

## Nuclear Transparency Watch

# Position paper of NTW on Emergency Preparedness & Response (EP&R) situation in Europe

## Executive summary

This position paper summarises a NTW report collecting information on EP&R provisions in 8 EU countries (Belgium, Bulgaria, the Czech Republic, France, Germany, Luxembourg, Slovenia and Sweden) and Ukraine, through the working group EP&R of NTW involving 21 participants from 15 organisations. Several EP&R arrangements (exposure standards, intervention levels, zoning, transboundary arrangements, etc.) are explored to provide an overview of the existing European and national EP&R provisions. The report aims to carry out an evaluation from the civil society point of view, to inform the public on the findings and to provide guidance for further activities of the interested public.

## Executive Summary

The Fukushima accident in March 2011 has intensified European concerns about Emergency Preparedness and Response (EP&R) provisions after nuclear accidents. Although the European Commission and European Nuclear Safety Regulators Group (ENSREG) initiated a process of stress tests for all operating nuclear power stations in Europe, this process did not include off-site EP&R. Later attempts by the European Commission to take action on this issue seem to have come to a virtual halt. This is contrary to the IAEA nuclear safety concept of defence in depth. Nuclear Transparency Watch (NTW) has conducted an investigation of off-site EP&R. The findings highlight many deficiencies in EP&R provisions and the need for extensive improvements in this area. These are detailed in the report.

Emergency preparedness is mostly based on INES 5 nuclear accidents and response plans generally cannot cope with an INES 7 accident, which was the level of the Chernobyl and Fukushima accidents. The NTW report gives findings, viewpoints, recommendations and proposals from the members of the NTW EP&R Working Group explaining this lack of preparedness.

**Emergency drills - NTW observes that many regional and local authorities are not really prepared for a nuclear accident.** Sufficient dedicated staff, accurate evacuation plans and full scope exercises involving the local population are missing. Lessons learned from exercises and drills are not taken into account in new versions of plans, nor are they communicated to the stakeholders. NTW believes that there is a need for developing a legal framework requiring the involvement of civil society organisations at each level of EP&R preparation and for related decisions, in the spirit of the Aarhus Convention and in compliance with its requirements.

**Changes updating - NTW identifies poor updating of EP&R plans regarding important recent spatial changes** (new residential neighbourhoods, shopping malls, medical centres, schools, roads, etc.) **and recent changes in technology** (internet, mobile phones, new social media, availability of basic radiation measurement equipment among the broader population, etc.). During the Fukushima catastrophe, social media networks played an important role in how citizens gathered on-going information in Japan and beyond. This dynamic is not taken into account in national EP&R plans, nor are EP&R plans adequately addressing cross border issues and the multi-lingual, multi-national and multi-cultural character of contemporary European societies. How will authorities use these communication vehicles to quickly dispatch relevant information to a wide audience? How are they going to tackle contradictory information or rumours?

**Communication - NTW notices that even during exercises and drills, the communication and notification lines for the responsible institutions are not entirely working.** The contact data of involved personnel are sometimes wrong or out-dated. Some concerned administration services do not communicate between themselves, and for others, their communication is inadequate or delayed, or even both. For example, in Germany, the crisis teams of the Federal Ministry for the Environment and the federal states Environmental Ministries failed in a communication exercise in September 2014. The outcomes show that more than one million inhabitants would have been affected by radioactive releases before any public warning by the authorities and some regions would have received security instructions (to close the windows, doors, etc.) five hours too late. How are the communication lines supposed to work between two neighbouring countries if it is so chaotic already on a national level?

**Distribution of iodine tablets - The heterogeneity of measures in different countries** (like the distribution of iodine, evacuation perimeters and zoning) **is a crucial transboundary dimension.** This

heterogeneity is potentially a source of chaos, loss of credibility and, most important, can lead to failure to protect the population. As an example, in Austria and Luxembourg, iodine tablets can be collected in any pharmacy to be stored at home in the whole territory. In the Czech Republic, iodine tablets are pre-distributed and stored in houses only in an emergency zone up to 13 km around the Temelín NPP and 20 km around the Dukovany NPP. Today, not all parts of the population in the emergency zone have iodine tablets. In Belgium and France, iodine tablet pre-distribution zones are established within 20 km and 10 km around the nuclear power plants respectively. For residents living outside the pre-distribution zone, there are centralised stocks, which need to be distributed after the nuclear accident happens. In Germany, iodine tablets have to be collected by the public itself after the accident. The question is how will the iodine tablets reach the affected population in time? In Japan, stocks existed locally before the Fukushima disaster. But given the fact that the authorities failed to give appropriate instructions to the public, iodine tablets could be distributed only for a very small number of residents in the area surrounding the damaged plant.

**Food standards - There is a need for clarification of food standards and their harmonisation especially in the post-accident context.** It has been noted that there are several different food standards imposing radioactivity limits per mass or volume. For example, the FAO and WHO standards state 1000 Bq/kg of food stuff for Cs-137 (Codex Alimentarius), whereas the EU imposes different limits for import of food from different areas affected by a nuclear accident - e.g. 370 Bq/kg for Cs-137 in dairy products from the Chernobyl area and 200 Bq/kg for Cs-137 in dairy products from Japan after the Fukushima catastrophe. A repetition of the chaos in food standards after the Fukushima catastrophe has to be prevented at all cost. The confusion caused mistrust of the legal framework and the responsible institutions. The European Commission and other authorities should create a transparent, scientifically sound and publicly accepted set of standards and create harmonisation across Europe.

**NTW calls for a systematic involvement of citizens and civil society.** NTW's assessment has made it obvious that the usual top-down approach in EP&R, which has been used to date, should be changed and that local populations and interested civil society organisations should be actively involved and supported in this participation. This would be the best cure against sectoral “silo thinking” and in particular, against the problem of properly defining the responsibilities of civil protection authorities on the one hand and the safety and radiation protection authorities on the other. Active citizen engagement would also increase the scope, reduce the use of false or out-dated assumptions and data, steepen the learning curve necessary after the Fukushima experience and overcome cross-border obstacles. Current limitations, due to a certain “tunnel view” based on a reluctance to include the unexpected, need to be overcome if the complexity of nuclear emergency situations in real world settings is to be addressed.

The European Parliament, the European Commission, national governments, regional bodies and municipalities together with nuclear operators should provide access to relevant information to interested citizens, citizens’ initiatives and civil society organisations, as well as support their participation in emergency preparedness and response planning. This should happen regardless of a CSO’s position on the commercial use of nuclear power. In order to achieve this, inclusive and participative solution-finding platforms like the French association of local information committees on nuclear power (ANCCLI) and Nuclear Transparency Watch should be established or strengthened to create a level playing field among stakeholders with access to different information, scientific expertise, media and political influence and to ensure a safe and sustainable communication space for actors with different, even opposing, interests.