

# NTW role in nuclear safety and transparency

N. Zeleznik

*Nuclear Transparency Watch, 38, rue Saint Sabin, 75011 Paris, France; email: nadja.zeleznik@eimv.si*

**Abstract-** Nuclear Transparency Watch (NTW) is a non-governmental organisation, based on French law from 1905, devoted to nuclear safety and transparency, organised as network of NGOs and experts in almost all European countries. Building on the Aarhus Convention, NTW works to ensure that civil society is present at the heart of expertise and decision-making on nuclear safety and security in the European Union. The network's activities cover the entire nuclear cycle, with a particular focus on operational safety, including issues such as life extension of old nuclear power plants, emergency preparedness and response (EP&R), post-accident management, radioactive waste management (RWM), decommissioning and environmental issues. In parallel, the topic of transparency is constantly followed, at the national or European level. Some more important activities included: organisation of thematic Aarhus Convention and Nuclear round tables on important topics like EP&R and RWM with European partners, follow-up of the implementation of the Radioactive Waste Directive (2011/70/EURATOM), participation in the research RWM programme EURAD (The European Joint Programme on Radioactive Waste Management) to access the expertise based on the double wing model utilized, assessment of the independence of nuclear regulators in the different national contexts of the EU, development of rolling stewardship in the context of long term RWM. NTW builds a strong institutional presence and visibility at the European and UN level [links with the European institutions, International Atomic Energy Agency (IAEA), the Convention for the Protection of the Marine Environment of the North-East Atlantic (the OSPAR Convention)] and coordinate its members in activities. The main results will be described and discussed.

*Keywords:* Transparency; Nuclear; Safety

## 1. NUCLEAR TRANSPARENCY WATCH OVERVIEW

Nuclear Transparency Watch (NTW)<sup>1</sup> is a non-governmental organisation, based on French law from 1905, devoted to nuclear safety and transparency, organised as network of NGOs and experts in almost all European countries. NTW promotes the conditions for democratic transparency and effective public participation in the nuclear sector. It supports and assists national and local initiatives and civil society organisations seeking to promote transparency of nuclear activities. It favours the sharing of information among participants and the building of participatory review of nuclear safety arrangements when appropriate. Finally, it raises the voice of civil society in the European and national decision-making processes on nuclear activities and provide information to the European Union institutions and Members of Parliament. Currently we have 55 members, organisations and individual experts from across Europe. The Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters defines the bases for NTW activities and it is transversal to all our actions (UNECE, 1998).

The network's activities cover the entire nuclear cycle, with a particular focus on operational safety of nuclear facilities, including issues such as lifetime extension of old nuclear power plants, emergency preparedness and response (EP&R) in case of nuclear accidents, post-accident management, radioactive waste management (RWM) devoted to

---

<sup>1</sup> <https://www.nuclear-transparency-watch.eu/>

different types of radioactive waste, decommissioning of nuclear facilities and environmental issues of nuclear sector. In parallel, the questions of transparency are constantly followed, at the national, European, and international level. From year to year, NTW participate to more activities, lately we focused also on the development of our own actions.

The radiation protection is included in our work implicitly, as the fundamental safety objective is ‘to protect people and the environment from harmful effects of ionizing radiation’ (IAEA, 2006). This fundamental safety objective of protecting people and the environment has to be achieved for all nuclear facilities and activities using ionizing radiation. Some measures have to be taken, such as control of the radiation exposure of people and the release of radioactive material to the environment, restriction of the likelihood of events that might lead to a loss of control over a nuclear reactor core, nuclear chain reaction, radioactive source or any other source of radiation and mitigation of the consequences of such events if they were to occur.

## **2. MAIN ACTIVITIES OF NTW**

NTW organised several topical areas in which main efforts are directed and include nuclear safety of Nuclear Power Plants (NPP), RWM, and EP&R. In addition to these areas, we currently organise the new area devoted to the Environmental Impacts. The transparency as defined in the Aarhus convention is cross cutting to all topics and constantly monitored.

NTW builds a strong institutional presence and visibility at the European and the United Nations (UN) level and has links with the European institutions, [like the European Commission (EC), the European Nuclear Safety Regulators Group (ENSREG), Heads of the European Radiological Protection Competent Authorities (HERCA)], but also to International Atomic Energy Agency (IAEA) and different commissions based on important conventions (the Convention for the Protection of the Marine Environment of the North-East Atlantic (the OSPAR Convention), the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (the Aarhus Convention), Convention on Environmental Impact Assessment in a Transboundary Context (the ESPOO Convention)] and coordinate its members’ participation in related activities.

Some activities which also related to the radiation protection are reported here in order to present the content and also the approaches with methods and tools as they are used for interactions.

### **2.1. Emergency preparedness and response (EP&R)**

NTW did perform EP&R assessment from civil society (CS) view (NTW, 2015): this was a past project but with large impact, proving that the current arrangements in case of nuclear accident are not addressing many concerns of society, specially local inhabitants (e.g. topics where improvement is needed include iodine prophylaxis, involvement of public in planning and management at local, national and trans-boundary levels, harmonisation of emergency provisions, reconsideration of evacuation process in the case of large urban area,...). Based on findings NTW started with different dissemination activities, such as presentation at different events and conferences (NTW, 2022a), but also with development of EP&R leaflet which will be translated in national languages: simple information with suggestions what to do.

Among the latest activities, NTW with collaboration of the European Commission organized an Aarhus Convention and Nuclear Round Table in January 2022 to assess the implementation of the Aarhus Convention in the preparation and cross-border management of nuclear accidents. Divided into three sessions, the round table focused on taking stock of the

implementation of European and national regulations on cross-border nuclear crisis management. It then set up small discussion groups based on a dialogue methodology (serious games) on concrete accident scenarios. The round table ended with a reflection on the lessons learned from the COVID crisis for nuclear accident and post-accident management. A report has then been done by NTW after the European Commission's request to assess the results of this round table.

NTW also took part as an observer in the project for the European Commission led by NucAvisor on the Implementation of nuclear and radiological emergency preparedness and response requirements in EU Member States and neighbouring countries. A lack of minimal discourse between the authors and members of civil society as well as a lack of civil society viewpoints inclusion had unfortunately to be reported.

## **2.2. Radioactive waste management**

NTW is involved in European research programme EURAD (The European Joint Programme on Radioactive Waste Management)<sup>2</sup> dealing with radioactive waste management, where NTW represents CS in a double wing model: on one side CS experts are directly involved in work packages, on the other side the larger group of CS members, representing different more and less advanced radioactive waste programmes/countries are engaged in the programme to exchange, comment and suggest on the outcomes from the programme. The CS experts are mainly involved in two strategic studies on uncertainty managements and radioactive waste management from cradle to grave. NTW contributes with CS experts addressing important questions for society: what questions are brought in case of shared RW solutions, what lessons can be learnt in the development of national radioactive waste solutions for transparency, how to address the remaining uncertainties in RW management, what would be approach in the longer period for governance after closure of RW disposal.

In this context, it appeared important to take advantage of EURAD to develop within NTW a broader reflection on the legal, scientific, social and financial conditions for a continuous, very long-term citizen monitoring of radioactive waste management activities (notion of 'Rolling Stewardship' first developed in North America, of long-term intergenerational monitoring). NTW is organising a set of webinars on the subject and now introduce it into discussion in the EURAD programme (NTW, 2022b,c).

## **2.3. Environmental Impact**

A new group on 'Environmental Impact' was created in 2022 with aim to report on the various types of radionuclides discharges throughout Europe. In the frame of this group several project can be reported:

- Open Radiation project which was launched in cooperation with French technical support organization IRSN to measure radioactivity in the environment, started in 2021 and attracted several NTW members in the European Union (EU). In addition, in partnership with NTW member Cumbria Trust in Sellafield (UK), a school project was initiated in which students under the supervision of the science professor perform the measurement in local environment. Now the plans are to broaden the project and to engage local population in areas where local partnerships will be formed for geological repository of high-level radioactive waste to be involved in measurements. This way NTW enables to empower the citizens and also provides options for increased awareness on the radioactivity.

---

<sup>2</sup> <https://www.ejp-eurad.eu/>

- NTW support and coordinate the members in the participation to the Environmental Impact Assessments (EIA) for life-time extension (LTE) of existing NPPs and other facilities as well as for new RWM facilities. The contributions were applied in case of LTE Doel, Loviisa, Krsko nuclear power plants and in case of Onkalo repository in Finland. Within the framework of the Espoo Convention, NTW will keep asking for real public participation opportunities despite the outcomes as this will still enable public participation for all registered.

## 2.4. Transparency

NTW continuously work on the implementation of transparency in relation to the nuclear. In this context we organise debates in the form of Round Tables devoted to particular topic (like RWM, EP&R, LTE for NPPs) and discussion how the Aarhus convention has been implemented and if there are any uncertainties, challenges or problems and how to solve them.

We also work on for example individual studies, like study on the independence of regulators which started in the summer of 2020 and was due finalised recently. The aim is to examine governance of regulators and compliance gaps with the independence as defined in the Independence in Regulatory Decision Making (IAEA, 2003)<sup>3</sup>. In the framework of this project, several activities will be carried out, like research on the development of a whistleblower platform, an overview of the independence mechanisms in place as a first step in the reform and a legal overview of nuclear regulatory authorities in the EU Member States.

The first results of this study show that the problem of regulator independence is more sociological than legal. They highlight strong national differences in the independence of nuclear regulators, depending on the political and social contexts.

Also, new tools for interaction of different actors have in developed in collaboration with different networks. In the frame of SITEX.Network<sup>4</sup> the PEP - Pathway Evaluation Process 'serious game' was developed with intention to foster dialogue around concrete topics, like radioactive waste management scenarios, EP&R, environmental legacies. The PEP methodology has the ambition to create the conditions of a fair dialogue on different topics among various pluralistic societal components, providing them with equitable opportunities to contribute to the framing of the purpose and content of the exchanges.

## 3. CONCLUSIONS

NTW addresses the question of radiation protection only indirectly for now as we are focused on nuclear safety and transparency. However, as part of the nuclear safety also the radiation protection is investigated. We develop a number of methods and tools for the civil society representatives to be involved and engaged and provide for independent evaluation of nuclear practices.

NTW also discusses the issues of sustainability of our organisation and therefore we have regular strategic seminars with NTW members: we exchange positions and our future

---

<sup>3</sup> Key features of independence in regulatory decision making in the area of nuclear safety include (IAEA, 2003):

- Insusceptibility to unwarranted external influences, but the existence of appropriate mechanisms for external professional dialogue and consultation, with both licensees and independent experts, along with appropriate mechanisms for dialogue with the public;
- Decisions taken on the basis of science and proven technology and relevant experience, accompanied by clear explanations of the reasoning underpinning the decisions;
- Consistency and predictability, in relation to clear safety objectives and related legal and technical criteria;
- Transparency and traceability.

<sup>4</sup> [http://sitexproject.eu/index\\_2.html](http://sitexproject.eu/index_2.html)

directions, the focus of necessary attention, the context which is evolving, and investigate also how to organise to be present in longer period. One of the challenges are for sure resources: human and financial. We try to find solutions to this. One of concrete action is for example project ‘rolling stewardship’ for post closure radioactive waste repository governance. We hosted several webinars with key actors in last year and now we introduce this concept also to other actors which contribute to adoption of new practices.

#### 4. REFERENCES

- IAEA, 2003. Independence in Regulatory Decision Making. INSAG Series No. 17. International Atomic Energy Agency, Vienna.
- IAEA, 2006. Fundamental Safety Principles. IAEA Safety Standards Series No. SF-1. International Atomic Energy Agency, Vienna, Vienna.
- NTW, 2015. Report of NTW Working Group on Emergency Preparedness & Response (EP&R). Nuclear Transparency Watch, Paris. Available at: <https://www.nuclear-transparency-watch.eu/activities/nuclear-emergency-preparedness-and-response/ntw-publishes-its-one-year-investigation-on-emergency-preparedness-and-response-in-europe.html> (last accessed 12 February 2023).
- NTW, 2022a. Nuclear Emergency Preparedness and Response. Nuclear Transparency Watch, Paris. Available at: <https://www.nuclear-transparency-watch.eu/https://www.nuclear-transparency-watch.eu/topics/uncategorised/activities/nuclear-emergency-preparedness-and-response> last accessed 12 February 2023).
- NTW, 2022b. Rolling Stewardship webinar #1. Nuclear Transparency Watch, Paris. Available at: <https://www.nuclear-transparency-watch.eu/activities/rolling-stewardship-webinar-1.html> (last accessed 12 February 2023).
- NTW, 2022c. Rolling Stewardship webinar #2. Nuclear Transparency Watch, Paris. Available at: <https://www.nuclear-transparency-watch.eu/non-classe/rolling-stewardship-webinar-2.html> (last accessed 12 February 2023).
- UNECE, 1998. Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters. United Nations Economic Commission for Europe, Geneva. Available at: <https://unece.org/environment-policy/public-participation/aarhus-convention/text> (last accessed 12 February 2023).