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Turning exercise into practice

'Lessons learned from the Danube Delta Project'

*Project for improving hazard and crisis management in and between
Moldova, Ukraine and Romania*

Brussels, 5 – 9 March 2018

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Danube Delta project: Why it started

Analysis done by The Republic of Moldova, Ukraine and Romania showed that:

- Cross border cooperation is insufficient
- Information and notification on hazard sources needs to be improved
- Insufficient preparedness and response mechanisms to emergency situations
- Hazard and crisis management needs improvement
- Cooperation needs to be formalized

Project carried out under the UNECE Industrial Accidents Convention's Assistance Programme



Danube Delta project

2011 - 2015

The general objective of the project was to improve cooperation between the three Danube area countries (Republic of Moldova, Ukraine and Romania) on hazard and crisis management.

Therefore the project was focused on:

- Improving the cooperation between authorities and the private sector
- Enhancing industrial safety
- Enhancing the hazard and crisis management
- Reducing the risks of spills (oil and chemicals)
- **Enhancing cross-border cooperation through Table and Field exercises**

Field and Table Top Exercise:

- Joint training and exercise of the response organizations
- To test and practice:
 - procedures for notification, communication, preparedness and response
 - procedures for requests for mutual assistance
 - the Joint Contingency Plan, to provide feedback and to finalise command and control and decision making mechanisms
 - cross-border cooperation



Field and Table Top exercises were evaluated, to

- Identify lessons to be learned
- Underline strong points of the exercises and to further strengthen them
- Identify gaps and to develop ways on how to eliminate them
- Identify opportunities for improvement and to bring them into practice



Important to realise:

Do not be afraid of imperfections !

If the exercises are 100% successful then you have failed, because:

- Or the exercise was too easy. In that case valuable time of skilled people and resources is wasted
- Or the opportunity to further improve is missed

By hiding gaps and imperfections, we:

- Are fixing wrong behaviour, which can bring us in danger or even to worsen the accident
- Create a false feeling of safety and efficient operations
- Learn that problem cheating is better than problem solving
- Maintain a huge risk for complacency – which is a critical root cause for accidents and related wrong approaches and decisions



Evaluation approach of the Field exercise:

- Independent team of evaluators
- Focus on overall objectives with a breakdown in evaluation topics
- Observation during exercises
- First feedback after the evaluation
- Feedback from the players through discussions
- **Evaluation report with findings and recommendations**



Focus evaluation

- The fulfilment of the goals of the exercises
- The notification and warning system
- The procedures leading to the correct identification of danger and risks
- Communication and cooperation between all stakeholders
- Command and control system
- Decision making and the quality of it
- Quality of (mitigation) measures
- Cross-border cooperation

Overall observations

- Realistic scenarios
- Open atmosphere – we all wanted to learn!
- Several lessons identified that could/should lead to opportunities for improvement and development



Notification and communication

- Response to the notification of the accident was in some cases not sufficient. Information flow was slow.
- Some problems with (international) communication (phone, internet, different frequencies, language).
- Official notification systems were activated with delay.
- Insufficient communication between the countries about sampling, assessments, analysis, forecasting on potential risks etc.
- No recording/logging of relevant information (as decisions, measures)
- Acoustic warning and alarming signals were not sufficient
- A train passed the accident! Authorities were not informed

Command and control

- A sound communication between the 3 countries about the incident and measures to be taken seemed to be insufficient. This can hinder adequate coordination and decision-making of response actions.
- A sound communication between the commanders and the responsible operational chief was insufficient. A coordinated response and important decision-making can then be hindered.
- Procedures and rules of governance in the emergency response in the Joint Contingency Plan seemed not to be clear for the key players.

In field operations and logistics

- Response units on the site operated efficient and fast and well coordinated.
- Oil booms could not be fixed efficiently and or they rotated. Leakages and pollution can be a consequence!
- Oil skimmer did not work adequate and the number of skimmers is not sufficient.
- The amount of protecting devices and equipment for the personnel on the oil platform is not sufficient.
- Life saving gear on the terminal was not sufficient like ropes etc. to save victims that were pushed into the water.



Assessment (impact) accident

- Sampling of the contaminated surface water at the location of the oil terminal could not be carried out because the pollution was dispersed and drifted away due the flow speed of the water.
- Communication between the countries about the pollution, measures to be taken was unclear?
- Conducted assessments, used models, calculations and methodologies to assess the (potential) risks for the human health and the environment varied strongly between the 3 countries.

Recommendations (1)

- ❑ Create awareness at the top management of industrial operators and the authorities about the importance of preparedness and response to accidents.
 - Develop an inventory of the available and needed resources, equipment and skills. Develop a plan to improve the current situation.
 - Develop or review a (existing national) contingency plan and integrate a variety of incident scenarios, including the needed structures, processes and resources. Develop an action plan based on the outcome of the review.
- ❑ Review the decision-making structure at national, regional and local level as well the roles and responsibilities of the key-players. Revise and adjust the structure and roles based on the review.
 - Train the decision-making structure and processes through exercises based on a variety of scenarios.
 - Include in the Joint Contingency Plan the structure and the means of communication between the three countries to improve the trilateral communication and cooperation and to allow for a quick joint response.

Recommendations (2)

- ❑ Review and analyse the capacity, equipment and expertise that is needed to operate adequately in various types and scenarios of accidents.
- Prepare an action plan and discuss the action plan with the senior management of the authorities and the responsible minister.
- ❑ Test and train communications between the 3 countries regarding the response to an accident.
- Review the procedures and equipment of a sound operation in cases of oil spills (fixing booms, number of skimmers, safety equipment).
- Review the operational capability of the international notification systems and appoint a responsible person for the process.

Recommendations (3)

- ❑ Develop a training program for the response services and their key experts and professionals to various types of accidents and execute the program systematically.
- ❑ Integrate in such a program as well the exercises and trainings with the neighboring countries.
- Investigate opportunities for mutual assistance and support regarding sampling and analysis of hazardous substances as well the exchange of expertise, and train the mutual exchange and cooperation.
- Develop a set of rules and an action plan to ensure the implementation of the joint declaration as agreed by the 3 countries.
- Review the evaluation report, discuss it at the national and international level between the 3 countries and develop an action plan.
- Revise the current Joint Contingency Plan based on the findings and actions to be taken.
- ❑ **And: train, train and train !!**

What did Danube Logistics learn from the exercises?

- A full-time and permanent HSE Officer was appointed by DL
- Awareness raising on HSE issues has continuous attention at all levels of the company, including the Top management
- Robust contacts between the company and responsible authorities were established on HSE issues, including preparedness and response to industrial accidents
- A HSE (management) plan for the company is developed and approved by the Top management
- A variety of HSE trainings is carried out and maintained, based on a plan and schedule and rewarded by an in-company certificate and registration
- On a regular basis in-company exercises and trainings are held with the focus on prevention, preparedness and response to accidents



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Thank you for your attention!

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