DCR Minería y Construcción (DCR) is a transportation company specialized in the mining industry, transports mineral concentrate, hazardous materials, and other products. Regarding sodium cyanide, DCR supplies this product to Buena Ventura Mining Company which has different mines including Orcopampa, Uchuchaccua, and Antapite.

Cyanide is provided by Mercantil S. A. and Innova Andina S. A. (the suppliers), which are local representatives for cyanide manufacturers. DCR provides the container, but the loading operation is responsibility of the suppliers. DCR as agreed with the suppliers that only full containers will be transported. The size of the container is such that there is no free space in the container when it is full.

This audit comprises the ground transportation operations from the supplier storage facility to its delivery in the final client facility.

Cyanide is received from the manufacturer or consigner 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.

No less than 20 boxes are placed in standard 20-feet 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. The containers are received locked and tagged. These tags are only removed at the user site.
SUMMARY AUDIT REPORT

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
Names and Signatures of Other Auditors: none

Date(s) of Audit: 18-19 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.
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

☐ in substantial compliance with Transport Practice 1.1

☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

DCR has implemented the procedure DCR-SMA-PRO-08 (dated 7 August 2009, rev. 1) for the selection or hazardous materials transport routes. The procedure establishes that the safest short route must be selected to transport hazardous materials and that the following elements must be taken into account during the route selection:

- Avoid as far as possible the use of tunnels,
- Prefer roads with a minimum line wideness of 3.5 m.
- In urban areas, prefer 4 line roads (two per way), and roads that have preferred way.
- Prefer roads with slight slopes rather than steep slopes.
- Among others.

This procedure establishes that special measures should be taken in the areas with the following characteristics:

- Roads of deficient service due to intense traffic, lack of signaling, or bad road design.
- Sectors nearby water sources, highly populated areas, downtown areas, commercial areas, fairs, and recreation areas.
- Road intersections with heavy traffic during peak hours, points where left turn is required with heavy traffic and no traffic controls (e.g. traffic lights).
- Among others.

To select the route the following activities must be performed:

- A physical inspection of the route by a member of the EHS team, a member of the Operations area, and an experienced driver.
- Identification of peak hours in each section and intersection.

This procedure establishes also that during the physical inspection the stop points must be selected. The areas where there is communication blackout, environmental sensitive areas,
police and firefighters stations, and the communities with political and other social issues are identified during the physical inspection.

Given the ground transportation infrastructure available in Peru, there are not many alternative routes.

Three route inspection reports were reviewed (Lima - Orcopampa and Lima – Uchuchaccua, Lima - Antapite). The reports included the information requested by the procedure, plus photographs of the route as well as tolls and points where maintenance works were identified.

DCR has implemented the procedure DCR-SMA-PRO-08 (dated 7 August 2009, rev. 1) for the route’s hazards identification and risk assessment. It establishes that based on the route inspection and selection reports, the main hazards in different sections of the route must be identified as well as the associated risk using a specific format. Then the risks are assessed for their probable frequency and consequences (human, material, and environmental losses). The criteria used for this analysis are clearly defined in the procedure. The risk assessment is documented in a specific format for hazards identification and risk assessment (also known as IPER, Identificación de Peligros y Evaluación de Riesgos).

Two IPERs were reviewed (Orcopampa y Uchuchaccua), these consist matrices with the route section name, the identified hazards and potential incidents, as well as the risk assessment for each criteria established in the procedure DCR-SMA-PRO-08 as well as a risk classification (trivial, moderate, critical). Additionally, the IPERs include the corrective and mitigation measures (e.g. in sections where the road is not wide enough, only one truck can pass at the time to prevent incidents with vehicles coming in the opposite direction and using the horn to advise these vehicles that the truck is coming).

Procedure DCR-SMA-PRO-02 establishes that the IPER must be updated when:
- New transport units are acquired,
- A new service is contracted
- When there are changes in the route (social conflicts, deviations, changes in the orography).

Additionally, it also establishes that the IPER must be reviewed at least once per year. The reviewed IPERs were dated on July 2009.

As previously mentioned, the IPER includes the corrective and mitigation measures implemented for the risk identified in the different route sections.

Additionally, DCR has implemented the Operational Safety Procedure DCR-SMA-ISO-01 which establishes that the trips must be in convoys of up to four trucks with an escort vehicle, that the trucks and escort vehicle as well as the emergency response material must be reviewed prior to every trip. The procedure includes instructions to supervise the loading and unloading operations. It also establishes that the convoy progress must be reported among other safety measures.
DCR has applied surveys to people that have small business in the routes requesting information regarding the availability of emergency response and health services. Additionally, DCR has submitted letters to the hospitals, firefighters and police departments identified along the routes. In these letters DCR informs the addresses regarding its cyanide transportation activities and that they have been included in the contingency plans as external responders. These surveys were applied in February 2010; the letters were submitted in the same period. Additionally, according to the interviewed DCR representatives, the cyanide suppliers have participated during the physical inspection of the routes.

The route specific contingency plans (PC-SMA-CIANURO-01 and PC-SMA-CIANURO-02) and the Operational Safety Procedure (DCR-SMA-ISO-01) establish that the transport must to be performed in convoys of up to four trucks with escort vehicles.

**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
- [x] not in compliance with

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

DCR has developed the following profile for the drivers that transport hazardous materials:
- To be 55 years old or younger
- To have the AIII license (the mandatory required for hazardous materials)
- To have basic mechanics knowledge
- To be trained in the use and completion of business documents (e.g. bill of lading, invoices, etc.)
- To have at least 3 years of experience as driver
- Previous training in HAZMAT I and II.
- To be knowledgeable about safety and transport regulations.

The profile also establishes that the drivers must receive continuous training in the following matters from DCR:
- HAZMAT I and II
- First aids
- Defensive driving
- Mechanics
- Transport regulations

Similarly, the following requirements have been established for the convoy supervisors:
- To be knowledgeable about hazardous materials transport
- Personnel management
SUMMARY AUDIT REPORT

- To be knowledgeable about maintenance and repair of heavy transport units
- To be knowledgeable about performance indicators
- To be knowledgeable about safety and transport regulations
- Previous training in HAZMAT I and II.

The convoy supervisor profile also establishes that the drivers must receive continuous training in the following matters from DCR:
- HAZMAT I and II
- Transport plans management
- Operations management

And for the convoy supervisor:
- At least 1 year experience in transport supervision
- Previous training in Hazardous Materials handling
- Previous training in first aid
- Previous training in firefighting
- A-I driver license
- Junior high school studies.

A sample of five drivers and two supervisors’ files were reviewed and they contained:
- A copy of the job position profile
- Records of the induction process
- Certificate of non criminal records
- First hiring driving test (only drivers)
- Curriculum vitae.

According to the reviewed sample the drivers and supervisors comply with the required profile.

Additionally, the cyanide suppliers have provided sodium cyanide handling training. DCR has an annual training program which includes contingency plans, transport regulation, defensive driving, first aids, IPERs, and hands protection, among other topics.

DCR has five drivers and three convoy supervisors designed for cyanide transport. Their files were reviewed. Records documenting the training, license, and age were found to be as specified in the profiles.

The drivers have been trained in defensive driving; they and the convoy supervisors have received sodium cyanide handling training from the suppliers. During the interview with the drivers and convoy supervisors they were found familiar with the safety measures implemented by DCR, with the sodium cyanide characteristics and risk, and with their roles during an emergency.

In different files, DCR keeps record of the annual medical test performed to the employees and the training provided, and electronic files of the training provided.
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A sample of three drivers and two supervisors that were preparing a cyanide convoy were interviewed and they were familiar with the preventive measures implemented by DCR (inspections, speed limits, etc.) and with their role in the emergency response. They also confirmed the training and alcohol policies of the company.

The contingency plans establish the annual training requirements including: defensive driving, HAZMAT operations, HAZMAT level II (basic operations), HAZMAT level III (for supervisors), personal protection equipment, transport of hazardous materials, basic firefighting, among others.

Training records are kept in electronic format in the company’s server. There is folder for each employee where electronic copies of the training certificates are kept.

**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:**

DCR has designated four Scania trucks for sodium cyanide transport. These have 420 (two) and 400 HP (two) capacity and are 2 and 3 years old, respectively. Additionally, DCR has four trailers with 50 ton capacity also designated for sodium cyanide.

DCR keeps on file the specification and maintenance records of these units. The Operational Safety Procedure establishes that the trucks and escort vehicle must be inspected prior to every trip using inspection checklists which are included in the convoy reports. The checklists include inspection of the communication equipment, documents, basic PPE for the driver, etc. Additionally, when returning from a trip, the drivers fill another checklist of the failures identified during the trip or at arrival which are attended by the maintenance department prior to the next trip.

According to the Operational Safety Procedure and the Contingency Plans the transport must be performed by one truck pulling one trailer. According to site contacts this was established to comply with the maximum vehicle weight established in Peru’s transport regulation (34 ton). The procedure also establishes that the convoy supervisor has the authority to reject the load if it does not comply with the safety requirements.

**TRANSPORT PRACTICE 1.4: DEVELOP AND IMPLEMENT A SAFETY PROGRAM FOR TRANSPORT OF CYANIDE.**
SUMMARY AUDIT REPORT

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:

DCR receives the containers locked and tagged. The container is only removed at the final client facility. DCR personnel do not open the containers.

The confirmation of plate cards with the UN number for sodium cyanide is confirmed prior to each trip by the convoy supervisor. This is documented in the above mentioned vehicle inspection checklist.

This is established in the Operational Safety Procedure and it is documented in the vehicle inspection checklist included in the convoy report.

DCR has implemented a preventive maintenance procedure with six levels of preventive maintenance (based on the mileage) and the sequence in which these are applied to each truck. The first two are provided by the vehicle manufacturer when the unit has been recently acquired. The procedure includes detailed checklist of the operations that must be performed in the four routines that depend on the mileage.

Additionally, the procedure establishes that the vehicles must be inspected by the driver after every trip to identify deficiencies which must be fixed prior to the next trip. This is documented in a checklist.

Additionally, the procedure establishes two preventive maintenance routines for the trailers. The trailers are also inspected by the driver upon return from a trip.

The routine checklists are also used as maintenance records.

The Operational Safety Procedure establishes that the cyanide transport operations must be performed between 6 am and 6 pm with two 1hr breaks for breakfast and lunch. Additionally, there must be a 10 min break on selected pre-defined stop points; during these breaks the driver must inspect the unit. Finally, it establishes that there must be at least 8 hrs rest period after a 12 hrs drive period. The interviewed drivers mentioned that the rest periods are longer as they do not drive at night.

The Operational Safety Procedure establishes that the driver must supervise the load of the container making sure that 20 boxes are loaded in the container. He also has to review the chains used to fix the container to the trailer and the twist locks. The interviewed drivers confirmed that they perform these activities.
The Operational Safety Procedure establishes that the convoy supervisor has the authority to stop operations when there are conditions that are not favorable. During the interviews, the convoy supervisors mentioned that among these conditions are severe weather and civil unrest. The Operational Safety Procedure establishes that the convoy supervisor must perform the blow test for alcohol prior to every shipment to all the convoy members (including him). This is documented in an Alcohol Test Report format included in the convoy report.

DCR formally started the implementation of these requirements in August 2009; however, maintenance records were available from 2007, and convoy reports from 2008.

**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 DCR.

**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 DCR with a cellular phone and radios. The convoy supervisor has also a cellular phone, a radio, and a satellite phone as he is responsible to communicate with DCR and the emergency responders as established in the contingency plans.

Communication equipment is tested prior to the departure of the convoy. According to DCR, cellular phones are under a lease contract and the phone company replaces any cellular the same day it is reported to fail.

The emergency kit includes walkie-talkie; additionally, the convoy supervisor has a satellite phone incase communication is required in an area without cellular coverage.
SUMMARY AUDIT REPORT

The Operational Safety Procedure establishes that the convoy supervisor must report the progress of the convoy at the pre-selected stop points. The progress report is provided by phone to DCR’s operations base. DCR shares this information with the suppliers.

The following documents are used to track the amount of cyanide transported:

- Bill of lading issued by the supplier, this includes the number of containers and their identification number, the number wooden, the tag number, and net weight.

Additionally, as previously mentioned, the containers are locked and tagged at the supplier facility and these tags are only removed at the mine.

The bill of lading, the invoice, and the MSDS are carried by each driver. The first one is provided by the supplier at the moment of releasing the containers, the MSDS is provided by the convoy leader, along with first aid indications, prior departure.
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: THIS PRACTICE DOES NOT APPLY TO THE OPERATION

✓ 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 ground transport operations performed DCR do not involve the use of interim storage facilities. For routes that take two or more days, the route assessment identifies the places where the vehicles can stay overnight; these consist of properties completely fenced with safety guards. As previously mentioned, the containers are only open at the mine and have placards indicating that they contain cyanide.
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
☐ in substantial compliance with Transport Practice 3.1
☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

DCR has implemented two contingency plans one for the route from Lima to Orcopampa and Uchuchaccua and another for Lima - Antapite. Along these routes are located all the mines served by DCR. These are detailed documents (approximately 90 pages each) 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 contingency plans include the route assessment matrices mentioned in practice 1.1 which were used to develop emergency scenarios, the respective preventive and mitigation measures, and emergency response actions.

The plans have a detailed (five pages) explanation of the sodium cyanide characteristics and toxicity based on the MSDS; this is included in section 3.1 of the plans. The emergency scenarios, the general emergency response instruction, and the scenario-specific instructions consider the solid state of the cyanide.

Section 3.2 and 5.3 of the contingency plans provide information regarding the packaging and transportation characteristics of the product, the container, and the transportation unit. 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 others.

As previously noted the Plans include the emergency scenarios developed from the IPERs. The IPER identify the different incidents that may take place in each route section.
SUMMARY AUDIT REPORT

All the scenarios are in relation with accidents of trucks hauling a platform trailer, which is the only transportation modality used by DCR. Details on this are provided in section 3.2 of the plans.

As previously noted the Plans includ the emergency scenarios developed from the route assessment, it also includes prevention and mitigation instructions, as well as specific response instructions.

The Plans’ Section 2.6.D of the contingency plans establishes the responsibilities of the external emergency response teams (national police, Civil Defense National Institute, firefighters, Health Ministry etc) will be used to secure the area, to communicate with the population and evacuate it if required, and to coordinate vehicular traffic in the area. It also includes responsibilities for the mine’s and the supplier.

**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:*

As mentioned in practice 1.2 the drivers and the convoy leader have received training in HAZMAT I and II. DCR has agreed with the supplier and the mines that DCR will provide first response and clean up small spills; however, the owner of the material will provide second response and DCR’s personnel will support during such activities.

The Plans’ Section 2.8 establishes the responsibilities for an incident command, section 2.9 establishes the responsibilities of a crisis committee. These sections include name and position of the different DCR representatives that participate in each group and their roles and what is expected from them. The plans have several diagrams explaining the integration of the committees and the immediate actions to be taken.

Section 4.3 of the plans includes a list of the required first emergency equipment. The list includes:

- Leather gloves
- Sand
- Tyvek suits
- Duct tape
- Dust masks
- Goggles
- PVC boots
- Half face respirators,
- Pyrochen overall suits
DCR has implemented a checklist to ensure that all the emergency response materials are available. These are carried in the escort vehicles. During the audit, the emergency response materials were available.

The plans Section 9 establish that there are 5 min safety talks prior to the departure of the convoys and refers to a training and drills program. Additionally, DCR has implemented the procedure DCR-MP-03-09 for training and awareness which requires having an annual training program. According to the 2010 program the personnel received training regarding the Contingency Plans in January 2010. This was documented with attendance lists.

Contingency plans establish that the emergency response equipment must be carried by the convoy supervisor in the safety escort vehicle. A checklist is used to verify that it is available prior the convoy’s departure and it is documented in the convoy report.

**TRANSPORT PRACTICE 3.3: DEVELOP PROCEDURES FOR INTERNAL AND EXTERNAL EMERGENCY NOTIFICATION AND REPORTING.**

The operation is

- [x] in full compliance with
- [ ] in substantial compliance with Transport Practice 3.3
- [ ] not in compliance with

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

Section 5.10 of the contingency plans contains the emergency communication procedures and responsibilities. It contains a guide of the information that must be provided to emergency responders. Section six has directory of the emergency response teams and hospitals along the routes as well as those for DCR, companies specialized in emergency response, the clients, and the suppliers. During the audit three of these numbers were dialed and confirmed to be current.

The emergency notification and reporting procedures are included within the Contingency Plans. The Plans’ Section 10 establishes that it must be reviewed whenever modifications are
required (e.g. changes in the route), to attend observations of an incident or drill or, at least, once a year.

**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:**

Chapter 7 (environmental clean-up) of the Contingency Plans establishes the procedure to clean a spill and the decontamination of the area. This is a seven pages section and includes instructions for spills on dry soil, spill on the road way, moist soil; stagnated water and water courses. All for small and large spills and require collecting as much of the visible product as possible and the use of calcium carbonate is considered in most of the scenarios (except water bodies).

The procedures included in chapter 7 establish 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, for the scenario of spill to water bodies, it includes instructions to prevent the population to be poisoned by contaminated water.

**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:**

Chapter 10 of the contingency plans establishes that it must be reviewed and updated whenever modifications are required, when the route changes and when modifications are recommended as a result of a drill or an incident, or, at least, once a year. The reviewed Contingency Plans were dated December 2009.

Section 9 of the Contingency Plans establishes that there the personnel must be trained in emergency response. The training must be planned and documented in a training and drills annual program. The 2010 program establishes that a drill will be performed in coordination with one of the mines in
DCR has performed or participated in three spill drills, in two (16 and 19 November 2009) the scenario was a small spill in which DCR provide clean up response, a third one (16 December 2009) in which DCR personnel provide first response and support to second response performed by the supplier emergency response contractor.

Chapter 10 of the contingency plans establishes that it must be reviewed and updated whenever modifications are required, when the route changes and when modifications are recommended as a result of a drill or an incident, or, at least, once a year. The reviewed Contingency Plans were dated December 2009.