

*MERCANTIL S. A.*

*Cyanide Code Principle 2  
Transportation Audit*

*Summary Audit Report*

*PROJECT NO. 0111784*

*JUNE 2010*

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## SUMMARY AUDIT REPORT

Name of Cyanide Transportation Facility: Mercantil S. A.  
Name of Facility Owner: Mercantil, S. A.  
Name of Facility Operator: Mercantil, S. A.  
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### Location detail and description of operation:

Peru. Currently, cyanide is received from DuPont and transported to the gold mines Gold Fields La Cima - Cerro Corona Unit, and Buenaventura S. A. - Orcompampa Unit. Additionally, Mercantil supplies cyanide other non-gold mines and follows the same procedures.

Cyanide is received in El Callao Port. Ship unloading operations are performed by the Port Authority, which releases the container by placing it on a truck's platform. At this point, the cyanide becomes responsibility of Mercantil; however, the cyanide is first transported to an external custom container storage operated by Almacenes y Logistica S. A. (ALSA) by trucks operated also by ALSA. From ALSA external custom container storage, the cyanide is transported to storage facilities operated either by ALSA or by Almacenera El Pacifico, S. A. C. (ALPA) and from these to the mines by the subcontractors Stiglich and DCR. Mercantil has worked for several years with these subcontractors.

**This audit comprises the ground transportation operations from the moment the Port Authority releases the cyanide to its delivery in mines. Mercantil formally started the implementation of the Cyanide Code (the Code) in July 2009.**

Cyanide is received from the manufacturer in either of the following packaging presentations:

- Poly-propylene super-sack filled up to 1 ton and placed inside a wooden box.
- Tuff-pack of 48 kg, 20 of this packs are placed inside a wooden box.
- 55-gallon metallic drums; four per pallet and plastic wrapped.

Mercantil deconsolidates the shipment at the storage facilities and, prior to the shipment to the end user, supervises the loading operations. No less than 20 boxes or 165 drums are placed in standard 20-foot shipping containers (the containers); the exact number of boxes or drums is to prevent lateral movement of the boxes within the container; when drums are transported, these are fastened using belts. Prior to shipping, the Mercantil seals the container with a tag with serial number at the production facility to prevent material losses.

Mercantil has prepared and implemented cyanide handling procedures (for transport and storage) and emergency response procedures; the application of these procedures allows ALPA and ALSA to comply with the Code; however, DCR and Stiglich have implemented their own handling procedures and emergency response procedures to independently comply with the code. The assessment of the routes has been performed jointly by Mercantil and DCR, Stiglich or ALSA according to their respective routes.

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Additionally, Mercantil provides training to all its contractors regarding cyanide management; however, DCR and Stiglich have their own training programs which comply with the Code requirements. The transporters and storage facilities are responsible for the maintenance of their units and equipment, which is supervised by Mercantil. The tracking of the shipments is performed by the transporters which report on regular basis to Mercantil.

### AUDITOR'S FINDING

This operation is

- in full compliance
- in substantial compliance \*(see below)
- not in compliance

with the International Cyanide Management Code.

- \* For cyanide transportation operations seeking Code certification, the Corrective Action Plan to bring an operation in substantial compliance into full compliance must be enclosed with this Summary Audit Report. The plan must be fully implemented within one year of the date of this audit.

Audit Company: ERM Mexico, S. A. de C. V.

Audit Team Leader: Juan Carlos Rangel Lopez E-mail: [juancarlos.rangel@erm.com](mailto:juancarlos.rangel@erm.com)

Names and Signatures of Other Auditors: none

Date(s) of Audit: 15 to 20 February 2010

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

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### 1 *MERCANTIL S. A.*

This operation is

- in full compliance
- in substantial compliance \*(see below)
- not in compliance

with the International Cyanide Management Code.

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

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

The operation is

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

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

Mercantil has a cyanide ground transportation procedure for each route (15 in total). At the time of the audit only three routes were active and those were reviewed as a sample:

- ME-PER-CC-05: Sodium Cyanide Transportation Route to the Buenaventura Mine Unit Orcopampa (Dated 16 November 2009 rev. 1)
- ME-PER-CC-10: Sodium Cyanide Transportation Route Gold Fields La Cima, S. A. - Cerro Corona (Dated 16 November 2009 rev. 1).
- ME-PER-CC-17: Sodium Cyanide Transportation Route from the Callao Port to the storage facilities.

The first two cover the operations from the storage facility to the mines and the third from the port facility to the storage facility.

Each procedure establishes that the following criteria must be used to assess the route: traffic density, population, bridges, water courses, weather, slides, road conditions, road design (curbs, berms, number of lanes), altitude, intersections, deviations, and social and political issues.

The routes have been divided in sections based on the main populated areas or where other sensitive receptors were identified. The above mentioned criteria were applied to each section and based on the results a risk ranking was determined to each section (A for areas where incident risk is high to D where the risk is low) and a route sheet (risk matrix) was prepared.

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Since Mercantil has habilitated two different storage facilities, the routes to and from these facilities were assessed.

The procedure establishes that a physical inspection of the route must be performed by Mercantil's EHS Manager and a representative of the transportation sub-contractor. The procedure also establishes that the route assessment must be updated when relevant changes in route take place or when conditions that could represent a safety risk are reported by convoy supervisor in the shipment report. Additionally, an annual inspection of the route must be performed to ensure update the route sheet.

The route sheets for the above mentioned routes were reviewed and found to be consistent in the use of the criteria mentioned in the procedure. However; one of the shipment reports (for the trip that started on 15 May 2009 to a client called CEDIMIN) states that snow is common during the winter in a section of the route called Sibayo; this risk was not identified in the route sheet (dated 16 November 2009) for the Orcopampa Mine which also crosses this area. Consequently, Mercantil performed a re-assessment of the route on 1 March 2010, according to the inspection report and the updated route sheet this risk has been already identified and the risk rankings were updated.

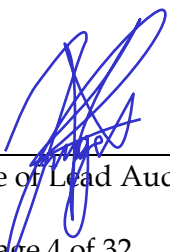
Based on the mentioned route sheets general preventive measures have been established in the transportation procedures (ME-PER-CC-05, ME-PER-CC-10, and ME-PER-CC-17) including: limiting the transportation activities to day-time only, a minimum 8 hr driver-rest period prior to starting a cyanide transportation operation, mandatory driver rest periods every two hours approximately in pre-selected stop points during cyanide transportation operations, all shipments performed in convoys with a safety escort vehicle and a convoy supervisor. The procedure allows the convoy supervisor to stop the operations (in a pre-selected point) when the route conditions are unsafe (e.g. due to weather conditions). The route sheets were used to develop emergency scenarios in the different route sections. Each scenario has specific preventive measures (e.g. establishing maximum speed of 25 km controlled by the convoy supervisor in urban areas).

The transport procedures establish that the convoy supervisor must prepare reports for every shipment completed (the shipment report). The procedures also establish that the route sheet must be updated when relevant changes in route or when conditions that could represent a safety risk are mentioned in the shipment report. Additionally, an annual inspection of the route must be performed by Mercantil EHS Manager and a representative of the transport subcontractor to update the route sheet.

A sample of ten reports (out of seventeen) was reviewed. Those from the subcontractor DCR marked areas where severe weather conditions or bad road conditions operations were observed. According to Mercantil representatives, the route operated by Stiglich (the other contractor) has more stable weather conditions.

Each subcontractor provides a different report; they include: name of the convoy supervisor, destiny, date, identification of the trucks and drivers, route schedule follow-up, observations, and the checklists implemented by each contractor.

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The assessment of the risks in the routes was documented through route sheets, which were used to develop emergency scenarios (e.g. truck rollover, crash with another vehicle, etc.) in the different route sections. Each scenario has specific preventive measures (e.g. establishing maximum speed of 25 km controlled by the convoy supervisor in urban areas).

The application of these measures is also included in the shipment report, where preventive delays and measures (e.g. the convoy escort vehicle driving the road to confirm conditions) due to adverse weather conditions have been recorded (e.g. report for 04 December 2009).

Mercantil organizes a marketing event on annual basis that last for approximately three days. In the latest edition of the event, Mercantil included an open forum (25 September 2009) about cyanide handling. A total of 55 persons participated in this forum.

Mercantil has the tradition of organizing these marketing events on annual basis. Sodium cyanide is one of the strongest products for Mercantil and it is the goal to maintain the space for cyanide information forums in the following years.

The attendance to the forum from external responders was small. To compensate this, a Mercantil representative has visited the firefighting departments (33 offices) and the main hospitals (28 hospitals) that are located along the routes.

Mercantil EHS Coordinator is in charge of visiting the external responders. According to the information obtained during the interview, he spends approximately 1 hr with the firefighters representatives and 0.5 hours with the hospital representatives and provides them with information regarding the cyanide transportation operations, cyanide characteristics, emergency contact information, provides a copy of the sodium cyanide MSDS. This strategy was initiated at the end of January 2010 and was still in process at the time of the audit.

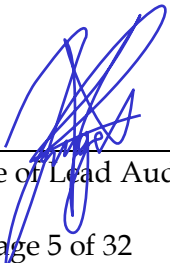
The transportation procedures establish that all shipments from the ports to the storage facilities and from these to the mines are performed in convoys. With the exception of the shipments from the port to the customs external storage and from there to the storage operated by ALSA (this routes are 8 and 4 km drive respectively) the convoys have at least one safety escort vehicle (where the convoy supervisor travels).

Mercantil has approached the hospital and firefighting departments along the routes to provide copies of the MSDS and an informal conversation on the emergency response procedures.

Mercantil subcontracts DCR Minería y Construcción (DCR), Stiglich Transportes S. A. (Stiglich) and Almacenes y Logística S. A. (ALSA) for the transportation from of sodium cyanide. ALSA is used only to transport cyanide from the port facility to the external custom storage facility (8 km drive) and from there to ALSA storage facility (4 km drive). All the activities required by Practice 1.1 are performed directly by Mercantil.

To ensure that these companies comply with the elements of Practice 1.1, Mercantil requires them to use only the routes that have been assessed by Mercantil, to inform of the shipment progress, and to receive copy of the final shipment report. However, DCR and Stiglich have

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prepared and implemented their own procedures to comply with the code independent of Mercantil.

Mercantil has prepared a Suppliers Selection and Accreditation Procedure ( ME-PR-CC-01) with the instruction to perform audits to the transportation subcontractors on an annual basis. The internal audit would be performed by Mercantil's EHS coordinator, who was interviewed during this audit and was familiar with the topics that must be covered during the audits and he would use ICMI's audit protocol as basis for the audit.

ALPA is only a storage facility, the compliance with this practice requirements is responsibility of Mercantil.

**1.1.2 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.**

The operation is

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

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

The transportation procedures establish the following requirements for drivers: to be healthy, to have the legally required driving license, to be trained in defensive driving, to be employee of the transportation sub-contractor, to be trained by Mercantil in sodium cyanide handling and emergency response, and younger than 60 years old.

The procedure also establishes that the driver must have at least one rest day per week, must have rested at least 8 hours prior starting the trip, that a 10 minutes break must be taken approximately every two hours, and that the maximum work journey for the driver is 12 hours.

Mercantil has provided training in cyanide transportation and handling to DCR, Stiglich, ALPA, and ALSA designated drivers, warehouse personnel, and administrative personnel, and to its own personnel. The initial training sessions were held between October and November 2009 (the first one with the help of DuPont, the manufacturer) and refreshment was provided on January 2010. Attendance lists are kept as training records.

Mercantil has a training program which includes two training sessions for each subcontractor during 2010 as well as two general emergency drills.

The transportation procedures establish that the convoy supervisor must confirm that the drivers are included in the list of trained drivers; this is documented in the shipment report. Additionally, when a shipment is scheduled, the name of the drivers and the plates of the vehicles are communicated by email at least one day in advance. Mercantil's EHS Coordinator confirms that the unit and the operator have been approved for cyanide transport. According to

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the reviewed shipment reports and training records, only the employees that have been trained participate in the shipment and handling of sodium cyanide.

Additionally, according to the interviewed personnel and the storage procedure, Mercantil EHS coordinator supervises the containers unloading and loading operations in the storage facilities to ensure that the designated warehouse personnel performs this activity (no records are kept).

The training provided by Mercantil is redundant for DCR and Stiglich that have their programs to comply with the Code. ALPA and ALSA depend on Mercantil training program to comply with the Code.

Mercantil has prepared a Suppliers Selection and Accreditation Procedure ( ME-PR-CC-01) with the instruction to perform audits to the transportation subcontractors on an annual basis. The internal audit would be performed by Mercantil's EHS coordinator, who was interviewed during this audit and was familiar with the topics that must be covered during the audits and he would use ICMÍ's audit protocol as basis for the audit.

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

The operation is

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

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

The Mercantil transportation procedures establish the characteristics required for vehicles to be used for cyanide transportation including that the vehicles have the legally required certification. According to Peruvian regulations, units that more than three years old prior to their habilitation to transport hazardous materials units be certified by a third party mechanical service authorized by The Transportations and Communications Ministry (MTC, Ministerio de Transportes and Comunicaciones), to be included in a preventive maintenance program, and to have the permits required by the local authorities.

The transportation units used by the subcontractors were found to comply with these requirements.

The transportation procedures establish that the convoy supervisor is responsible for the inspection of every truck and platform prior to the shipment. The transportation subcontractors fill their own checklist for vehicle inspection. Mercantil requires the copies of the inspection checklist to the subcontractors; these are provided attached to the shipment report.

Additionally, the storage subcontractors use forklifts for the containers unloading and loading operations; according to the records reviewed, these are inspected by maintenance personnel on daily basis by the subcontractors' personnel. These records are not submitted to Mercantil. The

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units were also reviewed by the auditor and these have spare loading capacity with respect of the cyanide packaging modalities handled by Mercantil.

Mercantil holds meeting on a weekly basis with ALSA to ensure that the inspection checklists are filled. The other contractors are allowed to use their own checklist to reduce paperwork. The checklists are submitted to Mercantil as part of the shipment report.

The Mercantil transportation procedures establish that each platform will be loaded with only one container and that each truck can only haul one platform trailer. This is verified by Mercantil EHS coordinator when receiving the shipment schedule from the transport company confirms that this is being considered. Additionally, none of the subcontractors vehicles approved for cyanide transport is habilitated for double trailer. Furthermore, each container is filled either no less than 20 wooden boxes or 165 drums; the exact number of boxes or drums is to prevent lateral movement of the boxes within the container. Additionally when drums are transported, these are fastened using belts. According to the interviews performed as part of this audit, Mercantil EHS coordinator is responsible to supervise these operations and ensure that this rule is followed; no records are kept.

In general Mercantil's EHS Coordinator, Mr. Carlo Vargas, receives the shipment reports and confirms that the vehicles inspection was performed and that the vehicles used were those approved for cyanide transport.

Additionally, Mercantil has prepared a Suppliers Selection and Accreditation Procedure ( ME-PR-CC-01) with the instruction to perform audits to the transportation subcontractors on an annual basis. The internal audit would be performed by Mercantil's EHS coordinator, who was interviewed during this audit and was familiar with the topics that must be covered during the audits and he would use ICMI's audit protocol as basis for the audit.

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

The operation is

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

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

The transportation procedures establish that the load cannot be altered during the transportation process. To ensure this, Mercantil places tags in the container's locks at the storage facility prior to the shipment. The containers received at the storage facility are also tagged. These tags can only be removed at the client site or the storage facility (when received). The procedure establishes that the transporter cannot divide the shipment or otherwise remove it from the container.

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ALPA and ALSA follow the safety measures implemented by Mercantil to maintain the integrity of the packaging by not removing the locks and tags placed in the in the ocean container until it arrives to the storage facility in presence of a Mercantil representative.

The Mercantil transportation procedures establish that placards with cyanide's UN number and poison signs must be placed in the container; this is verified by the convoy supervisor. According to the reviewed shipment report, the presence of the placards was verified through the checklist.

The Mercantil transportation procedures establish that:

- Inspections are performed prior the vehicle is loaded (documented by checklist included in the shipment report)
- Once approved for use, the truck and the platform must be included in a preventive maintenance program (controlled by the transport subcontractor, and reviewed as mentioned in Section 2.13)
- Divers must rest at least 8 hrs prior to shipment, that they should not drive for over 12 consecutive hours, and take a 10 min break approximately every two hours at pre-selected stops points where the risk has been assessed and ranked as low; the convoy supervisor must ensure that rest stops are performed only as programmed. The fulfillment of these requirements was confirmed through interviews with the subcontractors' drivers and supervisors and through the review of the shipment reports.
- Prior to departure, the convoy supervisor must assess the weather conditions and gets information about political issues on the road; if he deems it necessary he can postpone the trip and this decision is informed to Mercantil. The interviewed subcontractors' supervisors confirmed that they had the authority to stop the shipment in these circumstances.
- Prior to departure of every shipment, the drivers are tested for alcohol levels (blow tests documented in the shipment report).
- Load shifting within the container is not considered possible as all containers are filled either with 20 boxes or two full stacks of drums (as documented in the bills of lading and shipment manifests).
- Container rollovers in different conditions (during the rainy season, crossing a river, in a curve, or crash) are considered and preventive measures are included in the emergency plan.

In general Mercantil's EHS Coordinator, Mr. Carlo Vargas, receives the shipment reports and confirms that the vehicles inspection was performed and that the vehicles used were those approved for cyanide transport. ALSA report does not include the inspection checklist; however, Mr. Vargas holds weekly meetings with their representatives to ensure the checklist are filled.

ALSA follows Mercantil transport procedures. DCR and Stiglich have implemented transport procedures which comply with Mercantil requirements. Their procedures also allow DCR and Stiglich to comply with the Code independent of Mercantil.

Additionally, Mercantil has prepared a Suppliers Selection and Accreditation Procedure (ME-PR-CC-01) with the instruction to perform audits to the transportation subcontractors on an

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annual basis. The internal audit would be performed by Mercantil's EHS coordinator, who was interviewed during this audit and was familiar with the topics that must be covered during the audits and he would use ICMI's audit protocol as basis for the audit.

### **1.1.5 Transport Practice 1.5: Follow international standards for transportation of cyanide by sea and air.**

The operation is

#### **THIS PRACTICE DOES NOT APPLY TO THE OPERATION**

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

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

The scope of this audit was only for the ground transportation operations performed by Mercantil from El Callao Port to Peruvian mines.

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

The operation is

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

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

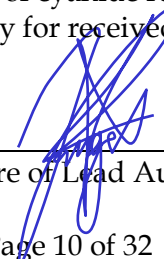
According to the transport procedures, the communication equipment is tested prior to the departure of the convoy. The transportation contractors provide the equipment and Mercantil requires them to document the inspection in checklists.

There is a travel schedule for each route attached to the respective transportation procedure that identifies the areas where the satellite phone must be used due to the lack of cellular coverage.

The Mercantil transportation procedures establish that the convoy supervisor must report the progress of the convoy at the pre-selected stop points. The convoy supervisor reports to its operations base and the base informs of the shipment progress by phone or email to Mercantil's EHS Coordinator. A tabular report is generated with the time of arrival to the selected stop points; which is the main element of the shipment reports. Also, all incidents (e.g. mechanical failure) are reported immediately to Mercantil EHS Coordinator.

A bill of lading is used to track the amount of cyanide received and shipped. The bill of lading is issued by the shipper (the ocean company for received and Mercantil for the shipped

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material), this includes the number of containers and their identification number, the type and number primary packaging, net weight.

Additionally, the containers are locked are tagged these tags are only removed at the client facility. The tag number is also included in the bill of lading. Additionally, to prevent losses at the storage facilities, Mercantil keeps a balance of entrance and exits, which is compared with the storage facilities weekly balances and the annual physical inventories.

The bill of lading and the MSDS are carried by each driver. The first one is provided by the Port Authority (when the material is transported to the storage facility) or Mercantil (when the material is transported to the client) at the moment of releasing the containers, copies of the MSDS is provided by the convoy supervisor, along with first aid indications, prior departure.

Additionally, Mercantil has prepared a Suppliers Selection and Accreditation Procedure ( ME-PR-CC-01) with the instruction to perform audits to the transportation subcontractors on an annual basis. The internal audit would be performed by Mercantil's EHS coordinator, who was interviewed during this audit and was familiar with the topics that must be covered during the audits and he would use ICMI's audit protocol as basis for the audit.

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

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

The operation is:

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

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

The required signs were observed in the two storage facilities subcontracted by Mercantil (ALPA and ALSA). The interviewed warehouse personnel confirmed that they have been provided with the required personal protective equipment (PPE).

Only solid cyanide is stored in ALPA and ALSA. Both facilities are fenced with block walls and have a security shed. Additionally, the storages areas for cyanide are locked.

The cyanide storage area at ALSA is a separated building which is above grade other areas and is separated by walls and distance from other storage areas.

Both storage areas are roofed. The material is kept in the packaging used by the manufacturer and on wooden pallets. The areas also have lateral walls either constructed either with block or

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with wire chain fence covered with a plastic liner. Additionally, Mercantil's EHS Coordinator inspects both facilities on a weekly basis to confirm that the safety measures and storage procedures are followed.

The ALSA storage has enough ventilation even if the doors are close as there is an open space between the roof and the walls. The ALPA storage has a very high roof with roof vents; and the building doors (one in each side) are kept open during work hours.

Only solid cyanide is stored in both facilities, and both of them have first response emergency response equipment.

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

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

The operation is

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

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

Mercantil has implemented an Emergency Response Plan for each of the transportation routes that have been assessed (15 in total) and one for the storage facilities. One of them was used as sample to verify compliance with the cyanide code requirements. The reviewed emergency plan corresponds to the route from the storage facilities to the Buenaventura Mine Orcopampa Unit (ME-PL-CC-04, dated November 2009 ver. 1). The plan for the storage facilities was also reviewed (ME-PL-CC-01 dated August 2009 ver. 1). These are detailed documents (72 and 48 pages respectively) that include, among other information, the emergency response team organization chart, emergency phone directory, communication channels guidelines, emergency scenarios, and instructions to attend specific and general emergency scenarios.

The Emergency Response Plan for the route includes the route sheets mentioned in practice 1.1 which were used to develop emergency scenarios (Section 2.6). The Emergency Response Plan for the storage facilities includes the identification of the most likely and worst case scenarios (Section 2.6). The respective preventive and mitigation measures are also included (Sections 2.6 and 2.7 of the respective plans), and emergency response actions (Section 5).

The plans have a detailed (four pages) explanation of the sodium cyanide characteristics and toxicity based on the MSDS. The emergency scenarios, the general emergency response instruction, and the scenario-specific instructions consider the solid state of the cyanide.

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Section 2.6 of the Emergency Plan for the route provides information regarding the route. All emergency scenarios developed are related to ground transportation: crash with another vehicle, vehicle rollover in steep slope or curve, rollover with spill, rollover with hurt persons, and rollover with the product reaching a water body, among other.

Section 2.7 of the Emergency Plan for the storage considers the scenarios that can be found during the loading and unloading operations.

As previously noted the routes plan includes the emergency scenarios developed from the route assessment. The storage plan includes two scenarios (most likely case and works case scenarios) that resulted of a hazards identification and risk assessment. The plans also identify the areas where the different scenarios are more likely to take place (Section 2.6 and 2.7 of the respective plans).

The scenarios described in the route plan are related to accidents of trucks hauling a platform trailer carrying a 20-ft container, which is the only transportation modality used by Mercantil. The two scenarios in the storage plan are in relation with the lost of containment of a 1 ton wooden box, which is the largest container handled in the storage facilities.

As previously noted the plans include the emergency scenarios developed from the route assessment and the storage risk assessment, they also include prevention and mitigation instructions, as well as specific response instructions.

The Plans' Section 4 establish the responsibilities for the members of the response team; they also establishes that the external emergency response teams (firefighters) would be used to provide support to the emergency coordinator as needed, including the collection of the spilled material and the clean up of the area

DCR and Stiglich have their own emergency response plans. These are compatible with the Mercantil one as they are prepared based on the services contracts where they have defined the emergency response responsibilities for each party. ALPA and ALSA have adhered to the emergency response plan prepared by Mercantil.

This report describes the structure of Mercantil emergency response plans, which differ from those of DCR and Stiglich; however, DCR and Stiglich plans also comply with the Code.

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

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

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

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Mercantil provides training to the subcontracted companies in the emergency response procedures and in the handling of cyanide. The interviewed personnel (drivers, convoy supervisors, and warehouse personnel) were familiar with these procedures.

Additionally, Mercantil has contracted the company IFSEC Peru, to provide support when a spill would be of such magnitude that the convoy supervisor and the drivers would be unable to handle the emergency by themselves. According to the information provided, IFSEC's personnel is certified in HAZMAT at technical level (OSHA 29CFR 1910.120). IFSEC provided its training and drills program for 2010. The training program is focused on maintaining the HAZMAT certification, and has scheduled two emergency drills involving hazardous materials releases. According to the professional profiles of IFSEC's emergency response leaders, they are professional firefighters with more than 9 years of experience.

IFSEC would provide support in any Cyanide emergency to ALPA and ALSA. IFSEC would provide support to DCR and Stiglich only when transporting Mercantil's cyanide; however, DCR and Stiglich have their own arrangements when transporting cyanide for other clients to comply with the code independent of Mercantil.

The Plans' Section 4 establishes the responsibilities for the members of the initial response team (convoy supervisor and drivers or the forklift operators and other warehouse personnel), including the roles of Mercantil and the subcontractor personnel. It also includes responsibilities for the on-site commander (depending on the level of the emergency could be the convoy leader, a representative from the mine, or a hired third party emergency responder), the communications leader (responsible for contact with the authorities and the media, also from the mine), among other parties.

Section 4.3 of the plans includes a list of the required first emergency equipment (which is also included as a checklist of section 7.5 of the transportation procedures).

The transportation procedures establish that the emergency equipment must be carried by the convoy supervisor in the safety escort vehicle. A checklist is used to verify that it is available and it is documented in the convoy report. Mercantil provides the material to ALSA and ALPA. DCR and Stiglich are responsible of maintaining their own emergency response materials.

The availability of this equipment was confirmed during the audit; all the equipment was available.

ALSA stores the emergency response kit in a check point of the transportation located approximately in the middle of the route and at the storage facility. A checklist is used to verify that it is available prior the convoy's departure and it is documented in the shipment report. The storage facility inspects the kit on a daily basis.

ALPA stores the emergency response kit required by Mercantil storage procedure and inspects the kit on a daily basis.

The Mercantil Plan's Section 8 establishes that all the training in relation with emergency response is to be provided on an annual basis. As previously noted, the initial training sessions

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were held between October and November 2009 (the first one with the help of DuPont, the manufacturer) and a refreshment was provided on January 2010. Additionally refreshments are scheduled twice a year with each contractor (transportation and storage) during 2010. As previously mentioned, DCR and Stiglich have also their own training programs, which cover the Code requirements.

The transportation procedures establish that the emergency response equipment must be carried by the convoy supervisor in the safety escort vehicle or in one of the trucks; except for the transportation from the port to the pre-custom storage facilities, which is only a 8 km route, in this case the emergency kit is stored in a check point of the transportation subcontractor located approximately in the middle of the route and at the storage facility. A checklist is used to verify that it is available prior the convoy's departure and it is documented in the shipment report. The storage facilities inspect the kit on a daily basis. . DCR and Stiglich have their own checklists which are redundant with that of Mercantil, which allows the to use their own checklist to reduce paperwork.

The Mercantil Emergency Plan establishes that the drivers must help to control the emergency while second response team arrives. The convoy supervisor is responsible for the initial emergency control and communications and to provide support in case the second response team is required.

The Emergency Plan establishes that the drivers or warehouse personnel must help to control the emergency while the second response team arrives. The convoy supervisor (or the warehouse leader) is responsible for the initial emergency control and communications and to provide support in case the second response team is required. DCR and Stiglich plans have similar procedures.

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

The operation is

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

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

The Plans' Section 3.1 includes a communications flow diagram which can be summarized as follows: the convoy supervisor or the warehouse manager (provided by the contractor) must first inform Mercantil's EHS coordinator (Mr. Vargas), and its manager. Mr. Vargas informs to Mercantil's General Manager and he is responsible to contact the external responders.

The emergency notification and reporting procedures are included within the Emergency Plans. The Plans' Section 9 establish that it must be reviewed whenever modifications are required or, at least, once a year.

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ALSA and ALPA follow the emergency plan prepared by Mercantil, which complies with the two elements of this practice

**1.3.4 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
- in substantial compliance with Transport Practice 3.4
- not in compliance with

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

Section 5.7 of the Emergency Plans establishes the procedure to clean a spill and the decontamination of the area.

Section 5.9 of the Plans establishes that chemicals should not be added in water bodies, and the use of sodium hypochlorite, oxygen peroxide and iron sulfate is limited only to puddles, and artificial water reservoirs. Additionally, it includes instructions for assessing the impact on surface water bodies and to prevent the population to be poisoned by contaminated water. These instructions are part of the emergency response instructions to cyanide spills with contact to water and water bodies.

ALSA and ALPA follow the emergency plan prepared by Mercantil, which complies with the two elements of this practice.

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

The operation is

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

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

The Plan's Section 9 establishes that it must be reviewed whenever modifications are required or, at least, once a year. The transportation procedures establish that the shipment report must be used to update the assessment of the route. The Emergency Plans were last updated on November 2009.

The Plans' Section 8.5 establishes that at least two emergency drills must be performed every year one theoretical and one practical. ALSA and ALPA participate only in the mock drills organized by Mercantil. DCR and Stiglich participate in the drills organized by other clients and programmed by themselves.

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One drill was performed on 15 December 2009, the scenario. The scenario consisted in a front crash resulting in a spill of 200 kg of cyanide from a wood box without injured persons. In the drill the second response team was called and used.

This drill was performed in ALPA's patio and a report was prepared by the second response provided. Mercantil has a drill program for 2010 (included in the training program) which considers performing two drills.

The Plans' Section 9 establishes that it must be reviewed whenever modifications are required or, at least, once a year including the name and numbers of the emergency contacts and phone numbers of external responders. According to Mercantil representatives, no accidents have taken place. Stiglich and DCR update their own plans.

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2 ALPA

This operation is

- in full compliance
- in substantial compliance \*(see below)
- not in compliance

with the International Cyanide Management Code.

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

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

The operation is

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

Summarize the basis for this Finding/Deficiencies Identified:

ALPA is only a storage facility, the compliance with this practice requirements is responsibility of Mercantil.

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.*

The operation is

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

Summarize the basis for this Finding/Deficiencies Identified:

ALPA has its own requirements including:

- To have no penal records.
- To have A3 driver license (required by Peruvian regulations to transport hazardous materials)
- To have completed junior high school studies.

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Mercantil has provided training in cyanide handling to ALPA warehouse personnel. The initial training sessions were held on June and August 2009 and a refreshment session was provided on January 2010. Attendance lists are kept as training records. Mercantil has a training program which includes two training sessions for each subcontractor during 2010 as well as two general emergency drills.

Additionally, ALPA has its own training program that covers, among others, the following topics: PPE use, chemical spill, safe forklift operation, firefighting, evacuation, first aids, waste handling.

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

The operation is

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

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

The forklifts used at ALPA have capacity for 1.5 tons and more, which is greater than the maximum weight of the packaging presentations used by the manufacturer (up to 1.08 ton).

For the equipment used in the warehouses the operators perform an inspection at the beginning of the work-shift including: lights, engine, safety belt, tires, breaks, oil level, reverse alarm, horn, extinguishers, among a total of 25 elements.

ALPA has a maintenance program for its forklifts based on operation hours. Maintenance is performed by a third company that was selected based on its reputation, and specialization in forklift maintenance. This company provides a spare forklift while performing the maintenance to ALPA's forklifts. Invoices are kept as maintenance records.

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

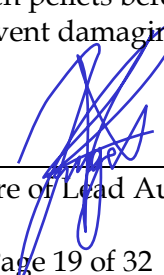
The operation is

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

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

ALPA follows the safety measures implemented by Mercantil to maintain the integrity of the packaging. The drums are placed in wooden pellets before being manipulated with forklifts. Forklift operators have been trained to prevent damaging the packaging material.

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

The operation is

**THIS PRACTICE DOES NOT APPLY TO THE OPERATION**

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

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

ALPA is only a storage facility.

**TRANSPORT PRACTICE 1.6: TRACK CYANIDE SHIPMENTS TO PREVENT LOSSES DURING TRANSPORT.**

The operation is

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

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

To prevent losses at the storage facility, Mercantil keeps a balance of entrance and exits, which is compared with the storage facility weekly balance and the annual physical inventory.

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

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

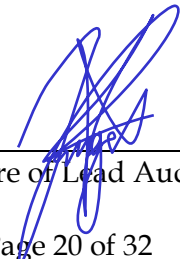
The operation is:

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

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

The required signs were observed in the storage facility operated by ALPA. The interviewed warehouse personnel confirmed that they have been provided with the required personal protective equipment (PPE). Only solid cyanide is stored in ALPA. The property is fenced with block walls and has security shed and surveillance cameras.

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The cyanide storage area at ALPA is located within a building and separated from other materials (stored in drums) by at least 4 meters distance. Cyanide is stored in wooden boxes placed on wooden pallets.

The storage area is roofed. The material is kept in the packaging used by the manufacturer and on wooden pallets. The area also has block walls and fire detectors. The ALPA storage has a very high roof with roof vents; and the building doors (one in each side) are kept open during work hours.

The following first response emergency response equipment including was available: overall tyvek suits, leather gloves, PVC booths, danger tape rolls, ducting tapes, shovels, safety cones, sweeps, emergency light, polyethylene bags, calcium carbonate, sodium hypochlorite, and empty containers, among other materials.

### **2.3 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.***

The operation is

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

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

ALPA follows the Emergency Response Plan prepared by Mercantil; which is in compliance with the seven elements of this practice.

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

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

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

Mercantil has trained ALPA personnel in the emergency response procedures. ALPA follows the Emergency Response Plan prepared by Mercantil; which establishes the responsibilities for the members of the initial response team including the roles of ALPA Personnel. It also includes a list of the emergency response equipment which is inspected on a daily basis and its availability was confirmed during the audit. Mercantil provided training to ALPA personnel on the emergency response procedures in June and August 2009 and refreshment was provided on

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January 2010. Additionally, Mercantil has scheduled two refreshment sessions for ALPA personnel during 2010. The Emergency Plan establishes that the warehouse personnel must help to control the emergency while the second response team arrives. The warehouse leader is responsible for the initial emergency control and communications and to provide support in case the second response team is required.

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

The operation is

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

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

As previously noted, ALPA follows the emergency plan prepared by Mercantil, which complies with the two elements of this practice.

### **2.3.4 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
- in substantial compliance with Transport Practice 3.4
- not in compliance with

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

As previously noted, ALPA follows the emergency plan prepared by Mercantil, which complies with the two elements of this practice.

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

The operation is

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

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

As previously noted, ALPA follows the emergency plan prepared by Mercantil, which complies with the three elements of this practice. Mercantil has scheduled two drills for 2010.

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### 3 ALSA

This operation is

- in full compliance
- in substantial compliance \*(see below)
- not in compliance

with the International Cyanide Management Code.

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

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

The operation is

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

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

ALSA does not select cyanide transport routes, but follows those selected and assessed by Mercantil. ALSA does not have procedures to evaluate the risk of select transport routes, but follows those imposed by Mercantil. ALSA follows the safety measures imposed by Mercantil that address the risk identified in the transport routes.

ALSA does not contact the authorities, other stakeholders or external responders; that is a responsibility of Mercantil. See the detailed report for Mercantil for further details.

As requested by Mercantil procedures all cyanide shipments are performed in convoys. The routes followed by ALSA are 8 km long or less. According to the risk assessment performed by Mercantil, no escort vehicle is required for these routes.

Mercantil subcontracts ALSA for the cyanide transportation. All the activities required by Practice 1.1 are performed directly by Mercantil. ALSA is used only to transport cyanide from the port facility to the external custom storage facility (8 km drive) and from there to ALSA storage facility (4 km drive).

To ensure that ALSA companies comply with the elements of Practice 1.1, Mercantil requires it to use only the routes that have been assessed by Mercantil, to inform of the shipment progress, and to receive copy of the final shipment report.

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**3.1.2 Transport Practice 1.2: *Ensure that personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment.***

The operation is

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

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

Additionally to the driver requirements established by Mercantil, ALSA has its own requirements including:

- To not to have penal records.
- To have A3 driver license (required by Peruvian regulations to transport hazardous materials)
- To have completed junior high school studies.

Mercantil has provided training in cyanide transportation and handling to ALSA designated drivers and warehouse personnel. The initial training sessions were held between October and November 2009 (the first one with the help of DuPont, the manufacturer) and a refreshment session was provided on January 2010.

Attendance lists are kept as training records. Mercantil has a training program which includes two training sessions for each subcontractor during 2010 as well as two general emergency drills. Additionally, ALSA has its own training program that covers, among others, the following topics:

- Driving Excellence
- Hazardous goods handling
- Hazardous materials transport
- First aids
- Port security
- PPE Use
- Fire fighting
- Forklift operation (for the storage personnel)
- Spill response
- Safe handling for sodium cyanide (provided by Mercantil)
- Defensive driving

The files of drivers include: CV, copies of the driver license (at the time of the hiring), certificated of no penal records, official ID, first evaluation, copies of education certificates, and diplomas of received training. Similar records are kept for other employees (stacker and forklift operators and warehouse workers).

A sample of ten files was reviewed and was found to be in compliance with these requirements, except with defensive driving training as required by Mercantil.

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ALSA informs Mercantil's EHS Coordinator regarding the drivers that will participate in the shipment at least one day in advance of the operation. The convoy supervisor (provided by ALSA) confirms that the drivers are included in the list of trained drivers, which is documented in the shipment report provided to Mercantil.

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

The operation is

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

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

Mercantil has transportation procedures that establish the characteristics required for vehicles to be used for cyanide transportation including:

- That the vehicles have the legally required certification. According to Peruvian regulations, units that more than three years old prior to their habilitation to transport hazardous materials units be certified by a third party third party mechanical service authorized by The Transportations and Communications Ministry (MTC, Ministerio de Transportes and Comunicaciones).
- To be included in a preventive maintenance program
- To have the permits required by the local authorities

ALSA has habilitated thirteen vehicles for cyanide transport. ALSA leases the trucks and trailers (vehicles) from the manufacturer. Per contract, ALSA has to deliver the vehicles for preventive maintenance. The oldest trucks used by ALSA to transport cyanide are two years old. The lease contract specifies that the lease last five years and ALSA has the option of buying the truck or renewing the lease with new trucks. The preventive maintenance is performed by the vehicle owner which is in constant communication with ALSA to ensure that the vehicles are taken to the maintenance base. The owner pays manpower and ALSA pays spare parts.

The drivers performs an inspection at the start of the shift which includes: safety conditions (free vision, comfort, and physical shape of the unit) and mobile equipment (phone), fuel level, oil level, horn and reverse alarm, instrument panel, mirrors and windshield, breaks, steering, air pressure in the tires, tires profile, engine pressure and temperature indicators, battery indicator, fuel and oil leaks, extinguisher (functional and not expired). Additionally, prior to cyanide shipments another inspection is performed including the vehicle documents, load documents, basic and hazmat PPE, safety materials (extinguisher and communication radio), basic spare parts, container conditions (fastening and identification), driver documents, load documents, among others.

For the equipment used in the warehouses (forklifts and stackers), the operators perform an inspection at the beginning of the work-shift including: safety conditions (the counterweight is adjusted, clear vision, comfort, fork conditions) lights, fuel, oil level, reverse alarm and horn, instruments panel, mirrors, breaks, steering, air pressure in tires, tires profile, temperature an pressure indicators, battery indicator, leaks, lifting mechanism. The warehouse personnel interviewed during the audit was aware of the inspection and confirmed that it is performed at the beginning of each shift.

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The transportation procedures establish that the convoy supervisor is responsible for the inspection of every truck and platform prior to the shipment.

ALSA fills a checklist for vehicle inspection. Mercantil holds meeting on a weekly basis with ALSA to ensure that the checklist are filled.

ALSA transports only containers as they come from the manufacturer. According to Mercantil the manufacturer uses the following packaging presentations:

- Poly-propylene super-sack filled up to 1 ton and placed inside a wooden box.
- Tuff-pack of 48 kg, 20 of this packs are placed inside a wooden box.
- 55-gallon metallic drums; four per pallet and plastic wrapped.

These are received in standard 20 feet containers to full capacity to prevent lateral movements.

In general Mercantil's EHS Coordinator, Mr. Carlo Vargas, receives the shipment program and the shipment reports. Mr. Vargas holds weekly meetings with ALSA representatives to ensure the checklist are filled.

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

The operation is

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

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

ALSA follows the safety measures implemented by Mercantil to maintain the integrity of the packaging by not removing the locks and tags placed in the in the ocean container until it arrives to the storage facility in presence of a Mercantil representative. ALSA confirms that placards with cyanide's UN number and poison signs are placed in the container prior its transport; this is recorded in the vehicle inspection report.

ALSA follows Mercantil transport procedures, which establish that:

- o Inspections are performed prior the vehicle departs to the port facility for loading (performed by ALSA's convoy supervisor)
- o Inspections are performed prior to the departure from the port facility (performed by ALSA's convoy supervisor).
- o Once approved for use, the truck and the platform must be included in a preventive maintenance program (performed by the truck manufacturer)
- o Operators rest at least 8 hrs prior to trip, should not drive for over 12 consecutive hours, and take a 10 min break approximately every two hours at pre-selected stops points where the risk has been assessed and ranked as low. The transport operations performed

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by ALSA are 8 and 4 km long; according to the ALSA representatives interviewed, the drivers have a work shifts twelve hours and work five days per one rest day, each vehicle has two designated drivers. Additionally there is a driver for rest periods and they drive any vehicle.

- Prior to departure of every shipment, the drivers are tested for alcohol levels (blow tests performed by ALSA supervisor).

In general Mercantil's EHS Coordinator, Mr. Carlo Vargas, receives the shipment reports and confirms that vehicles and drivers used were those approved for cyanide transport. ALSA report does not include the inspection checklist; however, Mr. Vargas holds weekly meetings with their representatives to ensure the checklist is filled.

### **3.1.5 Transport Practice 1.5: Follow international standards for transportation of cyanide by sea and air.**

The operation is

#### **THIS PRACTICE DOES NOT APPLY TO THE OPERATION**

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

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

ALSA is a ground transport company, this practice does not apply.

### **TRANSPORT PRACTICE 1.6: TRACK CYANIDE SHIPMENTS TO PREVENT LOSSES DURING TRANSPORT.**

The operation is

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

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

All drivers are provided by ALSA with a cellular phone and radios. Communication equipment is tested prior to the departure of the convoy. According to the ALSA representatives, cellular phones are under a lease contract and the phone company replaces any cellular the same day it is reported to fail.

According to the route assessment performed by Mercantil, there is cellular coverage all along the routes operated by ALSA. The supervision of the convoy is performed remotely using GPS systems from the transporter operations base. This system allows monitoring the speed, the breaking and acceleration rates (for sudden brakes and sudden accelerations), engine revolutions, fuel yield, and qualifies these parameters for each driver and a performance grade

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is given (in a 0 to 100 scale) every month. According to the statistics shown this system has improved the drivers' performance from average grades of 70 to 94 and up. This allows preventing accidents and also to keep the trucks in good shape. The GPS system allows monitoring the shipment in real time on a geo-reference map so that the exact location of each vehicle is known at all times.

A bill of lading is used to track the amount of cyanide received and shipped. The bill of lading is issued by the shipper (the ocean company for received and Mercantil for the shipped material), this includes the number of containers and their identification number, the type and number primary packaging, net weight. The containers are locked and tagged these tags are only removed at the storage facility. The tag number is also included in the bill of lading.

Additionally, to prevent losses at the storage facility, Mercantil keeps a balance of entrance and exits, which is compared with the storage facility weekly balance and the annual physical inventory.

The bill of lading and the MSDS are carried by each driver. The first one is provided by the Port at the moment of releasing the containers, copies of the MSDS is provided by the convoy supervisor, along with first aid indications, prior departure.

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

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

The operation is:

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

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

The required signs were observed in the storage facility operated by ALSA. The interviewed warehouse personnel confirmed that they have been provided with the required personal protective equipment (PPE). Only solid cyanide is stored in ALSA. The property is fenced with block walls and has a security shed.

The cyanide storage area is kept locked; it is a separated building which is above grade other areas and is separated by walls and distance from other storage areas.

The storage area is roofed. The material is kept in the packaging used by the manufacturer and on wooden pallets. The area also has lateral walls either constructed either with block or with wire chain fence covered with a plastic liner. The ALSA storage has enough ventilation even if the doors are close as there is an open space between the roof and the walls.

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The following first response emergency response equipment including was available: overall tyvek suits, leather gloves, PVC booths, danger tape rolls, ducting tapes, shoves, safety cones, sweeps, emergency light, polyethylene bags, calcium carbonate, sodium hypochlorite, and empty containers, among other materials

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

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

The operation is

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

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

ALSA follows the Emergency Response Plan prepared by Mercantil; which is in compliance with the seven elements of this practice. See the detailed report for Mercantil for further details.

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

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

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

ALSA follows the Emergency Response Plan prepared by Mercantil; which establishes the responsibilities for the members of the initial response team including the roles of ALSA Personnel. The emergency response plan includes a list of the equipment that is available during transport. ALSA stores the emergency response kit in a check point of the transportation located approximately in the middle of the route and at the storage facility. A checklist is used to verify that it is available prior the convoy's departure and it is documented in the shipment report. The storage facility inspects the kit on a daily basis.

ALSA has provided the drivers with personal protective equipment which is reviewed by the convoy leader.

Mercantil provided training to ALSA personnel from October to November 2009 (the first one with the help of DuPont, the manufacturer) and refreshment was provided on January 2010.

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Additionally, Mercantil has scheduled two refreshment sessions for ALSA personnel during 2010.

The Emergency Plan establishes that the drivers or warehouse personnel must help to control the emergency while the second response team arrives. The convoy supervisor (or the warehouse leader) is responsible for the initial emergency control and communications and to provide support in case the second response team is required.

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

The operation is

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

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

As previously noted, ALSA follows the emergency plan prepared by Mercantil, which complies with the two elements of this practice.

### **3.3.4 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
- in substantial compliance with Transport Practice 3.4
- not in compliance with

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

As previously noted, ALSA follows the emergency plan prepared by Mercantil, which complies with the two elements of this practice. See the detailed report for Mercantil for further details.

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

The operation is

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

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

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As previously noted, ALSA follows the emergency plan prepared by Mercantil, which complies with the three elements of this practice. Mercantil has scheduled two drills for 2010.

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