INTERNATIONAL CYANIDE MANAGEMENT INSTITUTE

Cyanide Transportation Summary Audit Report

For the International Cyanide Management Code

Africa Supply Chain

02 June 2021

Samsung C & T Corporation	S.H.Ahn	02 June 2021
Name of Supply Chain Operator	Lead Auditor Signature	Date

Name of Cyanide Supply Chain : Africa Supply Chain
Name of Supply Chain Owner : Samsung C&T Corporation
Name of Supply Chain Operator : Samsung C&T Corporation
Name of Responsible Manager : Mr. Hyo Suk Kang / Head of Mining Chemicals Group
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Location detail and description of operation:

The head office of Samsung C & T Corporation is located in Seoul, Korea. They have four groups named as Trading & Investment Group, Engineering & Construction Group, Fashion Group and Resort Group. Related to supplying the sodium cyanide, the main jobs of Trading & Investment Group are making agreement with mining company, receiving customer order, review of customer order and arrangement of shipping. Those were conducted by Mining Chemicals Group in Trading & Investment Group of Samsung C & T Corporation.
The Africa Supply Chain of Samsung C & T Corporation was last ICMC re-certified during January 2018. Since almost three years were elapsed, re-certification audit for the Africa Supply Chain was conducted during 18, 19 & 22 January 2021.
The main segments of Africa Supply Chain were organized as below.

1. Sodium cyanide manufacture : TaeKwang Industrial Co., Ltd. and TongSuh Petrochemical Co., Ltd. in Korea
2. Transportation from sodium cyanide manufactures to Pusan New Port in Korea : SAM IK Logistics Co., Ltd. and Hae Dong Logistics in Korea

Road transporter in Korea	Recent ICMC certification date
SAM IK Logistics Co., Ltd.	March 26, 2020
Hae Dong Logistics	January 14, 2020

3. Marine transportation from Pusan New Port in Korea to Africa : Maersk, MSC and Safmarine
4. The ports and road transporters in Africa and final destinations were as below.

Departing port	Arriving ports in Africa	Final Destination	Road transporter in Africa	Recent ICMC certification date
Pusan New Port in Korea	Tema Port in Ghana	Mining in Ghana, Burkina Faso, Niger, Mali and Guinea	Vehrad Transport and Haulage Limited	January 08, 2018
	Conakry Port in Guinea	Mining in Guinea	Transport Terrassement Minier (T.T.M)	January 29, 2020
	Dakar Port in Senegal	Mining in Mali	Bollore Logistics France	January 16, 2020
	Abidjan Port in Cote D'Ivoire	Mining in Mali and Burkina Faso	Bollore Logistics France	January 16, 2020

	Monrovia Port in Liberia	Monrovia Port in Liberia	Not Applicable	Not Applicable
	Mombasa Port in Kenya	Mining in Tanzania	Alistair James Company Ltd.	March 26, 2019
	Dar Es Salaam Port in Tanzania	Mining in Tanzania	Alistair James Company Ltd.	March 26, 2019

Auditor's Finding

This operation is

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

The operation has maintained full compliance with the International Cyanide Management Code throughout the previous three-year audit cycle.

Audit Company : 3Points Co., Ltd
Audit Team Leader : Mr. Sang Ho Ahn
E-mail: triplepoint@naver.com
Date(s) of Audit : 18, 19 & 22 January 2021

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.

. Samsung C & T Corporation	S.H Ahn	02 June 2021
Name of Supply Chain Operator	Lead Auditor Signature	Date

Samsung C & T Corporation	S.H Ahn	02 June 2021
Name of Supply Chain Operator	Lead Auditor Signature	Date

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** in substantial compliance not in compliance with	**with Transport Practice 1.1**

Summarize the basis for this Finding/Deficiencies Identified:

During 2017, the Samsung C & T Corporation considered overall transportation route from sodium cyanide manufactures (TaeKwang Industrial Co., Ltd. and TongSuh Petrochemical Co., Ltd. in South Korea) to customer mining sites in Africa countries such as Ghana, Burkina Faso, Niger, Guinea, Mali and Tanzania according to their hazardous chemical transportation manual in which route evaluation process defined.
They re-checked the existing transportation from cyanide manufactures to mining sites in Africa. They evaluated for such items as availability, security, transportation quantity and cost. And also considering the delivery and marketing strategy, they decided to maintain the use of Tema port in Ghana as interim storage area and repackaging plant. And then they finally decided the transportation routes as below.

1) From cyanide manufactures in Korea to Pusan New Port in Korea : Roadway transportation by truck
2) Pusan New Port in Korea to Africa Tema Port in Ghana, Conakry Port in Guinea, Dakar Port in Senegal, Mombasa Port in Kenya, Dar Es Salaam Port in Tanzania, Abidjan Port in Cote D'Ivoire and Monrovia Port in Liberia : Marine transportation by ship
3) From Tema Port, Conakry Port, Dakar Port, Mombasa Port and Dar Es Salaam Port to mining sites in Ghana, Burkina Faso, Niger, Guinea, Mali and Tanzania : Roadway transportation by truck
4) The road transportation from Monrovia Port in Liberia to mining sites shall be controlled by customer

During December 2020, according to the subcontractor evaluation procedure the Samsung C & T Corporation re-evaluated and chose sodium cyanide manufactures, transportation companies and shipping companies as below.

1) Sodium cyanide manufacture : TaeKwang Industrial Co., Ltd. and TongSuh Petrochemical Co., Ltd. in Korea
2) From cyanide manufactures to Pusan New Port in Korea
   (1) From TaeKwang Industrial Co., Ltd. Ulsan Plant to Pusan New Port in Korea (Roadway transportation by truck) : Hae Dong Logistics
   (2) From TongSuh Petrochemical Co., Ltd. Ulsan Plant to Pusan New Port in Korea (Roadway transportation by truck) : SAM IK Logistics Co., Ltd .
3) Pusan New Port in Korea to Africa Tema Port in Ghana, Conakry Port in Guinea, Dakar Port in Senegal, Mombasa Port in Kenya, Dar Es Salaam Port in Tanzania, Abidjan Port in Cote D'Ivoire and Monrovia Port in Liberia (Marine transportation by ship) : Maersk, MSC and Safmarine
4) Tema Port in Ghana to mining sites in Ghana, Burkina Faso, Niger, Mali and Guinea (Roadway transportation by truck) : Vehrad Transport and Haulage Limited
5) Conakry Port in Guinea to mining sites in Guinea (Roadway transportation by truck) : Transport Terrassement Minier (T.T.M)
6) Dakar Port in Senegal and Abidjan Port in Cote D'Ivoire to mining sites in Mali and Burkina Faso

(Roadway transportation by truck) : Bollore Logistics France
7) Mombasa Port in Kenya and Dar Es Salaam Port in Tanzania to mining sites in Tanzania
(Roadway transportation by truck) : Alistair James Company Ltd.

The work scope of Africa Supply Chain includes repackaging plant operation in Tema Ghana.
The Samsung C & T Corporation also evaluated and chose sub-contractor as below.
- Repackaging from woven bag to tank container in Tema Ghana : Operated by Vehard Transport and Haulage Limited

Vehard Transport and Haulage Limited is ICMC signatory and recently ICMC certified during January 08, 2018 for the operation of cyanide repackaging plant.

The Samsung C & T Corporation decided the control method for each segment in Africa Supply Chain as below.

1) Cyanide manufactures (TaeKwang Industrial Co., Ltd. and TonsSuh Petrochemical Co., Ltd. in Korea)
   (1) Periodic subcontractor evaluation by Samsung C & T Corporation
   (2) Implementation and certification of ICMC by TaeKwang Industrial Co., Ltd. and TongSuh Petrochemical Co., Ltd.
      -TaeKwang Industrial Co., Ltd was ICMC recertified during July 24, 2020
      -TongSuh Petrochemical Co., Ltd. was ICMC recertified during March 09, 2020
2) Roadway transportation companies in Korea
   (1) Periodic subcontractor evaluation by TaeKwang Industrial Co., Ltd., TongSuh Petrochemical Co., Ltd. and Samsung C & T Corporation
   (2) Implementation and certification of ICMC by Hae Dong Logistics Co., Ltd. and SAM IK Logistics Co., Ltd.
      - Hae Dong Logistics Co., Ltd. was ICMC recertified during January 14, 2020
      - SAM IK Logistics Co., Ltd. was ICMC recertified during March 26, 2020
3) Pusan New Port in Korea
   The Korea National Port Agency has controlled the Pusan New Port.
   (1) Periodic route evaluation by Samsung C & T Corporation
   (2) Periodic due diligence investigation by Samsung C & T Corporation
4) Shipping companies
   (1) Periodic route evaluation by Samsung C & T Corporation
   (2) Periodic due diligence investigation by Samsung C & T Corporation
5) Tema Port in Ghana, Conakry Port in Guinea, Dakar Port in Senegal, Mombasa Port in Kenya, Dar Es Salaam Port in Tanzania, Abidjan Port in Cote D'Ivoire and Monrovia Port in Liberia
   The national port agencies in each country have controlled the ports.
   (1) Periodic route evaluation by Samsung C & T Corporation
   (2) Periodic due diligence investigation by Samsung C & T Corporation
6) Road transportation companies in Africa
   (1) Periodic subcontractor evaluation by Samsung C & T Corporation
   (2) Implementation and certification of ICMC by Vehrad Transport and Haulage Limited, Transport Terrassement Minier (T.T.M), Bollore Logistics France and Alistair James Company Ltd.
      - Vehrad Transport and Haulage Limited was ICMC recertified during January 08, 2018
      - Transport Terrassement Minier (T.T.M) was ICMC recertified during January 29, 2020
      - Bollore Logistics France was ICMC recertified during January 16, 2020
      - Alistair James Company Ltd. was ICMC recertified during March 26, 2019
7) Repackaging plant operation in Tema Ghana
   (1) Periodic subcontractor evaluation by Samsung C & T Corporation
   (2) Implementation and certification of ICMC by Vehard Transport and Haulage Limited

- Vehard Transport and Haulage Limited was ICMC recertified during January 08, 2018. The recertification audit extended to April 30, 2021 due to COVID19.

The Samsung C & T Corporation have checked the overall routes of Africa Supply Chain and re-evaluated the risks again according to their hazardous chemical transportation manual. They identified risks as below.
- Release to land and water, toxic gas leakage to air in sodium cyanide manufacturing process
- Release to road, land and surface water during roadway transportation by transporters
- Damage to sodium cyanide container in ports
- Release to sea water during marine transportation by shipping companies
- Robbery during road transportation, storage in ports and marine transportation.
- Taken away by criminal suspect during roadway and marine transportation

The Samsung C & T Corporation evaluated possibility and consequence for above risks according to their hazardous chemical transportation manual.
Considering the risk evaluation results, and no accident since January 2018, they concluded that the current control methods are effective. So they will maintain the current control methods as below.
1) Cyanide manufactures
   - Completed subcontractor evaluation
   - Maintain ICMC certification by manufactures
2) Road transportation companies in Korea
   - Completed subcontractor evaluation
   - Maintain ICMC certification by road transportation companies
3) Pusan New Port in Korea
   - Completed route evaluation
   - Due diligence investigations
4) Shipping companies
   - Complete route evaluation
   - Due diligence investigations
6) Tema Port in Ghana, Conakry Port in Guinea, Dakar Port in Senegal, Mombasa Port in Kenya, Dar Es Salaam Port in Tanzania, Abidjan Port in Cote D'Ivoire and Monrovia Port in Liberia
   - Completed route evaluation
   - Due diligence investigation
7) Road transportation companies in Africa
   - Completed subcontractor evaluation
   - Maintain ICMC certification by road transporters
8) Repackaging plant operation
   - Completed subcontractor evaluation
   - Maintain ICMC certification for repackaging plant operation

The Samsung C & T Corporation completed the route evaluation during 2017 year. Almost three year were elapsed since last route evaluation for Africa Supply Chain, they have re-evaluated the routes of Africa Supply Chain during November 2020. According to the re-valuation results, there was no severe change and difference since 2017.
According to hazardous chemical transportation manual, the Samsung C & T Corporation will receive information related to cyanide transportation routes from manufactures, road transporters, shipping companies and other sub-contractors. And the review of information to identify any other safety issues was defined in hazardous chemical transportation manual. Since 2017, there is no special information from manufactures, roadway transporters, ports and shipping companies.

The Samsung C & T Corporation documented the measures to address risks in Africa Supply Chain. They also established emergency response plan for sodium cyanide release, robbery and taken away

by criminal suspect. The communication channel with government body, safety agency, police, manufactures and transporters was defined in emergency response plan. And also the due diligence actions can be taken by the Samsung C & T Corporation as defined in emergency response plan. According to route evaluation and risk assessment results, the Samsung C & T Corporation informed the sodium cyanide transportation route to relevant bodies defined in emergency response plan.

They received some question and general comments and considered during route selection and development of control measures. During the due diligence investigation, they informed the manual, emergency response plan and MSDS to ports and shipping companies included in Africa Supply Chain.
The Samsung C & T Corporation reviewed periodically the overall route for Africa Supply Chain. According to the review results, they decided that convoys and escorts are necessary for road transportation from Tema Port in Ghana, Conakry Port in Guinea, Dakar Port in Senegal, Abidjan Port in Cote D'Ivoire, Mombasa Port in Kenya and Dar Es Salaam Port in Tanzania to mining sites in Ghana, Burkina Faso, Niger, Guinea, Mali and Tanzania.
And decide that convoys, escorts or additional measures are unnecessary for other segments with justification. For road transportation from Monrovia Port in Liberia to mining sites shall be controlled by customers.
Since 2010 when the Samsung C&T Corporation started the supply of sodium cyanide to Africa , for road transportation from Tema Port in Ghana, Conakry Port in Guinea, Dakar Port in Senegal, Abidjan Port in Cote D'Ivoire, Mombasa port in Kenya and Dar Es Salaam Port in Tanzania to mining sites in Ghana, Burkina Faso, Niger, Guinea, Mali and Tanzania, the transportation companies (Vehrad Transport and Haulage Limited, Transport Terrassement Minier (T.T.M), Bollore Logistics France and Alistair James Company Ltd.) have used escort and convoy for their transportation by trucks. The Samsung C & T Corporation checked road transportation by ICMC certified transporters and also found that some segments were curved, near the high population density and surface water areas. But they concluded that those risks can be controlled by ICMC certified transporters.

The Samsung C & T Corporation established emergency response plan for sodium cyanide release and human exposure. In the emergency response plan, role and mutual aid with sodium cyanide manufactures, transporters, ports, safety agency, police, fire fighting agency, hospital and local government offices were defined. During December 2020, the emergency response plan was revised to reflect current communication channel and relevant personnel in Africa Supply Chain. They advised the emergency response plan to relevant bodies.

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	**X in full compliance with** in substantial compliance not in compliance with	**with Transport Practice 1.2**

Summarize the basis for this Finding/Deficiencies Identified:

The Samsung C & T Corporation is trading company. So they do not actually operate cyanide handling and transport equipment. During the subcontractor evaluation, they checked and evaluated sodium cyanide transporters whether the sodium cyanide operators were trained, qualified and licensed. They confirmed that the sodium cyanide operators were trained, qualified and licensed. The Samsung C & T Corporation have prepared and communicated sodium cyanide handling manual

as pocket book to manufactures, transporters, ports and shipping companies to use in training, daily operation and emergency situation.

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

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

Summarize the basis for this Finding/Deficiencies Identified:

The Samsung C & T Corporation is trading company. So they do not actually use transport equipment. During the subcontractor evaluation, they checked and evaluated sodium cyanide transporters whether the transport equipment is suitable for sodium cyanide shipment. And also during the due diligence investigation, they checked the ports and shipping companies whether the transport equipment is suitable or not. According to the subcontractor evaluation and due diligence investigation results, the transporters, ports and shipping companies have used suitable equipment. And transporter, ports and shipping company 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	**X in full compliance with** in substantial compliance not in compliance with	**with Transport Practice 1.4**

Summarize the basis for this Finding/Deficiencies Identified:

The Samsung C & T Corporation is a trading company. So they do not actually need the detail safety program for transport of sodium cyanide. During the subcontractor evaluation and due diligence investigation, they checked and evaluated sodium cyanide transporters, ports and shipping companies whether the safety program was developed and implemented. According to the subcontractor evaluation and due diligence investigation results, the 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.

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	**with Transport Practice 1.5**

Summarize the basis for this Finding/Deficiencies Identified:

The Samsung C & T Corporation is a trading company. So they do not actually perform the transportation of sodium cyanide by sea. They evaluated periodically the shipping companies according to subcontractor evaluation procedure and hazardous chemical transportation manual for such items as compliance with International Maritime Dangerous Goods (hereinafter IMDG) and legal requirement.

After the evaluation, they selected Maersk, MSC and Safmarine as shipping companies for sodium cyanide transportation. They have completed the due diligence investigation during December 2020 and January 2021. According to the due diligence investigation, those shipping companies were comply with IMDG Code. Transportation of sodium cyanide by air is not applicable. The due diligence investigation results were reviewed during this ICMC audit and described as in section of due diligence report.

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 **with Transport Practice 1.6**

Summarize the basis for this Finding/Deficiencies Identified:

The Samsung C & T Corporation is trading company. So they do not actually perform the transportation of cyanide. During the subcontractor evaluation, they checked and evaluated the sodium cyanide transporters whether the transport vehicles have means to communication with relevant bodies. According to the evaluation results, the vehicles have pager, mobile phone and communication channel sheet in which telephone numbers of transportation companies, the manufacture, mining and emergency responders defined.
During the subcontractor evaluation, they checked and evaluated the transporters whether they periodically test the communication equipment or not. They confirmed that the transporters have periodically tested their communication equipment.
The Samsung C & T Corporation checked again during 2020 the overall routes of Africa Supply Chain. And found no blackout area. They have 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 Samsung C&T Corporation have implemented the process of inventory control and custody documentation for the export of sodium cyanide products.
According to annual sales plan of sodium cyanide in Africa, the Samsung C & T Corporation requested to sodium cyanide manufactures to dispatch the sodium cyanide and nominate the shipping company Maersk, MSC and Safmarine. The individual dispatch order (order number, target delivery and amount), dispatched date and quantity of sodium cyanide from manufactures to shipping companies were registered in computer network system of Samsung C & T Corporation. And also the progress of marine transportation by shipping companies can be checked for individual dispatch order in web-site of Maersk, MSC and Safmarine.
As the local office of Samsung C & T Corporation in Africa was informed the arrival of sodium cyanide in ports in Africa, they conducted the customs clearance and requested transportation to roadway transporters from ports to repackaging plant and interim storage facility in Tema Ghana or mining sites. The input, output, current stock and transportation quantity of sodium cyanide are controlled in computer network system of Samsung C & T Corporation.
The Samsung C & T Corporation receive purchasing orders from mining customers in Africa, they review the delivery target date and quantity and input the orders in computer network system. And then they requested to repackaging plant and interim storage facility to dispatch and to roadway transporters to transport sodium cyanide as purchasing orders from customers. The individual customer order (order number, target delivery and amount), dispatched date from repackaging plant and interim storage facility and quantity of sodium cyanide were registered in computer network

system of Samsung C & T Corporation.
The progress of roadway transportation from repackaging plant and interim storage facility to mining sites in Africa can be tracked by contact with roadway transporters.
According to the subcontractor evaluation results, the Samsung C & T Corporation confirmed that the sodium cyanide manufactures, roadway transporters and shipping companies controlled the Material Safety Data Sheet properly.

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	**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 Samsung C & T Corporation do not actually control the interim storage areas. However they checked overall route of Africa Supply Chain and considered the several ports as interim storage areas as below.
1) Pusan New Port in Korea, Tema Port in Ghana, Conakry Port in Guinea, Dakar Port in Senegal, Mombasa Port in Kenya, Dar Es Salaam Port in Tanzania, Abidjan Port in Cote D'Ivoire and Monrovia Port in Liberia
2) Repackaging plant and interim storage facility in Tema Ghana

Those ports are controlled by national port agencies and interim storage areas in ports are rent and controlled by shipping companies. The site visits and due diligence investigation for those ports as interim storage areas were conducted during December 2020 and January 2021.
The due diligence investigation activities are site visits, change reviews and web site check for those ports, national port agency, interim storage areas and shipping companies. They found the interim storage areas in ports were controlled properly in compliance with legal requirements and ICMC code requirements. The Samsung C & T Corporation have conducted subcontractor evaluation and chose the Vehard Transport and Haulage Limited to control the repackaging plant and interim storage facility in Tema Ghana. The Vehard Transport and Haulage Limited is ICMC certified for both transportation and production to operate the interim storage facility and repackaging plant in Tema Ghana.

During the due diligence investigation for ports and subcontractor evaluation for repackaging plant and interim storage facility, the Samsung C & T Corporation have found the interim storage areas were controlled properly as security measures in place, the sodium cyanide storage areas were fenced and locked to prevent unauthorized access, the interim storage areas were separated from materials as acids, oxidizers and explosives with burns and fence to prevent mixing, the sodium cyanide maintained in container itself in ports as dispatched from manufactures and maintained in warehouse used only for sodium cyanide in repackaging plant and interim storage facility, the sodium cyanide was stored to prevent the contact with water.

The Samsung C & T Corporation found in the interim storage areas that the sodium cyanide

containers were stored in open port yards as no need the ventilation for hydrogen cyanide gas from solid sodium cyanide in ports, the warehouse in repackaging plant and interim storage facility in Tema Ghana designed and maintained with ventilation to prevent the build-up of hydrogen cyanide gas, the interim storage areas in ports were controlled properly by national port agency and shipping companies to contain the spilled sodium cyanide in storage areas, bunds were installed around interim storage areas in ports and the sodium cyanide maintained in containers in ports so the spilled sodium cyanide can't release out of the containers.
During subcontractor evaluation, the Samsung C & T Corporation confirmed that the warehouse in repackaging plant and interim storage facility in Tema Ghana designed and maintained with enough capacity to contain any spilled sodium 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	**X in full compliance with** in substantial compliance not in compliance with	**with Transport Practice 3.1**

Summarize the basis for this Finding/Deficiencies Identified:

The Samsung C & T Corporation have identified 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. And define the emergency response plan in hazardous chemical transportation manual. They defined what they should do, communication channel and relevant external responders such as sodium cyanide manufacture, transporters, shipping companies, mining, safety agency, police and hospitals.
During December 2020, the communication channel and external responders were revised to reflect current communication channel and relevant personnel in Africa Supply Chain.
Detail emergency response plans were already prepared by sodium cyanide manufactures and road transporters. The emergency response plans were checked by Samsung C & T Corporation during subcontractor evaluation. And also they checked that shipping companies issued commitment to comply with IMDG Code in which the emergency response plan required. For interim storage ports areas, they have informed the sodium cyanide handling manual as pocket book in which handling and treatment for released sodium cyanide defined.

The Samsung C & T Corporation have prepared the emergency response plan appropriate to over all emergency situations possibly expected in Africa Supply Chain. The emergency response plan considered the transportation route and interim storage area. And they confirmed that shipping companies maintained emergency response plan appropriate for release accident during marine transportation to comply with IMDG Code. For Africa Supply Chain, the Samsung C & T Corporation arranged the transportation of solid sodium cyanide. The plan considered the solid sodium cyanide packaged in polyethylene inner film & polypropylene woven bag or box and transported in container. The emergency plan considered the transportation method, interim storage area and infrastructure as road condition, ports and marine transportation.

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	**with Transport Practice 3.2**

Summarize the basis for this Finding/Deficiencies Identified:

The Samsung C & T Corporation have responsibility for the overall emergency response and cyanide handling within the Africa Supply Chain. Related to emergency response training, they implemented their role as training their team member, encouraging cyanide manufactures and transporters implementing emergency response training.
They implemented the training for their team members for the overall emergency response plan and cyanide handling manual twice per year. They also have training plan in which the emergency trainings are scheduled. The communication channel, duties of relevant external agency and main activities of Mining Chemicals Group were trained and records were maintained.
The use of personnel protective equipment, first aid and control method of released sodium cyanide were trained with sodium cyanide handling manual. The road transporters have trained their employee as annual training program and also shipping companies have implemented training for their employee to comply with IMDG Code.
For interim storage ports areas, they have informed the sodium cyanide handling manual in which handling and treatment for released sodium cyanide defined. For interim storage ports areas, the training or introduction with that manual is enough for emergency situations in ports.
In the emergency response plan prepared by Mining Chemicals Group, the roles and responsibilities of team leader, team member, other relevant team and external agency defined.
The Samsung C & T Corporation is trading company. So they do not actually implement the transportation works. They do not need the list of emergency response equipment. But in the sodium cyanide handling manual, the emergency response equipment defined. The Samsung C & T Corporation have checked that the road transporters delineated the roles and responsibilities to subcontractors as individual vehicle driver. They found that road transporters applied the emergency response procedure including roles and responsibilities to subcontractor as the same level of transporters.

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 not in compliance with	**with Transport Practice 3.3**

Summarize the basis for this Finding/Deficiencies Identified:

The Samsung C & T Corporation prepared the emergency response plan appropriate to the overall emergency situations possibly expected in Africa Supply Chain. In the emergency plan, contact information as telephone number, relevant personnel and address of sodium cyanide manufacture, road transporter, shipping company, safety agency, fire fighting agency and hospital were defined. During December 2020, the communication channel and external responders were revised to reflect current information and relevant personnel in Africa Supply Chain.

According to Samsung C & T Corporation's hazardous chemical transportation manual, they should check the emergency response plan twice per year and revise the contact information and detail process as needed. Current internal and external notification is revised during December 2020.
Transport Practice 3.4: Develop procedures for remediation of releases that recognize the additional hazards of cyanide treatment chemicals.

The operation is	**X in full compliance with** in substantial compliance not in compliance with	**with Transport Practice 3.4**

Summarize the basis for this Finding/Deficiencies Identified:

The Samsung C & T Corporation prepared the emergency response plan appropriate to the overall emergency situations possibly expected in Africa Supply Chain. And in the sodium cyanide handling manual, the remediation as recovery and protect for released sodium cyanide, decontamination of soil and water, control and disposal of wastes etc. were defined. The sodium cyanide handling manual as pocket book was informed to road transporters, shipping companies and ports.
According to sodium cyanide handling manual, 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.

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

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

Summarize the basis for this Finding/Deficiencies Identified:

According to the Samsung C & T Corporation's hazardous chemical transportation manual, they should check the emergency response plan twice per year and revise the contact information and detail process with the reflection of changes in Africa Supply Chain. And after the check, actual incident and mock emergency drill, they should evaluate and revise the plan as needed.
The emergency response plan was revised during December 2020. The communication channel and external responders were revised to reflect current information and relevant personnel in Africa Supply Chain.
According to the Samsung C & T Corporation's hazardous chemical transportation manual, they should do the mock emergency drill once per year. The mock emergency drill was implemented in their office during December 2020. The mock emergency drill simulated transport related cyanide exposure of employee and release to land and surface water.
They checked the overall process and adequacy of emergency response plan and recorded the results. And also the Samsung C & T Corporation Mining Chemicals Group member have participated the emergency mock drill and training conducted every year by TongSuh Petrochemical Co., Ltd. Ulsan plant.

Summary of Due Diligence Investigations

1. Background of due diligence investigation

1) Inability of consigner for ports and shipping companies to lead to ICMC implementation and certification

As consigner the Samsung C & T Corporation control overall Africa Supply Chain and will lead the ICMC implementation and certification to sodium cyanide manufacture, road transporters, ports and shipping companies. So they successfully lead the sodium cyanide manufactures and transporters to ICMC implementation and certification.

However they cannot lead the ports and shipping companies to ICMC implementation and certification due to their inability to affect change in operating practices of ports and shipping companies . So the Samsung C & T Corporation planned and implemented due diligence investigation for ports and shipping companies included in Africa Supply Chain.

2) Scope of due diligence investigation

The ports and shipping companies in Africa Supply Chain are as below.

- Pusan New Port in Korea
- Maersk, MSC and Safmarine as shipping companies
- Tema Port in Ghana, Conakry Port in Guinea, Dakar Port in Senegal, Mombasa Port in Kenya, Dar Es Salaam Port in Tanzania, Abidjan Port in Cote D'Ivoire and Monrovia Port in Liberia

2. Progress of due diligence investigation

1) Development of checklist

When Samsung C & T Corporation certified ICMC for Africa Supply Chain, the Mining Chemicals Group members reviewed the ICMC requirements, IMDG Code, Africa Supply Chain, property of sodium cyanide and information from TaeKwang Industrial Co., Ltd. and TongSuh Petrochemical Co., Ltd. And they developed checklist for due diligence investigation applicable to the control of sodium cyanide storage yard, loading to ship and marine transportation. They revised some contents in the checklist and used for due diligence investigation during December 2020.

2) Nomination of investigation team leader and member

Considering the work experience and knowledge of ICMC, General Manager of Fine & Specialty Chemicals Team nominated team leader and member for due diligence investigation.

3) Scheduling of due diligence investigation

The Samsung C & T Corporation have implemented the due diligence investigation for shipping companies and ports every three year according to ICMC Protocol and their hazardous chemical transportation manual.

According to the manual, they have implemented the due diligence investigation for shipping companies and ports in Africa Supply Chain during December 2020 and January 2021.

4) Implementation of due diligence investigation

The team implemented due diligence investigations for ports and shipping companies every 3 year according to ICMC protocol and hazardous chemical transportation manual.

Due to COVID19, site visit was conducted by local office member, change review and web-site check were conducted remotely by Mining Chemicals Group member.

They have used the checklist and record the investigation results in checklist and log sheet. After the due diligence investigation, they issued the completed checklist to ports and shipping

companies and requested corrective actions for some nonconformities. Investigation team have checked the action results and confirmed the corrective actions by ports and shipping companies.

3. Results of due diligence investigation

The Samsung C & T Corporation used the checklist, recorded the investigation results and prepared reports as below.

1) Due diligence investigation for Pusan New Port in Korea including shipping company Maersk, MSC and Safmarine
   (1) Activities : Control of storage yard, handling and loading sodium cyanide in port and marine transportation
   (2) Investigation Date : 13 January 2021
   (3) Conclusion
   According to the due diligence investigation results, the Samsung C&T Corporation concluded that the Pusan New Port, Maersk, MSC and Safmarine comply with ICMC and national legal requirements.

2) Due diligence investigation of Tema Port in Ghana
   (1) Activities : Control of storage yard, handling and loading sodium cyanide in port
   (2) Investigation Date : 14 December 2020
   (3) Conclusion
   According to the due diligence investigation results, the Samsung C&T Corporation concluded that the Tema Port comply with ICMC and national legal requirements.

3) Due diligence investigation of Conakry Port in Guinea
   (1) Activities : Control of storage yard, handling and loading sodium cyanide in port
   (2) Investigation Date : 21 December 2020
   (3) Conclusion
   According to the due diligence investigation results, the Samsung C&T Corporation concluded that the Conakry Port comply with ICMC and national legal requirements.

4) Due diligence investigation of Dakar Port in Senegal
   (1) Activities : Control of storage yard, handling and loading sodium cyanide in port
   (2) Investigation Date : 21 December 2020
   (3) Conclusion
   According to the due diligence investigation results, the Samsung C&T Corporation concluded that the Dakar Port comply with ICMC and national legal requirements.

5) Due diligence investigation of Abidjan Port in Cote D'Ivoire
   (1) Activities : Control of storage yard, handling and loading sodium cyanide in port
   (2) Investigation Date : 15 December 2020
   (3) Conclusion
   According to the due diligence investigation results, the Samsung C&T Corporation concluded that the Abidjan Port comply with ICMC and national legal requirements.

6) Due diligence investigation of Monrovia Port in Liberia
   (1) Activities : Control of storage yard, handling and loading sodium cyanide in port
   (2) Investigation Date : 17 December 2020
   (3) Conclusion
   According to the due diligence investigation results, the Samsung C&T Corporation

concluded that the Monrovia Port comply with ICMC and national legal requirements.

7) Due diligence investigation of Mombasa Port in Kenya
   (1) Activities : Control of storage yard, handling and loading sodium cyanide in port
   (2) Investigation Date : 17 December 2020
   (3) Conclusion
   According to the due diligence investigation results, the Samsung C&T Corporation concluded that the Mombasa Port comply with ICMC and national legal requirements.

8) Due diligence investigation of Dar Es Salaam Port in Tanzania
   (1) Activities : Control of storage yard, handling and loading sodium cyanide in port
   (2) Investigation Date : 10 December 2020
   (3) Conclusion
   According to the due diligence investigation results, the Samsung C&T Corporation concluded that the Dar Es Salaam Port comply with ICMC and national legal requirements.

4. Review of the due diligence investigation results by ICMC audit team

During the ICMC re-certification audit January 2021 for the Africa Supply Chain, the auditor Mr. Sang-Ho Ahn reviewed the overall due diligence investigation processes and results implemented by Samsung C & T Corporation.
The Samsung C & T Corporation implemented the due diligence investigations comprehensively for several ports and shipping companies in Africa Supply Chain as below.
- Study and develop checklist applicable to sodium cyanide storage, handling and transportation
- Nominated competent personnel as due diligence investigation team leader and member
- Implement due diligence investigation with checklist for the control of sodium cyanide storage areas and shipping operation
- Issue corrective actions for some nonconformity identified during site visit
- Checked corrective action results from ports

The due diligence investigations concluded that the ports and shipping companies in Africa Supply Chain have appropriate measures in place for safe management and transport of cyanide.

The audit team finally concluded that the due diligence investigations for several ports and shipping companies in Africa Supply Chain implemented by Samsung C & T Corporation were comply with ICMC requirements.