

Public assessment of the emergency preparedness and response in the nuclear field: an overview of the NTW analysis

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Emergency Preparedness and Response (EP&R) Working Group (WG)

- EP&R working group was established with creation of NTW in November 2013
- The aim of EP&R WG is:
 - to carry out an evaluation of the existing European and national EP&R provisions from the civil society point of view,
 - to inform public on the findings and
 - to provide guidance for further activities of the interested public.
- Involved: 10 countries (Belgium, Bulgaria, Czech Republic, France, Germany, Ireland, Luxembourg, Ukraine, Sweden and Slovenia) with 21 participants from 15 organisations.
- The results:
 - Position paper of NTW on Emergency Preparedness & Response situation in Europe (200 pages),
 - Report of NTW on Emergency Preparedness & Response (EP&R) work (15 pages).

Information collection and analyses of EP&R

- a) **international seminars** with expert institutions and international associations,
- b) **desk work** to review the national provisions and international requirements,
- c) **interviews and questionnaires** with representatives of responsible institutions and members of local populations,
- d) **the organisation of trans-boundary roundtables** involving the participation of responsible institutions and civil society,
- e) the **investigations performed by the EU institutions** (i.e. the “Review of current off-site nuclear emergency preparedness and response arrangements in EU member states and neighbouring countries“ study).

Main results of EP&R WG -1

■ Seminars:

- Current EP&R is in practice at best a bureaucratic list of good intentions since plans are not realistic.
- Citizens are insufficiently informed and involved.
- Exercise scenarios are not realistic.
- Plans need to integrate the feedback of Fukushima in order to be realistic.
- National arrangements are too different: in methods, algorithms, models, appreciations of uncertainties, intervention levels and definitions, etc., Individual differences are leading toward inconsistencies along borders.
- This lead to distrust in the decisions of the authorities that amplify the seriousness of an eventual crisis situation.
- Not prepared for challenge: in a major nuclear emergency situation in a country, multiple sources of information, presumably conflicting, will develop even in the short term. How to communicate?
- Address post-emergency issues based on the experiences gained from the Fukushima accident.
- EU level authorities – initiatives the improvements but the work is extremely slow.

Main results of EP&R WG -2

■ Desk top and interviews/1:

- Many different approaches in EU on Emergency Planning Zones, Sheltering, Iodine Prophylaxis, Evacuation, Restrictions to Food and Drinks, Information Provision, Termination of Emergency, Trans-boundary Issues,
- Almost no real involvement and public participation of civil society organisations in planning – prevailing top-down approach,
- Almost no cross- border cooperation in place with some exceptions, but public is not involved,
- No special sheltering sites are envisaged, possible problems with food supply (48 h) and conditions in houses (ventilation),
- Low percentage of people in emergency zones (20-50 %) has iodine tablets with theme,
- Very different levels for evacuations (from 30 mSv to 350 mSv),
- Evacuation is a challenge (how, in which direction, availability of info, multiple sources of info), but not realistically addressed in drills,

Main results of EP&R WG -3

■ Desk top and interviews/2:

- Decontamination seen as not problematic, but no real proves (the number of people in millions, how to do it, contaminated material management, standards, ...)
- Possibilities for multiple relocation still present, the duration of relocation is underestimated (as learned from Fukushima accident),
- Possible capacities for food and drinks monitoring are not sufficient in case of large contamination,
- Communication strategies are too passive and there is a lack of public discussions on the issues,
- Language barriers for information distribution and dissemination (within the authorities and journalists to the citizens),
- Trust to the information sources is a challenge all over Europe – more needs to be done.

Main results of the EP&R WG -4

- Trans-boundary EP&R Round Tables:
 - EP&R of **NPP Catenom**; Remich , Luxembourg, May 17 2014
 - EP&R of **NPP Temelin**; Hlobuka nad Vltavom, Czech Rep, September 27 2014
 - EP&R of **NPP Krško**; Brežice, Slovenia, October 20, 2014
 - EP&R of **NPP Kozloduy**, Sofia, Bulgaria, January 19 2015
 - EP&R in **Ukraine**, Kyiv, Ukraine, January 26 2015

- Objectives:
 - To **bring together key stakeholders** to discuss state of the art of national and trans-boundary provisions, practices and challenges of EP&R from a civil society perspective
 - To **trigger the multi-stakeholders process** of critical discussion in an open, fearless, critical and toward improvement of the situation oriented manner
 - To **encourage concerned citizens, citizen's initiatives and NGOs** in respective countries and provide them basic information, also on lessons learned from Fukushima and on-going EU activities in the field
 - To **support the cross border cooperation on trans-boundary EP&R issues** between citizens and authorities

Main results from the EP&R WG -4

Main findings from the RTs:

- **Inadequate response/ignorance of the operators and authorities and lack of participation of local inhabitants and municipalities** in case of RT Cattenom and Temlin.
- **Good collaboration with official institutions** in RT Krško although low level of information about the provision in Slovenia and even lower in Croatia has observed.
- **EP&R plans are based on rationality** of a planned top down administrative actions that **does not match with the chaotic reality**.
- **Information strategies and capacities seems to be the weakest point of EP&R activities** and are often based on message that sever nuclear accident is impossible to happen.
- There is **question of reality of scenarios** upon which the responses are based, **limited exercises**.
- **Trans boundary EP&R provisions are few and hampered by inadequate procedures and/or languages skills of responsible personnel.**

Main findings in EP&R WG -5/1

- Evaluation of national EP&R provisions
 - EP provisions remains outdated, inadequate, delusional and not real in many cases
 - Evacuation (large scale) not possible in many cases
 - Lack of efficient radiation monitoring devices
 - Lack of local authorities (and local population) awareness and training
 - Inadequate medical support
- Assessment of Plans, including involvement of Citizens
 - Lessons of Emergency exercises & drills are limitedly taken into account
 - Sub-optimal management of response: lack of radiological expertise among first responders, late transfer of data or lack of it, operational rooms for command,...
 - Poor maintenance of Emergency plans
 - No independent review or evaluation of plans
 - CS not involved in planning
- Emergency information
 - Total lack of communication between different concerned administration
 - On – site emergency is remit of operator and not shared with people
 - No use of new media for information dissemination
 - Communication and notification lines for responsible are not entirely working.

Main findings in EP&R WG -5/2

- Trans-boundary dimension of nuclear accidents
 - EP&R is dealt at national level, with little trans-boundary cooperation
 - Heterogeneity of existing EP&R provisions is a real threat
 - Difficulty to bring together all the players across boarders in order to discused EP&R
- Post-accident consequences
 - Nuclear accidents have (very) Long Term complex consequences that need to be addressed
 - Post-accident situations necessitates complex recovery processes involving the population
 - Only addressed by very few countries today (like France), with minor scenario – difficulties of local implementation, especially in case of trans boundary situation
 - Need for clarification of food standards and their harmonisation
- On-site emergency management
 - Questions on the availability of human resources
 - Protection of workers which was evident during Fukushima accident
 - Availability of technical tools

Main findings in EP&R WG -5/3

- Nuclear liability
 - Abyssal gaps between accident costs and existing insurance provisions
 - Need for investigations on actual costs of accidents based on recent Fukushima experience (compensation)
 - Public liability replaces private liability?

Main recommendations in EP&R WG -6

- Need for detailed CSO evaluation of EP&R provisions in each country
- Need for CSO and public engagement in planning and management at local, national and trans-boundary levels
- Harmonise emergency provisions (emergency zoning on evacuation, sheltering, iodine distribution)
- Need for developing a legal framework involving CSOs at each level of preparation and decision in the spirit of the Aarhus Convention
- Develop a EU wide policy on EP&R – EC should take the lead (like for updating of nuclear safety after Stress Tests)
- Need for appropriate resources for CSO and local communities to be involved
- Need for quality control procedures (QA/QC) including feed-back of new events, exercises & drills (learning process)
- Reconsider evacuation process in the case of large urban area
- Integrate rescue and radiation experts in civil protection staff
- Train medical staff
- Finance research activities in this area
- Develop Medium - Long Term post-accident policies
- Create a CS-EP cooperation to investigate liabilities for NPPs accident

Possible follow-up: 2015-2017

- Systematic investigation of EP&R provisions at different national and trans-boundary levels based on modified approach used for the EP&R report.
- Influence of improvements made in new legal EU framework (BSS, Safety directive, food standards) requirements would be analysed
- Round tables:
 - Aarhus Convention & Nuclear round tables linking EU associations (HERCA, WENRA, ENSREG), EUP, EC and NTW,
 - Cross border RT on trans-boundary cooperation/harmonisation,
 - Nationally with all relevant stakeholders - Interactions between regulators, civil protection authorities, local municipalities, operators, NGOs, civil society and other interested organisations and citizens.
- Possible cooperation within EU research projects (H2020/Eauratom), and associations.

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- Thank you for your attention !

More information on: <http://www.nuclear-transparency-watch.eu/category/activities/nuclear-emergency-preparedness-and-response>