Investigation Process and Methods in Handling Hazardous Chemical related to accidents

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Dangerous Goods Emergency Response

- Verification of information
- Reporting hazardous conditions, activation of the preparing plan
- Organization and coordination, release related news
- Taken emergency measures to prevent contamination
- Disposal of hazardous situations on site
2001 “4.17” Yangtze River Estuary styrene Spill Case

- Time: April 17th 08:00 2001
- Location: The Yangtze River Estuary
- Meteorology: Heavy frog
- Vessels: “Da Yong”, “Da Wang”
- Accident: Collision occurred
- Consequence: Vessel damaged, leading to contamination
Pollution status

Data monitoring at the accident site

638.806M/T Styrene leak into the sea

Air styrene content of 55 mg / m
--- Allowable concentration of 3 mg / m

Seawater styrene content of 40.5 mg / l
--- Far beyond the normal population and the environment’s withstanding the upper limit
Phase of pollution control and clean-up

- Starting "Shanghai Sea oil / chemical spill rescue emergency plan"
- Berths shifting with the rescue tug’s assistance
- Site environmental monitoring
- Chemical rescue team stations for special care, Chemical rescue medical team stationed for medical assistance
- Emergency resources and personnel deploy in the rescue scene
- Safety and pollution hazards convene accident expert assessment
Stage of Styrene barge

**Purpose:** Eliminate the hidden dangers

**Specific task measures:**

- Urge the ship owner to submit the program to eliminate hazards
- Organize experts to evaluate the program
- Develop barge-barge on site emergency plans
- Organize and implement the plan
The stage of ship temporary repair

- Ship - owner submit 《“Da Yong” temporary repair plan》
- Organize experts to review the proposals
- CCS measure the explosion point and issue 《vessel combustible gas clearance certification》
- “Da Yong” ship repair and reinforcement
- Develop “Da Yong” returning route by tug boat
- CCS verify the tugboat plan
- “Da Yong” completed the departure procedures
- “Da Yong” return to South Korea by South Korean flagged tugboat
“4.17” accident emergency relief last for a month

- Successfully removed a broad security risk
- Minimize the degree of pollution and damage
Contents of the survey

- Cause of the accident
- Pollution and damage status
- Emergency response: emergency investigative powers and the right at different level
- Compensation status
Investigation of the shipwreck accident

- 《Ship accident and pollution confirmation report》
- 《Investigation report》
- 《Ecological Environment Impact Assessment》
Thank you