# ISOSURE S.A.C.

Calle Dean Valdivia #148 Edificio Platinum Torre I Piso 11 Oficina 1126 San Isidro - Lima - Perú | Central Telefónica: +51 01 711 8249









# INTERNATIONAL CYANIDE MANAGEMENT CODE

EMPRES	SA DE TRANSPORTE N&V S.A.C.		
	SUMMARY AUDIT REPORT	CODIGO	20482798561
	BASE TRANSPORTATION, TRUJILLO, LA LIBERTAD, PERU	VERSION	01. 2
LIBERTAD, FERO	FECHA	21/12/2016	

In collaboration with:









# INTERNATIONAL CYANIDE MANAGEMENT INSTITUTE

# **Cyanide Transportation Operations Summary Audit Report**

For The
International Cyanide Management Code
and EMPRESA DE TRANSPORTE N&V SAC
— Trujillo — La Libertad — Peru

# **Verification Protocol**

www.cyanidecode.org
December 2016







DECEMBER 2016 | EMP. TRANS. N&V

2

yandor

# **TABLE OF CONTENTS**

INTRO		4
1 TF	RANSPORT	
1.1	TRANSPORT PRACTICE 1.1	
1.2	TRANSPORT PRACTICE 1.2	
1.3	TRANSPORT PRACTICE 1.3	10
1.4	TRANSPORT PRACTICE 1.4	11
1.5	TRANSPORT PRACTICE 1.5:	13
1.6	TRANSPORT PRACTICE 1.6:	
2 IN	TERIM STORAGE	15
2.1	Transport Practice 2.1	15
3 EN	MERGENCY RESPONSE:	10
3.1	TRANSPORT PRACTICE 3.1:	16
3.2	TRANSPORT PRACTICE 3.2:	18
3.3	Transport Practice 3.3:	20
3.4	Transport Practice 3.4:	
3.5	TRANSPORT PRACTICE 3.5	



DECEMBER 2016 | EMP. TRANS. N&V

3

#### INTRODUCTION

#### Information on the audited operation

Name of Cyanide Transportation Facility: EMPRESA DE TRANSPORTE N&V SAC (N&V)

Name of Facility Owner: EMPRESA DE TRANSPORTE N&V SAC (N&V) Name of Facility Operator: EMPRESA DE TRANSPORTE N&V SAC (N&V)

Name of Responsible Manager: Karyna Rengifo

Address: Km. 560 Carretera Indust. La Encalada - Trujillo

State/Province/Country: Trujillo/La Libertad/ Peru

Telephone: +511 044-659361 Fax: --E-mail: krengifo@nvsac.com.pe

# Aspects of the location and description of the operation:

EMPRESA DE TRANSPORTE N&V S.A.C. (hereinafter N&V) has a fleet of over 20 units for the light and heavy transport at national level (Peru), in general, oversized and hazardous cargo.

The scope of this audit includes the operation of ground transportation from Warehouse of Cyanide in Lurin or Callao, where cyanide is released, to delivery at the customer's installation Cyanide is received from the manufacturer or consigner in either of the following packaging presentation:

- Interior Poly-propylene super-sack filled up to 1 ton and placed inside a Polyethylene bag and wooden box.
- Cilinder up to 100 kg

No less than 20 ton are placed in standard 20-feet or 40-feet shipping containers; boxes and cilinders are placed way to prevent lateral movement within the container. In addition to normal anchoring the container to the chassis of trucks, containers are secured with chains, for double safety tie. The containers are received locked and tagged.

These activities are carried out 3 years ago with ZERO (0) accidents.



DECEMBER 2016 | EMP. TRANS. N&V

4

#### SUMMARY AUDIT REPORT

#### FOR CYANIDE TRANSPORTATION OPERATIONS

#### Instructions

- 1. The basis for the finding and/or statement of deficiencies for each Transport Practice should be summarized in this Summary Audit Report. This should be done in a few sentences or a paragraph.
- 2. The name of the cyanide transportation operation, lead auditor signature and date of the audit must be inserted on the bottom of each page of this Summary Audit Report.
- 3. An operation undergoing a Code Verification Audit that is in substantial compliance must submit a Corrective Action Plan with the Summary Audit Report.
- 4. The Summary Audit Report and Corrective Action Plan, if appropriate, for a cyanide transportation operation undergoing a Code Verification Audit with all required signatures must be submitted in hard copy to:

# **International Cyanide Management Institute (ICMI)**

1400 I Street, NW, Suite 550

# Washington, DC 20005, USA

- 5. The submittal must be accompanied by 1) a letter from the owner or authorized representative which grants the ICMI permission to post the Summary Audit Report and Corrective Action Plan, if necessary, on the Code Website, and 2) a completed Auditor Credentials Form. The lead auditor's signature on the Auditor Credentials Form must be certified by notarization or equivalent.
- Action will not be taken on certification based on the Summary Audit Report until the application form for a Code signatory and the required fees are received by ICMI from the applicable cyanide transportation company.
- 7. The description of the cyanide transport company should include sufficient information to describe the scope and complexity of its operation.

CNInc.

DECEMBER 2016 | EMP. TRANS. N&V

5

# **Auditor's Finding**

NOTARÍA BECERRA SOSAYA

Av Aviación Nº 2489 - San Borja Central T. 200-2770

Horario de Atención: L. - V. 09:00 a.m. a 07:00 p.m. Sábado 09:00 a.m. a 01:00 p.m. Trámite Vehicular: Sábados hasta las 06:00 p.m.

www.notariapenstreenstre.nam

The International Cyanide **Management Code** 

X in full compliance

☐ in substantial compliance

□ not in compliance

with the International Cyanide Management Code.

Audit Company: ISOSURE SAC | CIANURO INCOR PORATED EIRL

Audit Team Leader: Luis Torres Argandoña

E-mail: auditoria@iso-sure.com

This Operation is:

Date(s) of Audit: 21 December 2016

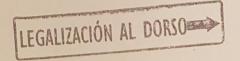
I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute and that all members of the audit team meet the applicable criteria established by the International Cyanide Management 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 conduct 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.

Name and Signatures of Other Auditors

Name	Position	Signature	Date
Luis Torres Argandoña	Lead Auditor and Transportation Technical	vistames frech	December 2016
Carlo Vargas	Transportation Technical	Justin	21 December 2016



DECEMBER 2016 | EMP. TRANS. N&V

#### **Verification Protocol**

#### **TRANSPORT**

Transport cyanide in a manner that minimizes the potential for accidents and releases.

#### 1.1 TRANSPORT PRACTICE 1.1

SELECT CYANIDE TRANSPORT ROUTES TO MINIMIZE THE POTENTIAL FOR ACCIDENTS AND RELEASES.

	X in full compliance with
The operation is	☐ in substantial compliance with Transport Practice 1.1
	□ not in compliance with

# Summarize the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with Standard of Practice 1.1 requiring an operation Select cyanide transport routes to minimize the potential for accidents and releases.

N&V implemented the route evaluation process identified as "NV SSMA P 013 Development of Roadmaps", Cyanide Transport which describes the items to be assessed during the route analysis in accordance with the ones pointed in the International Cyanide Management Code.

"NV-SSMA-PDC-007 Emergency Response Plan", has been implemented for the route related to the cyanide transportation.

The route is evaluated:

- Callao La Arena (Huamachucho)
- Lurin La Arena (Huamachucho)
- Callao Shahuindo (Cajamarca)
- Lurin Shahuindo (Cajamarca)
- Callao Barrick Pierina (Huamachucho)
- Lurin Barrick Pierina (Huamachucho)

The evidenced records are as follows

- Roadmap
- Risks of Cyanide Transportation

The evaluated routes have been approved by the Ministry of Transport of Peru.

The service has been approved by the National Superintendency of Taxation of Peru.

In the "NV SSMA P 013 Development of Roadmaps" procedure, the account executive, if new customer, confirms customer the merchandise to transport, telling the client the need for MSDS product, after receiving information it is sent to Supervisor Risk assessment for the route and the implementation of controls.



DECEMBER 2016 | EMP. TRANS. N&V

/

N&V implemented the "NV SSMA P 013 Development of Roadmaps", in the route evaluation report the major risks were identified as the urban areas, population density, road infrastructure, proximity to water bodies, presence of fog, likelihood of free fall.

Risks associated to those characteristics include: vehicle crash, vehicle rollover, vehicle skid, load, loss, pedestrian accidents, product spill in water body, and water contamination, among others.

For each specific route, a risk assessment with a photographic log was developed in 2016. Risk management measures are listed for each portion of the routes based on the characteristics and risk level.

According to "NV SSMA P 013 Development of Roadmaps", routes are verified entirely once a year or to the first transport to a client by N&V's Control and Analysis team. In addition, for all cyanide transportation operations, the driver must present a travel log, in which the driver has to note if there were any changes on the route. If any changes are identified, these are reviewed and assessed; and if applicable, the route risk assessment is updated. Temporary changes, such as route diversions, are verbally informed to the driver prior to the departure of the convoy.

N&V identified the fire stations, Police stations, technical support and hospitals and medical centers in the area, as well as phones and contacts.

As previously noted, the risk assessment of each routes describes the risks identified along them and the specific measures to be taken to address the risks.

N&V identified the main bridges, tolls, fuel stops and technical stop points.

N&V includes comments from interested parties (communities, other stakeholders, government agencies) in compliance with the procedure " NV SSMA P 013 Development of Roadmaps". These comments if applicable according to its usefulness in the selection of routes and risk management are reflected in the registry "Roadmap".

The centers are included in the NV-SSMA-PDC-007 Emergency Response Plan of N&V and consultation centers were evident during the audit.

For the transportation of hazardous materials (including sodium cyanide), N&V has a control room at the base of TRUJILLO, LA LIBERTAD, Peru, where the GPS system and NV-GPS-PR-001 GPS Monitoring Procedure provides continuous positioning of each of the vehicles at all times, as well as continuous monitoring of the velocity at each point of the route from the starting point to the end point.

N&V also established through a "NV-OPE-P-001 Transportation Sodium Cyanide", the specifications of use of escort trucks during the sodium cyanide transportation, which should be ONE (01) escort truck for every THREE (03) or less units of cargo transportation. A safety specialist and one driver travel in the escort vehicle. This requirement applies to all customers of N&V.

There can only be charged ONE (01) CONTAINER per platform and each wagon can only drag one chassis. The convoy may include one or more escort vehicles at the client's request. The travel of the convoy will depend on weather conditions; the Convoy Leader shall evaluate the safety of the route in each case, being able to stop the convoy if he considers the conditions do not allow safe transit.

N&V has provided information (MSDS, emergency and product information, NV-SSMA-PDC-007 Emergency Response Plan) to support emergency centers (health centers, police and fire companies) along the routes mentioned, and a signed and received letter with such information. This activity is carried out so that external support centers could be prepared for emergencies. In addition, comments are asked to external support



DECEMBER 2016 | EMP. TRANS. N&V

8

centers to manage risk as a way to query and obtain feedback. N&V has contacts with hospitals, police, Fire Company, Crane Service, Car Repair Workshops.

N&V does not subcontract any of this cyanide transport operations.

#### 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.

	X in full compliance with
The operation is	☐ in substantial compliance with Transport Practice 1.2
	□ not in compliance with

# Summarize the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with Standard of Practice 1.2 requiring an operation Ensure that personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment.

The N&V procedure (NV-OPE-P-001 Transportation Sodium Cyanide) establishes minimum requirements for drivers "Job profile": health, defensive driving training, and response training on sodium cyanide emergencies (spills and poisoning prevention).

Drivers are legally required to hold an A4 license. In order to obtain this license, have completed high school, undergo a psychological evaluation and a psycho-technical assessment, and hold a certificate from Professional Driver School.

The auditor reviews the documentation of the 06 drivers and 02 supervisor.

As a result of the audit it was proven that N&V only uses trained, qualified and licensed operators to operate their vehicles.

Records were verified and all staff operating the transport equipment was set to perform their work in a manner that minimizes the possibility of cyanide releases and exposures, these trainings include safe handling of cyanide both as emergency and poisoning, firefighting, first aid, defensive driving.

N&V, has been working on a Program Management System Safety and Health at Work.

This program provides training related to leadership activities and management commitment, and Training, Hazard Analysis Working Procedures, Use of Personal Protective Equipment, Incident Investigation, Safety Inspections, Emergency Response, Drills, Environment Protection, Security, and Health Program.

N&V selects the most specialized drivers to transport sodium cyanide.



DECEMBER 2016 | EMP. TRANS. N&V

n

According to NV-OPE-P-001 Transportation Sodium Cyanide, drivers drive up to FIVE (05) continuosly, with breaks of TWO (2) hours. Sleep at least EIGHT (08) hours before each trip, and one must not drive for more than TEN (10) hours per day.

In their Cyanide NV-SSMA-PDC-007 Emergency Response Plan, N&V includes a training program that must be complemented by all drivers, consisting of the following:

- Introduction to the Company
- Basic Ricks Prevention and Use of Personal Protection Equipment (PPE)
- Hazardous Materials Handling and Transportation Nivel 1, 2 and 3
- Emergency Response
- Defensive Driving

In addition, the following training courses are specific to drivers transporting cyanide shipments:

- Cyanide First Emergency Response
- General Information of Cyanide Product

According to Plan cyanide related training is refreshed once a year. During the audit, files of three drivers were reviewed, and all relevant training certificates were available.

N&V does not subcontract any of this cyanide transport operations.

#### 1.3 TRANSPORT PRACTICE 1.3

#### Ensure that transport equipment is suitable for the cyanide shipment.

	X in full compliance with
The operation is	☐ in substantial compliance with Transport Practice 1.3
	□ not in compliance with

# Summarize the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with Standard of Practice 1.3 requiring an operation Ensure that transport equipment is suitable for cyanide shipment.

N&V establishes requirements for maintenance of the units carrying cyanide in the NV-OPE-P-001 Transportation Sodium Cyanide, Which Comply with the Provisions of the law of Peru. In Addition, N&V is registered at the Government of Peru for the transport of hazardous materials.

# Trailer:

- Category / Class: N3 / Trailer.
- Bodywork: Trailer.
- Fuel: Oil.
- Age: not more than 5 years.
- Shafts, as seen in the DS 058-2003-MTC, Standard Vehicle Weights and Measures (legal International Standard) for cyanide transport units are designated configuration, T3S3.



DECEMBER 2016 | EMP. TRANS. N&V

10

#### Semitrailer:

• 04 fastening systems (twistlock, plus pins), which may be fixed.

#### **Excessive load**

 N&V provides that the charge should not exceed the carrying capacity, and this control is performed by using the format "Verification Pre-Use Units".

The maintenance of the units is done by the supplier, the parts are original and technicians are specialized for the type of vehicle.

According to through the "NV-OPE-P-001 Transportation Sodium Cyanide", N&V safety chief together with a driver have to check the trucks and trailers completing a checklist per vehicle prior to the departure of the convoy. The checklist requires reviewing:

- Origin and destination of the load
- Names of the driver and supervisor
- Shipment documentation (insurance, current technical inspection, circulation permit, among others)
- Driver's documentation (license and ID card, and appropriate training certificates)
- PPE (safety hat, goggles, safety boots, vest, gloves, harness, and thermal wear)
- Vehicle safety equipment (cell phone and radio, safety belts, first aid kit, reflective triangles, cones, flash light, horn, fire extinguishers, Jack, snow chains, mirrors, alarms, Wheel wrench, wedges, windshield, among others)
- Lights (blinking, turns, large, stops, among others)
- Placards
- Tires (trucks and spare tires)
- Load verification (braces and twists lock of the semitrailer. Reportedly, this is verified again after loading the container, although it is not registered

During the audit, three (03) bundles of travel records who met the provisions of the "Control of Hazardous Merchandise", is evidenced.

According to the NV-OPE-P-001 Transportation Sodium Cyanide, N&V has procedures in place to prevent overloading of the transport vehicles, one CONTAINER of cyanide can be loaded on the vehicle. As seen in the "DS 058-2003-MTC, Standard Weights and Measures Vehicular" (Law of Peru).

N&V does not subcontract any of this cyanide transport operations.

# 1.4 TRANSPORT PRACTICE 1.4

DEVELOP AND IMPLEMENT A SAFETY PROGRAM FOR TRANSPORT OF CYANIDE.

	X in full compliance with
The operation is	☐ in substantial compliance with Transport Practice 1.4
	□ not in compliance with

# Summarize the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with Standard of Practice 1.4 requiring an operation Develop and implement a safety program for transport of cyanide.



DECEMBER 2016 | EMP. TRANS. N&V

11

N&V established a transportation method avoiding disturbances during motion.

For the transportation of hazardous materials (including sodium cyanide), N&V has a control room at the base of TRUJILLO, LA LIBERTAD, Peru, where the GPS system and NV-GPS-PR-001 GPS Monitoring Procedure provides continuous positioning of each of the vehicles at all times.

N&V requires inspection of cartels load information (DOT, UN and NFPA) verification of the truck "Verification Pre-use units". Signage is provided in order to comply with local regulations, which are based on the UN Recommendations on the Transport of Dangerous Goods. Copies of the placards are included in the NV-SSMA-PDC-007 Emergency Response Plan.

N&V indicates the need for conformity of the client, to ensure that the escort vehicles and transport vehicles are in optimal conditions.

N&V conducts vehicle inspections prior to each departure/shipment

During the audit process, records of inspections prior to each departure shipment are evidence.

N&V has a maintenance plan. The maintenance records were reviewed and the practice was confirmed during the observation of the vehicle and interview with the maintenance supervisor and drivers.

Drivers must rest at least 08 hours before a trip and must not drive more than 10 hours a day and the driving time is only during the day, 8 hours for day according to the procedures of N&V. It is noteworthy that Regulations of Peru set the same schedule for the transportation of hazardous. And according to the Procedure for transportation of sodium cyanide, drivers can drive up 8 hours, and stops are designated prior to the departure of the convoy. Facilities where the convoys stop are fenced and have 24 hours security guards.

N&V states that the load of cyanide must travel in 20-foot or 40-foot CONTAINER, developing mechanisms to prevent its movement.

According to the NV-OPE-P-001 Transportation Sodium Cyanide, N&V has anchoring mechanisms for the container and lashing system for cyanide in the container.

The trip will take place in convoy mode; the convoy leader is responsible for the assessment of climatic conditions and is empowered to suspend the transport convoy.

At the end of the trip, the leader of the operation and drivers must submit a report detailing the same road incidents, anticipated information, sensitive areas, and find relevant information to ensure the safety on future trips.

"Alcohol and Drug Policy" It is prohibited the consumption of alcohol, drugs or any other substance that may impair or reduce the function of the driver or a member of the convoy in which prior to the start of each trip everyone must go through an alcotest and periodical drug tests; the violation of this policy results in the separation of the worker from the operation.

The plans and procedures for compliance with the Code are reviewed annually and annual surveillance audits are developed to verify compliance with the N&V standards.

N&V keeps the records of the transport activity and inspection of the cargo units, evidenced the reports of the 2016.

N&V does not subcontract any of this cyanide transport operations.



DECEMBER 2016 | EMP. TRANS. N&V

12

#### 1.5 TRANSPORT PRACTICE 1.5:

The operation is

_			
FOLLOW INTERNATIONAL	CTANDADDC FOR TD	ANCHORITATION OF C	VANIDE DV CEA AND AID
CULI UW INI PRNALIUNAL	STANDARDS FOR IR	ANSPURIATION OF G	TANIDE DI SEA AND AIR.

>	in full compliance with
	in substantial compliance withTransport Practice 1.5

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

□ not in compliance with

The operation is in NOT APPLICABLE with Standard of Practice 1.5 requiring an operation Follow international standards for transportation of cyanide by sea and air.

N&V not transported by sea transport and air transport within the territory of Peru.

#### 1.6 TRANSPORT PRACTICE 1.6:

TRACK CYANIDE SHIPMENTS TO PREVENT LOSSES DURING TRANSPORT.

X in full compliance with

The operation is □ in substantial compliance with Transport Practice 1.6

□ not in compliance with

# Summarize the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with Standard of Practice 1.6 requiring an operation Track cyanide shipments to prevent losses during transport.

N&V uses a GPS system. They also have telephone service, radio UHF and cell phones which ensure full coverage during movement and are completely connected to the control room in their base in TRUJILLO, LA LIBERTAD, Peru. In addition to providing this system, they continually know the positioning each of the vehicles all the time and the safety escort vehicle carries a satellite phone. During the audit, the operability equipment was verified.

The phone lines were operating at the time of the audit; and also an inspection was done to verify the operation of mobile equipment and it was found the payment of the phone, the GPS and satellite phone.

Additional, N&V periodically test communication equipment to ensure it functions properly. "Verification Preuse units" contains the inspection criteria of communication equipment.

N&V has identified areas without cellular coverage; in such areas the convoy makes use of satellite equipment.

The GPS system and NV-GPS-PR-001 GPS Monitoring Procedure has location actualizations in real time, in areas without GPS coverage it saves the information transmitted after the passing of vehicles.



DECEMBER 2016 | EMP. TRANS. N&V

Lead Auditor Signature

13

The bill of lading and the shipment reference are part of the shipping records of the amount transported; the Material Safety Data Sheet is checked before each trip and is available throughout the transportation.

In the sender shipment reference is indicated the name of the product, the United Nations (UN) number, the transported amount of packages and weight of the load, and it is also necessary to indicate the product safety considerations. Upon the delivery of the sender shipment reference, the provider delivers the Material Safety Data Sheet to the carrier. The absence of the sender reference guide and of the Material Safety Data Sheet during transportation is fine by the confiscation of the cargo by the government of Peru. It is worth mentioning that the sender shipment reference should be preserved and stored by the carrier for a period not less than FIVE (05) years.

N&V does not subcontract any of this cyanide transport operations.

.



DECEMBER 2016 | EMP. TRANS. N&V

14

#### **INTERIM STORAGE**

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

# 2.1 TRANSPORT PRACTICE 2.1

STORE CYANIDE IN A MANNER THAT MINIMIZES THE POTENTIAL FOR ACCIDENTAL RELEASES.

X in full compliance with

The operation is □ in substantial compliance with Transport Practice 2.1

□ not in compliance with

# Summarize the basis for this Finding/Deficiencies Identified:

The operation is in NOT APPLICABLE with Standard of Practice 2.1 requiring an operation Store cyanide in a manner that minimizes the potential for accidental releases.

N&V has no stores or warehouses in territory of Peru.



DECEMBER 2016 | EMP. TRANS. N&V

4/10

#### **EMERGENCY RESPONSE:**

Protect communities and the environment through the development of emergency response strategies and capabilities.

#### 3.1 TRANSPORT PRACTICE 3.1:

PREPARE DETAILED EMERGENCY RESPONSE PLANS FOR POTENTIAL CYANIDE RELEASES.

	X in full compliance with
The operation is	☐ in substantial compliance with Transport Practice 3.1
	□ not in compliance with

# Summarize the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with Standard of Practice 3.1 requiring an operation Prepare detailed emergency response plans for potential cyanide releases.

N&V has a NV-SSMA-PDC-007 Emergency Response Plan. Information on road conditions is defined in the Roadmap document. The Emergency Plan describes the response actions for anticipated emergency situations. These were verified during the audit. The NV-SSMA-PDC-007 Emergency Response Plan is approved by the ministry of transport and communication by the Peruvian government in 2016.

It covers strategic and tactical response of emergencies that might occur during the transport process in the following routes.

The validity of NV-SSMA-PDC-007 Emergency Response Plan for the government of Peru is 05 years

The NV-SSMA-PDC-007 Emergency Response Plan for transportation is suitable for the selected transport route, based on the hazards and risk assessment after the completion of the Roadmap.

The NV-SSMA-PDC-007 Emergency Response Plan has the following information:

- General information carrier
- Organizational Transport
- Functions of staff in emergencies en route Incident Command
- Comunication system
- Characteristics of vehicle units
- general and specific characteristics of sodium cyanide
- Identification of risks along the route
- Response Planning
- Communication Processes
- Procedures for emergency care
- Review and update contingency plan

Main risks identified during transport:



DECEMBER 2016 | EMP. TRANS. N&V

16

- Fall or spilled material or waste
- Car accident
- Breakdown vehicles
- Collision object and / or persons or animals
- Rollovers
- Fires
- Explosions
- Social conflicts
- Criminal acts, sabotage and / or terrorist
- Disease crew
- Air pollution, soil and / or water
- Natural phenomena
- Stole

# Procedures for emergency care:

- Incident without injury / continuous journey
- Mechanical problems / non-continuous journey
- Overturning with effusion / without spillage
- Fire Truck
- Overturning with rain and cargo fire
- Collision with injuries
- Spill dry cleaning and decontamination
- Fire load
- Water Spill cleaning and decontamination
- Social conflicts
- Adverse weather conditions
- Traffic congestion
- First aid for cyanide poisoning

The NV-SSMA-PDC-007 Emergency Response Plan is suitable for the selected transport route, taking into account the physical and chemical form of cyanide clearly based on the Safety Data Sheet of the Product "Sodium Cyanide". N&V is a transporter of sodium cyanide supply in solid state (briquettes).

N&V indicates the use of trucks to transport sodium cyanide taking into account the characteristics of the equipment and assesses the structural condition of the road where the transportation sodium cyanide is done.

UN Number: 1689UN Classification: ToxicClass Number: 6.1

Transport type: truck more wagon tract

Container Type: 20 ft or 40 ft shipping container

Quantity per container: 20 tonsProduct Form: solid briquettes

Information on road conditions is defined in the Roadmap and Risks in transportation of cyanide. The NV-SSMA-PDC-007 Emergency Response Plan describes the response actions for anticipated emergency situations. These were verified during the audit.

It also establishes the logical line of action to be taken by the convoy leader and drivers in case irregularities arise during transportation of sodium cyanide.



DECEMBER 2016 | EMP. TRANS. N&V

17

N&V uses trucks; in addition, all shipment is dispatched within low platform trailers purchased with a maximum load capacity of 30 tons which are certified to transport sodium cyanide by the government of Peru.

#### Trailer:

- Category / Class: N3 / Trailer.
- Bodywork: Trailer.
- Fuel: Oil.
- Age: not more than 5 years.
- Shafts, as seen in the DS 058-2003-MTC, Standard Vehicle Weights and Measures (legal International Standard) for cyanide transport units are designated configuration T3S3 and T3S2.

#### Semitrailer:

• 04 fastening systems (twistlock, plus pins), which may be fixed.

N&V sets action if incidents occur on the route which is described below.

- Incident without injury / continuous journey
- Mechanical problems / non-continuous journey
- Overturning with effusion / without spillage
- Fire Truck
- Overturning with rain and cargo fire
- Collision with injuries
- Spill dry cleaning and decontamination
- Fire load
- Water Spill cleaning and decontamination
- Social conflicts
- Adverse weather conditions
- Traffic congestion
- First aid for cyanide poisoning

Awareness on the part of drivers and supervisors of the actions in each case was evidenced after interview with the staff.

N&V has defined three levels of emergency response. The NV-SSMA-PDC-007 Emergency Response Plan identifies the roles of outside responders, medical facilities or communities in emergency response procedures.

The plan indicates the functions of external media involved in managing the contingencies that arise, for example:

- Provider of solid waste services (EPS-RS) second response
- National Police of Peru
- Volunteer fire department of Peru (specify the role and responsibility of firefighters)
- Medical centers.

N&V includes information regarding hospitals, police stations, Fire Company along the route.

# 3.2 TRANSPORT PRACTICE 3.2:

DESIGNATE APPROPRIATE RESPONSE PERSONNEL AND COMMIT NECESSARY RESOURCES FOR EMERGENCY RESPONSE.



DECEMBER 2016 | EMP. TRANS. N&V

18

# X in full compliance with

The operation is	$\hfill \square$ in substantial compliance with Transport Practice 3.2
	□ not in compliance with

# Summarize the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with Standard of Practice 3.2 requiring an operation Designate appropriate response personnel and commit necessary resources for emergency response.

N&V during the audit has show that Drivers, and Supervisors receive training in emergency response from appropriate personnel on the safe handling of cyanide (spill and intoxication) and others receive training courses in defensive driving, firefighting, first aid. These trainings are renewed annually complying with the training plan 2016.

# Training given to staff

- Hazardous Material HAZMAT 1 warning level
- Hazardous Material HAZMAT 2 basic operations
- Hazardous Material HAZMAT 3 Technical
- Defensive driving
- Safe handling of cyanide
- Emergency response plan

The training program is developed annually and can be enhanced according to performance and safety indicators and / or customers' requirement. For staff security awareness, it has adopted implementing further safety talks, which are made by the Security area, Supervisors and the same staff.

The Emergency Response Plan, Drivers, Supervisors, Chief safety, Operations Manager, Central Monitoring Coordinator, and General Manager are responsible to respond in an emergency; They have received the necessary training for efficient emergency response.

The Emergency Response Plan each truck has the necessary amount of emergency response equipment and the safety escort also has a Response Kit for spills and poisoning, and personal protective equipment which must be verified before the trip, as well as the verification of courses prior to starting the travels and the periodic emergency response training.

N&V has the necessary equipment for emergency response in the event of a major spill. Which is verified by the "Verification Pre-Use Units"

There were verified the records of the emergency response and inspection of equipment. The presence of such equipment in the convoy was verified. In the Emergency Plan indicates the functions of the staff in case of an emergency, and also the emergency equipment to be used in both the first and the second response. The Emergency Plan describes the specific functions of the emergency response and the staff responsibilities.

In the PR-02 Transportation Sodium Cyanide, is specified the verification criteria of the units before each journey.

During the audit, inspection records were evident.



DECEMBER 2016 | EMP. TRANS. N&V

19

The Safety Chief is responsible for ensuring the timely change of those equipment needed for emergency response, and proceeded to inform the Logistics area any requirement on the matter.

N&V does not subcontract any of this cyanide transport operations.

#### 3.3 TRANSPORT PRACTICE 3.3:

DEVELOP PROCEDURES FOR INTERNAL AND EXTERNAL EME	RGENCY NOTIFICATION AND REPORTING.
--	------------------------------------

	X in full compliance with
The operation is	☐ in substantial compliance with Transport Practice 3.3
	□ not in compliance with

# Summarize the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE whit Standard of Practice 3.3 requiring an operation Develop procedures for internal and external emergency notification and reporting.

The NV-SSMA-PDC-007 Emergency Response Plan indicates the current contact list which is reviewed and updated through every review of the NV-SSMA-PDC-007 Emergency Response Plan.

The NV-SSMA-PDC-007 Emergency Response Plan detailing the program communications, taking into consideration:

- Emergency levels.
- Communication of an emergency.
- Roadside communications flow emergency.
- Information during an emergency call.
- Communication to the Ministry of Energy and Mines / National Police of Peru / Osinergmin / Competent Authority / Other Institutions Support / Community.

The NV-SSMA-PDC-007 Emergency Response Plan includes an internal communication and external schema that specifies the call flow by the safety personnel, the receptors, the regulatory agencies, external response providers, medical centers, fire departments, and communities potentially affected by an emergency.

# 3.4 TRANSPORT PRACTICE 3.4:

DEVELOP PROCEDURES FOR REMEDIATION OF RELEASES THAT RECOGNIZE THE ADDITIONAL HAZARDS OF CYANIDE TREATMENT CHEMICALS.

	X in full compliance with
The operation is	☐ in substantial compliance withTransport Practice 3.4
	□ not in compliance with



DECEMBER 2016 | EMP. TRANS. N&V

20

# Summarize the basis for this Finding/Deficiencies Identified:

The operation is in FULL COMPLIANCE with Standard of Practice 3.4 requiring an operation develop procedures for remediation of releases that recognize the additional hazards of cyanide treatment chemicals.

It was noticed in the Emergency Response Plan, the description of how to recover or neutralize the solids, the procedure of decontamination of soils or other contaminated medium and how to manage these wastes.

The Emergency Response Plan prohibits the use of chemicals such as sodium hypochlorite, ferrous sulfate and hydrogen peroxide to treat cyanide that has been released to surface waters.

#### 3.5 TRANSPORT PRACTICE 3.5:

PERIODICALLY EVALUATE RESPONSE PROCEDURES AND CAPABILITIES AND REVISE THEM AS NEEDED.

	X in full compliance with
The operation is	☐ in substantial compliance with Transport Practice 3.5
	□ not in compliance with

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

The operation is in FULL COMPLIANCE with Standard of Practice 3.5 requiring an operation Periodically evaluate response procedures and capabilities and revise them as needed.

The period of review and evaluation of this Emergency Response Plan is at least once a year.

The N&V's Safety Chief is responsible for requesting immediate changes to this Plan, in the event of serious incidents, by simulation results, results of audits or inspections by process improvement etc.

During the audit, the Emergency Response Plan has been updated to date.

When you change the route, an updated contingency plan is generated and sent to the Ministry of Transport and Communications for review and final approval.

Also they scheduled drills periodically to assess the adequacy of the plan and the level of compliance of the actions planned emergency.

During the audit, records spill drill evidenced in 2016.

The Emergency Response Plan and the Training Plan define the frequency of emergency drills. The document presents the schedule of emergency simulations.

The simulations are made by the Safety Chief who has an ANNUAL DRILLS PROGRAM indicating the completion of ONE (01) practical simulation, for the purpose of evaluating the effectiveness of the Emergency Plan and correct what is indicated on it.

The purpose is to measure the efficiency of the response procedure to ensure that the staff involved in an emergency act according to the Emergency Response Plan.

The Safety Chief takes into account the rapid preliminary compilation of the situation, gathering basic facts as they are known such as time the who, what, where, when, how and why of the situation, contacts the



DECEMBER 2016 | EMP. TRANS. N&V

21

responsible person and broadcasts the obtained information, and continuously communicates with the Convoy Leader and will meet the requirements of authorities.



DECEMBER 2016 | EMP. TRANS. N&V

22





Alcance de certificación:
PROVISIÓN DE SERVICIOS DE CONSULTORÍA.
CAPACITACIÓN Y GESTIÓN DE RECURSOS HUMANOS.
MONITOREO OCUPACIONAL.

# **ISOSURE S.A.C.**

Calle Dean Valdivia #148 Edificio Platinum Torre I Piso 11 Oficina 1126 San Isidro - Lima - Perú Central Telefónica: +51 01 711 8249

# Contáctese con ISOSURE

comercial@iso-sure.com / marketing@iso-sure.com