NTW Working Group
Emergency Preparedness & Response (EP&R):
The approach and the methodology

Aarhus Round Table on **Emerency Preparedness and Response of NPP Temelin**

October 20th 2014

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The approach

- The proposed process relies on **interactions between:**
  - National investigations led by EP&R WG members (in cooperation with other civil society organizations) at the national and/or local levels notably through national or regional Aarhus Convention & Nuclear (ACN) roundtables (when appropriate),
  - Investigations at the European level (seminar, meetings, hearings, …) by NTW, integrating national views,
  - Support from EP&R WG: inception seminar, methodological and strategic advice, issuing of guidelines for national investigations, participation of NTW members to ACN roundtables.
- The proposed process will identify
  - Country-specific or site-specific issues (identified and addressed by national investigations),
  - Issues of European relevance for the viewpoint of civil society
  - Concrete conclusions & recommendations at the European and national level.

Structure of the proposed process (January – November 2014)

European level

Inception seminar organised by EP&R WG

Targeted investigations by EP&R WG at the European level

Possible missions of NTW members at the occasion of **ACN national or regional roundtables**

Cross-analysis of national conclusions and European level analysis

NTW meetings: drafting of conclusions of European investigations & proposal of ACN European roundtables

National/trans-boundary level

National investigations: examination of documents, hearings, cooperation with other CSOs. Preparing national or regional ACN Roundtable.

National or regional **ACN roundtables**:

Issuing of conclusions of national investigations (national case studies)

Activities-1

- Lessons learnt from first seminar (6-7 February) and minutes with all presentations are available on the web page:

  www.nuclear-transparency-watch.eu

- Development of methodology for work on EU and national level and content for the report was finalised at the end of March 2014.
  1. The questionnaire on national EP&R provisions and practices, distribute to collect the information on national context within the members of WG,
  2. Examine the reality of EP&R by common questionnaire based national investigation with involvement of responsible and affected people (experts, fire brigades, mayors, local population, NGO, …),
  3. Compare the results of investigation between countries and with the findings from „DG ENER“ study.

Activities-2

- Implementation of methodology until October 2014.
- In parallel „Round tables“ in different countries with focus on national and cross border EP&R arrangements:
  - F-G-B-Lux: RT Cattenom (May 17, 2014)
  - Cz–Slo-D-A: RT Temelin (September 27, 2014)
  - Si-Cro: RT Krško (October 20, 2014)
  - B-Fr-D-Neth: EP&R in Belgium (De Panne, December 3)
  - Bu-Ro-Sr-FYRM: EP&R on Eastern Balkans (Sofia, ?)
  - Ukr: EP&R in Ukraine (Kiev, ?)
- Preparation of report by end of 2014:
  - Introducion
  - Results of investigation,
  - Round tables deliveries,
  - Suggestions and reommendations.

Activities 3: Checking results of EU study on EP&R -1

DG ENER commissioned in 2013 a study with the title ***"Review of current off-site nuclear emergency preparedness and response arrangements in EU member states and neighbouring countries"***. The objective of the investigation was:

- Assess the status of the existing arrangements and capabilities for off-site emergency preparedness and response (EP&R) within and between the EU Member States (MS) and neighbouring countries in respect of their coherence and completeness;
- Identify best practices, gaps and inconsistencies, in particular related with cross border arrangements;
- Assess how current arrangements and capabilities could be made more effective (in particular optimized to make better use of available resources and avoid duplication, both nationally and across borders); and
- Make recommendations on potential areas for improvement.

NTW WG on EP&R **is** checking the relevance of the results of the study by compaing actual state of the art of the off-site EP&R with the findings of the study

Activities 3: Checking results of EU study on EP&R -1

Draft of the NTW Position Paper on ENCO Study:

- Emergency preparedness in case of nuclear accident should **aim** at very first **to limit as much possible any damage** to **the people** and to **the environment.**
- Nuclear emergencies should be treated according to very **special nature of nuclear risks** as for example very long term effects, large uncertainties of long term effects of low-levels of exposure, long-term time frames for remediation and last but not least also special sensitivity of a public to a nuclear accident.
- Plans on paper should be **tested thoroughly in reality**, taking into account:
  - **peer-reviewed assessment** of the adequacy of emergency preparedness and response for every NPP, spent fuel and high-level waste operation in Europe
  - **critical observations and practical recommendations** from the *emergency practitioners* and from civil society organisations/initiatives

Activities 3: Checking results of EU study on EP&R - 2

- **Each NPP in Europe** should be **individually assessed** regarding its off-site EP&R based on activities performed the regulators, national, regional and local emergency structures, local authorities and civil society, taking into account:
  - evacuation plans,
  - special arrangements for vulnerable groups and visitors;
  - strategic infrastructure;
  - long term evacuation and return policies;
  - information collection and dissemination; communication about radiation risks;
  - compensation mechanisms;
  - cross-border issues etc.

- **Shutting down of a NPP or should not be excluded as an option** when an independent assessment demonstrates its ***sever incapacity to provide*** an adequate and in-time ***response to EP&R challenges***.

Activities 3: Checking results of EU study on EP&R - 3

- **Harmonisation** should not be considered as a general policy aim or generic tool but only ***to the scope releavant for a maximal mitigation of the damage*** caused to the people and the environment in the case of a nuclear accident and it should ***not be*** primarily ***driven by costs reduction***.

- **Cross-border cooperation** should be at very first evaluated from the perspective of best possible protection of the people and the environment. Weakness of the (non)existing cross border cooperation and their concrete impacts and consequences for protection of the people and the environment should be identified in details and ***context specific proposals for the improvements should be made and implemented.***
- Cross border co-operation should be given a special attention since nowadays people in one country affected by nuclear accident will ***made their decisions also based on information on the activities taken in other affected countries***.

- **Practical starting point** for assessing the European situation regarding nuclear of site EP&R should be ***lessons learned from Fukushima catastrophe.***

Challenges

- Access to information – some problems, but effective use of Aarhus convention.
- Cooperation of official authorities in the process – some reports already exist on negative attitude after first contacts.
- Financial constrains: NTW can provide maximum of 2.500 € for directs costs of RT
- Time limitation – more feasibility study than a systematic analyses.

EP&R Methodology

Identified gaps, inconsistencies and problems:

5 Exercises and drills:

- Many remarks, but problems with implementation of conclusions, inadequate quality of evaluation and/or weak impact of evaluation on adequate changes of plans, exercises and drills,
- Involvement of citizens is very limited,
- Only limited to country with accident, not taking into account potentially affected population in neighbouring countries.

6. Medical support:

- Not enough equipment and not enough medical personnel in some countries,
- No agreement with other medical centres.

EP&R Methodology

Identified gaps, inconsistencies and problems:

7. **Trans-boundary arrangements:**
   - In many countries cross border cooperation is not in place (however there are many NPPs on borders),
   - Different arrangements in EP&R provisions, lack of trans-boundary co-operation and co-ordination,
   - Lack of cross-border exercises.

8. **QA/QC (maintaining the plans, or new plans):**

- Poor maintenance of plans regarding important recent spatial changes (new residential neighbourhoods, shopping malls, medical centres, elderly housing, schools, roads, etc.)
- Plans are not taking into consideration recent changes in technologies (internet, mobile phones), media landscape (cable TV, new social media -NSM), social values and lifestyles therefore they might be based on outdated/false presumptions,
- Limited improvement based on drills and exercises,
- Some plans are missing (Agriculture, Health, . . .).

EP&R Methodology
Identified gaps, inconsistencies and problems:

1. **Monitoring feasibilities:**
   - Limited competent teams to perform measurement in cases of long term needs in many countries,
   - Lack of availability of sufficient (calibrated and certified) equipment for measurements,
   - Lack of automatic data management support (e.g. GIS).

EP&R Methodology

Identified gaps, inconsistencies and problems:

2. **Communication and notification:**

- Late transfer of data on on-going developments at the affected area to the response centre - i.e. delay in reporting,
- Management of response without radiological expertise and/or without detailed, adequate micro-climate modelling and quality meteorological input data,
- Lack of permanent operational room at the response centre,
- Inadequate language skills for direct communication in English between the responsible authorities in different countries
- Multiple contact lists (with wrong and missing contacts),
- Weak trust in official information sources (in some countries),
- Inadequate capacities of NGOs, civil initiatives and independent experts to provide adequate information in time when approached by affected citizens.

EP&R Methodology

Identified gaps, inconsistencies and problems:

3. EP&R at local municipalities:

- No proper preparedness (availability of plans, training, involvement of local population, etc.),
- Evacuation plans might be based on unrealistic/outdated presumptions:
  - not taking into account the **impact of the internet and new social media** on information received by the affected population;
  - presuming **top-down organised mass evacuation based on collective means of transportation** whereas in the reality the majority of people would try to evacuate using their private cars),
- Out-dated evacuation plans (not taking into account recent changes in urban planning such as new settlements, shopping malls, medical centres, roads, etc. and their impact on traffic patterns and transport infrastructure.
- Lack of local media (radio) for information dissemination
- Lack of responsible personnel (e.g. 1 person for 5 different EP plans in 1 municipality – for nuclear emergency, for flooding, for earthquake, for terrorist attack and for chemical disaster),
- Availability of information for citizens,
- Iodine prophylaxis – only small percentage of population have the tablets in 10 km zone, for others there is no clear information.

EP&R Methodology

Identified gaps, inconsistencies and problems:

4 Technical arrangements for EP&R:

- size of the EPZ (emergency preparedness zones) differs very much between the countries,
- how many people live in radius of 30km around each NPP,
- how many schools, hospitals, nursing homes are in the EPZ,
- how far is the nearest border (neighbouring country) from NPP,
- number of farms with animals,
- evacuation time estimate (this is compulsory around NPPs in USA),
- triggers or OIL (operational intervention levels).

Questionnaire on EP&R provisions
from a (practical) perspective of civil society

1. Which **stakeholders** should be **included in off-site nuclear EP&R activities** in your country?
2. What are the provisions regarding **inclusion of civil society** (local initiatives, NGOs) and/or local communities in EP&R activities?
3. At what stage - if at all - are the **initiatives of local communities and/or NGOs included** in EP&R activities?
4. Are the local communities and/or civil society engaged in **cross-border EP&R activities**?
5. How do you assess provision of **sheltering** in off-site EP&R plans in your country?
6. How (and by whom) are the stocks of **stable iodine pills** planned in your country?
7. How do you assess provisions for **evacuation** plans in case of nuclear accidents in your country?

Questionnaire on EP&R provisions
from a (practical) perspective of civil society

8. Is there a clear strategy regarding **decontamination** in your country?
9. How are EP&R plans in your country addressing the issue of **relocation**?
10. Have those plans been **updated after the accident in Fukushima** or are they at least planned to be updated?
11. What **major changes** have been made or are planned to be undertaken?
12. How are **food and drinking water restrictions** managed under EP&R plans at national level?
13. Are there in EP&R plans clear criteria under what circumstances people will be allowed to **return** (to their homes) **from evacuation or relocation**?
14. How people in emergency protection zone are to be **informed on EP&R activities**?

Questionnaire on EP&R provisions
from a (practical) perspective of civil society

15. How (by which media) and by whom the people in the emergency planning zone **will be informed of a nuclear accident** in the nearby NPP? How and by **whom the general public will be informed** of a nuclear accident?
16. Would the **information** on the level of exposure to radiation, sheltering measures and evacuation activities **provided by authorities be considered as reliable, sufficient and trusted** by the people?
17. Are there in your country enough calibrated measurement devices to assure an adequate **measurement of levels of radiation** in case of severe nuclear accident?
18. Which **civil society organization(s) and/or independent experts and/or institute(s) have a potential to provide trustworthy, credible and effective information** on EP&R in the case of a severe accident in a NPP in your country?

THANK YOU FOR YOUR ATTENTION!

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