanide transport operation between Callao Port to warehouses in Callao and to mining clients.

Cyanide is transported in Intermediate Bulk Containers (IBC) inside poly-propylene super-sack filled up to 1 ton and placed inside a polyethylene bag and wooden box, and in metal cylinders containing 50 kg of cyanide. Around 20 tons (t) of cyanide is placed in standard 20-foot shipping containers. IBCs and cylinders are placed in a way to prevent lateral movement within the container. Containers are received locked and tagged.

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## Auditor's Finding

This operation is

- in full compliance
- in substantial compliance
- not in compliance

with the International Cyanide Management Code.


This operation has maintained full compliance with the International Cyanide Management Code throughout the previous three-year audit cycle. The operation has not experienced any significant cyanide incidents, releases, or exposures during this period.

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Transportation Technical Auditor:	Maria del Pilar Arrese	Sign: 
Date(s) of Audit	October 30 - 31, 2019	

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 Detailed 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.

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## Detailed Audit Report

### Principle 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.

The operation is:

- in full compliance with Transport Practice 1.1
- in substantial compliance
- not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Transportes Meridian (Meridian) has implemented the procedure “Road Risk Assessments” to select transport routes that minimizes the potential for accidents and releases.


The road risk assessment is carried out every year considering population density, road characteristics and signaling, check points, bridges, proximity to water bodies, road infrastructure for conditions and construction associated risks. The road evaluations include pitch and grade, evaluations are carried out by the Integrated Management System (IMS) Manager and the Convoy Leader.

The operation has performed risk assessments for each route taken. Risks are also recorded along the route by cellphone during cyanide transporting. No satellite telephone is used, GPS is applied to mark the blind areas and in case of an emergency, an emergency search plan, called *the emergency diamond*, would be activated. Among other actions to take for this case, the GPS provider would be contacted to help tracking the vehicle.

The roadmap is updated when there are relevant changes or conditions that may represent a transport risk, these changes or conditions are recorded in the travel reports.

The procedure establishes guidelines for preparing the roadmaps and states to reevaluate risks annually. Additionally, it is indicated in its Contingency Plan: routes are to be reevaluated in a period not exceeding one year by the above mentioned persons IMS Manager, Convoy Leader, IMS Assistant or whoever designates the General Manager to update the roadmap. The Plan also states roadmaps to be reviewed annually.

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In addition, drivers on route report via WhatsApp application, images regarding the conditions of the route where cyanide is transferred, in order to provide feedback with everyone involved.

Measures taken are documented. The auditor reviewed several road risk assessments where warning measures were taken due to presence of bridges and some other characteristics observed in the area. Precautions are taken along the road.


The transporter seeks input from its clients and from the governmental agencies as necessary in the selection of routes and development of risk management measures. The carrier evaluates the route to be taken, which has been previously reviewed with the customer and according to local regulations. Since the client requesting cyanide belongs to the mining sector, they communicate with communities in the influence area of the mine site, to seek input.

As required by local regulations for national roads dangerous material transportation, the transporter uses convoys, with a pickup vehicle as escort to transport cyanide- Configuration of cyanide convoys are at least 3 trucks + 1 escort vehicle. That is, a van escort for every three transport units only for transport to mines. When cyanide transport is between the port and local warehouses in Callao, the escort service with the client and the load generator will be evaluated. The convoy may require one or more vehicles as an escort at the client's request.

The transporter has advised external responders, medical facilities and communities of their roles and/or mutual aid during an emergency response. Communications have been delivered to the parties involved during the transport of cyanide as Ventanilla Hospital, Fire Station Ventanilla, Fire Station Chalaca and Fire Station B15, describing routes for the transport of cyanide.

Meridian do not subcontract any of the cyanide handling or transport. All cyanide transport operations are performed with their s own trucks.

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### 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.

The operation is:

- in full compliance with Transport Practice 1.2
- in substantial compliance
- not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

*1.2 (1) Does the transport company use only trained, qualified and licensed (where required) operators to operate its transport vehicles?*

Meridian uses only trained, qualified and licensed operators to operate its transport vehicles. The company maintains documents demonstrating his drivers are qualified and have received adequate operational and safety training. Records were available for all current cyanide drivers to demonstrate that qualification and training requirements were met.

The auditors sampled extensive documentation for 3 drivers, finding qualifications to be complete. Among other documents and training records reviewed were UpToDate professional driving license (A3 category) which allowed them to drive trucks of that tonnage transporting cyanide.

Interviews with drivers, dispatch, administration and maintenance personnel, as well as training records, were used to confirm that all personnel operating the cyanide transport equipment are trained to perform their work safely and properly. Training related to cyanide and cyanide delivery is provided by Meridian's Health & Safety (H&S) Manager.

### Transport Practice 1.3:

Ensure that transport equipment is suitable for the cyanide shipment.

The operation is:


- in full compliance with Transport Practice 1.3
- in substantial compliance
- not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Meridian uses appropriate trucks and trailers designed and maintained to operate within the loads it will be handling. The Standard Operation Procedure (SOP) Sodium Cyanide

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Transportation establishes the requirements for maintenance of the units carrying cyanide.

Meridian maintains a fleet of Freightliner trucks and “low bed” trailers for transporting cyanide. Unloading and loading of shipping containers at Contrans warehouse is undertaken using a TFC45 “Reach Stacker”. The stacker is equipped with a load moment indicator to ensure loads handled do not exceed the safe load capacity for a given lift configuration.

Maintenance for each vehicle is tracked through the Excel spreadsheet *Maintenance Table per Unit*. There are weekly meetings with the Maintenance Technician to review next preventative maintenance according to the program. The spreadsheet tracks kilometers performed.

Vehicles are inspected by the driver prior to departure. Any concerns are addressed prior to the vehicle being permitted to depart. Records of these inspections are documented on pre-use check lists. Records were available for the past three years and showed completion of a vehicle inspection checklist and sign-off by the driver.

In addition, vehicles must pass mechanic inspections by a third party inspector prior to issuance of a vehicle permit to transport hazardous goods.

Before any transport operation, the Transport Analyst reviews the vehicle’s *Summary Sheet*, the *Units Daily Report* and the client’s transport contract identifying the cargo, the truck and trailer required for this purpose, and checks if the unit maintenance is current, to ensure the vehicle would be the appropriate to provide the transport service. If the vehicle’s conditions area ok, coordinates with the Monitoring Center to assign the vehicle for that specific cargo.


The Contingency Plan for Cyanide Transport, states trailers assigned to transport cyanide should be of conventional type or *low bed*, according with the transport conditions agreed with the client. Trucks more than 3 years old should be evaluated by an independent mechanical service provider to be declared in conformance to provide services. The Plan also states that all trucks and trailers must have a preventive maintenance program.

Fleet specification files were available for review during the audit. The tractors and trailers were found to be capable of carrying the loads for which they were being used. Tractor and loaded trailer weights are carefully monitored to ensure that trucks are not overweight. The transporter has formal preventive maintenance program to ensure that its tractors and trailers are safe for transport.

Meridian has developed and implemented the Standard Operation Procedure (SOP) *Integral Service* to stablish the activities, controls, registers and necessary indicators to execute the transport service, which includes procedures to verify the adequacy of the

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equipment for the load it must bear. As stated in the *Integral Service* procedure, on reception of the service requirement, the Transport Analyst reviews among others, the type of merchandise, load and quantity of containers to ensure the vehicle adequacy. With this information assigns the transport unit and the driver that would comply with the service requirement. Pre-trip inspections of the truck are formally performed by the transporters as part this procedure.

Meridian manages standard amounts of cyanide in ocean containers with known weights that load into its transporters trailers. The SOP for secure cargo includes load instructions, loading diagrams and inspection forms to ensure the load is correctly transported. The transporter train its operators to inspect the trailers prior to loading.

To prevent overloading of the transport vehicle, Meridian has established in the Contingency Plan that each platform will load only one cyanide container and that each truck can only haul one platform trailer. This is consistent with the information included in the inspection checklist and was confirmed during the interviews.

The load made by the port operator is weighed to confirm the weight of the shipment. The loads being hauled are standard loads that do not vary in weight. Records of cyanide shipments were checked against weight capacities and weight limit regulatory information. The equipment is capable of transporting loads more than the maximum loads shipped. The regulatory limits on truck weight are typically the limiting factor that dictates the maximum amount of cyanide that can be transported. Meridian office personnel showed awareness of weight capacities and regulatory requirements pertaining to maximum truck weight allowed.

### Transport Practice 1.4:

Develop and implement a safety program for transport of cyanide.


The operation is:

- in full compliance with Transport Practice 1.4
- in substantial compliance
- not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Meridian has developed and implemented the SOP Integral Service in addition to the SOP for secure cargo for the receipt, load, transport, and unloading of maritime containers with solid sodium cyanide. Procedures and formal checklists were available to demonstrate that Meridian manages several of the Transport Practice 1.4 requirements in addition to these requirements being met by the trucking company. Formal

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procedures are in place to ensure that roles and responsibilities in Meridian are clearly defined.

For security purposes and to maintain integrity of the packaging the shipping containers remain sealed. The seals are checked at the following designated points during transportation: on receipt at the Port of Callao; on arriving to Contrans warehouse; at the start of transport to the mines; and on arrival to the mine site storage.

During transport the containers are secured to the trailer bed using locking clamp mechanisms that are part of the trailer. The clamps are located at fixed positions on the trailer so that the container is balanced during transport.

Meridian performs pre-trip inspections to ensure that trailers are locked and secured and that placards are on all four sides of the trailers. Normal safe driving procedures and unloading procedures ensure that the truck and the trailer are not damaged during transit.

The transport procedures establishes that the load cannot be altered during the transportation process. The containers received in the port are placed on platform trailers hauled by trucks without the need of changing the packaging. No shipping can be fractioned. Cyanide cargo is not being removed or distributed into other containers from the maritime container until arriving to a warehouse or to the mining client. Per the interviewed personnel, the load is not removed from the container during Meridian's transport operation.


In addition, previous to the convoy departure, the Convoy Leader is responsible for the trucks inspection, which includes the trailer and the container. Meridian maintains these inspection registers for eventual verifying.

Each cyanide container is labelled to meet International Marine Dangerous Goods (IMDG) Code labelling requirements. This labelling is posted on each side of the container and includes identification of solid sodium cyanide by UN number (#1689) and the skull and crossbones marker used for Class 6.1 toxic substances, along with the Marine Pollutant marker.

Drivers conduct pre-trip vehicle safety checks prior to departure of the truck. These checks include confirmation that the cyanide placarding are displayed on all four sides of the vehicle.

Prior to truck departure, an inspection sheet is completed and signed by the driver prior to the vehicle leaving its base. Prior to departure of a convoy the driver and the convoy leader conduct a pre-trip inspection of the vehicle and both sign that the truck is in good operating condition. Any issues that could affect safety or the operation of the vehicle are resolved prior to departure.

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Maintenance for each vehicle is tracked through the Excel spreadsheet *Maintenance Table per Unit*. There are weekly meetings with the Maintenance Technician to review next preventative maintenance according to the program. Records for trucks and also for trailers were reviewed and Meridian was able to demonstrate complete vehicle serving over the past three years. Records of maintenance were available for the vehicles covering the recertification period.

The hours that drivers are allowed to drive are contractually limited to an “on-duty” workday to 12 hours. During hazardous material transportation, drivers must perform active pauses every 4 hours.


Meridian procedure for securing cargo and blocking calls for the securing of the containers to the trailer bed using the clamping mechanisms that are part of the trailer itself. The integrity of the clamping mechanism and the attachment point on the container is checked during a pre-trip inspection prior to the departure of the truck or the cyanide convoy. There are specific locations on the trailer that will accept the container, thereby eliminating the possibility of an unbalanced load.

Meridian Safety Coordinator and convoy leaders are responsible for evaluating weather and road conditions and determining what actions should be taken. Convoy Leaders are senior personnel, experienced with weather and road conditions, and adept at making decisions regarding the need to suspend a shipment or to modify any convoy plans. In addition to weather forecasts, regular reports are received from the Monitoring Central, including cases of civil unrest.

Before each trip, Meridian drivers must undergo alcohol testing and periodically disclose evidence of drug use. Violation of this policy will result in the separation of the worker from the organization. Meridian maintains drug and alcohol abuse prevention policies, which were reviewed during the audit. In addition, the transporter has a program managed by an occupational doctor called Addictions Prevention.

Records documenting all the above are maintained in hard copy at the transporters office for a period of time. The operation will retain records documenting its safety program over a three-year ICMC audit cycle.

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### Transport Practice 1.5:

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

The operation is:

- in full compliance with Transport Practice 1.5
- in substantial compliance
- not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Meridian do not ship cyanide by sea or by air. This section of the ICMC does not apply to the operation.

### Transport Practice 1.6:

Track cyanide shipments to prevent losses during transport.

The operation is:

- in full compliance with Transport Practice 1.6
- in substantial compliance
- not in compliance


Discuss the basis for this Finding/Deficiencies Identified:

All truck drivers and personnel involved in the cyanide transport operation are provided with cell phones and an Emergency Contact List to communicate with the transport company, the mining operation, the cyanide consignor (s), distributor and with emergency responders. The transport operators have a communication group via WhatsApp application where any novelty or alert in the operation is reported.

All trucks are equipped with GPS that allows Meridian to track their units at all times at the port during loading operations, on route and on arrival to Contrans warehouse or to the mine site. When a cyanide cargo is on road, the client receives periodically emails about the cargo location. In addition, in October 2019 Meridian's contractor *Securitas*, installed a second GPS to all units with anti vandalism box and cable system in the trailers and an independent battery. The auditors reviewed the GPS installation reports and maintenance provided by *Securitas*.

According to Meridian's procedures, all communication equipment will be confirmed to be operational at the start of each trip. From the Monitoring Central the Safety Supervisor ensures that the truck has a working GPS checking if it emits to much alerts or if is not transmitting its position. Interviews were conducted to confirm that these practices are in place. *Securitas* contractor is in charge of the GPS maintenance program, the auditors reviewed maintenance reports from by *Securitas*.

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Meridian's communication system is part of the pre-work inspections and is maintained along with the formal preventive maintenance program. The system is used each day and correct operation of the system is confirmed at that time.

Communication blackout areas along the transport routes have been identified during route risk assessments performed by Meridian convoy leaders. On approaching to these areas the convoy leader communicates its position to the Monitoring Central. Trucks are continuously monitored along the route in real time, and any delay will be immediately noticed at the Monitoring Central.


Meridian has a communication and GPS tracking system which allows continuous monitoring of the location of the trucks. Communications with the base are performed upon dispatch, upon arrival at the customer sites, and after unloading is complete. The Safety Monitoring Supervisor, responsible for tracking shipment status in Meridian was interviewed, the GPS system was demonstrated, and logs showing that shipment status, other than cyanide, was being recorded were reviewed and were found to be complete. Meridian procedure for tracking of shipment status was reviewed during the audit and found to follow current practices.

Meridian implements inventory controls and chain of custody documentation to prevent loss of cyanide during shipment. A waybill accompanies the cargo for transportation which includes chain of custody data such as container numbers, the amount of cyanide delivered, waybill number, shipping documentation, Material Safety Data Sheets (MSDS), packing list, bill of lading, customs declarations and producer invoice, among others. This paperwork is used to document the chain of custody and is signed upon delivery of the product to the customer. The amount of cyanide delivered is carefully monitored by the driver and remotely through Meridian's office.

Meridian tracks the cyanide shipping containers from its transport trucks to delivery at the cyanide storage and mining clients. The container number and seal numbers are checked against the bill of lading and signed by the seaport and the driver. On arrival at the cyanide storage and mining sites security guards check the seal integrity and container and seal numbers against shipping documents as the containers enter the compound.

Documentation used at Meridian during transport includes the amount of cyanide in transit from the cyanide producer and Material Safety Data Sheets, for inventory tracking and movement of cyanide. The bills of lading and shipping papers reviewed clearly indicate the number of packages and amount of cyanide transported.

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## Principle 2, Interim Storage:

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

### Transport Practice 2.1:

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

The operation is:

- in full compliance with Transport Practice 2.1
- in substantial compliance
- not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Meridian does not operate cyanide trans-shipping depots or interim storage sites in its transport operation. If a delivery is interrupted, loaded cyanide trucks would be stored in a secure location. The scope of this audit is for the ground transportation operations performed by Meridian trucking company from Callao Port to warehouses in Callao and to mining clients within Peru without any interim storage. Therefore this Transport Practice does not apply to the operation.

## Principle 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.


The operation is:

- in full compliance with Transport Practice 3.1
- in substantial compliance
- not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Meridian has the emergency response plan Cyanide Transport Contingency Plan, that is appropriate to respond to potential releases of cyanide during its transport operation. The Plan includes details regarding responsibilities, communications procedures, updated notification numbers for emergency responders and actions to take against different cyanide emergency scenarios as spills and exposures, among others.

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Meridian's Plan is appropriate for the selected transportation routes. It is designed for specific emergency circumstances that could arise during cyanide transportation. The document considers appropriate response actions for emergencies that could arise during cyanide transportation between Callao Port, Contrans warehouse and to the mining clients. The Plan was found to be up-to-date and appropriate for this solid sodium cyanide transport operation.

The Plan considers the physical and chemical form of the cyanide. The only form of cyanide to be shipped using this supply chain is solid sodium cyanide. Emergency response procedures address actions to be taken in response to a solid sodium cyanide spill. The Plan includes the sodium cyanide MSDS where is defined the physical and chemical form of cyanide: solid white granular cyanide and specific information regarding the hazardous material to be transported.

Meridian's Plan considers the method of transport: trucking to the final destination. The emergency response actions in the emergency plans are appropriate for this type of product and method of transportation.

Meridian's emergency response plans consider all parts of the transport infrastructures including conditions of the roads (highway, secondary and mine roads) and urban areas. The plans consider existing water courses, bridges conditions and danger of landslides on the route, among others. The plans address the emergency response to events that could occur in relation to these risks and hazards.

Meridian's Plan considers the trucks design of the transport vehicle in their emergency response procedures. The documents define the appropriate trucks and chassis to use to transport cyanide. It states that must follow local regulation and that trailers must be of conventional type or of the low bed type. The procedure indicates cyanide will be transported in shipment containers.


Meridian's Plan include descriptions of response actions for cyanide exposure incidents, such as first aid and medical assistance, as appropriate for the anticipated emergency situation during transportation. It includes detailed response actions for each case, including spills in both current and standing open water bodies and for the other risks identified on the routes. The Plan consider a series of instructions covering the potential hazards that could occur during the loading, transportation and unloading of the cyanide cargo. It includes emergency response actions against collision or rollover, spillage of dry cargo to water sources, on the road and landslides.

The Plans also establishes the logical line of actions that the leader and convoy drivers must take when irregularities arise during transport of sodium cyanide, including civil commotion, adverse conditions, bad weather, traffic congestion and unplanned stops.

The Plan establishes the police will provide support and safety isolating the area and will take control of traffic routes in case of an accident. In case of fire, the firefighters on

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arrival, will take control of the emergency, advised by the trucking company personnel regarding not using water on cyanide.

Meridian, as a hazardous material transporter, has an agreement with emergency response contractor "Destino Seguro" (Safe Destiny), contractor that will be in charge of remediation measures.

### Transport Practice 3.2:

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

The operation is:

- in full compliance with Transport Practice 3.2
- in substantial compliance
- not in compliance

#### Discuss the basis for this Finding/Deficiencies Identified:

Transportes Meridian has provided emergency response training to all his personnel involved in the transportation operation as drivers, convoy leaders, managers, convoy mechanics, maintenance shop logistics and dispatch personnel, among others. They receive an appropriate level of training to fulfill their role in emergency response. Formal emergency response training is refreshed annually. Training records were available for the recertification period and were complete.


The auditor reviewed training talks registers for emergency response in hazardous materials for around 11 drivers involved in the cyanide transport operation. Also training in First Aids (3 sessions in 2019), Cyanide HAZMAT spill, Fire Extinguisher Management, Cyanide Contingency Plan, including first aids response actions in cyanide emergencies and the use of bleach and lime to counteract cyanide reactions.

Specific emergency response duties and responsibilities of personnel are stated in the Organization and Functions Manual M SIG 001 V01 dated 06/14/2019 and in the Cyanide Transport Contingency Plan V02, including responsibilities of the Convoy Leader and drivers.

Meridian has a complete emergency response equipment list in his Contingency Plan, that should be available during transport in the Convoy Leader vehicle who must inspect the medical and emergency kits prior to the departure of the convoy.

The lists includes cyanide gas detector, Tyvek suits, leather and impermeable gloves, PVC boots, safety goggles, full face masks, disposable respirators, oxygen, lime, bleach, ambú

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(resuscitator), area isolating tape rolls, shovels, sweeps, polyethylene bags and empty containers.

Meridian has the necessary emergency response and health and safety equipment available, including personal protective equipment during transportation.

A checklist is used to verify that the emergency equipment it is available, and it is documented in the convoy report. The Procedure establishes that the emergency kit must be inspected prior to every loading operation. The availability of this equipment was confirmed during the audit; all the equipment was available.

Meridian's vehicle operators receive initial and periodic update training in emergency response procedures, including implementation of the Contingency Plan. The auditors reviewed assistance records for emergency response training covering the recertification period. Training in Fire Fighting 05/25/2018 and First Aid 06/07/2018.

Meridian has procedures to inspect the emergency response equipment and assure its availability when required. The operation maintains a monthly inspection program to maintain emergency response equipment in optimal condition. The auditors reviewed several inspection records covering the recertification period.

### Transport Practice 3.3:

Develop procedures for internal and external emergency notification and reporting.

The operation is:

- in full compliance with Transport Practice 3.3
- in substantial compliance
- not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

The notification procedures, including telephone numbers, are described in the Emergency Response Plan. The Plan includes procedures and current contact information for notifying regulatory agencies and potentially affected communities of an emergency. It lists current emergency numbers for local hospitals, ambulance, fire fighters, police and environmental responders.

Section 6.2 Notification and Communications System of the Plan includes a communications flow diagram which can be summarized as follows: notify firefighters and hospitals on one hand and on other hand notify their Security Chief, who in turn informs Meridian's General Manager. The General Management communicates the client.

The Plan states it must be updated when there are changes in the background and form, in terms of procedures, persons, telephone numbers, routes, equipment, methods, or any other consideration that allows more efficiency and effectiveness.

### Transport Practice 3.4:

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

The operation is:

- ✓ in full compliance with Transport Practice 3.4
- in substantial compliance
- not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Meridian's Contingency Plan describes the remediation procedures such as recovery and neutralization of solid cyanide and decontamination of soils and disposal of spill clean-up debris. Descriptions of necessary action steps depending on the incident scenario are outlined in the Plan.


The Plan states any solid sodium cyanide spill over dry soil must be recovered with shovels putting it into plastic bags in an amount no more than 15 k per bag, sealing it then with adhesive tape and to deposit bags into plastic containers or super bags. Next they will detoxify the affected area applying first caulk to rise pH between 9 to 11 and then will apply a solution of water with sodium hypochlorite in proportion of 5:1.

All contaminated material and bags with sodium cyanide from the spill, will be sent with a specialized contractor in hazardous waste to final disposal in an authorized hazardous waste deposit. All contaminated clothes and personal protection equipment (EPP) will also be disposed by the contractor. The Plan details the name and contact list of 3 contractors for hazardous waste adequate final disposal.

Section 6.18 of the Contingency Plan states as mandatory that it is strictly prohibited the use of chemicals such as sodium hypochlorite, ferrous sulfate and hydrogen peroxide to treat cyanide that has been released into surface water.

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### Transport Practice 3.5:

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

The operation is:

- in full compliance with Transport Practice 3.5
- in substantial compliance
- not in compliance

Discuss the basis for this Finding/Deficiencies Identified:

Meridian's procedure "Documents Control for Procedures and Registers" states all documents of its Integrated Management System, which includes the Contingency Plan, must be reviewed and updated any time it is required or at least once a year, to evaluate its adequacy.

At the time of the audit the Plan was not updated, but soon after the sit visit Meridian sent the auditors a revised version of the Contingency Plan and training assistance records on the updated Plan, so no additional action was required to find this Protocol Question in Full Compliance.


Although is not stated in the Contingency Plan, Meridian has an annual mock drill program, including cyanide related drills, to keep the personnel permanently prepared for an emergency.

The auditor reviewed Meridian drills reports for cyanide spills, finding them to be effective. In all cases scenarios simulated human exposure with the testing of the decontamination procedures.

The operation has provisions to evaluate and revise, as necessary, its Contingency Plan and other emergency response procedures following incidents that trigger their implementation. Although the Plan was periodically updated during this certification period, no evaluations were conducted due to incidents or emergencies during this audit cycle as these events did not occur during the period, as stated the IMS Manager.

In addition to Meridian's procedure "Documents Control for Procedures and Registers", Section 6.1.3 of the Contingency Plan states the Plan would be updated any time the roadmaps are updated, which is being implemented annually. The Plan also states that the information gathered by the Convoy Leader and drivers after each trip is analyzed and if necessary, the necessary emergency response actions will be incorporated into the Contingency Plan. Also, section 6.17 states the Plan would be audited by Meridian in the context of its Integrated management System.

Transportes Meridian S.A.C.  
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Signature of Lead Auditor  
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October 31, 2019  
Date