



# Nuclear Transparency Watch

Prevent and anticipate through transparency and participation

UNECE Economic Commission for Europe  
Meeting of the Parties to the Convention on Environmental Impact Assessment  
in a Transboundary Context

Meeting of the Parties to the Convention on Environmental Impact Assessment in  
a Transboundary Context serving as the Meeting of the Parties to the Protocol on  
Strategic Environmental Assessment

Working Group on Environmental Impact Assessment  
and Strategic Environmental Assessment

Seventh meeting  
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Item 4 of the provisional agenda  
Application of the Convention to the lifetime extension of nuclear power plants

## Observations from Nuclear Transparency Watch

### Observations from the view of civil society

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1. As Nuclear Transparency Watch has made clear during earlier occasions, this working group is to give clarity in the, in our view, legally clear, but politically obfuscated obligation to fully assess the potential environmental impacts of *de facto* life-time extensions of nuclear power stations.
2. We want to re-state that this is not a nuclear issue, but an issue of international law, environmental protection and transparency. **There is a natural legal, moral and logical right for citizens and states that are confronted with decisions about, and face the prospective to carry the impacts of, *de facto* nuclear lifetime extensions, to be consulted.** The legally logical instrument for that is the (transboundary) Environmental Impact Assessment (EIA).  
In our opinion, the terms of reference to be produced by the ad-hoc Working Group should facilitate the implementation of this obligation, and not be used to find ways to circumvent these rights of Parties and citizens.
3. We notice in the draft terms of reference, that the Parties in the ad-hoc Working Group are struggling with the same questions as the Implementation Committee did in the case of Rivne 1 and 2, which resulted in relevant and adequate findings to those issues. The Implementation Committee was able to create high quality findings on the basis of an in depth assessment of all factors, and over a longer time than the ad-hoc Working Group has at its disposal; and, what is in our view important,

impartially and without political pressure. Because of its quality, we therefore recommend the ad-hoc working group to take the viewpoint of the Implementation Committee as a guideline for the terms of reference.

4. We strongly welcome the observations by the Aarhus Convention Compliance Committee to this ad-hoc Working Group. Also this institution investigated the issue of life-time extensions of “ultra-hazardous” activities in great detail over the last years, in an impartial way without political pressure. We therefore strongly recommend these observations to be taken seriously into account.
5. **Topic 2 – Safety upgrades** – Whether or not a safety upgrade indeed means a reduction of the chance or extent of a (potential) impact on the environment, or not, is not self-evident. A good example is the introduction of an upgrade in the Kozloduy VVER 1000 nuclear reactors in the form of active motor driven insertion of control rods instead of a passive system relying on gravity, increasing the chance on malfunction. In most cases, the influence of safety upgrades on (potential) impacts is a complex issue with consequences for both the chance on impact and the form and extent of impact. Exactly the tools of (international) peer-review, transparency and public participation that take place in a (transboundary) Environmental Impact Assessment can surface consequences that were not taken into account, but also put them into the larger framework of environmental relevance. A strictly limited engineering view will oversee part of the consequences. **The conclusion whether there is an effect on environmental impact of safety upgrades – or not – can therefore never be drawn before an EIA is carried out, but can only be the conclusion after, and informed by an EIA. Every decision concerning upgrades and changes should in the end be informed by a relevant EIA.**
6. **Topic 2 – Cumulative changes** – The fact that every nuclear power station during its life-time is regularly facing changes that are under the limit for an EIA has not sufficiently been taken into account. These changes occur under the principle of continuous improvement, among others after every incident somewhere in the world, at every periodic safety review, and after every review mission under the auspices of the IAEA, but also in the form of minor and upgrades and technological and managerial changes to improve performance. When added together, these cumulative changes constitute together a major change to the project. The (potential) impact of these changes has never been submitted or taken into account in an EIA. When reaching the foreseen technical life-time it is therefore justified also to consider the (potential) impacts of these cumulative changes on the environment. To put it short: the machine that may have been submitted to an EIA 30 or 40 years ago is because of small cumulative changes a qualitatively different one from the one today – that change should at some point be submitted to an EIA as well.
7. **Topic 3 – Legislative decisions** – An important issue in the Espoo Convention is the right of citizens, as well as other (potentially) impacted Parties to the Convention and their citizens, to be involved in an EIA. When decisions are taken by a national parliament, there are some Parties that argue that their own citizens are represented in the decision procedure over their parliamentary representation. We do not think that that is sufficient and see in the spirit of the Espoo Convention the need for a proper assessment of (potential) environmental impacts and remedies, as well as public participation concerning environmental issues before such a parliamentary

decision is taken. On top of that, **foreign Parties and their citizens are not represented in national parliaments**. It is for that reason important to consider every decision about an activity with (potential) transboundary impacts on the environment as one that falls under the obligations of the Espoo Convention, also when the “competent authority” is a national parliament. There should at least be a transboundary EIA or an equivalent procedure to inform the national parliament of the Party of Origin of potential (transboundary) environmental impacts, and in that procedure the right of all potentially impacted citizens – also those in potentially impacted Parties – to be heard, should be secured.

8. **Topic 4 – Screening** – It has become under the Espoo Convention common practice to carry out a screening process for every large proposed activity with (potential) transboundary impacts, including notification of potentially impacted Parties. This should also be the case for nuclear life-time extensions. The criteria for this screening are not different from those used in other cases under the Espoo Convention. This screening is not meant to conclude whether or not nuclear life-time extension should be submitted to a transboundary EIA. Every nuclear power plant – no matter how well protected – is an “ultra-hazardous” activity that potentially can lead to the release of a substantial part of its radioactive content of especially I-131, Cs-137, Cs-134 and Sr-90 and thus have long distance consequences for the environment. The chances on such accidents only grow over its age. The need for a (transboundary) EIA for ultra-hazardous activities like nuclear power plants is defined in Annex I and is self-evident. A screening is recommended good practice to improve the quality of the EIA; not a tool to decide whether or not an EIA should take place, but an instrument to determine how an EIA should take place.
  
9. **Topic 4 – Short-term life-time extensions** – There has been a proposal for the introduction of the term “minor change” for short term extensions of the activity life-time. We want to warn for the potential abuse of allowing short-term extensions without clear conditions. Similarly as with the under Espoo not allowed use of salami-tactics by cutting large, EIA-obligatory activities into small non-EIA-obligatory activity parts, short-term extensions could be followed, for instance under pressure from the operator or political factors, one after another by other small-term extensions – and thus lead to a significant life-time extension without any EIA. This could, as an example, be argued by insufficient steps to guarantee security of electricity supply, like currently in Belgium. Allowing a short-term life-time extension should be bound to a hard requirement concerning the period (for instance not longer than three or six months), as well as a hard requirement that a prolongation of such a short period will require a full (transboundary) EIA, or at least a formal bilateral agreement with all possibly impacted states after a notification under the Espoo Convention.
  
10. **Topic 5 – Periodic Safety Review** – We want to stress once more that decisions that *de facto* lead to life-time extensions of “ultra-hazardous” activities like nuclear power plants, are never single stand alone decisions, but in all cases part of a tiered decision process. Periodic Safety Reviews (PSRs) often lead to one of the last decisions to be taken in order to allow an extension of the life-time of a nuclear power plant. All the involved decisions in these tiered decision processes, including the PSR, should be informed by an EIA under the Espoo Convention – it is therefore important to have this EIA carried out in an early stage. However, when it is not carried out in

earlier stages, and only the PSR remains as decision moment, the obligation for an EIA still exists, and the PSR decision should take the findings from the EIA into account also concerning their influence on earlier decisions in the tiered decision process. Furthermore, the EIA will not only inform the PSR, but also the final decision of the operator concerning necessary investments resulting from the PSR. The legal obligation for an EIA is important for every decision in a tiered decision process, and missing an EIA does not relieve next decisions from the obligation to have an EIA carried out.

11. However, it is important to realise that the PSR itself also needs to reflect the changes in risk perception over time. The political and regulatory environment has changed: risk perceptions are different after Chernobyl and Fukushima, regulatory practices and infrastructure are different, scientific insight in risks and risk evaluation has progressed, as have impact assessments themselves – ecological, social, medical, economical.

Following the obligation to minimise environmental impact, an ageing nuclear power station should fulfil the risk criteria for a new build power station, as this is the status of Best Available Technology (BAT) – after all, it is possible to reduce the risk to that level with a new power station. Furthermore, over the last decades new electricity / energy generation methods have been developed that can deliver the needed services economically with similar or less impacts, but without the specific nuclear risks of nuclear power stations. That raises the bar of acceptable risk.

This risk perception is not a clean technical issue, for instance expressed in a probabilistic risk or safety assessment (PRA or PSA) – if only because of the large uncertainties entailed. The definition of acceptable risk is inevitably influenced by the outcomes of an EIA: it includes changes in the environment (a double population density means a doubling of the risk; but also think of new vulnerable nature areas and species, new threatening industrial activity, higher economic, social and environmental impacts in case of accidents, etc.), changes in chance (new security risks like terrorist attacks, sabotage and acts of war), and new technological developments to partially abate those risks also in ageing nuclear installations. It is therefore evident that also a PSR will benefit from an EIA.

12. **Topic 6 – Design life-time** – NTW wants to point out that there is more or less consensus in nuclear design literature about design life-time. Nuclear reactors of the VVER440, the Mark 1 and Mark 2 design and the oldest Swiss, French, Swedish and (already closed) German nuclear reactors were designed with a foreseen technical life-time of 30 years. All other (more modern) reactors until now with a life-time of 40 years. New designs of the generation III+ are designed with a design life-time of 60 years and this also should be reflected in their EIA procedures.