

**MINUTES OF THE
NUCLEAR TRANSPARENCY WATCH
EMERGENCY PREPAREDNESS & RESPONSE
WORKING GROUP INCEPTION SEMINAR**



Paris, February 6 and 7 2014

Leopold Mayer Foundation for the Progress of Humankind

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MINUTES OF THE NUCLEAR TRANSPARENCY WATCH EMERGENCY PREPAREDNESS & RESPONSE WORKING GROUP INCEPTION SEMINAR

The seminar took place in Paris on February 6 and 7 2014 at the premises of *Leopold Mayer Foundation for the Progress of Humankind* and was attended by 29 participants from 7 countries.

The short report and presentations from the seminar are available at: <http://www.nuclear-transparency-watch.eu/a-la-une/inception-seminar-cluster-emergency-preparedness-response-epr-2>

The context, the NTW WG on EP&R

The question of Nuclear Emergency Preparedness and Response is a priority issue for NTW in the post-Fukushima context. This question has not been taken on board of the European nuclear stress tests. However, Civil Society Organisations have requested this issue to be dealt with by EU institutions during the ENSREG Public meetings (see Public Meeting, 8 May 2012, Post-Fukushima stress tests Peer Review, ENSREG, Brussels). It is now on the agenda of European and National Institutions and will be dealt with in the coming years. A review of existing Nuclear Emergency Preparedness and Response arrangements in the EU member states is currently being performed under the auspices of DG ENER ("Review of current off-Site nuclear emergency preparedness and response arrangements in EU member states and Neighbouring countries ENER/D1/2012-474").

The contribution of civil society is to play an essential role in off-site management of nuclear emergency and post-emergency. An ad-hoc working group was created on Emergency Preparedness & Response (WG EP&R) with the view to carry an evaluation of existing European and national EP&R provisions and to produce conclusions by mid 2014.

The first meeting of the thematic NTW Working Group on "Nuclear Emergency Preparedness and Response" (EP&R WG) was held on November 7th 2013 in Brussels. The WG is gathering information and reviewing existing EP&R arrangements. It is also seeking for cooperation with experts on nuclear emergency and post-emergency management. It is foreseen that the first results of this work will be released and discussed in the framework of an Aarhus & Nuclear European Roundtable to be held in spring 2014.

The EP&R WG Objectives and Methodology

The EP&R WG will investigate

- The key stakes regarding nuclear EP&R from the point of view of civil society
- The main needs for improvements of existing EP&R provisions in Europe at the local, national and European level
 - Concerning the content of EP&R arrangements (exposure standards, intervention levels, zoning, ...)
 - Concerning the decision-making processes for EP&R in the perspective of the Aarhus convention (in particular Article 5.1.c – see Figure 1) of the Convention)
- The strategic opportunities to push forward key changes in EP&R at the local, national and European level

The proposed process will identify country-specific or site-specific issues (identified and addressed by national investigations). It will also identify issues of European relevance for the viewpoint of civil society as well as

concrete conclusions & recommendations at the European and national levels. The WG methodology will rely on interactions between

- National investigations led by EP&R WG members (in cooperation with other civil society organisations?) 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.

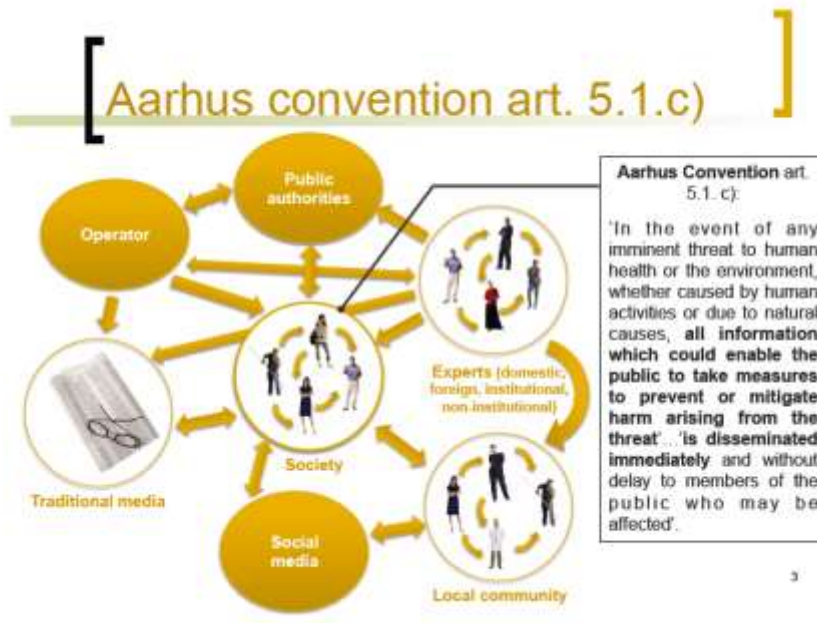


Figure 1

The Inception Seminar

This seminar was a non-public event of 2 days with the objectives of training EP&R WG members and to identify the most problematic aspects of the existing provisions for nuclear emergency management in Europe. It will present a review of EP&R provisions on the basis of available surveys performed at the European level, notably in the perspective of the main challenges identified in the management of the Fukushima emergency. Hearing of key actors involved in Emergency management in Europe will be performed (public authorities, DG ENER, international organisations, experts, CSOs). The seminar framed the EP&R WG investigations at the European level, selecting key issues of European relevance. A list of key priorities was performed in order to frame the WG investigations to be performed at national and European levels. The seminar was also an opportunity for identifying NTW countries where investigations could be initiated early 2014.

PROGRAMME OF THE INCEPTION SEMINAR

Thursday - February 6 2014

9:30 am- 5:30 pm

- 9:00** Registration of the participants
- 9:30** ***Welcome and Introduction to Nuclear Transparency Watch and Emergency Response & Preparedness, by Nadja Železnik, Chair of the seminar***
- 10:00** **Session 1: Hearings, principles and existing reviews of EP&R provisions in the EU, feedback from the Fukushima experience**
- A review of European challenges for EP&R, Eloi Glorieux, NTW, Greenpeace Belgium and Roger Spautz, NTW, Greenpeace Luxemburg***
- Key scientific elements about radiation protection after a nuclear accident, Olivier Isnard, IRSN***
- The new Euratom Basic Safety Standards Directive and its relevance for Nuclear Emergency Preparedness & Response, Gerhard Wächter, EC-Directorate-General for Energy***
- 11:15-11:30** ***Short coffe break***
- The regulatory views on EP&R provisions in Europe, Patrick Majerus, HERCA WG “Emergencies”***
- Evaluations of the Fukushima emergency management, main challenges identified for Europe; David Boilley, ACRO (CSO)***
- Short report on the conclusions and findings of the conference Nuclear Third Party Liability & Insurance, Andrej Klemenc, REC Slovenia***
- ***Discussion***
- 13:00** **Lunch**
- 14:00** **Session 2: Working Group Session - Identification of priorities**
- 14:00** **Work in 3 small groups: identification of relevance and deficiencies of ENCO study and elaboration of proposals “what and how” to improve EP&R on European level. Introduction and moderation of discussion by Nadja Železnik, Roger Spautz and Elois Glorieux.**
- 17:00** **Plenary Session:**
- **Reports of the Working Groups**
 - **Discussion and agreement on the approach**
- 17:30** **End of the first day**

Friday - February 7 2014

9:30 am- 4:30 pm

- 9: 30 Session 3: Examining Priorities and Drafting Action Plan at national and trans-boundary level**
- Introduction by **Nadja Železnik, REC Slovenia**
 - Short presentations regarding EP&R national priorities, national action plans and possibilities of trans-boundary/regional activities by:
 - **Brigitte Artmann**, Greens Fichtelgebirge, Germany
 - **Yves Lheureux**; ANCCLI, France
 - **Inger Eikermann**, NRPA, Norway
 - Short coffee brake -15 min
 - **Zoriana Mishchuk**, MAMA86, Ukraine
 - **Albena Simenova, FEA and Borislav Sandov**, Zelenite, Bulgaria
 - **Marcin Harembski**, Civil Nuclear Monitor, Poland
 - **Nadja Železnik, REC Slovenia**
 - Discussion
- 12:15 Address by Michèle Rivasi, the President of NTW**
- 12:30 Lunch**
- 14: 00 Session 4: Working Groups - How to investigate identified thematic and organise national and trans-boundary activities?**
- Identification of activities on national and/or trans-boundary level:
 - **Working group 1:** Belgium, France, Germany, Luxemburg-Norway
 - **Working group 2:** Bulgaria, Hungary, Poland, Slovenia, Ukraine
- 15:30 Plenary Session: reports of the Working Groups**
- 16:00 Final Session: the Steps Forward**
- **General Discussion**
 - **Conclusions and steps forward (Chair)**
- 16:30 End of the meeting**

MINUTES OF THE SEMINAR

Day 1

Mr Gilles Heriard Dubreuil, Secretary of NTW welcomed the participants and wished them successful work. The chair of the seminar **Ms Nadja Železnik** introduced the NTW and the programme and the goals and objectives of the seminar.

Session 1: Hearings, principles and existing reviews of EP&R provisions in the EU, feedback from the Fukushima experience

The representatives of *Greenpeace Belgium and Greenpeace Luxembourg* **Mr Eloi Glorieux** and **Mr Roger Spautz** presented a review of **European challenges on nuclear EP&R**. In their opinion nuclear EP&R in practice is nothing but a list of good intentions since plans are not realistic because they are not involving the public. Citizens are insufficiently informed, exercise scenarios are not realistic. In Belgium the evacuation centres are too close to NPPs and civil society can neither participate nor observe EP&R exercises. Nuclear EP&R planning in Europe is out-dated and inadequate to deal with the real impact of a major nuclear accident.

Mr Oliver Isnard from IRSN presented **key scientific elements about radiation protection after nuclear accident**. He pointed out the importance of atmospheric transport as the fastest mechanism of dispersal of radiation and its multi-scale nature. The radioactive plume propagates with the main meteorological conditions. He introduced the distinction between internal and external irradiation and the difference between short term contamination by iodine through inhalation, midterm ingestion by food where both iodine and caesium are important and long term external contamination where caesium plays the most important role. He presented and explained dosimetric quantities and units and stressed the temporary character of sheltering, importance of timing of stable iodine ingestion and in-time evacuation of the exposed population in case of a nuclear accident. At the end of his presentation Mr Isnard presented protection measures as they exist in the Emergency Phase.

Comments

Mr Jan Haverkamp pointed out that exposure in Fukushima has been by some proponents of nuclear energy put down and compared to long flight exposure which is less than natural exposure in certain areas however the Fukushima radiation should be calculated on top of background radiation - that includes also nuclear testing fall-out radiation - and not apart from it.

Mr Gerhard Wächter from DG ENER introduced the participants **the new Euratom Basic Safety Standards (BSS) Directive and their relevance for Nuclear Emergency Preparedness & Response**. He started by outlining the broader contexts of current initiatives of the European Union to improve nuclear safety after Fukushima accident: EU-wide stress tests of nuclear power plants and their follow up, study on off-site nuclear emergency preparedness and response, proposal of the revision of the Nuclear Safety Directive, revision of the Council regulation on radioactive contamination of food and feeding stuffs following nuclear accident and joint communication on off-site emergency preparedness and response and on nuclear third party

liability and insurance. He underlined the European Commission's interest in hearing opinions and statements from the civil society and get inputs from the initiatives like NTW. The aim of BSS revision is to update relevant European legislation, consolidate all relevant Directives, to broaden the application of standards and to enhance emergency response. He described the process and the content of the new BSS that requires thorough EP&R arrangements at national level that demand comprehensive approach based on emergency management system, assessment of potential emergency situations, emergency preparedness and response plans and international co-operation where strengthened cooperation between MS and third countries is demanded. Member States now have till t February 2018 to transpose the new BSS directive into national legislation. In order to facilitate this process, the European Commission may organise workshops with Member States and may initiative discussions on possible guidelines and recommendations in order to assure consistency in implementation.

Explanation questions and answers

Mr Haverkamp asked which states other than Switzerland and Ukraine are considered as "third states" and **Mr Wächter** explained DG ENER had organised in October 2013 an EC conference on "Stress tests for Nuclear Power Plants in EU Neighbouring countries", which saw the participation of representatives from Armenia, Belarus and Turkey. The EC also had recently participated in a peer review of nuclear stress tests of Nuclear Power Plants in Taiwan. **Mr Haverkamp** proposed to the EC to contact Greenpeace and/or NTW in order to get in contacts with NGOs in these countries to get the real picture of the situation and an adequate feedback on activities regarding nuclear safety.

Mr Haverkamp also raised a question considering the *Directive on Nuclear Safety (i.e. Council Directive 2009/71/Euratom of 25 June 2009)* regarding implementation of the provision of the independence of nuclear regulators and infringement procedures in case that this is not assured in practice or it has been violated. **Mr Wächter** explained that MS had till 22 July 2011 to transpose the provisions of the Directive 2009/71 EURATOM into national law, which in its article 5 deals with the independence of competent regulatory authorities. Main provisions of national law transposing the requirements of the Directive are communicated to the Commission by Member States. So far the Commission didn't open an infringement procedure. Based on national reports which Member States will have to prepare for the first time by 22 July 2014 and every three years thereafter, the Commission will prepare an implementation report of the Directive which it will submit to the Council and the European Parliament.

Ms Brigitte Artmann pointed out that in Germany the interior minister conference is in discussion of new EP&R plans and may not decide before 2018. EP&R plans are today the same as for nuclear war and without liability for evacuation except for long time evacuated persons. Only those have a kind of legal standing. If an accident happens outside of Germany, there is no liability at all. She asked if this is consistent with EU rules in the field. **Mr Wächter** explained that this issue seemed to raise issues of nuclear *security and nuclear third party liability* in relation to a specific national legislation. Compatibility of those national provisions with relevant Community law could ultimately only be decided upon by the European Court of Justice.

Ms Nadja Železnik asked about the status of ENCO study and when it will be available for the public. **Mr Wächter** replied that the study has been finished on the contractor's side. The study will be published, but there are still discussions ongoing about the appropriate timing. Pending the adoption the planned Commission communication on the subject, such publication could be expected before summer.

Mr Gilles Heriard Dubreuil stated out that EC should be very much interested how the study really corresponds to the reality and not only existence of required nuclear safety provisions and procedures on paper. Therefore a civil society insight in study can provide valuable check of the facts and feedback that in turn can substantially

improve study and lead to new recommendations before Communication. **Mr Wächter** underlined the value of the input from Civil Society to the European Commission on issues of nuclear emergency preparedness and response, in addition to the ENCO study.

Mr Michel Demet remarked on the absence of the solid legal ground for the engagement of the local authorities on nuclear safety issues. Without precise and stringent legal procedures that will assure the involvement of local authorities there will be in his opinion no real improvement of the nuclear safety and EC should be aware of that and should do something about it.

Mr Patrick Majeurs presented **the regulators view on EP&R provision in Europe** by first pointing out the fact that national arrangements for nuclear emergency developed in last 30 years independently in each country that resulted in too many differences: in methods, algorithms, models, appreciations of uncertainties, intervention levels and definitions, etc. Individual differences risk leading toward inconsistencies along borders. In addition they lead to distrust in the decisions of the authorities that amplify the seriousness of an eventual crisis situation. It is however very difficult to harmonize the differences when national approaches become solidified. HERCA is therefore trying to overcome to many differences in the situation by increasing information exchange and improving communication between authorities in different countries.

Explanatory questions and answers

Mr Heriard Dubreuil: HERCA's approach is about bringing consistency to the system, based on quite a linear approach, however it only rely on the good will of cooperation between authorities whereas the role of independent experts and civil society should be taken into account even in the short phase. The Fukushima accident has given a lesson that in a major nuclear emergency situation in a country, multiple sources of information, presumably conflicting, will develop anyway, even in the short term; whereas national Public Authorities do not necessarily demonstrate their ability (or willingness) to release a quick and efficient information that is needed by exposed population and local decision makers (to protect themselves).

Mr Majeurs : It is important to have CS involved in preparation of emergency plans. But in first 12 hours emergency in case of major nuclear accident one needs to take a lot of decisions very fast therefore it would be hard to involve additional decision makers. In the case of Luxemburg 'I would not have personal problems to involve Roger Spautz as an independent expert in emergency team but this cannot be generalised as universal solution for every country'.

Mr Isnard: We must stay transparent but when there is an emergency decision-making needs to be fast and based on the professionals involved – when there is a big fire you call professional fire brigade and not volunteers.

Mr Haverkamp: I agree largely but in case of fire on the skyscraper the concierge of the building can help you a lot. So you need to have a certain link to CS – which is in the reality a big problem since «nuclear village» is very suspicious of civil society and indeed to everybody who is not a member of the nuclear village community and therefore does not share its values, presumptions, cognitive and behavioural models .

Ms Brigitte Artmann: Local fire brigades in Germany are part of civil society, are volunteers and need to be involved in emergency plans and actions

Mr David Boiley presented **main challenges identified for Europe from evaluation of the Fukushima emergency management**. In case of Fukushima the people living around the Daiichi NPP at the beginning of the emergency state lacked information and afterward lacked trustful information since new information released by the authorities was in contradiction with the previous. Tens of thousands of people have been forced to evacuate literally »with little more than the clothes on their backs«. 150 000 have been forced to evacuate followed by about 60.000 voluntarily evacuated. Basing the evacuation on private cars was chaotic and resulted in a shortage of gasoline and traffic jams. Because of bad post-accident emergency off site management 60% of the evacuated population have been re-evacuated up to 6 times and more, some of them even to more polluted places. 1.600 persons died after evacuation and among nursed evacuees mortality increased 2.5 times. The order to administer iodine never reached the local people and the rescue workers that would need them however the iodine pills were used by medical staff in Fukushima hospital instead. Medical institutions were not prepared for the situation and as a consequence there was a lack of medical care in shelters and extremely badly managed evacuation of their patients. The evaluation of Fukushima also shows that in a major nuclear accident one cannot draw a clear line between emergency and post-emergency activities since many post-emergency activities need to be carried out while the emergency state still continues. The authorities have been discredited since they have failed to prevent the accident, failed to acknowledge the triple melt down of the reactors, failed to protect the workers and the population and failed to properly monitor food.

Mr Klemenc: Who is obliged to provide distribution of iodine pills?

Ms Železnik: it is obligation of the operator of NPP. **Mr Isnard:** In France it is obligation of the operator – within the 10 km zone! **Mr Spautz:** Also in case if some parts of the zone are in the neighbouring country? **Mr Isnard:** I do not know! **Ms Železnik:** NTW needs to investigate this issue since it is very important for EP&R, including the question who bears the cost for procurement of the iodine pills.

Discussion

Mr Haverkamp: Off-site emergency response is in most countries not in the mandate of the regulator but is a shared mandate of different organisations: ministry of defence, ministry of health, ministry of interior, Civil Rescue Authorities, etc. The situation in different countries is very different and complicated. Therefore off-site emergency response is excluded from recommendations issued by regulators respectively their associations (WENRA and ENSREG).

Mr Wächter : Different levels of authorities are involved in different countries with different legal regimes, which may have an impact on co-operation, especially from a cross-border perspective. What was the view of the representatives of the civil society on the best way to allow for progress from a European level? Is -in the CS' view -there a case for more harmonisation or would it be better to strengthen effective and efficient interfaces of exiting arrangements?

Mr Heriard Dubreuil: What can we do as WG of NTW when facing such a complexity? First we need to identify different levels of off-site emergency activities:

1. Conventional emergency management like zoning. We have to identify if there are adequate provisions in place (to test the "green field" of the ENCO study) and if they are working in practice or not (what we cannot find from ENCO study).
2. Mr Majerus has demonstrated the low level of consistency and bad information access on international level. We have to identify ways how to achieve better consistency.
3. Evaluation of activities at Fukushima have demonstrated that the conventional approach of linear and centralised command and control planning does not match with the reality of modern society and

its communication and transportation technologies and patterns of individual behaviour. Indeed it completely ignores the capacities of people to get information and to take their own decisions, including decisions to evacuate in a non-organised way by using their private cars. Here we need to recall once again the Aarhus Convention that gives the people the right to act and take it as a basis of new approach to (post)emergency planning.

4. We have to further investigate what European harmonization can bring regarding emergency preparedness, for an EU legal frame would oblige MS to engage civil society to improve emergency preparedness and response processes by inclusive planning.

Mr Boiley: Communication in crisis is fundamental. French authorities found out that the communications in Fukushima were very labour intensive so in case of an accident in France they could not manage the communication on the quality level. US authorities have found out that in crisis situations people have limited capacities to understand and act therefore in case of a nuclear emergency those responsible for communication should be able to answer about 500 question with no more than 10 words per question. In emergency situations mass media will ask NGOs what to do – and it might happen that the people would trust NGOs more than the authorities. But how can NGOs provide reliable and useful information in case of emergency? In case of an accident in a small country that has its own language the communication problem at international level would be even bigger since even when its responsible communication officers are fluent in English also the local people will be by modern ICT-supported media of communication inevitably be involved in information dissemination on the accident.

Ms Železnik: Why even after evaluation of Fukushima for EP&R planning the reference scenario is still based on level 5 accident and not level 7? NTW should raise this question to the EC. In regard to transparency it is not encouraging that we cannot have access to the ENCO study and as NTW we need to address this to EC!

Mr. Haverkamp: Since recently we have in the EU a few new NPP in the pipeline: in HU, UK and Poland. In dominant political discourses in Central and Eastern Europe – and 'I have witnessed that most recently in the Senate of the Czech Republic' - there is a clear sign that responsibility on nuclear issues is getting nationalistic status and the governments will not accept any stricter and more harmonised rules regarding NPP security and off-site emergency management and will therefore veto at the EU Council any decision in this direction. The nuclear lobby in the EU is nowadays more complex than before and is not based anymore predominately on technical and economy arguments but counts more and more on »national pride« and »national independence«. Therefore I am very sceptical about the political will at the level of the EU Council to support more harmonisation in the field of nuclear safety and EP&R. In this sense the EC proposals are more or less only "wishful thinking"! Can we expect that national authorities would accept that we should have a look in planning beyond 800 m from the planned NPP site? Can we indeed expect from the EC to come with proposals to set as a reference for EP&R an INES level 7 accident instead of the actual level 5? Irrespective of this and maybe in relation to the ENCO study we should take into account that many of on-site emergency plans count on mobile resources from outside the NPP like fire-brigades that also are necessary in off-site emergency response work. Therefore in practice many external people like firemen for example are hesitating to provide the service to the on-site tasks. Therefore one of the questions to be addressed is the real existing tension between off-site and on-site plans.

Mr Demet: What about the responsibilities of civil society at EU level? Without an adequate legal framework that is in the last instance provided by MS and not by EC or EU the civil society cannot play a significant role on nuclear safety. Only when the laws and regulations are provided we can demand what the laws and regulations are promising. I am insisting on laws and procedures that are provided. We need to get what the laws and regulations are promising. However an EU initiative in the form of a Directive can help us to get adequate legal provisions although then the decisive battle to get and implement required legislation is at national level.

Session 2: Working Group Session - Identification of priorities

As an introduction to the session **Ms Železnik** provided an overview on current developments regarding EP&R in the EU. DG ENER in 2013 commissioned a study on “*Review of current off-site nuclear emergency preparedness and response arrangements in EU member states and neighbouring countries*” (ENCO Study). Study involved 28 EU Countries plus Norway and Russian Federation, Switzerland, Ukraine and Armenia and focused on NPP provisions regarding EP&R. The shortcoming of the study are limited geographical scope of the review, to operating NPPs arrangements limited considerations, absence of public involvement and to self-assessment of the MS limited approach.

The review is a paper exercise and it is not assessing implementation of provisions and arrangements in practice. Methodology of the study is not very clear as it is not known when the EC will actually enable full access to the study and provide conclusions and recommendations based on the study. Further on Ms Železnik presented in brief different types of IAEA requirements for EP&R (IAEA GS-R-2), relevant EU directives (BSS directive - 96/29/Euratom; Public Information Directive 89/618/Euratom) and Regulation laying down maximum permitted levels of radioactive contamination of foodstuffs. Finally Ms Železnik presented the objectives of the seminar working groups: identification of the most important issues on EP&R at EU level, prioritization on the issues – (to set the scope and objectives), definition of the methodology to be used, the approach how to do the work and final results.

Discussion:

Mr Wächter stated that relevant legislation in MS will be strengthened taking into account the new BSS Directive. The ENCO study was based on a self-assessment exercise and didn't aim to do an in-depth audit of existing arrangements.

Mr. Heriard Dubreuil asked who are the national contact points for ENCO study? **Mr. Spautz** promised to check this out and pointed out that it is important that not only study but also questionnaires on which it is based will be made available to the public. On that basis it will be possible to assess how much work individual countries provided and how honest they were in providing answers.

WORKING GROUP 1

Discussion part

Mr Glorieux: Referring to prof. Eggermont what would be needed is to have once a full scale exercise. Currently evacuation plans are per street, per hospital, but no overall.

Mr Boiley: In Japan they do exercises to test whether communication is working – alerting in streets and so on. They did that for the evacuation zone around Fukushima last month. A private group modelled traffic flows and how the evacuation will go, including limited accessibility of cars and buses and so on.

Mr Glorieux: A lot of problems are never taken into account in the Antwerp region: for instance the fact that in case of a Western wind, the majority of evacuation needs to go through one tunnel. Refineries in the port of Antwerp need days to shut down, how to do that with personnel in the 5 km zone?

Ms Artmann: In East-Bavaria there has been a meeting of hospitals, rescue-doctors, fire brigades and police about their preparation and their conclusion was they will not be able to handle a meltdown. The meeting was not published.

Mr Boiley: The emission transportation part of SPEEDI worked, but they had only estimates of parameters which were far too low. When they could use measures, they could only recalculate the source terms and found out they had been too late. Timescale is also important: 10 days (Chernobyl and Fukushima) is a real problem. A next accident could also be a complex situation of nuclear accident and natural disaster.

Harmonisation is necessary. 10 km in Germany the rules were different than in France. Same limits are necessary. Information spreads faster than authorities can imagine.

Ms Artmann: We had a meeting with the German Interior Minister and German/Czech fire brigades and rescue teams. It was a big hall in Germany quite near the Czech border, filled with fireman and a Czech head of their fire brigades. 18 “nuclear trucks”, which only can be used for “help work” in case of a nuclear accident, were handed over from the German Government to the German fire brigades. Simple trucks, no special nuclear rescue trucks at all. The fire brigade people said about nuclear trans-boundary work “forget it” while the minister said that everything will work well.

Ms Boiley: Current exercises are not enough. One also needs to test the scenario where there is electric power fall out.

Mr Wächter: The objective of testing/reviewing of emergency plans should not be punishing one but should allow stakeholders to learn with a view to improve planning and emergency exercises.

Mr Glorieux: Psychological aspects. It is not doable to have a full size exercise. But the difference between emergency plan and reality is not taken up fully. For instance, radiation is one of the things that firemen only are allowed to go in on voluntary basis. How many will go? 10%? or 50%? Or the mass evacuation that happened in panic around Three Mile Island when the call for pregnant women to evacuate was made. Including those aspects in exercises is very difficult.

MOST IMPORTANT ISSUES:

1. Overview of the situation for each nuclear power station
2. Overview of the level of risk on the basis of knowledge in the group
3. We can gather criteria on which one can estimate risks: population density, amount of fuel on the site, accessibility for terrorists, etc. and on that idea make a list of urgency.
4. Trans-boundary round tables in which local emergency workers discuss what they can do in case of an emergency. Include teachers, others. Question issues like is there enough water and so on. Imagine the mobile net is broken, etc.
5. Testing emergency plans – who says the emergency plans works, are they credible, especially trans-boundary, who is responsible, etc.
6. Test a full city evacuation
7. Sanctions if tests fail – what kind of sanctions are possible. Carrots and sticks.
8. Liability issues.
9. Regulatory oversight of emergency planning and preparedness – with the mandate to remove an operation licence or suspend an operation licence. Could that be the nuclear regulator? Maybe not because of not having fire brigades, nurses, police, involved? A new body?
10. Analyses / overview of lessons to be learned from Fukushima (there is a TEPCO, a Diet report and a non-translated private report). In the US there is documentation about timing and so on.
11. Assessment of whether psychological factors have been taken sufficiently into account in nuclear emergency plans? In the US there are such studies.
12. Iodine tablets – who pays? How is it organised? Harmonisation of finance, spreading, etc., trans-boundary situations?
13. Assessment of vulnerable people in emergency situations – and whether they have sufficient priority. (And authorities should know where they are (?)).
14. Communication in case of emergency – language? Training of hotels? Trans-boundary?
15. Vulnerable people: in the US, authorities spread cards every year to figure out who wants support in case of emergency. If one concentrates on the most vulnerable, the responsible authorities/organisations will be able to properly threat them.
16. Evacuation of hospitals? Any hospital within 10 km? Should they exist? Should personnel be forced to stay and no evacuation?

Among these topics, the group picked up:

1) Need and investigation concerning a regulatory oversight

Proposal for further work by NTW: parliamentary initiative stating why a regulatory body on EP-R is needed (based on ENCO report), proposing assessment and sanction capacities and including the civil society.

2) A concrete focus on vulnerable people

Proposal for further work by NTW: interviews with vulnerable people and people in charge of them or of their future in case of a nuclear emergency.

3) An overview of NPP according to their risks related to EP-R

Proposal for further work by NTW: a study comprising criteria to be filled by members in different countries and after that modelling and a full-scale exercise for a few well-chosen NPPs.

Working group 2

Emergency plan as a part of a bigger emergency plan for all country. But nuclear activities are so specific, we need particular plans. Does any European country has bot emergency plans at the level of NPP(s) and on the level for a whole country?

What should be our strategy? What can we do together? To what extent we can make some changes? Have to find efficient targets.

1) What are the current obligations to be implemented taking legislation into account? Picture of what should be implemented in each country like checking if there are appropriate sheltering places – this is a good, very pragmatic point of view.

Also in others countries one could - similar to France – adopt a national law to involve civil society in nuclear issues, like CLIs in France.

In Poland no nuclear power plants operates or are in construction yet but the government is planning NPP and is spending €40 000 per year for nuclear propaganda. Anti-nuclear coalition fights for renewables instead of coal and NPP and after Fukushima gained positive support from people. An internet campaign on EP&R issues would be a good way to raise attention of people on the danger of nuclear power.

Methodology :

Which methodology to use? How the measurement system works? What happened in each country?

Tools :

In Japan they have not used monitoring network, the authorities provided the wrong instructions on which roads people should evacuate and where to evacuate, so many people evacuated to more polluted areas and more people were killed because of evacuation than from accident itself. One needs reliable meteorological data and good computer models on spread of radiation pollution in order to tell the people where to evacuate. People need maps.

So there are several levels of action: checking if tools are working and are updated, how decisions are made and by whom, is it possible to implement the plan taking into account that plans are usually prepared under presumption that there will be no panic, how will people in practice react to the decisions of authorities, etc.

Working group 3 :

Introduction :

Two main issues :

- **Preparedness** (involve people, fire brigades, medical personnel etc.) and
- **Management** (warning system, evacuation plan, evacuation area, measurement, how to have a picture of nuclear releases, where is the contamination).

Does the emergency plan exists, is it realistic, how to improve it in each member state?

1) Implication of involvement of the people for quality of planning and their appropriation of emergency plan at a local level:

There is a national EP&R plan as transposition of EU directives, but on the local level local representatives have to react. However each territory is different, so the EU rules should be indeed transposed into an effective local plan and not in a general national plan. Every local representative needs to be informed on the plan and know what to do. However in most cases mayors does not know much about emergency. One needs to think in terms of districts and local communities that are real social entities and not in terms of zoning and take into consideration that in some cases one has to deal with big cities that are just outside the zones. We should not only ask mayors but also heads of fire brigades, medical personnel, teachers, etc. in order to evaluate preparedness and response of local actors.

2) Public information

Should not be done as in Fukushima: when people woke up their neighbours had left/ were evacuated. Website for nuclear emergency: a website should be developed in the normal situation, when it comes to disaster it is too late.

3) Find a financial way to hold the problem.

Cost of liability. It is necessary to have a professional rescue team at each NPP. The costs of its establishing, maintaining and training , including costs for on and off site emergency exercises should be included in financial liability of the operator.

In France it is estimated that an amount of 10 billion Euros would be needed to make the system safe. What would be the amount for others countries?

Somebody who creates the problem is responsible for solving the problem.

4) Tools

As citizens what can we do? Can we make sure they have updated information, good tools, something we could check = improve the emergency tools.

5) How to do the work?

Facts that could be checked by citizens: about sheltering, iodine pills, evacuation plans, dosimeters etc. Not enough tests: compare to reality. NTW can make interviews, an assessment in member states.

Local roundtable (in a trans-boundary perspective) and discuss, presentation of the EP&R planning by authorities.

Develop a serious game, simulation to develop knowledge about nuclear.

Are there emergency exercises in all countries in Europe ? CLIs have to be mandatory in all MS.

REPORTING FROM WORKING GROUPS

Working Group 1: (reporteur: Mr Borislav Sandov)

Issues discussed:

1. *How to build a dialog with the actors*
2. *Implementation of EP&R plans*
3. *Harmonisation of the regulation on EU level on provisions regarding EP&R*

Prioritization:

- Implementation of EP&R plans
- Legal framework for harmonization

Methodology:

1. Sketch of a questionnaire on EP&R to be distributed within WG to collect feedback.
2. Examine the reality of the results of ENCO study through national investigations by involving responsible and affected people at the local level
3. Compare the results of the other reports on the issue EG with the findings of ENCO study

Discussion:

Mr Heriard Dubreuil: Which ENCO report? The one we have or the one that EC will publish?

Ms Železnik: We will demand the final study from EC according to the Aarhus Convention

Working Group 2 (reporteur: Mr Jan Haverkamp)

1. Nuclear emergency plans are prepared for white males with cars and full tanks of gasoline;
2. NTW members should make serious interviews with vulnerable people about what would nuclear emergency represent for them and what are their needs in this case;
3. We are getting from ENCO an abstract overview but we do not have an overview per NPP - we need to check EP&R plans for 7 most dangerous reactors in Europe (but we need to develop criteria first to do this);
4. What is the real situation in EP&R is actually a larger study that is in detail similar to those made for on-site emergency but is adding relevant issues regarding off-site emergency;
5. Regulatory oversight: for on-site we have Regulatory Body, we need something similar for off-site – such an authority should withdraw the operating licence for NPP if EP&R plans are not OK based on criteria (we have this for the nuclear safety but not for nuclear emergency). Who should be the Authority: Regulator or a new body? EU MPs initiative should be initiated by NTW to formulate proposal for the directive on the nuclear EP&R Agency that would demand such agencies also in

MS and coordinate their activities. This initiative should take action based on the Treaty of the Functioning of the EU and not under EURATOM Treaty.

6. Trans-boundary WRAP round tables: on distribution of iodine tablets etc.; round tables with emergency response people in order to discuss how people on the different sides of the border are prepared for emergency on the ground.

Ms Železnik: I can see some connection of your ideas on regulatory oversight with our ideas on harmonisation of the legal framework. One level influences the other. We can work on it.

Mr Heriard Dubreuil: What is the opinion of the representative of the EC? To what extent those ideas can fall in the scope of the BSS Directive? Is this a different area or not?

Mr Wächter: Based on the discussions in the workshop, there seems to be a need to reflect on the issue of Governance... The newly adopted BSS Directive is a concrete step in strengthening co-operation between Member States and third countries in addressing emergencies. Governance is relevant from cross border perspective

Ms Deront: New body should have mandate and capacities to assess emergency plans.

Mr Haverkamp: It should also create compliance.

Mr Dement: Can't we have something like the Emergency Response Force that is in France in all EU MS?

Ms Železnik: Now we do not need to take decisions on priorities of WG but this should be done within a month.

Working Group 3 (reporteur: Mr Roger Spautz)

Two very important issues:

- *Involvement of the local actors in planning*
- *Involvement of local actors in practical exercises (also trans-boundary)*

Other issues:

- Public information
- CLI should be mandatory – clear role of CLI in all Europe, not only France?
- Costs for preparedness activities should be fully covered by operators and affected people & businesses should be fully compensated: example in Gravelines – some shops needed to be shut down but shop owners were not compensated
- Methodology: awareness-raising by asking questions to actors who must be involved in emergency exercises (Fire brigades, doctors, etc.)
- Round tables on trans-boundary issues with all involved members
- Check different national plans on certain pertinent points like shelters (are shelters real or only on paper like in Belgium)

Day 2

Mr Andrej Klemenc reported on the conference *Taking the Nuclear Third Party Liability in the Future* that took place in Brussels on January 20 & 21 2014. The conference provided clear evidence on complexity of the legal situation regarding nuclear liability in the EU. Majority of MS are parties to either Paris or Vienna Convention but not all of them signed protocols that are updating one or the other convention and only few ratified most recent protocols, therefore also Joint Protocol that bridges the two conventions cannot play a significant role. In addition following the subsidiarity principle national law provisions on liability have priority if certain relevant legal matters are left to be covered by national legislation. Besides 5 Member States (Austria, Cyprus, Ireland, Luxemburg, Malta) are not parties to any convention and it is very probable that they would veto any EU attempt to force MS toward harmonisation of the legal framework. Last but not least the USA are not willing to recognise any of the two conventions as a basis for an international legal framework but are pushing forward the Convention on Supplementary Compensation for Nuclear Damage.

European Commission has a weak mandate on nuclear matters yet it is pursuing several very ambitious goals in the field of nuclear energy: enable nuclear energy to at least maintain its present share in electric power supply in the EU, making EU nuclear industry more competitive, enhance nuclear safety both in terms of reactor safety and in terms of better emergency and preparedness, making the industry more liable for eventual damage caused to the third parties without discrimination between the MS and assuring better financial insurance of the third party liability by unlocking the EU market insurance industry potential. However all that at the same time this should not have an impact on the price of electricity from NPP in the EU. The EU (re)insurance industry is expecting from the EU to assure mandatory legally-binding commercial third party liability coverage for all operating NPP in the EU on common legal basis. In this manner the (re)insurance industry believes that another profitable "single market" - that would eliminate the present nuclear third party liability national insurance monopolies - will be created. In their calculation an increase of price of €0.1 cent per kWh of electricity generated in NPP in EU would be enough to assure financial compensation to the third parties up to €10 billion in case of a major nuclear accident in the EU.

At the conference special attention was given to the third party liability in case of Fukushima accident as it is until now the single largest case of nuclear third party liability in a case of a major accident, yet it does not represent a case for cross-border compensation of the victims. The president of the Fukushima Dispute Reconciliation Council prof. Namura first introduced basic nuclear third party liability legal framework of Japan which is not a party to any convention but its laws generally conform to them. For the Fukushima accident in 2011 the government set up a new state-backed institution to expedite payments to those affected. The body is to receive financial contributions from electric power companies with nuclear power plants in Japan, and from the government through special bonds that can be cashed whenever necessary. In the second part of his presentation prof. Namura presented experience of the Dispute Reconciliation Council that was faced - next to lack of personnel to deal with huge number of claims - also with two main challenges: the extent of damage that should be compensated and amount of money that should be paid to a victim. The council issued guidelines regarding compensation to a typical victim that were – although being only a "soft law" - recognised by TEPCO and used also as a reference for mainstreaming direct negotiations with the victims.

Discussion:

Mr Dominique Boutain: Nuclear and insurance companies do not care for society and victims. This is frustrating. Only financial issues have been addressed but we know that more is at stake – a tragedy of devastated environment. We still suffering from Chernobyl and this has still not been taken into consideration. It seems as if all disputes are only related to increase of price from NPP for 0,1 € cents for kWh – is this all what it is all about? The real price is much higher, but insurance companies are not willing to deal with that. Each

country picks from Conventions what they like and it is not a legal game but the game of political and economic power. Insurance companies will go »legal shopping« - taking money but not providing anything in case of major disaster. Insurance companies treat people according to the »level of economic development in the country« and not as persons with equal value and equal rights.

Mr Haverkamp: 0,1 € cent atop of the price of 1 kWh from NPPs can provide compensation on the level of €10 billion, we however want 10 times more in order to come to the level on which NPP operators would in principle cover the majority of damage to the third parties. 1 € cent would indeed make difference for the nuclear industry. Reinsurance industry (Munich RE) is willing to cover maximum two major accidents a year since they know that if there will be two, all the nuclear reactors all over the world would be shut down.

Mr Heriard Dubreuil recalled the importance of the Aarhus Convention to improve nuclear safety. In terms of its practical implementation he referred to the three important conclusions of the meeting in Luxemburg in order to support a practical implementation of the Aarhus Convention: 1) the establishment of NTW in order to structure and support CSOs action at national and European level, 2) a recognition of the need for civil society to access reliable sources of expertise in order to support its engagement in the nuclear vigilance and 3) the need for multi-stakeholder platforms (involving public authorities, experts, operators together with the civil society) at national and European levels in order to secure an equitable and fair dialogue among the institutional actors and the civil society. The principle of such platforms has been implemented at national (in a dozen of countries) and European levels and tested since 2008 in the frame of the Aarhus Convention and Nuclear (ACN) process initiated by ANCCLI and DG ENER. In this perspective, this ACN will continue in the coming years. Regarding EP&R, it is suggested to NTW members to take advantage of this ACN process to organise topical round tables on EP&R at national level. The organisation of a European ACN Round Table on EP&R mid 2014 is also considered, in order to discuss the results of the EP&R WG. The possibility to organise an ACN Roundtable at national level in the perspective opened by EP&R WG should be carefully considered at national level considering the needs and priorities of the corresponding NTW members and other relevant local stakeholders from civil society. He also underlined the limits and inefficiency of participatory approaches that in practice lead to the engagement of the civil society in the last moment, in many cases just to support the formal legality of the process. CSOs should therefore carefully limit their engagement to well prepared processes, where there is enough time and resources to at least have a perspective to have an influence on the decision making process. NTW member can also take an active approach and raise a specific issue of their own initiative, for example against violation of EU nuclear waste directive as it was the case of the export of nuclear waste from Hungary to Russia where NTW raised its voice after being alarmed by its Hungarian members. Also EP&R WG shall preferably not get involved in a process in a MS or at EU level unless we will be well prepared. NTW will carefully consider interests and needs of its members before engaging.

Session 3: Examining Priorities and Drafting Action Plan at national and trans-boundary level

Ms Brigitte Artmann introduced the **Concept and Design of a trans-boundary German- French- Luxemburg-Belgium Aarhus Round Table on EP&R provisions for NPP Cattenom** that is one of the NPPs with the most densely population in France and in Europe. She recalled findings and conclusions of nuclear stress test report of Cattenom by Greenpeace from 2012 that warns from flaws, blind spots and complacency. She presented the design of trans-boundary Aarhus Convention Roundtable on emergency management in the post-Fukushima context that will be organised in May 2014 and asked for participation of ANCLLI. The round table is designed to bring together the civil society (the public concerned, natural persons, NGOs, farmers and animal welfare organisations, fire brigades, technical rescue teams, medical rescue teams, hospitals and doctors, independent experts etc.) and the responsible institutions and organisations (operators, regulators, Aarhus Convention, European Commission, Federal and State Ministries: Environmental, Interior and Economy , communities/ councils/ districts etc.) to discuss concrete and very relevant EP&R issues of NPP Cattenom.

Discussion:

Mr Boiley asked if CLI of Cattenom has been informed on the initiative, **Mr Lheureoux** explained that ANCLLI have also idea to organise round table on Cattenom and **Ms Železnik** stated that it is a duty and interest of NTW to join the round table.

Mr Yves Lheureoux (supported by Mr Michel Demet) presented **ANCLLI's involvement on emergency and post –accident situation**. He recalled the history of establishment and legal recognition of CLIs and ANCLLI and raised attention to the legal context in which CLIs and ANCLLI operates. He presented a specific tool developed to raise awareness of local public on EP&R developed by ANCLLI. He emphasised that the recent legal context about nuclear activities brought new responsibilities and constraints. Especially at local level since regional authorities are usually too far from NPP site problems. Communities have not yet fully integrated their new responsibilities regarding nuclear matters. They will need financial resources and an access to independent expertise to take good decisions. Feedback on EP&R provided by CLIs demonstrated that exercises are not realistic, emergency plans need to integrate the feedback of Fukushima. In a real emergency situation current plans will be no longer valid and in case of emergency no one would wait on authorities but everybody would take an individual evacuation action. Strengthening of the participation of local actors and communication support (website) are needed for any realistic coordinated emergency action. Last but not least the number of 60 emergency exercise per year in a nuclear country like France is not sufficient. At the end Mr Lhereux presented priorities of ANCLLI:

- 1) French ACN process: workshop on preparedness of emergency situation: project of a hearing of local actors (mayors).
- 2) Project of a meeting between ANCLLI/ASN/local representative of the government to share the preoccupations of local actors on emergency preparedness.
- 3) Working group with trans-boundary CLIs: to facilitate discussion, exchange of information, of means of communication, identify different ways to manage the emergency situation in different countries
- 4) Project of local roundtable on emergency situation in cooperation with trans-boundary CLIs.

Mr Harembski asked if the number of 60 exercises refers to “per year” and **Mr Lheureoux** confirmed that.

Ms Michele Rivasi: The issue of independent expertise is very important also regarding EP&R. I was independent appraisal for EP&R. The question is by whom they shall be paid: the government or the operator. When legislation is exempting government to cover the costs for appraisal it should also define who is liable for cover the costs. This can be very tricky and we need to check how this is regulated in each MS.

Mr Demet: This is a regulatory issue. Exercises are organised by states on-site and the local population was not taken into consideration. We believe the population should be involved because in case of accidents this is not only onsite but in most cases also an off-site emergency issue. The operator in case of emergency exercise at certain French NPP considered evacuation as a task of government. Government indeed provided busses but most of the people evacuated by private car and only two busses have been occupied yet since the drivers have not known the local roads they lost their way to decontamination points. In ANCLLI's opinion it is therefore better that evacuation is the responsibility of local authorities however the minister of interior is not cooperative. In case of accident trustful and professional information centres are needed, but this can only work out if local authorities are well prepared for EP&R which is not the case. An important change has been brought by Fukushima accident to Local Information Committees – now everybody accepts that accidents can happen and before Fukushima accident that was not the case.

Ms Eva Deront asked if ANCLLI has been involved in process of preparation of the national evacuation plans in France. **Mr Demet** explained that this has not been the case and the document is still not available to the public and the ANCLLI will comment on it after it will be published on the web site of French government. **Mr Boiley** informed participants that the document was published few days ago and envisages evacuation by private cars. Although the document has not been discussed by anybody it was published with acknowledgment of the involvement of civil society. **Mr Dubreuil** stated that this demonstrates a typical approach for central planning of EP&R and is not in compliance with BSS Directive that requires involvement of civil society. **Mr Wächter** however explained that BSS Directive is not very explicit regarding civil society involvement because the way and the extent of involvement are left to Member States. **Mr Kearney** reminded the meeting that under Article 7 of the Aarhus Convention (AC) civil society is entitled to access to this information and to participation in the development of these plans and that France as a party to the AC is obliged to meet these requirements. **Mr Lheureux** referred to practice in France where in some areas civil society is involved but in others not, depending on good will of the highest administrative regional officers (prefects). **Mr Heriard Dubreuil** is asking about the potential cooperation between Greens of Fichtelgebirge and ANCLLI

Ms Inger Eikermann presented **EP&R national priorities, national action plans and possibilities of trans-boundary/regional activities**. Norway is the country outside the Soviet Union that was most effected by the fallout from the Chernobyl accident in April 1986. Large areas of mountain pastures were heavily contaminated and caused lots of problems for grassing sheep, reindeer and cattle because radioactive caesium went into the food chain. Norway gained experiences from long-term effects of the Chernobyl fallout for agriculture, environment and health. Early after Chernobyl fallout Norway was not prepared to handle the problems and the authority was not coordinated in handling the situation. Later on it has developed countermeasures to prevent uptake of the contamination in animals and dietary advice to reduce intake of radioactive contaminated food in effected population groups. People are concerned about conditions and reality in their local environment and good management from engaged individuals in communes together with or in spite of national authorities was successful. Local laboratories that are able to measure radioactivity in food products are important for risk perception.

Norwegian preparedness for nuclear and radiological emergencies differs from most other national emergency preparedness systems. In order to ensure an efficient, rapid and competent crisis management of the early phase of a nuclear event, a national Crisis Committee for Nuclear Preparedness has been appointed. The

Committee is authorised to make decisions and order implementation of specific countermeasures in the early phase and ensures good coordination on a sub-strategic level (directorate level). The Crisis Committee may on its own initiative implement countermeasures in the early phase and acts as advisor for the government and ministries in later phases. The Crisis Committee has advisors from several national authorities and organisations. These advisors can also be viewed as stakeholders. There are still many weak points regarding comprehensive EP&R and still need for improvement of nuclear and radiological emergency planning, but the need is not very visible in day-to-day life. A series of seminars in nuclear and radiological emergency preparedness for all the 19 county governors in Norway are organised and one day-seminars arranged by the NRPA for the county emergency board and the administration. Seminars are covering the issues of threat/hazard assessment and the nuclear and radiological emergency preparedness organisation, methods and tools for decision making, information strategies and countermeasure strategies. The project EURANOS focused on involvement of people affected by the contamination of an area and deals with the issues how one can best prepare for the long-term effects of nuclear accidents, who may help to develop the best management practices and which methods should be used and how do we get appropriate information so that the concerns of the affected people will be included in the management plans?

Local-national forum for emergency and recovery strategies in Østfold in Norway was established followed by local-national forum for improvement of both local and national capabilities. It builds strongly on already existing national and local initiatives and will address the challenges met by municipalities/local communities when planning for nuclear and radiological emergency and recovery preparedness and response. The experience gained in a seminar organised by the forum showed that through the discussions, the participants realised their roles and responsibilities and the need to be better prepared for emergencies. Many practical challenges need to be solved locally based on prepared emergency plans. It is important that these plans are made with stakeholders on all levels. There is a need for different kinds of decision support tools and educational tools for the local and regional authorities. These tools need to be well-known in advance to an emergency. Procedures and systems for communication between local, regional and national levels in the emergency response organisation need to be developed in order to have a successful implementation of countermeasures during an emergency and late phase recovery.

Ms Eikermann also presented cooperation between Nordic countries that takes place in the framework of NEP-group (cooperation on emergency preparedness), Nordic Nuclear Safety Research (reactor safety, emergency preparedness) and common exercises as well as in the frame of Arctic cooperation (Arctic council, AMAP and EPPR). In addition there is also bilateral cooperation with Russia in the high North focused on clean up after the "cold war", cooperation between NGO's, Bellona, Nature and Youth, regional cooperation in emergency preparedness in the North and environmental monitoring in the marine and terrestrial environment. Parallel to this Norwegian NGO Lofoten is engaged against pollution of the North Sea from Sellafield nuclear reprocessing site in the UK.

Discussion:

Ms Rivasi asked what exactly the problem in Sellafield was. **Ms Eikermann** explained that it was a radon activated alarm where it took 3 hours to find out what was going on. The problem is also that Norwegian media and public are predominately focused only on nuclear issues in Russia where when it comes to problems of the nuclear energy in the Western Europe the sensitivity is considerably lower.

Mr Niczyporuk was interested about the weakest point of the Russian EP&R system and on how can we help to improve this. He was also curious on plans to open new uranium mine in Scandinavia (Finland). **Ms Eikermann** answered that plans for uranium mine have been abandoned. Norwegian authorities are in permanent contact with ROSATOM to have better and faster information but it also developed a network of local contacts in Murmansk region in order to obtain information directly and not only via Moscow.

Mr Heriard Dubreuil raised a question on how to we engage Nordic NGOs in NTW EP&R activities? **Ms Eikermann** explained that Norwegian NGOs are on the different side of the table and are also interested on ocean pollution from Sellafield whereas the primary focus of Norwegian authorities is Russia.

Mr Kearney: We are much closer to Sellafield but we have not been informed on this particular event. We are interested to strengthen cooperation on Sellafield. What is NRPA expertise on Chernobyl and how it is relevant for Fukushima? **Ms Eikermann:** Since very recently we are establishing contacts with research groups in Fukushima. Experience from Chernobyl is 30 years old thus its relevance to the current situation is limited. It is a lot of learning both for better EP&R but also what kind of information and communication approaches works in a context of very changed world of today.

Mr Haverkamp: Norway was approached by the ACCC on the lack of trans-boundary environmental impact assessment by the United Kingdom in the case of Hinkley Point C. The UK authorities refused to send notifications to other countries. An Irish NGO (An Taisce - the Irish National Trust) has initiated a legal challenge claiming that the UK is obliged to undertake tran-sboundary public consultation regarding its proposed new NPP at Hinkley Point in Somerset and a German member of the Bundestag has filed a complaint to the ACCC. Has Norway done anything in this respect? **Ms Eikermann:** I do not think Norway has not done much on this issue.

Mr Haverkamp : Hinkley Point unit C can pollute the North Sea and Atlantic Ocean which is important also for Norway fisherman. **Ms Eikermann:** I will take this issue to our authorities. **Mr Kearney:** The Hinkley Point case has been rejected by the UK court based on the argument that the new plant is not likely to cause detrimental effects on the environment. An Taisce is now considering whether to appeal. The decision will be based on costs.

Mr Glorieux: We discussed the costs of EP&R measures. Is there any discussion in Norway that foreign actors should pay for EP&R in Norway? **Ms Eikermann:** No, the issue in Norway is how much to pay to clean the nuclear garbage in Russia.

Mr Boris Sandov (supported by Ms Albena Simeonova) presented Emergency preparedness and response NTW Balkan Round table. He showed present and planned NPPs on the Balkan peninsula. Bulgaria cannot serve as a good example regarding EP&R due to lack of information, lack of cooperation, low level of interest by the local authorities, non-transparent activities of the regulator , “kicking off” of the anti-nuclear CS representatives, nuclear propaganda and brainwashing and low capacity of the local NGOs. In the Balkans there are some NGO networks that regularly or occasionally deal with nuclear issues but this cooperation lacks stable forms, finances and capacities. Zelenite and Foundation for Environment and Agriculture are planning to organise in June of September of 2014 a Balkan round table on EP&R that would bring together GO and NGO representatives form E and SE Balkan countries. The organisers need support for covering travel and accommodation costs for 15 NGO representatives as well as information and expert support. Maybe similar conference for W Balkan countries (and Hungary) can be organised in Slovenia.

Mr. Klemenc raised a concern that in case that their costs will not be covered by the organisers the GO representatives will not (be able to) take part on the seminar.

Zoriana Mischuk presented a **first assessment of nuclear emergency preparedness and response in Ukraine**. She stated that the nuclear risk in Ukraine is increasing because the lifetime of 12 out of 15 NPP

blocks will expire by 2020 and decisions to extend the lifetime/build new NPPs are taken with violations of international good practices and Ukrainian commitments under the Aarhus and Espoo conventions. With respect to EP&R legal framework the lack of systemic approach is evident since there are many dispersed acts (by-laws) sometimes contradicting each other. Some of them were developed in late 80s after the Chernobyl catastrophe but are still valid. Some acts that are needed are not developed/adopted either because they are not considered by top decision makers as a priority or because there is a confusion over responsibility. The most important concern is however very poor implementation of the legislation. There is no comprehensive assessment of the EP&R normative base and the actual implementation/state of preparedness, however according to the official reports everything is OK. Unofficially experts/public servants say preparedness and response systems are weak. There is an evident lack of coordination and clear division of roles among responsible authorities. The case of iodine provisions can demonstrate the overall situation: during alarm tests the timing of the iodine distribution is not examined, emergency planning zones are not defined in principle (various documents mention 10km, 15 km, 30 km zones of iodine distribution), instructions on iodine provisions are confusing, the authorities failed to establish proper monitoring and warning systems (lack of money), the existing ones are obsolete, there is no EPR awareness-raising among the population of the areas near NPPs and last but not least information provision in case of emergency is based on outdated means of communication. It is needed to carry out a thorough scrutiny of the Ukrainian legislation and its implementation parallel with comparison of the EU legislation and good practices. Further on national/local multi-stakeholder dialogue needs to be encouraged to discuss the state of affairs with the focus on information provision on emergency communication plans and public awareness-raising programs, polls in the communities close to nuclear sites on their awareness of EP&R measures and sufficiency of the available information, etc.. A national ACN Roundtable on the creation of the national system of nuclear information units (CLIs), including discussion of their role in EP&R would be most welcome, too and could be later on upgraded with a regional round table.

Discussion:

Mr Heriard Duberuil is asking about the planning of the dates for ACN Roundtable. Ms Mischuk replied that under current political situation is hard to plan anything beyond one week timeframe however if the situation will stabilise it would be possible to organise the event before the summer this year.

Mr Niczyporuk asked if gravity could provoke another explosion in Chrenobyl reactor. Mr Haverkamp explained that nuclear explosion is out of question but hydrogen explosion could happen. Among scientists it is generally assumed that the concentration of nuclear fuel under the reactor is too low to make the uranium explode.

Mr Marcin Harembski presented the situation in Poland as regards the EP&R. Poland does not operate (and never has) any NPPs at the moment (although it was preparing to have at least one – in *Żarnowiec*, building it back in the late 1980s). The present and recent governments have pursued installing of nuclear energy and the current official plans and administrative actions seem quite firm with that respect. However, it is not only a question of time when construction of the first NPP will start: it is also a matter of financing, civil and political situation and other factors. In fact, several non-energy nuclear installations persist in the country, with the major ones including: a research reactor (in the town of *Świerk*, near Warsaw), a nuclear LILW repository (near the town of *Różan*) and closed uranium mines (mostly in South-Western Poland). Highest standards of safety issues are claimed by the nuclear and political authorities to be at the very heart of the nuclear policy at every level of the implementation of the Polish nuclear power program. Contrary to this claim, EP&R measures seem to be considered superficially (without bothering about the details) and in 'traditional' and bureaucratic ways. What supports this attitude in terms of the pro-atomic narration in Poland is a general

belief that future NPPs / reactors to be acquired and operated in the country will be constructed with best available technologies, and thus accident-free. The emergency management framework depends on the spatial range (area) of the accident. The biggest nuclear accidents should be dealt with by voivodeship (highest regional authority) and by the national level authorities. Smaller range accidents are in the domain of local authorities (towns) or that of the management of the given establishment (nuclear installation). Integral and detailed plans are delegated by the central policy documents and need to be still devised and prepared by the lower-level authorities. As for the third-party liability, the legislative provision based on the Vienna Convention requires the coverage of civic consequences of a largest accident of up to 300 million SDR.

Discussion:

Ms Źeleznik asked if there are any interest to organise a round table on EP&R in Poland and expressed interest of NTW to be informed on anti-nuclear campaigns in Poland. She also asked if there are any interest to join NTW.

Mr Harembski (as the head of the *Civil Nuclear Monitor*) and **Mr Niczyporuk** (as the representative of the *'Green Zone' Foundation*) both confirmed their interest and willingness to join the NTW. They also stated that details on the content, format, location and date of a possible round-table in Poland will be discussed within the interested groups and campaigners in the coming weeks and the plans will be shared with the NTW members in that time perspective. Some of the Polish anti-atomic and civil groups will also be interested in taking part in the possible round-table on EP&R issues in the Ukraine (be it of a trans-boundary or national scope/range/involvement). They are also interested to take part on the roundtable that will be organised in Sofia.

Mr Haverkamp announced an early opportunity for Poland since Greenpeace is planning on 10.03.2014 to publish its study on NPP siting in Poland.

Mr. Jerzy Niczyporuk welcomed the opportunity and informed on anti-nuclear summer camp. Between the two events regional round tables in local communities will be organised. People in Poland have low awareness of and interest in nuclear issues therefore there is a need to create a momentum to change this.

Mr Heriard Dubreuil was interested on the details of Greenpeace study on NPP siting in Poland.

Mr Haverkamp provided the details: The calculations of credible source terms for each of the three proposed reactor types (EPR, AP1000, ABWR) will be calculated by the Institute for Safety and Risk Sciences at the BOKU University in Vienna. The spreading and deposition modelling is done by the Institute for Meteorology and Geophysics at the University of Vienna. Ms Artmann raised a question if the Greenpeace study is translated. Mr Haverkamp explained that at present is in English language only but Greenpeace is making efforts to translate most important parts in Polish.

Mr Demet was interested on legal framework and regulation in Poland? If the French designed NPP will be built are there any signs that also French regulatory framework will be taken in consideration?

Mr. Harembski explained that according to official statements the reactor(s) will be purchased as »bulk investment according to the high quality of standards“. It is likely that the regulatory framework for Poland could be adapted to that of the country of the origin of the reactor but theoretically irrespective of a possible future concrete deal. Poland will have basically its own regulatory framework (indeed it has it already to some extent) and the administration touts to look for the best legal practice around the EU.

Ms Nadja Železnik presented in brief **EP&R national priorities, national action plans and possibilities of trans-boundary/regional activities in Slovenia**. After presenting some basic data of the country's only NPP in Krško, most recent State emergency preparedness and response in case on nuclear or radiological accident and assessment of EP&R in Slovenia by ENCO study she pointed main challenges in the fields of monitoring preparedness, communication and notification, EP&R at municipalities Brežice and Krško, exercises, quality assurance and quality management and medical support. She stressed a lack of proper cooperation with neighbouring municipalities and city of Zagreb in Croatia that lay across the border in the prevailing wind direction and might be severely exposed to radiation in case of major nuclear accident in NPP Krško.

Discussion:

Mr Boiley first made a remark that a severe nuclear accident can indeed through direct and indirect impacts (liability claims, loss of income from tourism, export of agricultural and food products, etc.) devastate a small country like Slovenia. Then he raised attention on the importance of an in-time measurement of the radioactivity for effective response measures. At the EU level a pool of measurement equipment should be created and made available to MS when needed. After the accident in Fukushima there has been a sharp increase in demand of measurement equipment and as a consequence its price tripled which would be of course even bigger problem in countries less rich than Japan. Equipment thus needs to be shared however this would be difficult among countries unless there would be an international or EU agreement. **Mr Boiley** also raised a question to Ms Železnik about availability of measurement equipment within the emergency zone at NPP Krško.

Ms Železnik explained that there are fixed measurement stations around Krško yet she is not familiar with the information on mobile measurement devices on site. She also mentioned that in Slovenia a list of measurement devices is under preparation by regulatory body however it is hard to get information what is actually going on in this respect. It is not realistic to expect to get measurements. They are preparing a list of devices but we do not know much about that. Since in neighbouring countries they would need them themselves in case of nuclear accident one cannot expect to borrow the equipment there.

Mr Heriard Dubreuil pointed out that, at the initial stage of an accident, decisions on countermeasures will not be based on measurements but on models, calculation and prognosis, then will come the monitoring. Information should be based on both (ASAP), nevertheless, one needs to keep in mind that there will be failures in both modelling and measurement. One needs to be prepared that in case of an accident there will not be an unique and linear system of information and transfer of data but rather a chaotic situation of lack of some important information on one side and non-linear overflow of data from the other.

DISCUSSION ON THE PROVISIONAL CONCLUSIONS OF THE SEMINAR

Ms Železnik suggested the following tasks that should be carried out by NTW EP&R WG

- Checking the implementation of national and trans-boundary provisions on EP&R
- Setting the regulatory framework and harmonisation
- Improvement of information for the public

Ms Deront: Harmonisation is intriguing and controversial.

Mr Heriard Dubreuil: One should make a distinction between harmonisation and centralisation. The involvement of the European institutions in EP&R does not necessarily mean a unique and centralised management based on the same standards. The nuclear emergency management necessitates on the one hand a high level of subsidiarity in order to allow each concerned category of actors to take appropriate actions while on the other hand trans-border consistency of standards and counter measures is obviously needed. But this perspective is unlikely given the European political context. Now coming to the preparedness phase, one can see many advantages in having a procedural framework at EU level, scheduling in a compulsory way the implementation of nuclear emergency preparedness provisions with regular testing and adequate involvement of the civil society in this preparation.

Mr Haverkamp: It is very likely that everything that the EC will promote the MS will shoot down! A week ago the Senate of Czech Republic requested from Czech delegation on EU Council to vote against the upcoming review of the Nuclear Safety Directive. It is very likely that CEE MS will stop any progress at the EU level toward more common approach and rules in the field of nuclear safety. Therefore rather than on issues of harmonisation at EU level NTW EP&R WG should focus “down to the ground” on what is happening at the local level and bring in a systematic way and evidence to legitimate frustrations of the people regarding non-existing, weak and contradictory EP&R provisions.

Mr. Heriard Dubreuil: I agree that developing a local pragmatic approach focused on the checking of concrete measures in a manner that was here presented by Mr Glorieux is the first priority for us. Regarding harmonisation we have to take a look at the BSS directive and investigate if indeed it brings any progress in terms of improved emergency preparedness & response. If yes, then we should from the local up to the national levels provide support to the directive.

Mr Haverkamp: We need to be well aware that following processes at EU level is time and resources consuming and we should be aware that the EU has a quite limited mandate over nuclear safety (and nuclear third party liability as well). Therefore, in spite of its intentions and hope, the EC has indeed few tools with which to push the Nuclear Safety Directive forward. We should of course follow what is going on the EU level however the bulk of our capacities and activities should be on the local level. In my opinion only within 5 years something could be done at EU level.

Mr Demet: We need to take a look at the ENCO study and organise discussion with people about the reality of EP&R on- and off-site for each NPP. NTW should also intervene to have a strong legal framework on nuclear safety, including EP&R in each country so that the local civil initiatives will have a solid legal background to push for implementation. We need better involvement of the people in the decision making on EP&R but this is not possible without solid legal ground.

Mr Haverkamp: We need a list of issues that must be taken into consideration in good EP&R practice. Then we can go with the list to local people and check the reality. This will at the same time raise awareness and feeling of urgency on the need to improve EP&R among the local people. However we do need our own list of activities and measures that needs to be carried out in a strategic and logical way regarding EP&R and not only check how ENCO study fits the reality.

PROVISIONALY LIST OF TASKS THAT NEEDS TO BE CARRIED OUT

1. Preparation of minutes from the meeting

Mr Klemenc and Ms Železnik will prepare first draft by 17.2.2014, comments from all by 25.2.2014, finalisation by 28.2.2014 and download on the web page NTW by 1.3.2014 (public document)

2. Development of methodology for WG work on EU and national level

from March until September 2014, first draft of report: October 2014. Final version of the report November 2014

3. Implementation of methodology

Preparation of first draft by Ms Železnik and Mr Klemenc by 28.2.2014, national level contributions by all, comments from the WG by 7.3.2014, the adoption of methodology and approach by 14.3.2014

4. Request for access to the ENCO study according to the Aarhus Convention obligations.

until 25 February 2014

5. Implementation of round tables

F-G-B-Lux; Ire-UK-Nor?; Ukraine-Poland-Hun?, Slo-Cro + Hun? + Aus?; Bulgaria-Serbia-Macedonia-Kosovo-Montenegro-Greece?

6. Next meeting

in Slovenia (Ljubljana, Krško or Brežice) or in Brussels in June 2014, doodle enquiry by the end of February.