

PLANNING FOR EMERGENCY RESPONSE

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General organisation of the NSES



Competency levels within the NSES

National level

- National Committee for Emergency Situations
- National Operational Center

Ministerial level

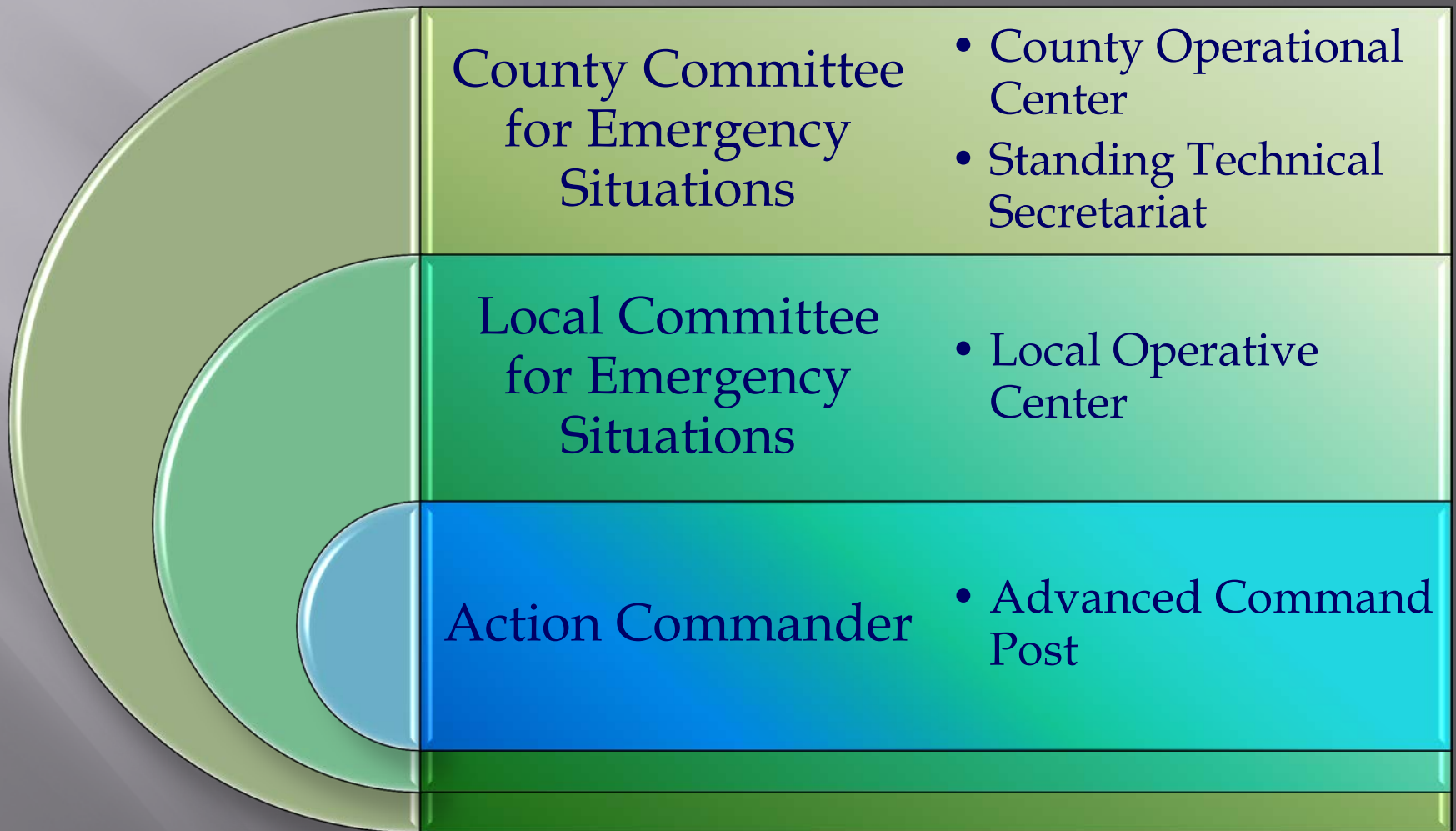
- Ministerial Committee for Emergency Situations
- Ministerial Operative Center

County level

- County Committee for Emergency Situations
- County Operational Center

Local level

- Local Committee for Emergency Situations
- Local Operative Center



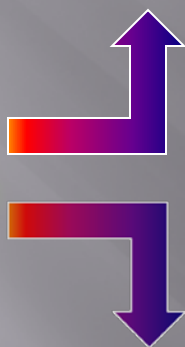


Water perspective

Water quality

Water fauna and flora

Drinkable water assurance



Emergency perspective

Acute phase of the accident

Saving lives

Integrated and planned intervention

Water operations

Inland operations



13-15.12.20011

Danube Delata Project - First Crisis Management Seminar



APDAFDV(C)P – accidental pollution, dams accidents, floods defence county plan

APDAFDV(C)P – accidental pollution, dams accidents, floods defence village (city) plan

Emergency planing at the operator level

Seveso type operator

On-site Emergency Plan (OnEP)

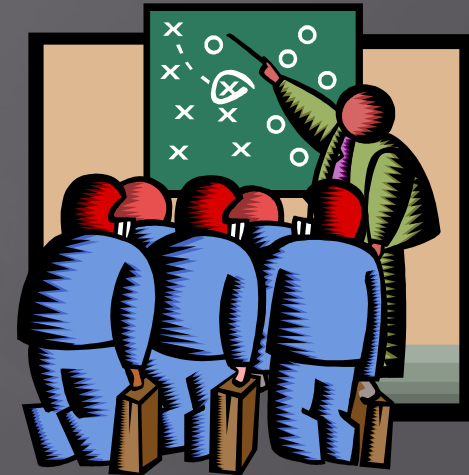
- ▣ Planning actions for mitigation of all on-site accidents involving dangerous substances taking into consideration the protection of employees, population, the environment and property;
- ▣ OnEPs are developed based on the specific identified hazards of the operator's activity;
- ▣ The personnel employed and the long term subcontractors are consulted for drawing up and updates the OnEP.



Seveso type operator

On-site Emergency Plan (OnEP)

- ▣ Is approved by top management;
- ▣ Is updated based on changes of the:
 - Risk characteristics
 - Cooperation
 - The organizational structure of the operator
 - Lessons learnt from accidents and the evolution of the knowledge
- ▣ Is tested several times per year, in different ways:
 - Table-top exercises
 - Communication testing (on-site and off-site)
 - In-field accident simulation with complete / partial management of the intervention
- ▣ At least one type of scenario (fire, explosion, toxic emission) shall be tested each year;



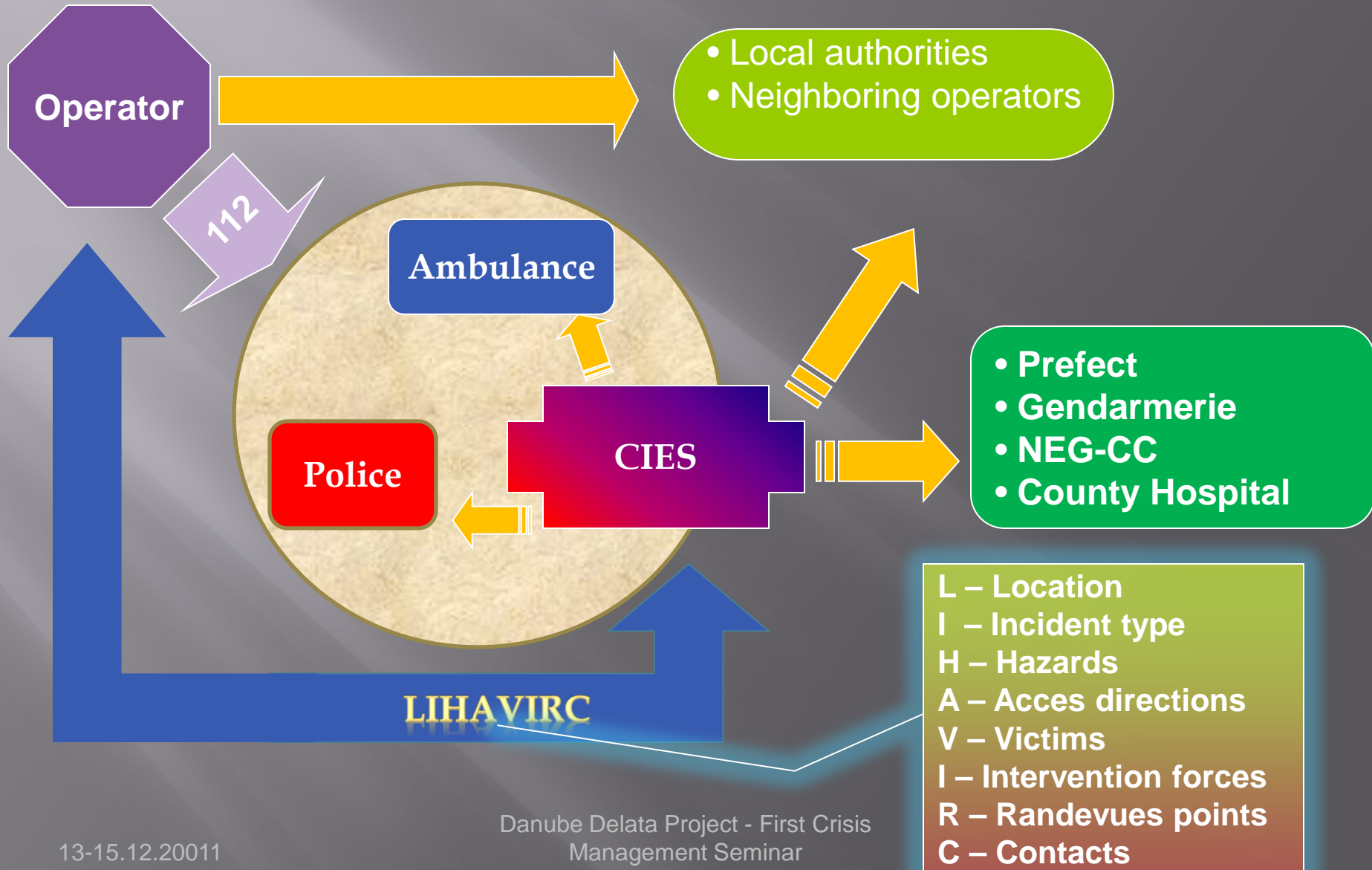
Seveso type operator

On-site Emergency Plan (OnEP)

- ▣ Chapters of the OnEP include:
 - Updates, approvals, distribution
 - Foreword
 - Plan activation / stand down
 - ▣ Emergency classification
 - ▣ When the plan will be activated
 - ▣ Persons with responsibilities
 - ▣ Ways of activating the plan
 - ▣ Information flow
 - ▣ Information to be provided in case of accident
 - ▣ Emergency stand down
 - Scenario classification
 - Description of emergency actions
 - Cartographical section



Information flow



Non-Seveso type operator - Accidental Pollution Control and Prevention Plan (APCPP)

- ▣ Is drawn up by each operator which potentially can pollute the water
- ▣ Setting up the prevention, mitigation and control actions for accidental pollution of surface waters;
- ▣ Is approved by top management
- ▣ A copy of the plan is sent to the Water Management System (WMS)

Non-Seveso type operator - Accidental Pollution Control and Prevention Plan (APCPOP) - content

- ▣ Explanatory Report (ID data, presentation of the critical points and the action mode)
- ▣ TABLES (1-10)
 - 1: List of the accidental pollution control teams
 - 2: List of the critical points
 - 3: Potential pollutant datasheet
 - 4: Programme of accidental pollution prevention measures and workings
 - 5: List of intervention teams
 - 6: List of necessary equipment for accidental pollution ceasing
 - 7: Annual training programme for critical points employees and intervention teams
 - 8: Executives' responsibilities
 - 9: List of supportive units
 - 10: List of potentially impacted water use operators (downstream located)
- ▣ Situation plan - scale 1:10.000 or 1:25.000 (with sites location)
- ▣ Technological plan with marked critical points



Non-Seveso type operator - Accidental Pollution Prevention and Control Plan (APPCP) - warning

▣ Procedures for:

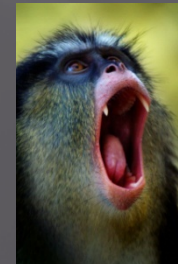
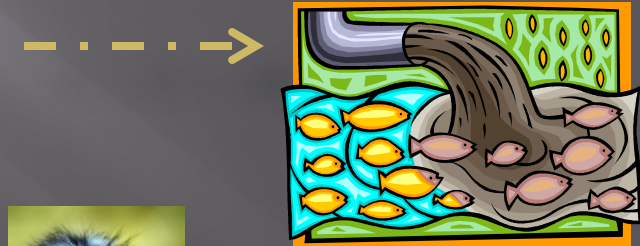
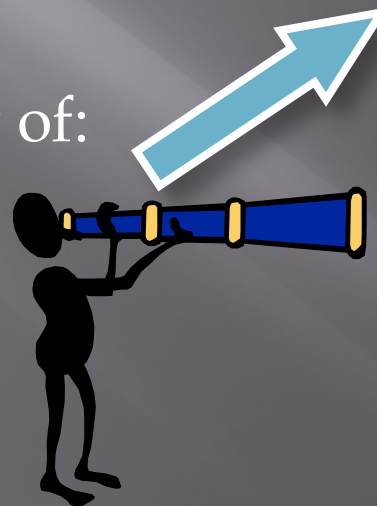
■ Notification of the pollution:

- ▣ Known / unknown source
- ▣ First observer

■ Notification / warning of:

- ▣ Top management
- ▣ Personnel
- ▣ Intervention teams
- ▣ External entities

▣ Warning devices and signals



Non-Seveso type operator - Accidental Pollution Prevention and Control Plan (APPCP) - intervention

▣ Action for:

- ▣ Eliminating the causes
- ▣ Limiting and reducing the spread area
- ▣ Removing the pollutants
- ▣ Collection, transport and intermediate storage in safe environment in order to be neutralized

▣ **Force majeure:** stopping the operation of production facilities or departments

▣ **If pollutant present to water intake:**

- Additional water treatment (if pollutants are removed in this way)
- Running-out, collection, neutralization or destroying the pollutants
- Limitation of the internal water use for certain activities, sectors or production facilities
- Intensification of recirculation to industrial users

Non-Seveso type operator - Accidental Pollution Prevention and Control Plan (APPCP) - communication

- ▣ Internal communication
 - Between forces
 - With dispatch
 - With the top management
- ▣ With external entities
 - During the acute phase of the pollution
 - After eliminating the causes and cessation of phenomenon
- ▣ Communication protocols
 - Request support of collaborative units
 - Periodical information on ceasing operations

Non-Seveso type operator - Accidental Pollution Prevention and Control Plan (APPCP) - investigation

- ▣ **On WMS request: determining liability and the guilty**
- ▣ **Laboratory analysis with necessary frequency depending on the pollution wave**
- ▣ **Monitoring of the pollutants concentration in water resource until the pollution wave passes away**
- ▣ **Laboratory analysis for checking the additional treatment efficiency**
- ▣ **Compliance checking**
- ▣ **Damage assessment caused by polluted raw water in own unit and other units**

Emergency planing at the authority level

River Basin Accidental Pollution Prevention and Control Plan (APPCP)

- ▣ APPCP = prepared at:
 - the **WMS level** (county) - on which territory the potential polluter is located
 - the **Water Directorate** level (managed river basin)
- ▣ Technically revised every 4 years (when necessary – organisational changes)

Emergency classification



Level I emergency (no external impact, without special plant intervention team EP, HAZMAT, EM)



Level II emergency (no external impact, with special plant intervention team EP, HAZMAT, EM)



Level III emergency (no external impact, with special plant intervention team EP, HAZMAT, EM, but **personel evacuation**)



Level IV emergency (with external impact, with special intervention team EP, HAZMAT, EM, **personel evacuation**, with **specialized external intervention teams**)



Level I emergency phase

- ▣ Level I emergency phase – there is NO impact outside the plant perimeter.
- ▣ The emergency situation can be handled by the working personnel from the plant site, without the intervention of the specialized teams (Environmental Protection, HAZMAT, Environmental Management) ;

Breaching of the storage containment – example of I type emergency



Level II emergency phase

- ▣ Level II emergency phase – there is NO impact outside the plant perimeter.
- ▣ The emergency situation can be handled by the working personnel from the plant site, with the intervention of the specialized teams (Environmental Protection, HAZMAT, Environmental Management) ;

Spill on the plant top soil – example of II type emergency



Level III emergency phase

- ▣ Level II emergency phase – there is NO impact outside the plant perimeter.
- ▣ The emergency situation can be handled by the working personnel from the plant site, with the intervention of the specialized teams (Environmental Protection, HAZMAT, Environmental Management);
- ▣ It's necessary the emergency evacuation of the working personnel from the plant perimeter because of the pollution contamination secondary effects.

Discharge on the spillway channel – example of III type emergency



Level IV emergency phase

- ▣ Level IV emergency phase – there is a significant impact outside the plant perimeter.
- ▣ The emergency situation can be handled by the working personnel from the plant site, with the intervention of the specialized teams (Environmental Protection, HAZMAT, Environmental Management);
- ▣ It's necessary the emergency evacuation of the working personnel from the plant perimeter.
- ▣ It's necessary the emergency intervention team outside of the plant perimeter (civil protection, firefighters, etc.) and their action correlated with the Plan specifications.

Spill on the nearby stream – example of IV type emergency



County accidental pollution defence plans

- ▣ The plans for accidental pollution defense are drawn up at the hydrographical basin level, by each Basin Water Authority. Also the Plans for each water user, including those for the possible water polluters, are drawn up under the direct technical advice of the Basin Water Authorities.
- ▣ The specific section of the accidental pollution defense activity, at the county level, it's a separate part of the APDAFDPCP – accidental pollution, dams accidents, floods, ice blockage, drought and dangerous meteorological phenomena defense county plan.

Pollution prevention activities undertaken periodically at the Water management county level

Checking up by the Water Management Authorities:

- ▣ the drawing up and periodically actualization, by the potential polluters plant, of the prevention and control Plans and the Programs of controlling the accidental pollutions, according to the methodology stipulated by the Ministerial Order. 278/11.04.1997.
- ▣ the decisions regarding the teams with established attribution regarding the prevention and control of the accidental pollutions at the level of the potential polluters.
- ▣ appliance of the instruction for the working person from the critical points and intervention teams, in case of accidental pollution.
- ▣ specialized containing materials and the endowment with specific intervention means.
- ▣ internal communication flow and the operative information transmission regarding the pollution occurrence according to the established accidental spill scenarios.

Seveso type operator

Off-site emergency plans (OffEP)

- Planning actions for mitigation of on-site accidents involving dangerous substances with off-site effects taking into consideration the protection of population, the environment and property;
- Based on the scenarios with off-site effects described in the Safety Report and the On-site Emergency Plan;



Seveso type operator

Off-site emergency plans (OffEP) - aim

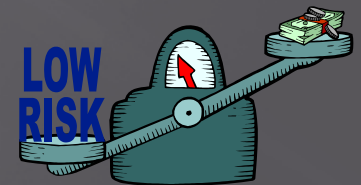
- ▣ The coordination and management of specific activities in case of an accident with off-site effects;
- ▣ Early warning and notification procedures for the intervention forces and local authorities responsible for emergency management;
- ▣ Planning for evacuation / shelter in place of the exposed population
- ▣ Establishing the general framework for action of the intervention forces outside of the establishment;
- ▣ Establishing cooperation with neighboring countries in case an accident scenario has transboundary effects;



Seveso type operator

Off-site emergency plans (OffEP)

- Is designed by CIES in cooperation with local authorities, exposed population and teaching / research institutes;
- Is approved by the prefect;
- Is revised, at least every three years, or upon the following modifications:
 - The characteristics of the risk sources
 - The risk analysis
 - Scenarios with off-site effects
 - The concept of cooperation
 - The conception of applying the plan
 - The structure of near-by urban developments
 - Specific knowledge in this domain
 - The vicinities of the site
- Copies are distributed to the authorities / institutions involved in the intervention;
- An extract from the plan is made available, on request, to the general public



Seveso type operator

Off-site emergency plans (OffEP) - testing

- ▣ Is tested several times per year, in different ways:
 - Table-top exercises
 - Communication testing
 - In-field accident simulation with complete / partial management of the intervention
- ▣ Least one in-field exercise involving all the forces shall be carried out every three years;
- ▣ There is an evaluation of each exercise, based on the conclusion of all the participating structures



Seveso type operator

Off-site emergency plans (OffEP) - content

- ▣ Updates, approvals, distribution
- ▣ Foreword
- ▣ Plan activation / deactivation
 - When
 - Who
 - How
 - What
- ▣ Emergency planning zones
- ▣ Notification / Alarm / Evacuation / Sheltering
- ▣ Accidental scenarios
- ▣ Intervention procedures
- ▣ Information for the public and mass-media
- ▣ Cartographical section



Compatibility of the emergency plans in the transboundary context

The guiding parameters taking into consideration for transboundary contingency planing compatibility

- ▣ Intervention thresholds
- ▣ Accident scenario
- ▣ Pollution modeling
- ▣ Intervention capabilities
- ▣ Intervention procedures
- ▣ Communication aspects
- ▣ Mutual assistance request and offer

Responsibilities allocation

- ▣ Is envisaged establishing of:
 - Command and control structure/persons
 - Cooperation
 - Water action forces
 - In-land action forces
 - Mission for each Parties
- ▣ Take into account:
 - Specific equipment endowment
 - Intervention time limit / state of efficiency
 - Personnel preparedness and training on specific incident type

Data exchange

- ▣ Is established by the on-site commander
 - Who and to whom (persons and structures)
 - When (to the preset time, e.g. 06.00 or after each 60 minutes from the beginning of the mission; in special situations)
 - How (fix/mobile phone , radio – with establishing of the radio frequency and network, fax, e-mail)
 - What (data and information needed and in which form)
- ▣ Can cover
 - Official / formal aspects (notification, assistance request / offer, Information report)
 - Routine (mission reports, measuring data, mission orders, coordination informations, meteo data)

Reviewing and testing on contingency plans

- ▣ Reviewing
 - To the preset time
 - Current updating
 - Following an accident or lessons learnt
 - Following a common exercise
- ▣ Testing
 - Table top exercise
 - Communication exercise
 - In-field exercise

Thank you for attention!

