

**International Stakeholder Workshop on the
Applicability of the UNECE Espoo Convention to the
Lifetime Extension of Nuclear Power Plants**

2 December 2019 in Vienna

Summary Report

Prepared by the Co-chairs¹

The international stakeholder workshop was organized by an ad hoc working group under the United Nations Economic Commission for Europe (UNECE) Convention on Environmental Impact Assessment in a Transboundary Context (the Espoo Convention). It was hosted by Austria (Federal Ministry for Sustainability and Tourism) and attended by 67 participants representing governments, international and non-governmental organizations and academia.

Following **opening remarks** by the host **Johannes Kresbach** (Austria) the workshop was opened by the Co-Chair of the ad hoc working group, **Christof Sangenstedt** (Germany), who thanked the Austrian government for hosting the workshop and welcomed participants on behalf of himself and the Co-Chair Lucy Tanner (UK). He ran through the agenda for the workshop and expressed the interest of the ad hoc working group in informing stakeholders about the progress in the ongoing drafting process of the Guidance on the Applicability of the UNECE Espoo Convention to the Lifetime Extension of Nuclear Power Plants and in gathering input from them.

Session 1: Setting the scene

Tea Aulavuo (Secretary to the Espoo Convention and its Protocol on SEA) gave **background information** about the rationale and the methodology for the development of the guidance. The presentation slides are available [here](#). To highlight some aspects:

- There is currently no consensus among the Parties to the Espoo Convention regarding the Convention's application to the lifetime extension of nuclear power plants, which has created legal uncertainty. The 2014 decision by the Meeting of the Parties about Ukraine's non-compliance with respect to the Rivne nuclear power plant is not considered to be generally applicable to other cases of life-time extension of nuclear power plants that do not share identical characteristics (e.g. a time-limited licence).
- The ad hoc working group was established in June 2017 by the Meeting of the Parties. Currently, 28 State Parties to the Convention and the European Commission are members of the ad hoc group. Its work is co-chaired by Germany and the UK and supported by the UNECE secretariat.
- Until the end of 2019, the group held eight meetings, firstly to develop the terms of reference and subsequently to draft the guidance to be used by the Parties and the Implementation Committee. Another four meetings are scheduled before the draft guidance is expected to be delivered for adoption by the Meeting of the Parties in December 2020.
- The ad hoc working group has regularly reported about its progress at the treaty bodies' meetings. The progress reports as well as the summary reports of each ad hoc group's

¹ The views expressed in the report are those of the participants and do not necessarily represent the position of UNECE.

meeting are available on the UNECE website of the Espoo Convention. Moreover, since taking up its work, the group has held a stakeholder workshop in May 2018 as well as four meetings with NGO representatives.

Christof Sangenstedt explained the **ongoing drafting process**. The ad hoc working group has identified three core questions and is currently drafting chapters of the guidance to explore them. To this end, drafting groups have been established and for each of the drafting groups two co-leads have been appointed:

- Johannes Kresbach (Austria) and Sara Sacadura Cabral (Portugal) are co-leading the drafting group dealing with the question: “Is lifetime extension an activity or a **major change** to an activity?”
- Aurélie Guillemot (France) and Pernilla Sandgren (Sweden) are co-leading the drafting group dealing with the question: “What qualifies as **decision** of a competent authority?”
- Milena Novakova (European Commission) and Seija Rantakallio (Finland) are co-leading the drafting group dealing with the question: “When is a lifetime extension **likely** to cause significant adverse transboundary impacts?”

Together with the co-chairs of the drafting groups, **Christof Sangenstedt** and **Lucy Tanner** reported on the **state of the discussion and the open questions** for each of the chapters drawing from the updated Progress Report submitted to the Working Group on EIA and SEA for its session in November 2019. The updated Progress Report is available [here](#). To highlight some aspects:

- “Major change”: While the drafting group has already decided that the lifetime extension of a nuclear power plant will usually be a change to an ongoing activity rather than a new activity, factors which could classify a change as major change are still being discussed.
- “Decision”: The drafting group has identified as starting point that the term decision is defined by the authorising function and not the title. To identify a decision on lifetime extension for nuclear power plants and answer open questions, it is discussing on the basis of examples that reflect the situation in the different state parties to the Convention.
- “Likely”: The drafting group has already decided that the impacts of normal operation, of events that are design-based and of events beyond the design base are all of relevance here. One open question is the suitability of the criteria in Annex III of the Convention to determine whether impacts are significant.

Participants were given the opportunity to ask questions for understanding.

Session 2: In-depth discussion

Lucy Tanner opened the **panel discussion** by introducing the five panellists:

- Jonas Ebbesson, Chair of the Aarhus Convention Compliance Committee
- Miguel Coutinho, past President of the International Association for Impact Assessment
- Pierre Bourdon, representative of the OECD Nuclear Energy Agency
- Jan Haverkamp, representative of Greenpeace, WISE and Nuclear Transparency Watch
- Patricia Lorenz, representative of Friends of the Earth Europe and Global2000

Moderated by **Christof Sangenstedt**, the panellists started to discuss the question of whether a lifetime extension is an activity or a **major change** to an activity. The following issues were raised:

- **Jan Haverkamp** stressed the importance of all decisions from authorities and operators being informed by up to date information on (potential) environmental impacts. The prolongation of a plant's operation for 10 to 20 years would need to be based on updated information. Existing EIAs do not take into account the extended time frame. He suggested that the differentiation between minor and major changes is less important than the need to make decisions based on updated information. It would also be necessary to look at the issue from the view of citizens, who feel the risk has increased, rather than just the view of operators. He suggested that citizens want to know about environmental impacts and to participate in decision-making. Even if an activity remained the same, the environmental impacts may be much greater than before due to changes in the environment (habitation, nature development, economic activity, and social development) and the environmental impact assessment should be the tool to identify these impacts.
- **Jonas Ebbesson** referred to the parallels and synergies between the Espoo and the Aarhus Convention obligations and recalled that all but two Espoo Convention Parties are also Parties to the Aarhus Convention. He also emphasised the value of exchanging information and of promoting consistency in the related obligations between the two treaty regimes. He referred to the findings by the Aarhus Convention Compliance Committee concerning the Dutch Borssele nuclear power plant.² In that case, which concerned an indefinite licence, the Compliance Committee held that the permitted duration is clearly an operating condition for an activity, and that any change to the permitted duration is a reconsideration or update of that activity's operating conditions. It also held that, except in cases where a change to the permitted duration is for a minimal time and obviously would have insignificant or no effects on the environment, it is "appropriate", and thus required, for the extension to be subject to the Convention's provisions for public participation. This is so whether or not the extension would be accompanied by any physical works. In stressing the value of promoting consistency in the related obligations of the two treaty regimes, he also recalled that the definition of "proposed activity" in the Espoo Convention includes any major change "to" rather than "of" an activity. This indicates a broader understanding of change, which would not be limited to physical works but also include change of lifetime, and that this may be relevant for the Adhoc Working Group when preparing the guidance.
- **Patricia Lorenz** reported that in her experience power plants are subject to regular updates and that it was therefore not realistic that a nuclear power plant with an unlimited licence could be considered to continue to operate beyond its original design lifetime without any changes.
- **Pierre Bourdon** reported on his experience leading the drafting process of the recently published OECD-NEA Report on "Legal Frameworks for Long-Term Operation of Nuclear Power Reactors" and pointed at the challenges the authors faced when deciding on the terminology and trying to make the country reports comparable. He stressed that it was important to look at components rather than the entire plant when determining the design lifetime. He highlighted that most of the countries covered in the report issue time-limited licences. The situation is however different in the European region, where a slight majority of countries issue initial licences with an unlimited duration.
- **Miguel Coutinho** confirmed the importance of terminology to avoid misunderstandings and stressed the need to define terms in light of the specific context. He finds it difficult

² Aarhus Convention Compliance Committee, ACCC/C/2014/104 (Netherlands), 4 October 2018, ECE/MP.PP/C.1/2019/3.

to classify a lifetime extension as a minor change from the environmental perspective. He shared some relevant conclusions from the “International workshop on environmental and health impacts of lifetime extension of nuclear power plants” conducted by IAIA in June 2019 in Lisbon: (1) The state of the environment may have changed even if the project has not. (2) Citizens and decision-makers have the right to be informed, especially if they did not have the opportunity to participate when the license was originally issued. (3) For sound decision-making, it is necessary to identify all alternatives and to assess their impacts.

During the **open discussion** on the **major change criterion** with all participants, the following issues were raised:

- A case-by-case decision determined by factors and criteria could be challenging, but might be a feasible approach to determine, whether a change qualifies as major change.
- The length of the lifetime extension may be a relevant factor even if the technical changes are only minor.
- The amount of investment required may be a relevant factor to determine whether a change is a major change.
- It may be challenging to get information about investment decisions that are necessary to assess whether a change is a major change.

Moderated by **Lucy Tanner**, the panellists started to discuss the criteria which might determine a **decision of a competent authority**. The following issues were raised:

- **Pierre Bourdon** shared findings from the recently published OECD-NEA Report mentioned above. According to this Report, there are different types of decisions including decisions related to safety issues and decisions concerning the end date for operation. While several countries have time limited licenses, others have time unlimited licenses. A majority of countries with time-unlimited licences do not provide for an authorisation process solely dedicated to long-term operation. Thus, in many countries there is no formal decision to authorise operation beyond a defined designed life. Similarly, not all countries included in the report perform periodic safety reviews (PSR) and for those that do require performing a decennial PSRs, such PSRs may not systematically be connected to long-term operation. He pointed out that an environmental impact assessment needs to be connected to a decision, which can take account of its results.
- **Jonas Ebbesson** explained that under the Aarhus Convention what amounts to a “decision” is defined by the legal effects of the authorisation and not by its title. This is the approach taken by the Compliance Committee when considering what constitutes a plan or permit, and the Committee took the same approach in one case where the parliament had authorised a specific project. The Committee held that this decision fell within the scope of the Aarhus Convention, since the parliament was then not acting in its legislative capacity, but as a “public authority” authorising the project.³ This also applies to the authorisation to extend the lifetime of an activity. Referring to the “Observations” provided by the Compliance Committee with respect to any future Espoo Convention guidance,⁴ he stressed that it would be important to avoid an overly formalistic approach

³ Aarhus Convention Compliance Committee, ACCC/C/2011/61 (United Kingdom of Great Britain and Northern Ireland), 28 June 2013, ECE/MP.PP/C.1/2013/13.

⁴ “Observations of the Aarhus Convention Compliance Committee on the draft terms of reference for possible guidance on the applicability of the Espoo Convention to the lifetime extension of nuclear power plants”, submitted to the seventh meeting of the Working Group on Environmental Impact Assessment and Strategic

to what constitutes a “decision”. The key point is whether or not the lifetime of the NPP will in fact be extended.

- **Jan Haverkamp** expressed the need for an early environmental impact assessment in multi-tier decision-making processes. In cases where a country failed to conduct an early environmental impact assessment, this should not be used as an excuse to refrain from conducting an environmental impact assessment at a later stage. He mentioned the example of France, where a general safety review is being done for the fleet, which will be followed by a safety review for the individual reactor. He suggests that an environmental impact assessment should be integrated into both of these safety reviews.
- **Patricia Lorenz** reported that in her experience some countries avoid making the decision point “visible”. One way to approach this challenge could be to ask countries about the decision point in their respective legal system. The decision point would always need to be before investments are undertaken. Continued operation after a periodic safety review implies that a decision has been taken.
- **Miguel Coutinho** pointed out that the environmental impact assessments can always be adapted to the content of the decision.

During the **open discussion** on the **decision criterion** with all participants, the following issues were raised:

- Hungarian legislation requires an environmental impact assessment for the lifetime extension of nuclear power plants as the existing nuclear power plants were not subject to an environmental impact assessment at the time of their construction. The environmental impact assessment is conducted at an early stage of the decision-making process.
- If a lifetime extension is found to qualify as a major change and is likely to have significant environmental impacts, Article 2 (2) of the Espoo Convention would require Parties to identify or provide for a decision-making process that can take account of the results of an environmental impact assessment.
- The guidance could either prescribe a decision or let states decide on a decision to incorporate the results of the environmental impact assessment. Up to now, countries have used this legal uncertainty to refrain from conducting an environmental impact assessment.
- Periodic safety reviews cover some, but not all, environmental aspects.

Moderated by **Christof Sangenstedt**, the panellists discussed the question of when a lifetime extension is likely to cause significant adverse transboundary impact. The following issues were raised:

- **Jonas Ebbesson** emphasised that, based on the experience of the Aarhus Convention Compliance Committee, all possible causes of the environmental impact and the risks thereof, i.e. regular operation, design-based events and events beyond the design base, should be included. Legally speaking, there is no ground to exclude any of them, and of course it is important also for environmental reasons to have them all included. He referred to the findings of the Compliance Committee, stating that it is clear to the Committee that with respect to NPP, the possible adverse effects of an accident can reach far beyond State border and over vast areas and regions. It is therefore important to

secure public participants appropriate for that activity for these areas and regions, including by means of proper notification.⁵ A case-by-case approach is taken by the Compliance Committee to determine the scope of the members of the public to be notified.

- **Patricia Lorenz** emphasized that it is important to cover all types of impacts regardless of the terminology used. The scope of notification will depend on the information about impacts provided.
- **Jan Haverkamp** questioned the benefit of the criteria in Annex III to the Espoo Convention in determining the significance of environmental impacts. These criteria are usually all met when looking at the lifetime extension of a nuclear power plant. He referred to the solution found by the Aarhus Convention Compliance Committee, which considered in its Borssele findings a lifetime extension of an ultra-hazardous activity as a rule a major change of that activity: *“In this regard, the Committee considers it inconceivable that the operation of a nuclear power plant could be extended from 40 years to 60 years without the potential for significant environmental effects”*.
- **Pierre Bourdon** pointed out that it may be beneficial to identify the information parties need to rely on when deciding on the scope of the notification and determining how far is far enough.

During the **open discussion** on the **likelihood criterion** with all participants, the following issues were raised:

- The term “events beyond the design base” is no longer used as events beyond the design are now included in the design. This is reflected in the IAEA Glossary and the EU Nuclear Safety Directive.
- A lifetime extension of a nuclear power plant would usually be likely to have significant transboundary environmental impacts. Therefore, only the question of which Parties to notify is of relevance.
- Notification is one of the obligations set out in the Espoo Convention. If countries beyond the UNECE region accede to the Convention in the future the question of scope of the notification will be even more relevant.
- The State of Micronesia wanted to participate in the environmental impact assessment for a Czech coal power plant (because of impacts caused by climate change). Albeit exceptional, this example demonstrates the need to discuss the scope of notification.
- There are practical questions related to the organization of public participation under the Aarhus Convention and the Espoo Convention. It is a shared responsibility of the Parties concerned to facilitate information dissemination to and effective participation of the public of the affected Parties.
- Finland provides information related to the scoping process in the language of Parties concerned. If the whole UNECE region was to be included, this would be a massive task. The use of intermediate languages (like within the UNECE) could be taken into consideration.
- The questions related to notification are not only relevant for lifetime extensions, but concern the application of the Espoo Convention procedure in general.

⁵ Aarhus Convention Compliance Committee, ACCC/C/2013/91 (United Kingdom of Great Britain and Northern Ireland), 19 June 2017, ECE/MP.PP/C.1/2017/14.

Session 3: Remaining questions and outlook

The last session was moderated by **Christof Sangenstedt**, who asked participants about their opinions on the need to define the term **lifetime extension**⁶ and the feasibility of doing so. The following issues were raised:

- Since there are different definitions of the term lifetime extension, it would be challenging to identify only one term.
- It is not only the term lifetime extension which is not defined but also the term lifetime.
- For countries with a time limited license, it is easier to identify the lifetime of a nuclear power plant.
- When determining the lifetime, it may be necessary to look at the individual components and not the entire plant.
- Usually many different investments and upgrades are made over the years which could make it difficult to point out to a one-time lifetime extension.

In her **closing remarks**, **Lucy Tanner** draw some preliminary conclusions. Summarising the views expressed throughout the day she stated that the co-chairs had understood that participants felt that the ad hoc working group has been proceeding in the right way and had identified the relevant questions. She outlined the next steps until the draft guidance would be submitted to the Meeting of the Parties' next sessions (Vilnius, 8-11 December 2020) for adoption. Participants were invited to provide written comments by 31 December 2019 to be shared with the ad hoc working group.

⁶ The IAEA uses and defines the terms design life and long term operation:

The IAEA's definition of "design life" is: "The period of time during which a facility or component is expected to perform according to the technical specifications to which it was produced." IAEA (2019), IAEA Safety Glossary: Terminology Used in Nuclear Safety and Radiation Protection (2018 Edition), IAEA Doc. STI/PUB/1830, p. 127.

The IAEA's definition of "long term operation" is: "Operation beyond an established time frame defined by the licence term, the original plant design, relevant standards or national regulations." IAEA (2018), Ageing Management and Development of a Programme for Long Term Operation of Nuclear Power Plants, IAEA Doc. STI/PUB/1814, Vienna, p. 9.