INTERNATIONAL CYANIDE MANAGEMENT INSTITUTE

Cyanide Transportation Summary Audit Report

For the
International Cyanide Management Code

Hanwha Corporation
Russia Supply Chain

17 February 2020
Name of Cyanide Supply Chain: Russia Supply Chain
Name of Supply Chain Owner: Hanwha Corporation
Name of Supply Chain Operator: Hanwha Corporation
Name of Responsible Manager: Mr. ChulJoo Kim / Manager, Chemical Material Team, Oil & Chemical Division, Hanwha Corporation
Address: 86, Cheonggyecheon-ro, Jung-ju
State/Province: Seoul, 04541 Country: South Korea
Telephone: 82-2-729-3458 Fax: 82-2-729-3784
E-Mail: kimchuljoo@hanwha.com
Website: www.hanwhacorp.co.kr

Location detail and description of operation:
The head office of Hanwha Corporation is located in Seoul, Korea. Since 2010 year, they have exported sodium cyanide from Korea to Africa, Southeast Asia and Russia. Related to the supplying of sodium cyanide, the main jobs of Chemical Material Team in Oil & Chemical Division are making agreement with mining companies, receiving customer orders, review of customer orders and arrangement of shipping. Those were conducted by Chemical Material Team in Oil & Chemical Division of Hanwha Corporation.
The Hanwha Corporation established safety system during October 2019 year and applied to Russia Supply Chain according to ICMC requirements. The Hanwha Corporation applied the Russia Supply Chain as ICMC signatory during December 2019 year.
The Russia Supply Chain includes the transportation of sodium cyanide from manufacture in Korea to Vostochny Port in Russia. According to the sodium cyanide supplying contracts with gold mining customers, the Hanwha Corporation is responsible for supplying of sodium cyanide from manufacture in Korea to Vostochny Port in Russia. The customs clearance and transportation from the port to gold mining sites are controlled and implemented by gold mining customers. So the road transportation from Vostochny Port in Russia to gold mining sites is excluded in Russia Supply Chain.
The sodium cyanide manufacture and road transportation company in Korea, ports and shipping company are included in Russia Supply Chain as below.
(1) Sodium cyanide manufacture: TaeKwang Industry Co., Ltd. Ulsan Plant in Korea
(2) Transportation from sodium cyanide manufacture to Pusan New Port in Korea: By Hae Dong Logistics
(3) Marine transportation from Pusan New Port in Korea to Vostochny Port in Russia: Sealand Maersk
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
Dates of Audit : 16, 20 and 31 December 2019 and 02 January 2020

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.

Hanwha Corporation

Name of Supply Chain Operator

Lead Auditor Signature

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Date
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.

- X in full compliance with
- in substantial compliance with
- not in compliance with

Transport Practice 1.1

Summarize the basis for this Finding/Deficiencies Identified:

During October 2019 year, the Hanwha Corporation established supply chain organization and control procedure in which detail process for selection of sodium cyanide transportation routes and control methods were defined. According to the procedure, they considered overall transportation route from sodium cyanide manufacture in Korea to Vostochny Port in Russia. They identified several possible routes from sodium cyanide manufacture in Korea to Vostochny Port in Russia. They considered and evaluated the routes for such items as population density, infrastructure, prevalence of water, security, possibility of hijacking and cost effectiveness. And then they finally decided the transportation routes as below.

1) From sodium cyanide manufacture Taekwang Industry Co., Ltd. Ulsan Plant to Pusan New Port in Korea: Roadway transportation by truck

2) Pusan New Port in Korea to Vostochny Port in Russia: Marine transportation by ship

The subcontractor evaluation process was defined in supply chain organization and control procedure. Such items as ICMC signatory or safety system certification, history of accident, compliance of target delivery, price and cooperation etc. were evaluated for sodium cyanide manufacture, road transporters, shipping companies and ports. According to the procedure, they evaluated and chose sodium cyanide manufacture, transportation company and shipping company as below.

1) Sodium cyanide manufacture: Taekwang Industry Co., Ltd. Ulsan Plant

2) Roadway transportation from cyanide manufacture to Pusan New Port in Korea: Hae Dong Logistics

   * Actually the Hae Dong Logistics is sub-contractors of Taekwang Industry Co., Ltd. Ulsan Plant not chosen by Hanwha Corporation.

3) Marine transportation from Pusan New Port in Korea to Vostochny Port in Russia: Sealand Maersk

The Hanwha Corporation decided the control methods for each segment in Russia Supply Chain as below.

1) Roadway transportation company in Korea: Hae Dong Logistics
   (1) Periodic supplier evaluation by Hanwha Corporation Chemical Material Team
   (2) Implementation and certification of ICMC by Hae Dong Logistics

   Hae Dong Logistics was certified in full compliance under the Cyanide Code on Jan. 14, 2020 and previously certified in 2016.

2) Pusan New Port in Korea
   (1) Periodic route evaluation by Hanwha Corporation Chemical Material Team
   (2) Periodic due diligence investigation by Hanwha Corporation Chemical Material Team

3) Marine transportation by shipping company: Sealand Maersk

   (1) Periodic route evaluation by Hanwha Corporation Chemical Material Team

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(2) Periodic due diligence investigation by Hanwha Corporation Chemical Material Team

4) Vostochny Port in Russia
   (1) Periodic route evaluation by Hanwha Corporation Chemical Material Team
   (2) Periodic due diligence investigation by Hanwha Corporation Chemical Material Team

According to the above control methods, the Hanwha Corporation have implemented the selection of ICMC certified manufacture and road transportation company, supplier evaluation, route evaluation and due diligence investigation.

The Hanwha Corporation established risk assessment procedure in which hazard identification for sodium cyanide supply chain, risk assessment for identified hazards and high risk control were defined. According to the procedure, the Hanwha Corporation Chemical Material Team have identified hazards and evaluated the risks for Russia Supply Chain. Below high risks were identified.
   1) Release of sodium cyanide powder to road, land and surface water during roadway transportation by transporter.
   2) Damage to sodium cyanide container and human contact during loading and unloading works.
   3) Release to sea water during marine transportation by shipping company
   4) Robbery during road transportation, storage in ports and marine transportation.

The Hanwha Corporation documented the control measures to address the risks in Russia Supply Chain. They documented the control measures as supplier evaluation for roadway transporter & shipping company and due diligence investigation for ports & shipping company in supply chain organization and control procedure, preparation & apply of emergency response plan for the accident of sodium cyanide spillage in emergency response procedure and emergency response plan.

They prepared and completed the control measures such as supplier evaluation, checked the certification of ICMC by roadway transporter and due diligence investigation for ports and shipping company. And also they established emergency response plan for sodium cyanide release and robbery. The communication channel with government body, safety agency, police, manufacture and transporter defined in the emergency response plan.

According to supply chain organization and control procedure, the Hanwha Corporation should reevaluate the overall routes of Russia Supply Chain every year periodically. And if there are some changes related to routes, transporters, facilities and relevant legal requirements, they will reevaluate the routes non-periodically. As they completed the route evaluation during December 2019 year for Russia Supply Chain, they will reevaluate the routes of Russia Supply Chain during December 2020 year.

The process for getting feedback on route condition from each segment in Russia Supply Chain was defined in supply chain organization and control procedure. According to the procedure, Hanwha Corporation Chemical Material Team established communication channel and received information related to cyanide transportation routes from sodium cyanide manufacture, road transporter, shipping company and ports. During December 2019 year when they initially completed route evaluation, there is no special issue from received information.

When the Hanwha Corporation selected the transportation route of Russia Supply Chain and developed the control measures for high risk, they considered and reflected the comments from communities and stakeholders such as sodium cyanide manufacture TaeKwang Industry Co., Ltd. Ulsan Plant, road transporter Hae Dong Logistics, shipping company Sealand Maersk, Ulsan government office, Pusan local government office, Good Morning Hospital, Korea Occupational Health and Safety Agency and local fire fighting agency.

The Hanwha Corporation informed the sodium cyanide transportation and received some general comments. The Hanwha Corporation have informed their sodium cyanide transportation and storage procedure, material safety data sheet and emergency response plan to above communities and Hanwha Corporation.

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stakeholders.

The Hanwha Corporation reviewed the overall route for Russia Supply Chain. According to the review results, they decide that convoys and escorts are unnecessary from sodium cyanide manufacture Taekwang Industry Co., Ltd. Ulsan Plant in Korea to Vostochny Port in Russia as roadway transportation by ICMC certified transporter and implementation of International Maritime Dangerous Goods (hereinafter IMDG) code by big shipping company. The Hanwha Corporation established emergency response plan for sodium cyanide release to land and water and human exposure. In the emergency response plan, role and mutual aid with sodium cyanide transporter, ports, safety agency, police, fire fighting agency, hospital etc. were defined. They advised the emergency response plan to relevant bodies and informed their sodium cyanide transportation and storage procedure and material safety data sheet. Those activities were also implemented by ICMC signatories and certified manufacture and transporter.

The Hanwha Corporation Chemical Material Team communicated their emergency response plan, sodium cyanide transportation and storage procedure and material safety data sheet to subcontractors as manufacture Taekwang Industry Co., Ltd. Ulsan Plant, roadway transporter Hae Dong Logistics, ports as Pusan New Port in Korea, Tema Port in Ghana and shipping company MSC and requested implementation.

**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 with
- not in compliance with

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

According to supply chain organization and control procedure prepared by the Hanwha Corporation, they evaluated subcontractors during December 2019 year. During the subcontractor evaluation, they checked and confirmed that sodium cyanide transportation subcontractor has used only trained, qualified and licensed operators. And also the transportation subcontractor was ICMC signatory and certified. The Hanwha Corporation have prepared and communicated sodium cyanide transportation and storage procedure, material safety data sheet and emergency response plan to manufacture, transporter, ports and shipping company 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

- **X in full compliance with**
- in substantial compliance with
- not in compliance with

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

According to supply chain organization and control procedure, the Hanwha Corporation evaluated subcontractors during December 2019 year. During the subcontractor evaluation, they checked and confirmed that sodium cyanide transportation subcontractor has used only equipment designed Hanwha Corporation

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and maintained to operate within the designed capacity. During the due diligence investigation, they checked and confirmed that the ports and shipping company have used suitable equipment. And also the Hanwha Corporation confirmed that 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**

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

As the Hanwha Corporation is a trading company, 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 confirmed that sodium cyanide transporter, ports and shipping company developed and implemented the safety program. As a consigner, they requested to transporter for the compliance of local regulation, international standards and safety program. If the transporter violates the local regulation and international standards, they are not able to be registered as approved subcontractor to Hanwha Corporation.

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

The operation is **X in full compliance with**

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

As the Hanwha Corporation is trading company, they do not actually perform the transportation of cyanide by sea and air. They evaluated shipping company according to supply chain organization and control procedure. They applied such evaluation items as compliance with IMDG Code, legal requirements and international standards, accident cases during marine transportation, compliance of target delivery and cost of transportation. Considering the evaluation results, they selected SeaLand Maersk as shipping company for sodium cyanide transportation from Pusan New Port in Korea to Vostochny Port in Russia. The Hanwha Corporation completed the due diligence investigation during December 2019 year for the shipping company. According to the due diligence investigation, the Hanwha Corporation confirmed that shipping company were comply with IMDG Code. The Hanwha Corporation do not transport sodium cyanide by air.

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

The operation is **X in full compliance with**

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Summarize the basis for this Finding/Deficiencies Identified:

As the Hanwha Corporation is trading company, they do not actually perform the transportation of cyanide. During the subcontractor evaluation, 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 manufacture and emergency responders defined. And also during the subcontractor evaluation, they checked and confirmed that the transporters periodically have tested the communication equipment.

The Hanwha Corporation checked the overall routes of Russia Supply Chain. 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 Hanwha Corporation have procedure to track the progress of cyanide shipments. And if needed, they tracked the progress of cyanide shipments by contact with sodium cyanide manufacture TaeKwang Industries Co., Ltd. Ulsan Plant, transporter Hae Dong Logistics and communication with shipping company Sealand Maersk. And also during the subcontractor evaluation, they checked and evaluated the tracking of cyanide shipments by transporters. TaeKwang Industry Co., Ltd. Ulsan Plant controlled the dispatch amount and date for individual order in their ERP system. They record the same items in dispatch sheet and issued to road transporter Hae Dong Logistics. The road transporter convey the sodium cyanide from TaeKwang Industry Co., Ltd. Ulsan Plant to Pusan New Port, the dispatch sheet and sodium cyanide delivered to shipping company. The shipping company checked the dispatch sheet and sodium cyanide containers and input the shipping results in their computer network system.

As the Hanwha Corporation receive purchasing orders from customers as gold mining company, they review the target delivery and quantity and input the orders in SAP system. They requested to sodium cyanide manufacture TaeKwang Industries 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 manufacture to shipping company were registered in SAP system of Hanwha Corporation. And also the progress of marine transportation by shipping company can be checked for individual customer orders by communication with shipping company Sealand Maersk. So the inventory control and custody documentation were properly implemented to prevent loss of sodium cyanide during transportation.

According to the subcontractor evaluation by Hanwha Corporation, the road transporter Hae Dong Logistics and shipping company Sealand Maersk 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
not in compliance with
with Transport Practice 2.1

Summarize the basis for this Finding/Deficiencies Identified:

The Hanwha Corporation Chemical Material Team checked over all routes of Russia Supply Chain and identified interim storage areas as below.

1) Pusan New Port in Korea
2) Vostochny Port in Russia

The Pusan New Port in Korea and Vostochny Port in Russia are controlled by national port control agency and interim storage areas are rent and controlled by shipping company.

The Hanwha Corporation completed the due diligence investigation for Pusan New Port in Korea and Vostochny Port in Russia during December 2019 year. The due diligence investigation activities are site visit and interview with employees for those ports, national port agency and shipping company. They found the interim storage areas were controlled properly in compliance with legal requirements and ICMC requirements. They informed their sodium cyanide transportation and storage procedure, material safety data sheet and emergency response plan to employees in ports, national control port agency and shipping company.
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 Hanwha 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 areas. The emergency response plan considered the solid sodium cyanide packaged in polyethylene inner film & polypropylene woven bag and box and transported in container, transportation method, interim storage areas, infrastructure as road condition, ports and marine transportation. In the emergency response plan, they defined what they should do, communication channel and relevant external responders such as sodium cyanide manufacture, transporter, shipping company, mining customers, safety agency, police and hospitals. Detail emergency response plan considering road transportation were prepared by ICMC certified transporter Hae Dong Logistics and checked by Hanwha Corporation. The Hanwha Corporation checked that shipping company Sealand Maersk issued commitment to comply with IMDG Code in which the emergency response plan required. For interim storage areas such as ports, they informed 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
with Transport Practice 3.2

Summarize the basis for this Finding/Deficiencies Identified:

The Hanwha Corporation Chemical Material Team have conducted the emergency response training during December 2019 year. The team leader of Chemical Material Team participated the emergency response training by Taekwang Industries Co., Ltd. Ulsan plant. And the team leader implemented the training for their team members for the emergency response plan and MSDS during December 2019 year. During the emergency response training, the communication channel, duties of relevant external agency and main activities of Chemical Material Team were introduced and training records were maintained.

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

The roadway transporter Hae Dong Logistics have trained their employee and vehicle operators as yearly training program. The Chemical Material Team did not provide emergency response trainings

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directly to vehicle operator. Instead the Chemical Material Team checked the implementation of emergency response training by roadway transporter during supplier evaluations. And also shipping company Sealand Maersk have implemented training for their employee to comply with IMDG Code. For interim storage areas, they informed 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.

According to supply chain organization and control procedure and sodium cyanide transportation and storage procedure, the Hanwha Corporation Chemical Material Team checked cyanide manufacture and road transporter and confirmed that they have procedures for inspecting emergency response equipment and assuring its availability.

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

X in full compliance with

The operation is 
in substantial compliance

not in compliance with

with Transport Practice 3.3

Summarize the basis for this Finding/Deficiencies Identified:

According to their emergency response procedure, during December 2019 year the Hanwha Corporation prepared the emergency response plan appropriate to the overall emergency situations possibly expected in Russia Supply Chain. In the emergency response plan, contact information as telephone number, relevant person name and address of sodium cyanide manufacture, road transporter, shipping company, safety agency, fire fighting agency and hospital were defined. According to emergency response procedure, the Hanwha Corporation should check the emergency response plan every year and update the contact information and detail process as needed. Current internal and external notification was prepared during December 2019 year including the contact information of sodium cyanide manufacture, road transporter, shipping company, safety agency, fire fighting agency, hospital and local government office. The internal and external notification shall be reviewed and updated during December 2020 year.

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

not in compliance with

with Transport Practice 3.4

Summarize the basis for this Finding/Deficiencies Identified:

The Hanwha Corporation prepared and updated the emergency response plan appropriate to overall emergency situations possibly expected in Russia Supply Chain. In the emergency response plan, the remediation as recovery and protect for released sodium cyanide, decontamination of soil and water, control and disposal of wastes were defined. 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 informed to road transporter Hae Hanwha Corporation

[Signature]

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Dong Logistics, shipping company Sealand Maersk and ports as Pusan New Port in Korea, Vostochny Port in Russia.

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

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

Summarize the basis for this Finding/Deficiencies Identified:

The Hanwha Corporation established emergency response procedure. According to the procedure, the emergency response plan shall be checked every year and contact information updated as needed.
During December 2019 year, the Chemical Material Team prepared the emergency response plan appropriate to overall emergency situations possibly expected in Russia Supply Chain. So they will review and update their emergency response plan during December 2020 year.
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 December 2019 year. They checked the overall process and adequacy of emergency response plan and recorded the results.
The Hanwha Corporation shall do the mock emergency drill once per year according to emergency response procedure. The mock emergency drill was implemented in their office during December 2019 year. The mock emergency drill simulated transport related cyanide exposure of employee and release to land and surface water.
According to the emergency response procedure, the Hanwha Corporation shall check, evaluate and revise the emergency response plan as needed following actual incident and mock emergency drill.
After the mock drill during December 2019 year, they confirmed that their current emergency response plan was appropriate to Russia Supply Chain.
Summary Report of Due Diligence Investigations

1. Background of due diligence investigation

1) Inability as consigner for ports and shipping company lead to ICMC implementation and certification
   The Russia Supply Chain includes sodium cyanide manufacture, roadway transporter, ports and shipping company as below.
   (1) Roadway transportation from sodium cyanide manufacture to Pusan New Port by Hae Dong Logistics in Korea
   (2) Control of storage in Pusan New Port in Korea
   (3) Marine transportation from Pusan New Port in Korea to Vostochny Port in Russia by Sealand Maersk
   (4) Control of storage in Vostochny Port in Russia
   As consigner the Hanwha Corporation Chemical Material Team controls overall Russia Supply Chain and will choose ICMC certified subcontractors or lead the ICMC implementation and certification to sodium cyanide manufacture, road transporter, ports and shipping company. So they successfully have chosen ICMC certified subcontractor as sodium cyanide manufacture TaekWang Industry Co., Ltd. Ulsan Plant and transporter Hae Dong Logistics. However they can’t choose the ICMC certified national port control agency and shipping company. And also they can’t lead ports and shipping company to ICMC implementation and certification due to their inability to affect change in the operating practices of those national port control agency and shipping company. So the Hanwha Corporation Chemical Material Team planned and implemented due diligence investigation for ports and shipping company as required by ICMC.

2) Scope of due diligence investigation
   The Pusan New Port in Korea, shipping company, Vostochny Port in Russia were includes in Russia Supply Chain. So the due diligence investigations were implemented for Pusan New Port in Korea, shipping company Sealand Maersk and Vostochny Port in Russia.

2. Progress of due diligence investigation

1) Development of checklist
   The Hanwha Corporation Chemical Material Team reviewed the ICMC requirements, IMDG Code, Russia Supply Chain, property of sodium cyanide and information from TaekWang Industry Co., Ltd. Ulsan Plant. They have developed checklist for due diligence investigation applicable to the control of sodium cyanide storage in ports and marine transportation.

2) Nomination of investigation team leader and member
   Considering the work experience and knowledge of ICMC, team leader Mr. KeunWoo Lim of Hanwha Corporation Chemical Material Team nominated team leader and member for due diligence investigation as below.
   - Team Leader : Mr. KeunWoo Lim (Team Leader / Chemical Material Team)
     Mr. ChuJoo Kim (Manager / Chemical Material Team)
   - Team Member : Mr. Edward Je (Assistant Manager / Chemical Material Team)
     Mr. MinKyu Kim (Assistant Manager / Chemical Material Team)
     Mr. Maksim Nischchik (Hanwha Corporation Moscow Representative)

3) Scheduling of due diligence investigation
   The Hanwha Corporation Chemical Material Team planned the due diligence investigation during December 2019 year for Pusan New Port in Korea, shipping company Sealand Maersk and Vostochny Port in Russia.

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4) Implementation of due diligence investigation

The Hanwha Corporation Chemical Material Team implemented due diligence investigation as planned during December 2019 year. They use the checklist and record the investigation results in checklist. After the investigation, they issued the completed checklist to national port agencies and shipping company and requested follow up for opportunity for improvement items. The Hanwha Corporation Chemical Material Team checked the action results from ports and shipping company and confirmed that implementation of opportunity for improvement items.

3. Results of due diligence investigation

The Hanwha Corporation Chemical Material Team have used the checklist and recorded the investigation results in checklist.

1) Pusan New Port in Korea
   (1) Activities
       - Control of storage yard in Pusan New Port by national port control agency
   (2) Due diligence investigation date
       - 20 December 2019 Year
   (3) Due diligence investigation team
       - Team Leader : ChulJoo Kim Manager/Chemical Material Team
       - Team Member : MinKyu Kim Assistant Manager/Chemical Material Team
   (4) Due diligence investigation results
       The due diligence investigation team have not found any nonconformity during the due diligence investigation for the control of storage yard in Pusan New Port. So they did not issue any corrective action request. Instead they informed the MSDS of sodium cyanide to the manager of Pusan New Port
   (5) Conclusion
       According to the due diligence investigation results, the Hanwha Corporation Chemical Material Team concluded that the control of sodium cyanide storage yard in Pusan New Port comply with ICMC and national legal requirements.

2) Marine transportation by Sealand Maersk
   (1) Activities
       - Marine transportation by Sealand Maersk
   (2) Due diligence investigation date
       - 26 December 2019 Year
   (3) Due diligence investigation team
       - Team Leader : ChulJoo Kim Manager/Chemical Material Team
   (4) Due diligence investigation results and corrective action request
       The due diligence investigation team have not found any nonconformity during the due diligence investigation for the marine transportation by Sealand Maersk. So they did not issue any corrective action request. Instead they informed the MSDS of sodium cyanide to the manager of Sealand Maersk
   (5) Conclusion
       According to the due diligence investigation results, the Hanwha Corporation Fine Chemicals Team concluded that the marine transportation by Sealand Maersk comply with ICMC and national legal requirements.

3) Vostochny Port in Russia
   (1) Activities
       - Control of storage yard in Vostochny Port by national port control agency
   (2) Due diligence investigation date
       - 26 December 2019 Year
   (3) Due diligence investigation team

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- Team Leader: ChulJoo Kim Manager/Chemical Material Team
- Team Member: Maksim Nishchikh/Hanwha Corporation Moscow Representative

(4) Due diligence investigation results
The due diligence investigation team have not found any nonconformity during the due diligence investigation for the control of storage yard in Vostochny Port. So they did not issue any corrective action request. Instead they informed the MSDS of sodium cyanide to the manager of Vostochny Port

(5) Conclusion
According to the due diligence investigation results, the Hanwha Corporation Chemical Material Team concluded that the control of sodium cyanide storage yard in Vostochny Port comply with ICMC and national legal requirements.

4. Review of the due diligence investigation results by ICMC audit team
During the ICMC certification audit December 2019 year for Russia Supply Chain of Hanwha Corporation, the auditor Mr. Sang-Ho Ahn reviewed the due Diligence investigation process and results implemented by Hanwha Corporation Chemical Material Team. The due diligence investigations included the control storage yards in ports and marine transportation. The Hanwha Corporation Chemical Material Team implemented the due diligence investigations comprehensively for ports and marine transportation as below.
- Study and develop checklist applicable to sodium cyanide storage in ports and marine transportation.
- Nominated competent personnel as due diligence investigation team leader and member.
- Implement due diligence investigation with checklists and record the results.
- Issue opportunity for improvement items to ports and shipping company identified during due diligence investigation.
- Follow up the implementation for opportunity for improvement items.

The audit team finally concluded that the due diligence investigations for Russia Supply Chain implemented by Hanwha Corporation Chemical Material Team were comply with ICMC requirements.