INTERNATIONAL CYANIDE MANAGEMENT INSTITUTE

Cyanide Transportation Summary Audit Report

For the
International Cyanide Management Code

South America Supply Chain

15 July 2016
Name of Cyanide Supply Chain: South America Supply Chain
Name of Supply Chain Owner: Hyosung Corporation
Name of Supply Chain Operator: Hyosung Corporation
Name of Responsible Manager: Mr. Sung San Kim / General Manager, Chemical Products Performance Unit, Trading Performance Group, Hyosung Corporation
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Location detail and description of operation:

The head office of Hyosung Corporation is located in Seoul, Korea. In Hyosung Corporation, there are several business divisions as trading, heavy machinery, textile, chemistry and construction. Related to supplying the sodium cyanide, the main jobs of Chemical Products Performance Unit in Trading Business Division are making agreement with mining companies, receiving customer orders, review of customer orders and arrangement of shipping. Those were conducted by Chemical Products Performance Unit in Trading Performance Group of Hyosung Corporation. The Hyosung Corporation applied the South America Supply Chain as ICMC signatory and initially certified during May 2013 year. Almost three years were elapsed since South America Supply Chain was initially certified, so recertification audit was conducted during May 2016 year.

The main process of South America Supply Chain was almost same as initially certified during 2013 year. There are small changes as below:

1. The Busan New Port in Korea was installed and operated since 2013 year. So Hyosung Corporation have used Busan Port and Busan New Port.
2. The Hyosung Corporation have used shipping company MOL(Mitsui O.S.K. Line) since October 2015 year.
3. The Hyosung Corporation have not used the Ensenada Port in Mexico. They have used the Manzanillo and Guaymas Ports in Mexico. So the Ensenada Port is not included in South America Supply Chain.
4. The Hyosung Corporation have not exported sodium cyanide to Peru since 2015 year. So they have not used Callao Port in Peru.
5. Since October 2015 year, the Hyosung Corporation have supplied the sodium cyanide to gold mine in Mexico. They have used the Green Supply and Logistics, SA de CV as road transporter in Mexico.

The road transportation companies, railroad transportation company, shipping companies and ports were included in South America Supply Chain as below.

1. Road transportation from sodium cyanide producer to Ulsan Rail Terminal: SAM IK Logistics Co., Ltd. in Korea
2. Control of storage, loading and unloading in Ulsan Rail Terminal: SAM IK Logistics Co., Ltd. in Korea
3. Railroad transportation from Ulsan rail terminal to Busan Rail Terminal and Busan New Port Rail Terminal: KOREA RAILROAD In Korea
4. Control of storage, loading and unloading in Busan Rail Terminal and Busan New Port Rail terminal: SAM IK Logistics Co., Ltd. in Korea
5. Road transportation from Busan Rail Terminal to Busan Port and Busan New Port Rail Terminal to Busan New Port: SAM IK Logistics Co., Ltd. in Korea
6. Control of storage yard in Busan Port and Busan New Port: Hapag-Lloyd, MSC and MOL
7. Ocean transportation from Busan Port and Busan New Port in Korea to Manzanillo and Guaymas Ports in Mexico South America: Hapag-Lloyd, MSC and MOL

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(8) Control of storage in Manzanillo and Guaymas Ports in Mexico: Hapag-Lloyd, MSC and MOL
(9) Road transportation from Manzanillo and Guaymas Ports to gold mining sites in Mexico:
Green Supply and Logistics, SA de CV
Auditor’s Finding

This operation is

X in full compliance
in substantial compliance *(see below) with the International Cyanide Management Code
not in compliance

with the International Cyanide Management Code.

Audit Company : 3Points Co., Ltd.
Audit Team Leader : Mr. Sang-Ho Ahn
E-mail: triplepoint@naver.com

Date(s) of Audit: 05, 06 and 12 May 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 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.

During this recertification audit, I confirmed that the South America Supply Chain of Hyosung Corporation has not experienced any compliance problem during the previous three-year audit cycle.”

Hyosung Corporation

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Summary Audit Report

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 X in full compliance with with Transport Practice 1.1
☐ in substantial compliance
☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
The Hyosung Corporation established and implemented supply chain organization and control procedure in which detail process for selection of sodium cyanide transportation routes and control methods were defined. According to their procedure, they considered overall transportation route from sodium cyanide producer to gold mining customers in Mexico South America. During October 2015 year, they have considered and started the road transportation from Manzanillo and Guaymas ports to gold mining sites in Mexico.

They identified several possible routes from sodium cyanide producer in Korea to gold mining sites in Mexico. They evaluate the routes for such items as availability, security, transportation quantity and cost. And then they finally decide the transportation routes as below.

1) From cyanide producer TongSuh Petrochemical Co., Ltd. Ulsan Plant to Ulsan Rail Terminal in Korea: Roadway transportation by truck
2) Ulsan Rail Terminal to Busan Rail Terminal and Busan New Port Rail Terminal in Korea: Railroad transportation by train
3) Busan Rail Terminal to Busan Port and Busan New Port Rail Terminal to Busan New Port: Roadway transportation by truck
4) Busan Port and Busan New Port in Korea to Manzanillo and Guaymas Ports in Mexico: Ocean transportation by ship
5) Manzanillo and Guaymas Ports to gold mining sites in Mexico: Road transportation by truck

The subcontractor evaluation process was defined in supply chain organization and control procedure. Such items as ICMC signatory or OHSAS18001 certification, history of accident, compliance of delivery, price and cooperation etc. were evaluated for sodium cyanide producer, road transportation company, railroad transportation company, rail terminals, shipping companies and ports. According to the procedure, during October 2015 year, they reevaluated and chose sodium cyanide producer, transportation companies and shipping companies as below.

1) Roadway transportation from cyanide producer to Ulsan Rail Terminal: SAM IK Logistics Co., Ltd.
2) Railroad transportation from Ulsan Rail Terminal to Busan Rail Terminal and Busan New Port Rail Terminal: KOREA RAILROAD in Korea
3) Road transportation from Busan Rail Terminal to Busan Port and Busan New Port Rail Terminal to Busan New Port: SAM IK Logistics Co., Ltd. in Korea
4) Ocean transportation from Busan Port in Korea to Manzanillo and Guaymas Ports in Mexico South America: Hapag-Lloyd, MSC and MOL
5) Road transportation from Manzanillo and Guaymas Ports to gold mining sites in Mexico: Green Supply and Logistics, SA de CV

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Related to the sodium cyanide transportation of South America Supply Chain, the Hyosung Corporation reevaluated hazards and identified high risks as spillage, contamination, humane exposure and hijacking. They decided the control methods for each segment in South America Supply Chain as below.

1) Road transportation company in Korea (SAM IK Logistics Co., Ltd.)
   (1) Periodic supplier evaluation by Hyosung Corporation Petrochemicals Team
   (2) Implementation & certification of ICMC by SAM IK Logistics Co., Ltd.
2) Control of storage, loading and unloading in Ulsan Rail Terminal, Busan Rail Terminal and Busan New Port Rail Terminal (SAM IK Logistics Co., Ltd.)
   (1) Periodic supplier evaluation for SAM IK Logistics Co., Ltd by TongSuh Petrochemical Co., Ltd and Hyosung Corporation Petrochemicals Team
   (2) Implementation & certification of ICMC by SAM IK Logistics Co., Ltd.
3) Railroad transportation company in Korea (KOREA RAILROAD)
   (1) Periodic route evaluation by Hyosung Corporation Chemical Products Performance Unit
   (2) Periodic due diligence investigation by Hyosung Corporation Petrochemicals Team
4) Busan Port and Busan New Port in Korea (Hapag-Lloyd, MSC and MOL)
   The shipping companies rent the storage area in port from national port agency. And the shipping companies actually control the sodium cyanide storage yard in ports.
   (1) Periodic route evaluation by Hyosung Corporation Chemical Products Performance Unit
   (2) Periodic due diligence investigation by Hyosung Corporation Petrochemicals Team
5) Ocean transportation by shipping companies (Hapag-Lloyd, MSC and MOL)
   (1) Periodic route evaluation by Hyosung Corporation Petrochemicals Team
   (2) Periodic due diligence investigation by Hyosung Corporation Petrochemicals Team
6) Manzanillo and Guaymas Ports in Mexico South America (Hapag-Lloyd, MSC and MOL)
   The shipping companies rent the storage area in port from national port agency. And the shipping companies actually control the sodium cyanide storage yard in ports.
   (1) Periodic route evaluation by Hyosung Corporation Chemical Products Performance Unit
   (2) Periodic due diligence investigation by Hyosung Corporation Petrochemicals Team
7) Road transportation company in Mexico (Green Supply and Logistics, SA de CV)
   (1) Periodic supplier evaluation by Hyosung Corporation Petrochemicals Team
   (2) Implementation & certification of ICMC by Green Supply and Logistics, SA de CV

According to the above control methods, the Hyosung Corporation have implemented periodically the selection of ICMC certified producer and transportation companies, supplier evaluation, route evaluation and due diligence investigation.

Hyosung Corporation established risk assessment and high risk control procedure in which hazard identification for sodium cyanide supply chain, risk assessment for identified hazards and high risk control were defined.

During October 2015 year, according to the procedure, the Hyosung Corporation Chemical Products Performance Unit have identified hazards again and reevaluated the risks for the South America Supply Chain. Below high risks were identified.

1) Release of sodium cyanide powder to road, land and surface water during road and railroad transportation by transporters.
2) Damage to sodium cyanide container and human contact in rail terminals and ports
3) Release to sea water during ocean transportation by shipping company
4) Robbery during road transportation, storage in rail terminals, ports and sea transportation.
5) Taken away by criminal suspect during road and ocean transportation

According to supply chain organization and control procedure, the Hyosung Corporation should reevaluate the overall routes of South America Supply Chain every two year periodically.

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They completed the route evaluation during July 2012 year and reevaluation June 2014 year for the South America Supply Chain. And also during October 2015 year, they reevaluated the routes non-periodically to check the change as including the roadway transportation from ports to mining sites in Mexico.

The process for getting feedback on route condition from each segment in South America Supply Chain was defined in supply chain organization and control procedure. According to the procedure, Hyosung Corporation Chemical Products Performance Unit maintained communication channel and received information related to cyanide transportation routes from sodium cyanide producer, road and railroad transporters, shipping companies, ports and other sub-contractors.

During August 2015 year, the Hyosung Corporation Chemical Products Performance Unit received and registered the news of explosion accident in Tianjin Port China. The Hyosung Corporation checked their emergency response plan and communicated to relevant personnel in company.

The Hyosung Corporation documented the measures to address risks in South America Supply Chain. They prepared and completed the control measures such as supplier evaluation, check the certification of ICMC by applicable subcontractor and due diligence investigation for KOREA RAILROAD, ports and shipping companies. And also they established emergency response plan for sodium cyanide release, robbery and taken away by criminal suspect. The communication channel with government body, safety agency, police, producer and transporter defined in emergency response plan.

When Hyosung Corporation selected the transportation route of South America Supply Chain and developed the control measures for high risk, they considered and reflected the comments from communities and stakeholders such as Ulsan government office, Busan local government office, Good Morning Hospital, DongKang Medical Center, sodium cyanide producer, road transporter, shipping companies, Korea Occupational Health and Safety Agency and local fire fighting agency. The Hyosung Corporation informed the sodium cyanide transportation and received some general comments. The Hyosung Corporation has delivered their sodium cyanide transportation and storage procedure, material safety data sheet and emergency response plan to above communities and stakeholders.

During October 2015 year, the Hyosung Corporation reviewed again the overall route for South America Supply Chain. According to the review results, they decides that conveys and escorts are necessary only for road transportation from Manzanillo and Guaymas ports to mining sites in Mexico.

Since October 2015 year, for road transportation from Manzanillo Port and Guaymas Port to gold mining sites in Mexico, the transportation company (Green Supply and Logistics, SA de CV) have used escort and convoy for transportation by trucks.

The Hyosung Corporation established emergency response plan for sodium cyanide release to land & water and human exposure. In the emergency response plan, role and mutual aid with sodium cyanide producer, transporter, ports, safety agency, police, fire fighting agency, hospital etc. were defined. They advised the emergency response plan to relevant bodies and delivered their sodium cyanide transportation and storage procedure, material safety data sheet. Those activities were also implemented ICMC signatories and certified transporters.
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 substantial compliance
□ not in compliance with

with Transport Practice 1.2

Summarize the basis for this Finding/Deficiencies Identified:
According to supply chain organization and control procedure prepared by the Hyosung Corporation, they reevaluated subcontractors during October 2015 year. During the subcontractor reevaluation, they have checked and confirmed that sodium cyanide transport subcontractors have used only trained, qualified and licensed operators. And also those transport subcontractors were ICMC signatories and certified. And the Hyosung Corporation has prepared and communicated sodium cyanide transportation and storage procedure, material safety data sheet and emergency response plan to producer, transporters, ports and shipping companies to use for training, daily operation and emergency situation.

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

The operation is □ in substantial compliance
□ not in compliance with

with Transport Practice 1.3

Summarize the basis for this Finding/Deficiencies Identified:
According to supply chain organization and control procedure, the Hyosung Corporation reevaluated subcontractors during October 2015 year. During the subcontractor reevaluation, they checked and confirmed that sodium cyanide transport subcontractors have used only equipment designed and maintained to operate within the designed capacity. During the due diligence investigation, they checked and confirmed that the railroad transportation company, ports and shipping companies have used suitable equipment. And also the Hyosung Corporation confirmed that transporters, ports and shipping companies have preventive maintenance procedure to control the transport equipment. And container itself designated to prevent overloading.

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

The operation is □ in substantial compliance
□ not in compliance with

with Transport Practice 1.4

Summarize the basis for this Finding/Deficiencies Identified:
As the Hyosung Corporation is a trading company, they do not actually need the detail safety program for transport of sodium cyanide. During the subcontractor reevaluation and due diligence investigation, they checked and confirmed that sodium cyanide transporters, ports and shipping companies developed and implemented the safety program. As a consigner, they requested to transporters for the compliance of local regulation, international standards and safety program. If the transporters violate the local regulation and international standards, they are not able to be registered as approved subcontractor to Hyosung Corporation.

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

The operation is X in full compliance with
  □ in substantial compliance
  □ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
As the Hyosung Corporation is trading company, they do not actually perform the transportation of cyanide by ocean. They reevaluated shipping company during October 2015 year according to supply chain organization and control procedure. They applied four evaluation items as compliance with IMDG Code, legal requirements and international standards, accident cases during ocean transportation, compliance of target delivery and cost of transportation. Considering the evaluation results, they selected Hapag-Lloyd, MSC and MOL as shipping companies for sodium cyanide transportation from Busan Port and Busan New Port in Korea to Manzanillo and Guayamas ports in Mexico South America. The Hyosung Corporation completed the due diligence investigation during April 2016 for the shipping companies. According to the due diligence investigation, the Hyosung Corporation confirmed that shipping companies were comply with IMDG Code. Transportation of sodium cyanide by air is not applicable at this point.

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

The operation is X in full compliance with
  □ in substantial compliance
  □ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:
The Hyosung Corporation is trading company, so they do not actually perform the transportation of cyanide. During the subcontractor reevaluation, they checked and confirmed that the sodium cyanide transportation vehicles have pager, mobile phone and communication channel sheet in which telephone numbers of transportation companies, the producer, mining customers and emergency responders defined. And also during the subcontractor reevaluation, they checked and confirmed that the transports periodically have tested the communication equipment. During October 2015 year, the Hyosung Corporation Chemical Products Performance Unit checked again the overall routes of South America Supply Chain especially the changes as including Busan New Port and roadway transportation in Mexico. And found no blackout area. And they requested to transporters to identify blackout area and alternative procedure to control the blackout area. Until now they have not received any identified blackout area from transporters.
The Hyosung Corporation has procedure to track the progress of cyanide shipments. And if needed, they tracked the progress of cyanide shipments by contact with sodium cyanide producer TongSuh Petrochemical Co., Ltd. Ulsan Plant and transporters as SAM IK Logistics Co., Ltd., Green Supply and Logistics, SA de CV and website check of shipping companies Hapag-Lloyd, MSC and MOL. And also during the subcontractor reevaluation, they checked and evaluated the tracking of cyanide shipments by transporters.

As the Hyosung Corporation receive purchasing orders from customers as gold mining company, they review the delivery, quantity and input the orders in computer network system. They requested to sodium cyanide producer TongSuh Petrochemical Co., Ltd. Ulsan Plant to dispatch the amount of sodium cyanide and nominate the shipping company. The individual customer order including target delivery and amount, dispatched date and quantity of sodium cyanide from producer to shipping companies were registered in computer network system of Hyosung Corporation. And also the progress of ocean transportation by shipping companies can be checked for individual customer.

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orders in web-site of Hapag-Lloyd, MSC and MOL. So the inventory control and custody documentation were properly implemented to prevent loss of sodium cyanide during transportation.

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.

X in full compliance with

[ ] in substantial compliance
[ ] not in compliance with

with Transport Practice 2.1

Summarize the basis for this Finding/Deficiencies Identified:
The Hyosung Corporation checked over all routes of South America Supply Chain and identified interim storage areas as below.
1) Ulsan Rail Terminal in Korea
2) Busan Rail Terminal in Korea
3) Busan New Port Rail Terminal in Korea
4) Busan Port in Korea
5) Busan New Port in Korea
6) Manzanillo and Guayamas ports in Mexico South America

In the Ulsan Rail Terminal, Busan Rail Terminal and Busan New Port rail Terminal, the loading, unloading and storage works were performed by SAM IK Logistics Co., Ltd. The SAM IL Logistics Co., Ltd. was certified ICMC during 2010 year and recertified 2013 year and complied with ICMC code requirements.

Busan Port and Busan New Port in Korea, Manzanillo Port and Guayamas Port in Mexico are controlled by national port agency and interim storage areas are rent and controlled by shipping companies Hapag-Lloyd, MSC and MOL. During April 2016 year, Hyosung Corporation Chemical Products Performance Unit completed the due diligence investigation for Busan Port, Busan New Port, Manzanillo Port and Guayamas Port. The due diligence investigation activities are site visit and interview with employees for those ports, national port agency and shipping companies. They found the interim storage areas were controlled properly in compliance with legal requirements and ICMC code requirements. But some minor finding items issued during due diligence investigation, they requested corrective actions and confirmed the corrective action results from shipping companies and national port agency. And also they delivered their sodium cyanide transportation and storage procedure HSC-ESHWI-04, material safety data sheet and emergency response plan to employees in rail terminals, ports, national port agency, interim storage areas and shipping companies.
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**  
- [X] in full compliance with  
- [ ] in substantial compliance  
- [ ] not in compliance with  

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

The Hyosung Corporation established emergency response plan considering the possible emergency situations as sodium cyanide release to road, land, surface water and sea water, robbery during transportation and interim storage and taken away by criminal suspect during transportation. During October 2015 year they revised the emergency response plan to include the changes as Busan New Port, use of shipping company MOL and Green Supply and Logistics, SA de CV. The emergency response plan considered the solid sodium cyanide packaged in film & box and transported in container, transportation method, interim storage areas, infra structure as road condition, ports and ocean transportation. In the emergency response plan, they defined what they should do, communication channel and relevant external responders such as sodium cyanide producer, transporters, shipping company, mining, safety agency, police and hospitals. Detail emergency response plans considering road transportation were already prepared by road transporter SAM IK Logistics Co., Ltd. and Green Supply and Logistics, SA de CV and checked by Hyosung Corporation. During April 2016 year due diligence investigation, the Hyosung Corporation checked that shipping companies Hapag-Lloyd, MSC and MOL issued commitment to comply with IMDG Code in which the emergency response plan required. For interim storage areas such as rail terminals and ports, they delivered the emergency response plan and MSDS of sodium cyanide in which handling and treatment for released sodium cyanide defined.

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

**The operation is**  
- [X] in full compliance with  
- [ ] in substantial compliance  
- [ ] not in compliance with  

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

The Hyosung Corporation have training plan in which the emergency trainings are scheduled two times in 2015 and 2016 year. The team manager and member of Chemical Products Performance Unit participated the emergency response training by TongSuh Petrochemical Co., Ltd. Ulsan plant. And then they implemented the training for their team members for the emergency response plan and MSDS in October 2015. During the emergency response training, the communication channel, duties of relevant external agency and main activities of Petrochemical Team were introduced and training records were maintained.

In the emergency response plan prepared by Hyosung Corporation Petrochemicals Team, the roles and responsibilities of team leader, team member, other relevant team and external agency defined. And also in their emergency response plan and MSDS, the emergency response equipment such as shovel, sawdust, glove, mask etc. were defined.

*Hyosung Corporation*

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The road transportation company as SAM IK Logistics Co., Ltd. and Green Supply and Logistics, SA de CV have trained their employee and vehicle operators as yearly training program. The Hyosung Corporation Chemical Products Performance Unit did not provide emergency response training directly to vehicle operator. Instead the Chemical Products Performance Unit checked the implementation of emergency response training by road transportation companies during supplier evaluations. And also shipping companies Hapag-Lloyd, MSC and MOL have implemented training for their employee to comply with IMDG Code. For interim storage areas, they delivered their emergency response plan and MSDS of sodium cyanide in which handling and treatment for released sodium cyanide defined. For interim storage areas, the training or introduction with their emergency response plan and MSDS is enough for emergency situations in ports.

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

The operation is  
□ in full compliance with  
X in substantial compliance  
□ not in compliance with  

with Transport Practice 3.3

**Summarize the basis for this Finding/Deficiencies Identified:**
The Hyosung Corporation prepared the emergency response plan appropriate to the overall emergency situations possibly expected in South America Supply Chain. In the emergency response plan, contact information as telephone number, relevant person name and address of sodium cyanide producer, road transporter, shipping companies, safety agency, fire fighting agency and hospital were defined. During October 2015 year and April 2016 year, the Chemical Products Performance Unit revised emergency response plan HSC-ESHWI-05-PR01 Rev 01 to include changes as Busan New Port, use of shipping company MOL and Green Supply and Logistics, SA de CV.

**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  
X in substantial compliance  
□ not in compliance with  

with Transport Practice 3.4

**Summarize the basis for this Finding/Deficiencies Identified:**
The Hyosung Corporation prepared the emergency response plan appropriate to overall emergency situation possibly expected in South America Supply Chain. The remediation as recovery and protect for released sodium cyanide, decontamination of soil and water, control and disposal of wastes etc. were defined in the emergency response plan and MSDS. And also the prohibit of the use of sodium hypochlorite, ferrous sulfate and hydrogen peroxide to treat sodium cyanide that has been released into surface water was defined. The emergency response plan and MSDS were delivered to road transporters as SAM IK Logistics Co., Ltd., Green Supply and Logistics, SA de CV, shipping companies Hapag-Lloyd, MSC, MOL, ports such as Busan Port and Busan New Port in Korea, Manzanillo and Guayamas ports in Mexico South America.
Transport Practice 3.5: Periodically evaluate response procedures and capabilities and revise them as needed.

The operation is

- [ ] in substantial compliance
- [ ] not in compliance with

X in full compliance with

with Transport Practice 3.5

Summarize the basis for this Finding/Deficiencies Identified:
The Hyosung Corporation established emergency response procedure. According to the procedure, the emergency response plan shall be checked periodically and contact information updated as needed. During October 2015 year and April 2016 year, the Petrochemical Team revised emergency response plan HSC-ESHW1-05-PR01 appropriate to overall emergency situations possibly expected South America Supply Chain. During the revision of emergency response plan, the changes as contact information of local government offices in Korea and roadway transporter in Mexico were included. According to the emergency response procedure, they shall do the mock emergency drill once per year. The mock emergency drill was implemented in their office during October 2015. They checked the overall process and adequacy of emergency response plan and recorded the results.
Summary Report of Due Diligence Investigations

1. Background of due diligence investigation

1) Inability as consigner for railroad transportation company, ports and shipping companies lead to ICMC implementation and certification

The South America Supply Chain includes sodium cyanide manufacture, road transporter, railroad transportation company, ports and shipping companies as below.

(1) Road transportation from sodium cyanide producer to Ulsan Rail Terminal: SAM IK Logistics Co., Ltd. in Korea
(2) Control of storage, loading and unloading in Ulsan Rail Terminal: SAM IK Logistics Co., Ltd. in Korea
(3) Railroad transportation from Ulsan Rail Terminal to Busan Rail Terminal and Busan New Port Rail Terminal: KOREA RAILROAD in Korea
(4) Control of storage, loading and unloading in Busan Rail Terminal and Busan New Port Rail Terminal: SAM IK Logistics Co., Ltd. in Korea
(5) Road transportation from Busan Rail Terminal to Busan Port and Busan New Port Rail Terminal to Busan New Port: SAM IK Logistics Co., Ltd. in Korea
(6) Control of storage in Busan Port and Busan New Port: Hapag-Lloyd, MSC and MOL
(7) Ocean transportation from Busan Port and Busan New Port in Korea to Manzanillo Port and Guaymas Port in Mexico South America: Hapag-Lloyd, MSC and MOL
(8) Control of storage in Manzanillo Port and Guaymas Port in Mexico: Hapag-Lloyd, MSC and MOL
(9) Road transportation from Manzanillo and Guaymas Ports to mining sites in Mexico South America: Green Supply and Logistics, SA de CV

As consigner the Hyosung Corporation Chemical Products Performance Unit controls overall South America Supply Chain and will choose ICMC certified subcontractors or lead the ICMC implementation and certification to sodium cyanide manufacture, road transporters, rail transportation company, ports and shipping companies. So they successfully have chosen ICMC certified subcontractors as TongSuh Petrochemical Co., Ltd., SAM IK Logistics Co., Ltd. and Green Supply and Logistics, SA de CV. However, they can’t choose the ICMC certified railroad transportation company, ports and shipping companies. And also they can’t lead the rail transportation company, ports and shipping companies to ICMC implementation and certification due to their inability to affect change in the operating practices of those transportation facilities and companies.

So the Hyosung Corporation Chemical Products Performance Unit planned and implemented due diligence investigation for railroad transportation company, ports and shipping companies as required by ICMC.

The Hyosung Corporation Chemical Products Performance Unit have conducted the due diligence investigation every three year according to their supply chain organization and control procedure HSC-ESH01 Rev.01 and ICMC requirements.

2) Scope of due diligence investigation

The railroad transportation in Korea was includes in South America Supply Chain. So the due diligence investigation was implemented for railroad transportation company. The shipping companies rent the storage area in port and actually controlled the sodium cyanide storage yard. So the due diligence investigations were implemented for shipping companies including such activities as control of storage yard in ports, loading to ship and ocean transportation.

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2. Progress of due diligence investigation

1) Development of checklist
During 2012 year when the Hyosung Corporation was initially ICMC certified, Chemical Products Performance Unit reviewed the ICMC requirements, IMDC Code, South America Supply Chain, property of sodium cyanide and information from TongSuh Petrochemical Co., Ltd. And then they developed checklist for due diligence investigation applicable to the railroad transportation, sodium cyanide storage yard, loading to ship and ocean transportation. The checklist was revised and used during April 2016 year for due diligence investigation.

2) Nomination of investigation team leader and member
Considering the work experience and knowledge of ICMC, Mr. Kwang Jin Kim General Manager of Hyosung Corporation Chemical Products Performance Unit nominated team leader and member for due diligence investigation as below.
- Team Leader : Mr. Kwang Jin Kim (General Manager / Petrochemicals Team)
- Mr. Sung San Kim (Manager / Petrochemicals Team)
- Team Member : Mr. Byung Joo Lee (Assistant Manager / Petrochemical Team)
- Ms. Yeo Jin Kim (Assistant Manager / Petrochemical Team)

3) Scheduling of due diligence investigation.
They plan the due diligence investigation during April 2016 year for railroad transportation company, shipping companies including the control of sodium cyanide storage yard in ports and ocean transportation.
And inform the plan to rail transportation company and shipping companies with checklist.

4) Implementation of due diligence investigation
The Hyosung Corporation Chemical Products Performance Unit implemented due diligence investigation as planned during April 2016 year. They use the checklist and record the investigation results in checklist. After the investigation, they issued the completed checklists to railroad transportation company, shipping companies and requested corrective actions for some nonconformities. The Hyosung Corporation Chemical Products Performance Unit checked the action results from railroad transportation company and shipping companies and confirmed that corrective actions were completed for nonconformities.

3. Results of due diligence investigation
The Hyosung Corporation Chemical Products Performance Unit have developed and used the checklist and record the investigation results in checklist as below.

1) Railroad transportation
(1) Activities
Railroad transportation by KOREA RAILROAD
(2) Due diligence investigation date
20 April 2016
(3) Due diligence investigation team
Team Leader - Mr. Kwang Jin Kim (General Manager / Petrochemicals Team)
Team Member - Mr. Byung Joo Lee (Assistant Manager / Petrochemical Team)
(4) Due diligence investigation results and corrective action request
The investigation team issued the checklist to KOREA RAILROAD and requested corrective
actions for some findings identified during due diligence investigation. And also the investigation team confirmed the corrective action results taken by KOREA RAILROAD.

(5) Conclusion
According to the due diligence investigation results, the Hyosung Corporation Chemical Products Performance Unit concluded that the KOREA RAILROAD control the railroad transportation of sodium cyanide comply with ICMC and national legal requirements.

2) **Busan port in Korea**
   (1) Activities
   Control of storage yard in Busan port by ocean transportation company Hapag-Lloyd, MSC and MOL
   (2) Due diligence investigation date
   20 April 2016
   (3) Due diligence investigation team
   Team Leader - Mr. Kwang Jin Kim (General Manager / Petrochemicals Team)
   Team Member – Mr. Byung Joo Lee (Assistant Manager / Petrochemicals Team)
   (4) Due diligence investigation results and corrective action request
   The investigation team issued the checklist to Busan Port and shipping companies. And Requested corrective actions for some findings identified during due diligence investigation. And also the investigation team confirmed the corrective action results taken by Busan Port and shipping companies.
   (5) Conclusion
   According to the due diligence investigation results, the Hyosung Corporation Chemical Products Performance Unit concluded that the control the sodium cyanide storage yard in Busan Port comply with ICMC and national legal requirements.

3) **Busan New Port in Korea**
   (1) Activities
   Control of storage yard in Busan port by ocean transportation company Hapag-Lloyd, MSC and MOL
   (2) Due diligence investigation date
   22 April 2016
   (3) Due diligence investigation team
   Team Leader - Mr. Kwang Jin Kim (General Manager / Petrochemicals Team)
   Team Member – Mr. Byung Joo Lee (Assistant Manager / Petrochemicals Team)
   (4) Due diligence investigation results
   The investigation team have not found any nonconformity during the due diligence investigation for the control of storage yard in Busan New Port.
   (5) Conclusion
   According to the due diligence investigation results, the Hyosung Corporation Chemical Products Performance Unit concluded that the control the sodium cyanide storage yard in Busan New Port comply with ICMC and national legal requirements.

4) **Ocean transportation by Hapag-Lloyd**
   (1) Activities
   Ocean transportation by Hapag-Lloyd
(2) Due diligence investigation date
   22 April 2016
(3) Due diligence investigation team
   Team Leader - Mr. Kwang Jin Kim (General Manager / Petrochemicals Team)
   Team Member - Mr. Byung Joo Lee (Assistant Manager / Petrochemicals Team)
(4) Due diligence investigation results
   The investigation team have not found any nonconformity during the due diligence
   investigation for the Hapag-Lloyd’s ocean transportation. So they did not issue any corrective
   action request. Instead they delivered the MSDS of sodium cyanide to the manager of Hapag-
   Lloyd.
(5) Conclusion
   According to the due diligence investigation results, the Hyosung Corporation Chemical
   Products Performance Unit concluded that the Hapag-Lloyd’s ocean transportation comply
   with ICMC and national legal requirements.

5) Ocean transportation by MSC
   (1) Activities
      Ocean transportation by MSC
   (2) Due diligence investigation date
      20-21 April 2016
   (3) Due diligence investigation team
      Team Leader - Mr. Kwang Jin Kim (General Manager / Petrochemicals Team)
      Team Member - Mr. Byung Joo Lee (Assistant Manager / Petrochemicals Team)
   (4) Due diligence investigation results and corrective action request
       The investigation team issued the checklist to Busan Port and shipping companies. And
       requested corrective actions for some findings identified during due diligence investigation.
       And also the investigation team confirmed the corrective action results taken by MSC.
   (5) Conclusion
       According to the due diligence investigation results, the Hyosung Corporation Chemical
       Products Performance Unit concluded that the MSC’s ocean transportation comply with
       ICMC and national legal requirements.

6) Ocean transportation by MOL
   (1) Activities
      Ocean transportation by MOL
   (2) Due diligence investigation date
      22 April 2016
   (3) Due diligence investigation team
      Team Leader - Mr. Kwang Jin Kim (General Manager / Petrochemicals Team)
      Team Member - Mr. Byung Joo Lee (Assistant Manager / Petrochemicals Team)
   (4) Due diligence investigation results
       The investigation team have not found any nonconformity during the due diligence
       investigation for the MOL’s ocean transportation. So they did not issue any corrective action
       request. Instead they delivered the MSDS of sodium cyanide to the manager of MOL.
   (5) Conclusion
       According to the due diligence investigation results, the Hyosung Corporation Chemical
       Products Performance Unit concluded that the MOL’s ocean transportation comply with
       ICMC and national legal requirements.
7) Manzanillo port in Mexico

(1) Activities
Control of storage yard in Manzanillo port by ocean transportation company Hapag-Lloyd, MSC and MOL

(2) Due diligence investigation date
25 April 2016

(3) Due diligence investigation team
Team Leader - Mr. Sung San Kim (Manager / Petrochemicals Team)
Team Member - Ms. Yeo Jin Kim (Assistant Manager / Petrochemicals Team)

(4) Due diligence investigation results and corrective action request
The investigation team issued the checklist to Hapag-Lloyd, MSC and MOL controlling the Manzanillo port and requested corrective actions for some findings identified during due diligence investigation. And also the investigation team confirmed the corrective action results taken by Hapag-Lloyd, MSC and MOL.

(5) Conclusion
According to the due diligence investigation results, the Hyosung Corporation Chemical Products Performance Unit concluded that the control the sodium cyanide storage yard in Manzanillo port comply with ICMC and national legal requirements.

8) Guayamas port in Mexico

(1) Activities
Control of storage yard in Guayamas port by ocean transportation company Hapag-Lloyd, MSC and MOL

(2) Due diligence investigation date
26 April 2016

(3) Due diligence investigation team
Team Leader - Mr. Sung San Kim (Manager / Petrochemicals Team)
Team Member - Ms. Yeo Jin Kim (Assistant Manager / Petrochemicals Team)

(4) Due diligence investigation results
The investigation team have not found any nonconformity during the due diligence investigation for the Hapag-Lloyd, MSC and MOL’s control of storage yard in Guayamas port in Mexico. So they did not issue any corrective action request.

(5) Conclusion
According to the due diligence investigation results, the Hyosung Corporation Chemical Products Performance Unit concluded that the control the sodium cyanide storage yard in Guayamas Port in Mexico comply with ICMC and national legal requirements.

4. Review of the due diligence investigation results by ICMC audit team
During the ICMC recertification audit May 2016 year for South America Supply Chain, the auditor Mr. Sang-Ho Ahn reviewed the due diligence investigation process and results implemented by Hyosung Corporation Petrochemicals Team. The due diligence investigations included the railroad transportation, storage yard in ports and ocean transportation.
The Hyosung Corporation Chemical Products Performance Unit implemented the due diligence Investigations comprehensively for rail terminals, railroad transportation, ports and ocean transportation as below.
- Study and develop checklist applicable to sodium cyanide storage and transportation.
- Nominated competent personnel as due diligence investigation team leader and members.
- Implement due diligence investigation with checklists and record the results.
- Issue corrective actions for nonconformities identified during due diligence investigation.
- Checked corrective action results

Hyosung Corporation

Name of Supply Chain Operator

Lead Auditor Signature

15 July 2016
The audit team finally concluded that the due diligence investigations for South America Supply Chain implemented by Hyosung Corporation Chemical Products Performance Unit were comply with ICMC requirements.