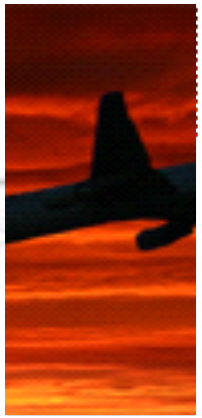




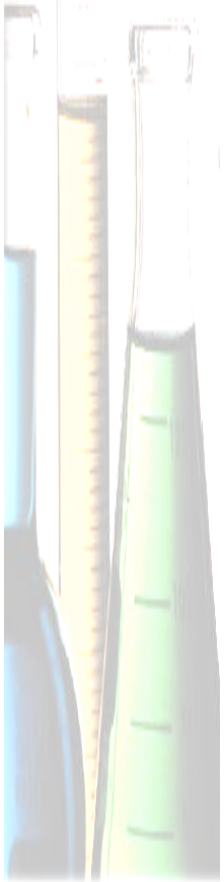


Conduct of the exercises to revise contingency planning

International Safety Research Europe

Emergency Management Specialists

Introduction

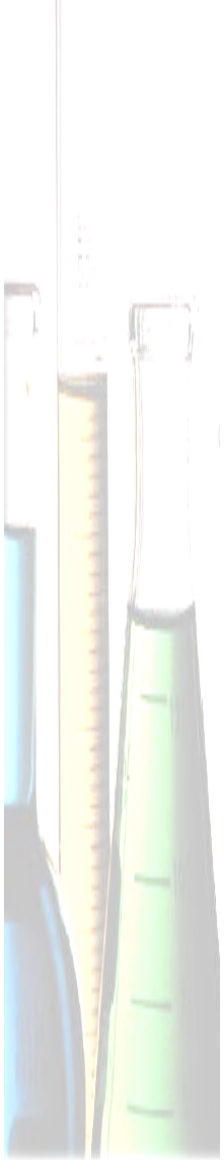


- Impact of transboundary accidents and response
- Usefulness of exercises
- Success factors of emergency management
- Issues, complexity and efficiency
- Different exercises
- Organization of an exercise (sponsors and controllers)
- Lessons learned

Impact of transboundary accidents and response

- Two well-known examples of industrial accidents:
  - 1976, Seveso, Italy, dioxin release led to contamination of local area and poisoning of local residents
  - 1986 , Basel, Switzerland, fire at a chemical warehouse, led to pollution of the Rhine river in several countries.
- This led to an awakening in the international community
  - More and more attention for risk assessment and accident prevention

Impact of transboundary accidents and response



- 2000: Accident in Romania with severe transboundary effects
  - Effects in Lapus river Romania, and within two days in the Tisza river, Hungary
  - Also other countries downstream the Danube were affected
  - Restoration will take a long time, and is impossible without international cooperation and assistance

- International cooperation is complex but an obligation!
  - Early warning is essential for effective response
  - Information exchange is essential
  - Requesting assistance
  - **The IAN system is used.**

Impact of transboundary accidents and response

Emergency management is considered in the UNECE convention, based on the following principles:

- Prevention
  - Better safe than sorry
    - *Identify hazardous operations, guidelines, analyses of past accidents*
- Preparedness
  - High level of preparedness to respond to an industrial accident
    - *Apart from safety standards and contingency plans, **exercising** is a vital element.*
- Response
  - Mutual assistance from neighbor countries
  - Parties are expected to minimize effects
  - Work together

Usefulness of exercises

- Plans are no better than the paper they are written on
- The planning process is more important
  - It enforces the human-network
- Real emergencies is when we find out if our plans work.
  - It is too late then.
- Exercises are the second best.
- Events never happen as planned
  - Exercises should test the limits of our plans capabilities

Success factors in emergency response

- Managing emergencies is like managing normal situations, but it is different!
  - The normal rhythm is broken
  - Decisions can have a much greater impact
  - Easy to lose trust and credibility
  - Don't expect order: chaos management is the rule
  - You will be under the increased scrutiny of the media, and the public

- The following "simple" rules will help you navigate through these challenges

Rule # 1

- Know when it is an emergency and when it is not
  - Canada federal SARS
  - On the other hand, treating a non-emergency situation as an emergency leads to long-term “self-generated” issues

Rule # 2

- Make sure the roles are CLEAR
  - Who is in charge?
  - Who does what?
    - *Within the organization*
      - I thought he was doing that!
    - *With outside organizations*
      - I thought I asked for the army! Louisiana Governor, Katrina

Rule # 3

- Know when to make quick decisions and when NOT
  - Dealing with urgent issues takes courage; information is usually limited and the tendency is to wait for more
    - *In that situation, the only thing worse than a bad decision is ___?___*
  - But not all issues are urgent
  - Knowing when to make a quick decision based on incomplete information is a quality of emergency decision-makers
  - Knowing when not to do anything is also an important quality of emergency decision-makers

Rule # 4

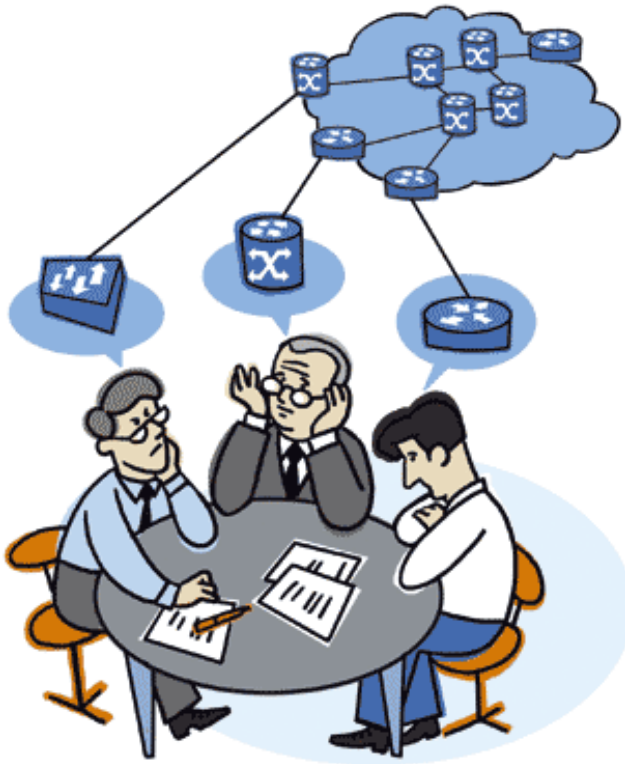
- Decisions must consider both the short-term and long -term impacts
  - Short-term gain often leads to long-term pain
    - *Tokaimura: how sheltering caused major economic impacts in the longer term*
    - *Early relocation: protecting people vs undermining their land*
    - *Uncontrolled media rumours can have long-term perceived impacts*
  - Most costs come from the longer-term impacts
  - Need to start planning for the long term early in the emergency!

Rule # 5

- Assess the facts, not the perception
  - Political and media pressure may be high: avoid assessments based only on those perceptions
  - Consider all factors and all aspects
  - Do not rely on automatic response: the seven-second rule
  - Wrong assessments lead to wrong response
    - *Mad cow disease*
      - It's only one case and we dealt with it
    - *SARS (Canada)*
      - The problem is limited to Toronto… There is no need for the Federal government to get involved

Rule # 6

- Your response should be proactive and strategic
  - Proactive
    - *Stay one step ahead*
    - *Anticipate what is coming*
    - *Instead of responding to events as they happen*
  - Strategic
    - *Make policy, set the goals and establish the high-level priorities*
    - *Let the regional and local leaders determine the best way to achieve the strategy*
    - *Do not micro-manage*



Rule # 7

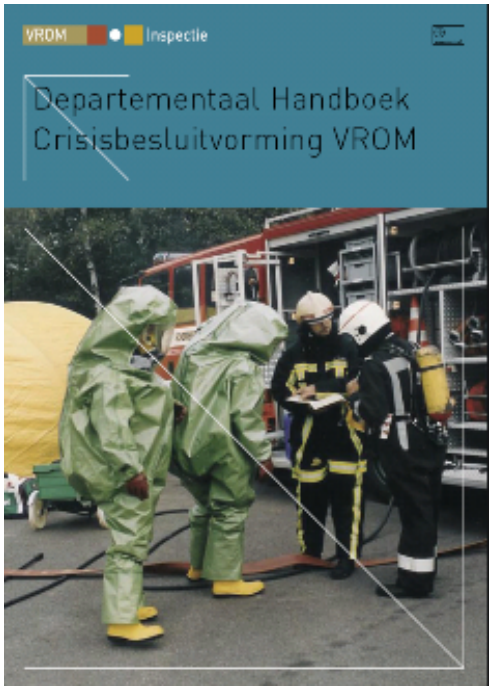
- Assume that communication will NOT work, and take appropriate measures
  - Use liaison officers, both ways
  - Three-way communication
  - Avoid the common mistakes in all emergencies:
    - *Always…*
      - We did not know what they were doing!
    - *Three Mile Island*
      - We called the regulator but all we got was their answering machine

Rule # 8

- DO NOT neglect the importance of the media; it has to be a MAJOR part of your response
  - Media fiasco: try to hide the truth or make it sound better
    - *Ice Storm (Canada 1999)*
      - The problems will be fixed tomorrow (it took another 3 weeks)
    - *Katrina*
      - The situation is under control and all agencies are cooperating effectively (Michael Brown)
  - Tell it like it is…
    - *Tylenol*
      - We have a problem and here is how we are fixing it! (GOOD)
  - Make sure the government(s) speak with one voice
    - *Three Mile Island*
      - NPP: no need to worry, no evacuation required
      - US NRC: prepare for an evacuation
    - *Walkerton*
      - Government: The water is safe to drink
      - Independent experts: But better boil it first

Rule # 9

- Follow procedures, but not blindly
  - Procedures enable better coordination
    - *One group uses procedures, the other does not (Westerschelde, NL, 2005), leads to confusion*
  - But they must be adapted to the situation
    - *Understand the intent of the procedures; it is more important than the procedural steps*
  - The “cowboy” approach, shooting from the hips, does not always work, but sometimes it does!



Rule # 10

- Exercise often, and with the real people…

Important issues to consider when exercising:

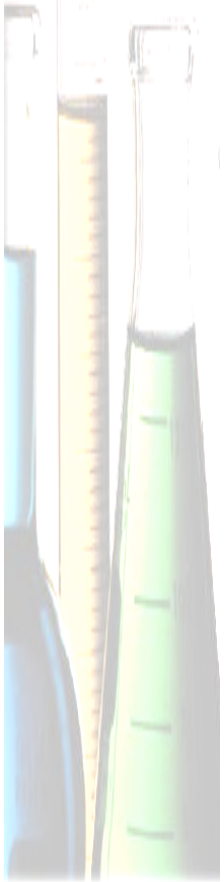
- Easy to lose control
- Real events can ruin your day
- Communications amongst controllers
- Use of software solutions: good and bad
- Time zone issues
- Real play is difficult but worth it
- Absence of key players significantly affects realism
- Robust simulation cell required
- Use of fictitious names creates confusion
- Safety issues related to live material creates problems
- Importance of testing the media information component

Factors that increase complexity

- Main factors: exercise scenario and exercise type
- Number of actors involved
- Field exercise versus tabletop exercise
- Field simulation versus life field operations
- Scenario complexity and details

- An existing, well known and recognised concept of operations between the participants is needed

Complexity: small vs. larger exercises

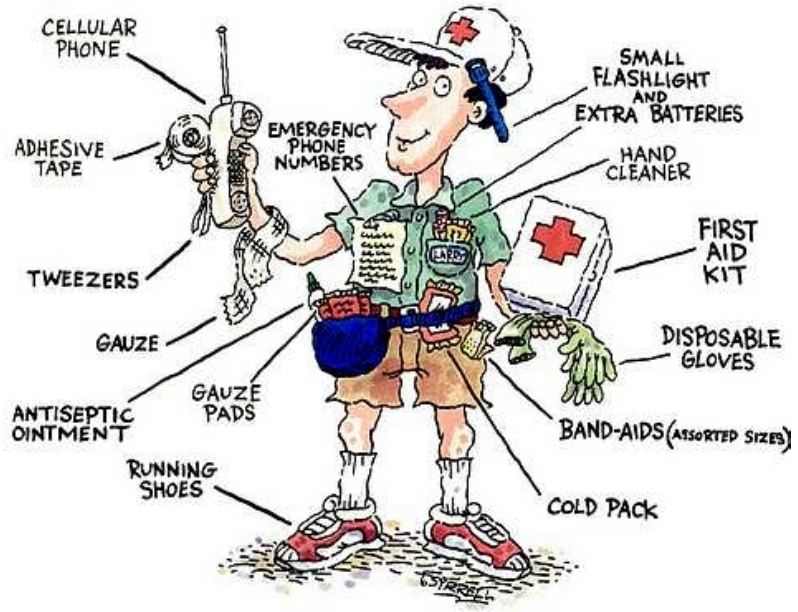


- Small can be beautiful
- Many small exercises can be more useful than a rare large one
- Some factors influence the complexity more than others
- 80/20 rule: In a complex exercise the devil is in the details and can eat up the budget easily
- Cost calculations are complex and sometimes incomplete.
  - Venue, travelling and hotel costs can be huge
  - Are they part of the exercise budget?
- Only looking to costs however is the wrong approach

Effectiveness of an exercise

Adequately judging an exercise is done on:

- Added value
- Return on investment
- Which are both determined by the emergency readiness of the exercised system



Different exercises

- Case study
  - 10-15 days of work
  - Knowledge exchange most important goal
  - No real exercise control
  - Simple (existing) scenario
  - Participants know or may not know what there role is and discuss “what they should do during a real emergency”
  - Added value can be low>> “It doesn’t stretch the participants too much”
  - Results must be captured and added to the concept of operations

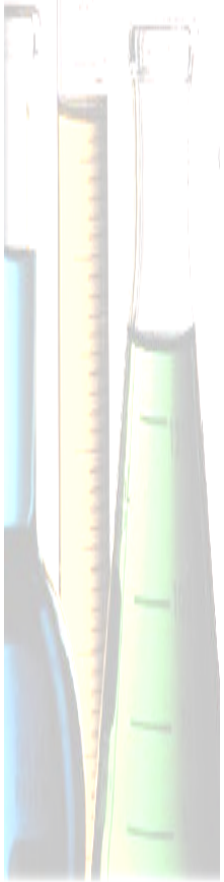
Different exercises

- Small tabletop exercise
  - 20-25 days of work
  - If information exchange and “Command and control” are the main goals
  - Simple exercise control and simulation cell
  - Thorough (existing) scenario with simple MEL
  - “Train as you fight”
  - Added value can be high>> “It does stretch the participants but there is still a lot of simulation involved”

Different exercises

- Complex high profile exercise
  - takes (as a minimum) between the 700-1000 hours of preparation (only direct exercise labour involved)
  - realistic or highly demanding
  - If a high “wow” factor is needed
  - A large number of countries and entities are involved: 15-30
  - Scenario can be complex and must be (several times) validated with trusted agents of participants
  - The MEL is a key success factor and could be very complex and detailed
  - Thorough and trained exercise control / senior exercise staff and leadership
  - Risk management is very important (“when the exercise leader is ill, backup must! be available”)
  - A couple of observers and evaluators are needed to create “return of investment”
  - Thorough scoping, goal definition and detailed preparation can create a mayor success

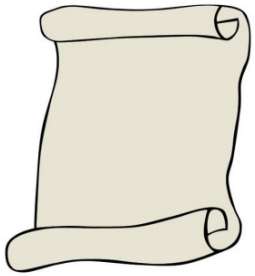
UNECE Exercising



- Organizing exercises together can have several advantages
  - Compare results
  - Costs are shared
  - Experiences and results are shared, and are comparable
- Construct a basic exercise structure, which can be used multiple times
  - "Do not fight the white" – if something is not applicable to all countries, keep in mind that exercising is a very useful tool, it is not a goal
  - Start with fictitious exercises and slowly develop exercises which have a more realistic approach
  - Slowly expand an exercise group with more participants
- Work together with other UNECE members (e.g. 10 countries)
  - To share experiences, share costs and share expertise in developing and facilitating exercises
- Exercise a "basic structure" with 2-3 countries
  - Evaluate, exchange experiences and expertise, compare with previous results
- You are in this together, use this as an advantage

Detailed planning leading up to an exercise

- Important documentation
  - Master planning, training manuals, exercise manual(s)
  - Scenario in details/ main event list/ injects
    Logistics plan, including:
    - *Safety management plan*
    - *(simulation/control) software*
  - Evaluation manual
    - *Derived from the original goals/operational concept*
  - Observer guidelines
  - Performance indicators / Evaluation report



- Selection and training of observers
  - Performance based evaluation
  - Observer techniques

Detailed planning leading up to an exercise

- **The actual exercise**
- Hot wash-up (immediate player evaluation)
- Evaluation by exercise (control) team
- Evaluation report and completion

Task division between sponsor organization and exercise coordinator

- Sponsor organization
  - Executive sponsor: “decide on course and strategy”
  - Open doors / facilitate / establish contacts
  - Spreading information
  - Media management
  - Financial management and–accountability

Task division between sponsor organization and exercise coordinator

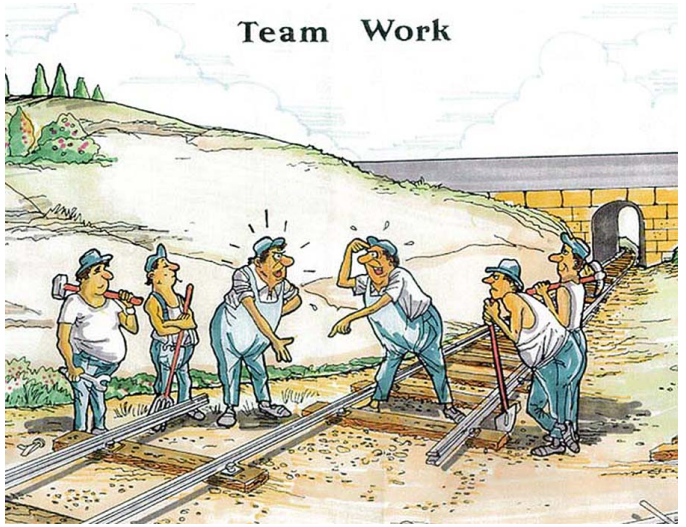
- Exercise coordinator
  - Preparation
    - *Organizing all meeting*
    - *Reporting*
    - *Maintaining operational contacts with all participating organizations*
    - *Information and document management*
    - *Project management*
  - Exercise observation
  - Exercise evaluation

Task division between sponsor and exercise controller in practice

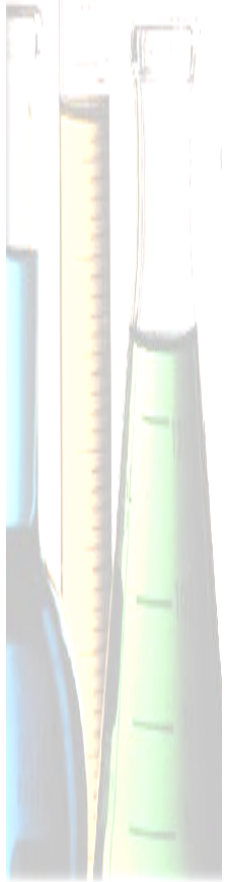
- Outsourcing the bulk of the preparations, however
- When conflicts escalate, the sponsor organization takes its responsibility
- Exercise controller organizes a safe exercise and evaluation environment
  - " Nobody makes mistakes during an exercise"
  - Safety should be guaranteed all the time
  - Confidentiality of the evaluation
  - Act cautiously

Lessons learned:

- It is teamwork between the sponsor organization and the exercise controller
- Exercise is a project but it is part of a process of “demonstrated preparedness“
- Facilitating meetings and “keeping everybody on board” take up most of the time
- Preferably a result-oriented evaluation



Questions?



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