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## 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

### Implementation Committee

Fifty-seventh session

Geneva, 29 August—1 September 2023

Item 5 of the provisional agenda

Committee initiatives

## **Findings and recommendations regarding compliance by Czechia with its obligations under the Convention in respect of the lifetime extension of four reactors of Dukovany nuclear power plant**

**Prepared by the Implementation Committee**

### *Summary*

The present document contains findings and recommendations prepared by the Implementation Committee under the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) and its Protocol on Strategic Environmental Assessment further to the Committee initiative concerning compliance by Czechia with its obligations under the Convention in respect of the lifetime extension of four reactors of Dukovany nuclear power plant. The Committee finalized at its fifty-sixth session (Geneva, 2–5 May 2023) the findings and recommendations, taking into account comments and representations from Austria, Czechia and Germany in accordance with paragraph 9 of its structures and functions.<sup>a</sup>

In accordance with rule 13 of the operating rules of the Implementation Committee,<sup>b</sup> the secretariat issued those findings and recommendations as an official document for the Committee to refer to, and for their transmission to the Parties involved and, subsequently, to the Meeting of the Parties to the Convention at its ninth session (Geneva, 12–15 December



2023) for its consideration and to be taken into account when considering the related draft decision.

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<sup>a</sup> Available at <https://unece.org/sites/default/files/2021-02/Implementation%20Committee%20structure%20functions%20procedures%20rules.e%202020.pdf>.

<sup>b</sup> Ibid.

## I. Introduction – the Committee’s procedure

1. On 27 July 2016, the Implementation Committee under the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) and its Protocol on Strategic Environmental Assessment received information from four non-governmental organizations (NGOs) – Oekobuero and Global 2000 (Austria), Jihočeské matky and Calla (Czechia) – expressing concerns about compliance by Czechia with its obligations under the Convention in relation to the lifetime extension of four units of Dukovany nuclear power plant. On 9 August 2016, the Committee received further information on the matter from the NGO Aarhus Konvention Initiative Germany.

2. In the information provided by the NGOs, it was alleged, among other things, that Czechia had failed to comply with: article 1 (v) in conjunction with articles 2 (3) and (7), 4 (2) and 5 of the Convention by not conducting an environmental impact assessment procedure; article 2 (3)–(4) and (7) of the Convention by not preparing the environmental impact assessment documentation; articles 2 (4) and 3 (1) by not notifying any potentially affected Party; article 2 (5)–(6) by not holding consultations with the public of the potentially affected Parties, and not providing any information; and, article 6 by not providing to the affected Parties the final decision that had been taken for unit 1.

3. The Committee began its consideration of the information provided at its thirty-seventh session (Geneva, 12–14 December 2016), taking note of the information and agreeing to request further information from the Government of Czechia, the NGOs and the Governments of the neighbouring countries (Austria, Germany, Poland and Slovakia) by 3 February 2017.<sup>1</sup>

4. At its thirty-ninth session (Geneva, 5–7 September 2017), the Committee considered the information provided by the Governments of Austria on 10 January, Czechia on 3 February, Germany on 2 February and Slovakia on 3 February 2017, and additional information from the four NGOs received on 1 February 2017 in response to the Committee’s letters of 21 December 2016. The Committee agreed to request the Government of Czechia to inform the Committee by the end of October 2017 about the state of play concerning the lifetime extension of units 2, 3 and 4 of Dukovany nuclear power plant and the related environmental impact assessment procedure. It further agreed to resubmit questions to the Governments of Poland and Slovakia and ask the four NGOs for further information regarding the planned activities, if available. Czechia, Poland and Slovakia responded to the Committee’s letters on 27 and 18 October, and 10 November 2017, respectively. The NGOs submitted additional information on 27 October, 8 and 9 November 2017.<sup>2</sup>

5. Due to the then-ongoing preparations of the *Guidance on the Applicability of the Convention to the Lifetime Extension of Nuclear Power Plants* (the Guidance),<sup>3</sup> which was later endorsed by the Meeting of the Parties to the Convention at its eighth session (Vilnius (online), 8–11 December 2020) through decision VIII/6 (ECE/MP.EIA/30/Add.2–ECE/MP.EIA/SEA/13/Add.2), the Committee did not consider the matter further before its forty-ninth session (Geneva, 2–5 February 2021).

6. At its forty-ninth session, the Committee decided to request an update from Czechia by 1 April 2021 on the state of activity since the previous communication from Czechia to the Committee in October 2017. The Committee also invited the four NGOs to provide it, by the same date, with any additional information regarding the planned activities.<sup>4</sup>

7. At its fiftieth session (Geneva, 4–7 May 2021) the Committee examined the response from Czechia, dated 26 March 2021. It decided to request additional information and clarifications from Czechia by 31 July 2021. It renewed its invitation to the NGOs to provide any additional information by 31 July 2021.<sup>5</sup>

<sup>1</sup> ECE/MP.EIA/IC/2016/6, para. 48.

<sup>2</sup> ECE/MP.EIA/IC/2017/4, paras. 48–50.

<sup>3</sup> United Nations publication, ECE/MP.EIA/31.

<sup>4</sup> ECE/MP.EIA/IC/2021/2, paras. 75–77.

<sup>5</sup> ECE/MP.EIA/IC/2021/4, paras. 74–76.

8. At its fifty-first session (Geneva (hybrid), 4–7 October 2021), the Committee noted information from Czechia, dated 30 July 2021. It considered that it needed additional information and clarifications from Czechia and the four NGOs and invited them to provide, by 20 December 2021, more detailed information further to the Committee’s questions.<sup>6</sup>

9. Based on the information made available to it since 2016 and the criteria of the Guidance, the Committee, at its fifty-third session (Geneva (online), 10–13 May 2022), decided to begin a Committee initiative further to paragraph 6 of its structure and functions. It preliminarily concluded that the activity fell within the scope of the Convention and that there was a profound suspicion of non-compliance by Czechia with its obligations under the Convention regarding the lifetime extension of units 1 to 4 of Dukovany nuclear power plant. Further to paragraph 9 of the Committee’s structure and functions, it agreed to invite Austria, Czechia and Germany to take part at its next session (Geneva, 4–7 October 2022) in order to participate in the discussion and to present information and opinions regarding the activity.<sup>7</sup>

10. The Committee agreed that it would be important for it to examine the matter in the context of future decision-making procedures regarding similar activities, including other units at Dukovany nuclear power plant but also units at other nuclear power plants, such as Temelin nuclear power plant. The Committee included a few questions regarding Temelin nuclear power plant to a list of questions, to which the Parties concerned were invited to provide written replies by 5 September 2022.<sup>8</sup>

11. Czechia and Germany responded to the questions in writing on 5 September, and Austria on 20 September 2022. At the request of the Committee, the secretariat distributed the information received from the Parties concerned among the other Parties concerned, inviting them to provide their views on each other’s positions in advance of the hearing. On 26 September 2022, Germany submitted comments to the letter of Czechia dated 5 September 2022.<sup>9</sup>

12. The Committee welcomed the delegations of Austria, Czechia and Germany to its fifty-fourth session (Geneva (hybrid), 4–7 October 2022) and invited them to present information and opinions on the matter. It then questioned the three delegations. It welcomed, among other things, clarifications from Czechia regarding the time frame of operation of units 1–4 of Dukovany nuclear power plant.<sup>10</sup>

13. The Committee completed its draft findings and recommendations at its fifty-fifth session (Geneva (online), 31 January–3 February 2023).<sup>11</sup> It transmitted the draft to the Parties concerned for comments or representations by 31 March 2023. At its fifty-sixth session (Geneva, 2–5 May 2023), it finalized the findings and recommendations, taking into consideration the comments received by Austria, Czechia and Germany dated 30 March 2023. The findings and recommendations would be referred to in the draft decision on compliance to be submitted to the Meeting of the Parties to the Convention at its ninth session (Geneva, 12–15 December 2023). Any recommendations would also be included in the draft decision itself.

## II. Summary of facts, information and issues

14. This section summarizes the main facts, information and issues considered to be relevant to the question of compliance, as presented by Austria, Czechia and Germany in their correspondence to the Committee and during the hearing of 6 October 2022, as well as information provided by Slovakia, Poland and five NGOs.

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<sup>6</sup> ECE/MP.EIA/IC/2021/6, paras. 75–77.

<sup>7</sup> ECE/MP.EIA/IC/2022/4, paras. 18–25.

<sup>8</sup> *Ibid.*, para. 26.

<sup>9</sup> ECE/MP.EIA/IC/2022/7, paras. 36–37.

<sup>10</sup> *Ibid.*, paras. 38–39.

<sup>11</sup> ECE/MP.EIA/IC/2023/2, para. 27.

## A. Nature of the activity

15. Dukovany nuclear power plant is situated in the south of Czechia, 32 km from the border with Austria (100 km from Vienna), 173 km from the border with Germany, 119 km from the border with Poland and 74 km from the border with Slovakia. It operates four type VVER 440/213 pressurized water reactors providing 2,040 megawatt electric (MWe) power in total.

16. Unit 1 and unit 2 have been in commercial operation since 1985 and 1987, respectively, and units 3 and 4 since 1988. Subsequently, operation permits were issued with different and limited terms of validity for each unit. After 30 years of operation, the continuation of the further operating of these units was found to be safe and operation permits of these units were changed at different times; thus, all of them are currently time-unlimited.<sup>12</sup>

17. Between 2005 and 2008, each unit was updated from 440 MWe to 456 MWe gross capacity, followed by further updates by the end of 2012 to increase the gross capacity of the plant by 250 MWe, by applying technical improvements such as using improved fuel, replacing the high-pressure turbine, refurbishing the generator, etc.

18. In January 2009, the operator “ČEZ” commenced a long-term operation project 2009–2015 with a budget of CZK 14 billion (€560 million)<sup>13</sup> and approved a number of strategies with the aim of receiving a long-term operation permit from the State Office for Nuclear Safety.

19. On 24 September 2015, ČEZ applied for a new licence for unit 1. Due to works that needed to be finalized before submitting the required documentation, a three-month operating extension was granted by the nuclear authority.

20. On 30 March 2016, the State Office for Nuclear Safety adopted decision No. 4932/2016 providing the operation permit for unit 1 for an unlimited period of time. No domestic or transboundary environmental impact assessment procedure was carried out prior to that decision.

21. For unit 2, the State Office for Nuclear Safety approved the operation permit through decision No. 12142/2017 pursuant to Act No. 263/2016 on 28 June 2017, and for units 3 and 4 on 19 December 2017 through decisions Nos. 24077/2017 and 24078/2017, respectively. No domestic nor transboundary environmental impact assessment procedure was carried out prior to those decisions.

22. In 2016, Czechia started to plan the construction of two new units – units 5 and 6. A transboundary environmental impact assessment was conducted with the participation of all neighbouring countries, Austria, Germany, Poland and Slovakia,<sup>14</sup> and concluded on 30 August 2019.<sup>15</sup> According to the plan of Czechia, upon the start of its commercial operation, planned for 2037, unit 5 should replace unit 1. After the finalization of unit 6, planned for 10 years after that of unit 5, all remaining old units should be decommissioned, at the latest by 2050.

23. On 17 April 2020, the State Office for Nuclear Safety cancelled and replaced the 2016 operation permit for unit 1 with a new operation permit of unlimited validity, owing to new legal requirements and the operation conditions set under the renewed permits for units 2–4.<sup>16</sup>

## B. Legislative framework

24. Czech Atomic Act No. 18/1997 Coll. was the legal basis for the operation of nuclear power plants of Czechia until 2017. In 2017, a new act came into force, Act No. 263/2016

<sup>12</sup> Letter from Czechia to the Committee dated 5 September 2022, p. 37.

<sup>13</sup> Letter from Aarhus Konvention Initiative Germany to the Committee, dated 9 August 2016, p.2.

<sup>14</sup> Letter from Czechia to the Committee dated 3 February 2017.

<sup>15</sup> Letters from Czechia to the Committee dated 26 March 2021, p. 2.

<sup>16</sup> Letters from Czechia to the Committee dated 26 March 2021, p.1.

Coll., Atomic Act, which shortened the lifetime of existing permits and provided the legal basis for issuing new ones. Since then, all newly issued decisions on operation permits have indefinite validity.

## **C. Information and issues**

25. In the information they provided, the NGOs alleged that Czechia had failed to comply with articles 2–6 of the Convention (see para. 2 above).

26. Czechia stated that, in its view, there was no need for it to carry out an environmental impact assessment procedure, including in a transboundary context. According to Czechia, the activity did not qualify as an activity that required screening, because: Dukovany nuclear power plant had been in full operation for a number of years; the general conditions and the purpose of the activity remained unchanged; and, no changes with likely environmental impact had been introduced. Additionally, the cumulative impacts from the continuous operation of units 1–4 were supposed to have been assessed within the related environmental impact assessment procedure for the construction of two additional units of Dukovany nuclear power plant completed in 2019. According to the legislation in force before 2017, a safety assessment purely for the purposes of nuclear safety level revision (to check the level of compliance with legal requirements on nuclear safety) was performed by the operator, without involving a transboundary procedure or public participation.<sup>17</sup> According to the Atomic Act No. 263/2016 Coll. of Czechia, in force since 2017, there was no obligation to conduct an environmental impact assessment for the lifetime extension of nuclear power plant units either, but a periodic safety review with strict requirements was mandatory every 10 years.

### **1. Communication between the Parties concerned**

27. Czechia explained that the State Office for Nuclear Safety had informed the neighbouring countries about the reissuing of the operation permits for units 1–4 in the period between 2014 and 2018. Austria and Germany were informed through an intergovernmental committee on nuclear safety and radiation protection meeting on a yearly basis. Hungary, Slovakia and Slovenia were informed through meetings of the heads of national delegations to the International Atomic Energy Agency (IAEA) General Conference, as well as within the framework of yearly quadrilateral meetings of the nuclear regulatory authorities. Slovakia was also informed during informal yearly bilateral meetings between both countries' nuclear regulatory authorities. The nuclear regulatory authority of Poland was informally informed during a bilateral meeting in 2017.

28. In February 2015, Germany, considering itself a potentially affected Party, requested notification from Czechia regarding the planned lifetime extension of Dukovany nuclear power plant.<sup>18</sup> Furthermore, Austria considered itself a potentially affected Party and asked Czechia for a notification regarding the lifetime extension of unit 1 in accordance with the Convention by a letter of 3 August 2015, encouraging Czechia to conduct a transboundary environmental impact assessment. Czechia declined both requests, however, stating that there was no legal obligation under international or national law to conduct an environmental impact assessment for the lifetime extension of a nuclear power plant.<sup>19</sup> On 19 April 2016, Austria informed the European Commission that, in its view, a transboundary environmental impact assessment procedure for the lifetime extension of units 1–4 of Dukovany nuclear power plant was necessary.

### **2. Modifications of the nuclear power plant and transboundary impacts**

29. In the view of the NGOs, since 1991, several safety- and non-safety-related modifications took place at Dukovany nuclear power plant, such as the Post-Fukushima

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<sup>17</sup> Letter from Czechia to the Committee dated 30 March 2023.

<sup>18</sup> Letter from Germany to the Committee dated 2 February 2017.

<sup>19</sup> Letter from Czechia to Austria dated 31 August 2015 and letter from Germany to the Committee dated 2 February 2017.

Action Plan, back-fitting design implementation, change of the instrumentation and control system (Morava project, phase one from 2002–2009 and phase two from 2007–2017), fuel change, the replacement of high-pressure turbines, refurbishment of generators, the construction of six additional cooling towers and an energy output increase from 440 MWe to 510 MWe at all units. The estimated budget for these specific projects amounted to approximately CZK 18 billion (€720 million) between 2009 and 2019.<sup>20</sup>

30. Similarly, Austria and Germany noted that the various changes including upgrades and physical works that took place within the plant and modifications in its operating conditions, could amount to a major change and that, consequently, their environmental impacts would need to be considered. Germany added that, in case of an extended operation of the plant, significant risks might not only occur in the plant, for example, due to the ageing of technical components, conceptually limited retrofitting options, and a changed state of science and technology, but also in the area surrounding the plant because of potential environmental and climate effects. Since the start of operation in 1985–1987, the landscape and the environment and related factors (water, air, waste, biodiversity, soil) around the plant have changed – along with the climate and local and regional settlement structure.

31. According to Czechia, the nuclear power plant has been operating since 1986 without any accident. It claimed that the preparation for long-term operation of units 1–4 neither involved the building of new facilities, nor changes in the technology of the production process and normal operation, nor an increase in the nuclear fuel used. It further noted that the activities to modernize and modify structures, systems and components, to replace equipment of the same type and to adjust part of the equipment connected to the reactor installation were performed within the scope of the licence and were part of regular maintenance and ageing management. According to Czechia, the investment costs – estimated to be approximately €160 million – were used for replacements, modifications and reconstruction related to analysis and assessments performed to prepare for long-term operation of units 1–4 and were not related to changes in their operating conditions, or in the technology.

32. In the view of Czechia, all the above-mentioned modifications were performed in order to enhance the nuclear safety level or the plant's reliability and efficiency. None of them, according to Czechia, could cause or increase the risk of a significant adverse transboundary impact on the environment.

### **3. Future decision-making procedure for similar activities**

33. The Committee considered it important to examine the matter in the context of future decision-making procedures regarding similar activities. Noting that two units at Temelin nuclear power plant required a procedure for their long-term operation, it requested Czechia to provide information on those two units. Czechia informed the Committee that the two units of Temelin nuclear power plant had been commissioned in 2002 and 2003, respectively. They were operating based on operating permits for an unlimited period of time, issued in 2020 and 2021. According to Czechia, nuclear power plants of that design could be safely operated for up to 60 years. If any refurbishment reached the threshold of a major change, an environmental impact assessment would be required.

### **4. Procedure under the Aarhus Convention**

34. The Committee noted that Czechia was also a Party to the Convention on Access to Information, Public participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention). It therefore referred to the findings and recommendations prepared by the Aarhus Convention Compliance Committee regarding compliance by Czechia with the provisions of that Convention, and the related decision of the Meeting of the Parties to that Convention. The Meeting of the Parties to the Aarhus Convention adopted at its seventh session (Geneva, 18–20 October 2021) decision VII/8e (ECE/MP.PP/2021/2/Add.1), ruling that Czechia had failed to comply with articles 6 (10)

<sup>20</sup> Joint letter from OekoBuro and Global 2000 to the Committee dated 20 December 2021, checklist, p. 4, and annex 5 to this letter (web information CEZ Group on investment).

and 9 (2) of the Aarhus Convention by not providing for effective public participation during the lifetime extension process of Dukovany nuclear power plant, and requesting Czechia to submit a plan of action, including a time schedule, by 1 July 2022 to implement the recommendations.

### III. Consideration and evaluation

#### A. General observations

35. The Committee gathered information allowing it to identify in a sufficiently accurate manner the main facts and events, and to evaluate the application of the Espoo Convention. It also referred to the clarifications that it had sought from Czechia since 2016, prior to beginning its initiative, on the application by Czechia of the Convention with respect to the lifetime extension of units 1–4 of Dukovany nuclear power plant.

36. The Committee welcomed the good cooperation with Czechia that had facilitated its work, providing it with the requested information in a timely manner and in good quality, in line with paragraph 11 of decision VIII/4.<sup>21</sup>

37. In determining whether to begin a Committee initiative, in accordance with paragraph 6 of the Committee's structures and functions, the Committee took into account, *inter alia*, the following criteria, based on rule 15 of the Committee's operating rules:<sup>22</sup>

- (a) The source of the information, the four NGOs, Oekobuero and Global 2000 (Austria), Jihočeské matky and Calla (Czechia), was known and not anonymous;
- (b) The information related to nuclear power stations and other nuclear reactors, an activity listed in appendix I to the Convention;
- (c) The information was the basis for a profound suspicion of non-compliance with respect to the extension of the lifetime of nuclear reactors;
- (d) The information related to the implementation of Convention provisions;
- (e) Committee time and resources were available.

38. Based on its review of the information it had gathered since 2016 from Czechia and the NGOs, as well as from Austria and Germany, in the light of the Convention and considering the Guidance, the Committee concluded that it had sufficient evidence for its deliberations about compliance by Czechia with its obligations under the Convention regarding the lifetime extension of the four nuclear power plant units in question. In particular, the Committee decided to begin a Committee initiative further to paragraph 6 of its structure and functions due to its profound suspicion of non-compliance by Czechia with its obligations under articles 2 (3) and 3 (1) of the Convention with respect to the activity in question, considering it to constitute a major change to an activity listed in appendix I to the Convention that was likely to cause a significant adverse transboundary impact.

39. In response to the exchange of opinions with Czechia, the Committee considered it necessary to clarify that it might review compliance with the Convention even after the final decision on the activity in question had been taken, consistent with the objective and functions of the Committee as set out in paragraph 4 of the Committee's structure and functions.<sup>23</sup> The Committee's objective and functions were not limited to Parties' potential future non-compliance. On the contrary, the Committee was mandated to also address non-compliance that had already occurred. That was evident from paragraph 13 of the Committee's structure and functions, under which the Meeting of the Parties to the

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<sup>21</sup> ECE/MP.EIA/30/Add.2–ECE/MP.EIA/SEA/13/Add.2.

<sup>22</sup> Available at <https://unece.org/sites/default/files/2021-02/Implementation%20Committee%20structure%20functions%20procedures%20rules.e%202020.pdf>

<sup>23</sup> Available at <https://unece.org/sites/default/files/2021-02/Implementation%20Committee%20structure%20functions%20procedures%20rules.e%202020.pdf>

Convention might decide upon measures to bring about compliance. Moreover, doing so was in accordance with the Committee's past practice.<sup>24</sup>

40. Furthermore, the Committee pointed out that, when considering a case of possible non-compliance by a Party with its obligations under the Convention, in line with paragraph 6 of the Committee's structures and functions, the Committee was not bound by rulings of national courts and other national or international bodies, as those were not applicable sources to be taken into account when interpreting obligations under the Convention in line with articles 31 and 32 of the Vienna Convention on the Law of Treaties.

## **B. Legal basis**

41. Czechia deposited its instrument of ratification to the Convention on 26 February 2001<sup>25</sup> and the Convention entered into force for Czechia 90 days later, on 27 May 2001.

42. Appendix I, item 2 (b), to the Convention identifies among proposed activities to which it applies: "Nuclear power stations and other nuclear reactors, including the dismantling or decommissioning of such power stations or reactors (except research installations for the production and conversion of fissionable and fertile materials, whose maximum power does not exceed 1 kW continuous thermal load)."

43. In the context of its initiative, the Committee examined the relevant provisions of the Convention in articles 2 (3) and 3 (1), and their application. In doing so, it considered the *Guidance on the Applicability of the Convention to the Lifetime Extension of Nuclear Power Plants*.

## **C. Main issues**

### **1. Application of the Convention**

44. The activity concerns the lifetime extension for units 1–4 of Dukovany nuclear power plant, involving the modification and renewal of the operation licences in 2016 and 2017 and the preparation for long-term operation of the units.

#### **1.1. Application of the Guidance**

45. The Committee noted the opinion of Czechia that the Guidance was not applicable to the licence renewals for units 1–4 of Dukovany nuclear power plant in 2016 and 2020 for unit 1, in 2017 for units 2, 3 and 4, since it was only endorsed by the Meeting of the Parties at its eighth session in 2020 and had no retroactive effect. However, the Committee stressed that the Guidance only interprets the Convention to support its practical application. It neither imposes new obligations on the Parties, nor expands the application of the Convention's provisions. As recommended by the Meeting of the Parties at its eighth session, the Committee considers the Guidance when performing its functions.<sup>26</sup> It does so with a view to ensuring consistent interpretation of the Convention regarding new and pending lifetime extension cases. Therefore, the Committee also considers the Guidance in cases that were already under its review.

46. Regarding the argument put forward by Czechia that the application of the Guidance to cases that were pending before its adoption in 2020 contradicts the principle of legal certainty, the Committee emphasized that there were no reasonable grounds for Czechia to believe that the Convention would not be applicable to the lifetime extension of nuclear power plants. In its findings and recommendations of 2014 regarding Ukraine, the Committee already found that the extension of the lifetime of reactors 1 and 2 of Rivne nuclear power plant after the initial licence had expired was to be considered a proposed activity under

<sup>24</sup> See, for example, Findings and recommendations further to a submission by Armenia regarding Azerbaijan (EIA/IC/S/5) (ECE/MP.EIA/IC/2013/4, annex).

<sup>25</sup> On 30 September 1993, Czechia succeeded to the Convention, to which the former Czechoslovakia had been a signatory State.

<sup>26</sup> Decision VIII/6, para. 5.

article 1 (v) and was consequently subject to the provisions of the Convention.<sup>27</sup> Furthermore, at its seventh session (Minsk, 13–16 June 2017), the Meeting of the Parties to the Convention established an ad hoc working group precisely to discuss and provide guidance on this issue.<sup>28</sup>

47. The activity constituted a situation in which the end date of a time-limited licence had been reached, but the plant was intended to continue operation.<sup>29</sup> Originally all units had time-limited licenses. Units 1–4 of Dukovany nuclear power plant had operated since 1985 (unit 1), 1987 (unit 2) and 1988 (units 3 and 4), based on regularly renewed time-limited licences that had reached the expiration dates indicated therein. To authorize the continued operation, Czechia renewed the licence for unit 1 in 2015 until 2016, while in 2016 a new licence for unit 1, valid for an unlimited period of time, was issued, and in 2020, it was replaced with a new licence that was also unlimited. Due to a legislative change in 2016 in Czechia, unlimited operating licences had been issued for the continued operation of units 2–4 in 2017, allowing all units to continue their operation potentially for an unlimited time frame.

48. Periodic safety reviews were carried out for the units in question.<sup>30</sup> Czechia undertook periodic safety reviews for its nuclear power plants at a minimum every ten years. The latest periodic safety reviews were undertaken towards the end of the operating lifetime in support of the latest licence renewal.

49. Considering the above, the Committee concluded that the Guidance was applicable to the lifetime extension of units 1–4 of Dukovany nuclear power plant, as the activity was related to a specific situation described in chapter II, section C, of the Guidance, namely situation 1 in paragraph 25 (the end date of a time-limited licence has been reached, but the plant is intended to continue operation).

## 1.2. Major change to an activity (art. 1 (v) and appendix I, item 2 (b), to the Convention)

50. The Committee noted the opinion of Czechia that lifetime extensions did not fall within the scope of the Convention. However, the Committee recalled its previous opinion that the continued operation beyond the originally authorized lifetime of a nuclear reactor was covered by appendix I, item 2 (b).<sup>31</sup> It also took note of the conclusion in the Guidance, endorsed by the Meeting of the Parties, that “[l]ifetime extensions must ... be considered to be within the scope of the Convention, even though they are not explicitly mentioned in the list of activities.”<sup>32</sup>

51. The Committee further noted the opinion of Czechia that the licence renewal for units 1–4 of Dukovany nuclear power plant and the investment project for the long-term operation of the four units constituted neither a new activity nor a “major change” to an activity in accordance with article 1 (v) of the Convention.

52. Regarding the interpretation of the term “major change”, Czechia argued that the Parties to the Convention had discretion when implementing the Convention’s obligation and determining whether a proposed change to an activity was major or not. While the Committee agreed that the Convention allowed its Parties flexibility to implement their obligations differently, it emphasized that such implementation practices must remain within the limits of the Convention’s obligations and their interpretation.<sup>33</sup> The endorsement of the Guidance by the Meeting of the Parties can be regarded as subsequent practice of the Parties regarding

<sup>27</sup> See ECE/MP.EIA/IC/2014/2, annex, para. 59.

<sup>28</sup> See ECE/MP.EIA/23/Add.1–ECE/MP.EIA/SEA/7/Add.1, decision VII/3–III/3, annex I, item I.9; and ECE/MP.EIA/27/Add.1–ECE/MP.EIA/SEA/11/Add.1, decision IS/2, paras. 4–9.

<sup>29</sup> *Guidance on the Applicability of the Convention to the Lifetime Extension of Nuclear Power Plants, situation 1, paras. 25–26.*

<sup>30</sup> *Ibid.*, situation 3, paras. 28–31.

<sup>31</sup> ECE/MP.EIA/IC/2014/2, annex, para. 37.

<sup>32</sup> *Guidance on the Applicability of the Convention, para. 37.*

<sup>33</sup> See also ECE/MP.EIA/IC/2020/4, annex, para. 11: “While the Convention allowed its Parties flexibility regarding application of its procedures within diverse national contexts, that flexibility was limited by each Party’s duty to comply with the Convention, and to implement it effectively and in keeping with its purpose.”

the interpretation of the Convention, in line with article 31 (3) (b) of the Vienna Convention on the Law of the Treaties.

53. According to the information made available to the Committee, Czechia had implemented several changes towards long-term operation of the activity including replacements, modification and reconstruction of the buildings, systems and components, as well as modifications related to operating conditions and long-term related maintenance and repair works. The Committee noted the opinion of Czechia that all technical improvements and modifications implemented over the past years (see para. 31 above) did not qualify as a “major change” under the Convention.

54. The Committee reiterated its earlier opinion, that all physical works and modifications in the operating conditions should be considered by the competent authority when deciding on the applicability of the Convention. Those should not be limited to works and modifications that altered the design and changed the technology of the production process or normal operation.<sup>34</sup> In addition, it clarified that physical works were not limited to the construction of new buildings. Therefore, activities to modernize, modify and replace structures, systems and components of units 1–4 of Dukovany nuclear power plant were considered as physical works.

55. The Committee also reiterated its opinion, that, taking into account the length of the extended operation of the units, the amount and scale of works and modifications was less relevant.<sup>35</sup> By way of an explanation, it referred to the Guidance, which refers to the duration of the lifetime extension as one factor that indicates that physical changes or modifications in the operating conditions of a smaller scale may amount to a major change.<sup>36</sup> While Czechia changed the licences for units 1–4 of Dukovany power plant to unlimited ones due to the country’s licensing system, the investments made were intended to prepare the units for an operation of another 30–40 years or even a longer period.

56. The Committee considered that, also in the view of the intended operation for another 30–40 years, those various changes, with investment costs of at least €160 million (see para. 31 above), potentially up to €560 million (see para. 18 above), including physical works within the nuclear power plant and modifications in the operating conditions of a smaller scale, when taken as a whole, pointed to a major change.

57. Considering the statement in the Guidance that changes covered by the existing authorization to operate do not trigger the application of the Convention,<sup>37</sup> the Committee found that such changes by themselves would generally not trigger a transboundary environmental impact assessment. However, changes implementing requirements specifying conditions under a rather general licence, or changes requested in preparation of a licence renewal, could be relevant when deciding whether physical works or modifications in the operating conditions amounted to a major change.

58. Furthermore, the Committee considered the statement in the Guidance that physical works undertaken as part of regular maintenance work or ageing management are not usually regarded as major changes.<sup>38</sup> It pointed out that nuclear power plants during their lifetime undergo continuous step-by-step safety reviews and upgrades. It found that related physical works were to be treated differently depending on their timing. While physical works early in the operating life were less relevant, physical works towards the end of the plant’s lifetime were to be considered when deciding on the application of the Convention for a lifetime extension, even if they were part of regular maintenance work or ageing management. The Committee took into consideration the fact that works and changes were carried out towards the end of the operating lifetime of units 1–4 in order to keep the plant safe and operable, in compliance with legal requirements.

59. In the light of the above and considering also the interpretation in the Guidance that even physical works or modifications in the operating conditions of a smaller scale may

<sup>34</sup> ECE/MP.EIA/IC/2022/2, para. 25.

<sup>35</sup> *Ibid.*, para. 26.

<sup>36</sup> *Guidance on the Applicability of the Convention*, para. 47.

<sup>37</sup> *Ibid.*, para. 43.

<sup>38</sup> *Ibid.*, para. 48.

amount to a major change,<sup>39</sup> the Committee concluded that the activity constituted a major change to an activity listed in appendix I to the Convention, and therefore was subject to the Convention.

### 1.3. Likely significant adverse transboundary impact

60. The Committee noted the opinion of Czechia that long-term operation of units 1–4 of Dukovany nuclear power plant did not lead to a change in the likely significant adverse transboundary impacts. The Committee recalled its previous opinion that, when assessing the likelihood of significant adverse transboundary impacts during the screening<sup>40</sup> procedure, all impacts were relevant and not only any additional ones compared to those occurring from the plant’s operation before the lifetime extension.<sup>41</sup> In forming its opinion, the Committee had considered the Guidance, which states that: “Generally, the extended lifetime of a nuclear power plant has impacts that are similar to those of a new nuclear power plant considered in its initial operation.”<sup>42</sup>

61. The Committee recalled its previously expressed opinion, that impacts caused by the activity during usual operation as well as impacts caused by an accident need to be taken into account.<sup>43</sup> The Committee also considered that, according to the Guidance, impacts resulting from operational states, including normal operation and anticipated operational occurrences, as well as impacts resulting from accidents, including accidents within the design bases and within the design extension conditions, as well as beyond design basis accidents need to be identified.<sup>44</sup>

62. The Committee further considered that Czechia had not demonstrated that it had assessed the likelihood of significant adverse transboundary impacts of accidents in the light of paragraph 8 (a) of decision IS/1, which “[e]mphasizes that Parties to the Convention that carry out nuclear energy-related activities should do so in accordance with the Convention, in a sustainable manner, taking into consideration the precautionary and polluter pays principles, and respecting international nuclear safety standards and relevant environmental legislation.”<sup>45</sup> The Committee noted that Czechia was of the opinion that it had implemented the relevant requirements of international treaties on nuclear safety when assessing the likelihood of accidents and that compliance with such requirements did not fall within the Convention’s scope.

63. Lastly, the Committee reiterated its view that, if accidents, especially beyond design basis accidents, occurred at nuclear power plants, the likelihood of significant adverse transboundary impacts could be very high,<sup>46</sup> in particular for Parties situated in close proximity to the plant, but also for other Parties located further away. In the light of the existing experience from the very rare but severe accidents that have occurred at nuclear power plants in the past, the Committee considered that a distance from the activity of 32 km from the border with Austria, 173 km from the border with Germany, 119 km from the border with Poland and 72 km from the border with Slovakia was not sufficient to exclude a possibility of occurrence of significant adverse transboundary impacts from the activity on the environment of those Parties.

64. In the light of the above, the Committee concluded that Czechia had not identified all likely significant transboundary impacts of the proposed activity when it prepared the units for the long-term operation.

<sup>39</sup> Ibid., para. 47.

<sup>40</sup> The Committee uses the term “screening” as explained in the *Good Practice Recommendations on the Application of the Convention to Nuclear Energy-related Activities* (United Nations publication, ECE/MP.EIA/24), para. 9: “The purpose of screening under the Convention is to determine whether a proposed activity or a major change to an activity listed in appendix I to the Convention is likely to cause a significant adverse transboundary impact.”

<sup>41</sup> ECE/MP.EIA/IC/2022/2, para. 27.

<sup>42</sup> *Guidance on the Applicability of the Convention*, para. 58.

<sup>43</sup> ECE/MP.EIA/IC/2016/2, para. 62; and ECE/MP.EIA/2019/14, para. 94.

<sup>44</sup> *Guidance on the Applicability of the Convention*, para. 58.

<sup>45</sup> ECE/MP.EIA/27/Add.1–ECE/MP.EIA/SEA/11/Add.1.

<sup>46</sup> See ECE/MP.EIA/IC/2016/2, para. 62; and ECE/MP.EIA/2019/14, para. 94.

## 2. Requirement to undertake an environmental impact assessment (art. 2 (3))

65. The Committee noted that, as units 1–2 of Dukovany nuclear power plant had operated since 1985 and 1986, respectively, and units 3–4 since 1987 – before the Convention’s existence – the Convention did not apply to the original licences.

66. Based on the information available to it, the Committee noted that no environmental impact assessment procedures had been undertaken prior to the issuance of the original licences, or of the lifetime extension licences.

67. The Committee took further note of information by Czechia that the public had not been given the possibility to participate in relevant decision-making procedures as lifetime extension activity of units 1–4 of Dukovany nuclear power plant had not been considered to fall within the scope of the legislation implementing the Convention.<sup>47</sup>

68. According to Czechia, its own public was informed about the planned renewal of the operation permits for units 1–4 by the competent authorities and the nuclear power plant operator. Information about granted permits and upcoming proceedings on their issuance was widely communicated through nationwide and local media and websites of the State authorities and the operator itself.

69. The Committee further noted the opinion of Czechia that the non-application of the Convention to the lifetime extension of units 1–4 of Dukovany nuclear power plant had been confirmed and approved by the Constitutional Court of Czechia in its ruling dated 8 September 2020 based on the judicial conclusions arising from the Supreme Administrative Court judgment of 19 May 2011.<sup>48</sup> The Committee, however, pointed out that it was not bound by the rulings of national courts (see also para. 40 above).

70. The Committee also took note of the argument by Czechia that the impacts of long-term operation had already been considered, analysed and presented in the existing safety analysis report, which had been approved by the State Office for Nuclear Safety. However, the Committee considered that, despite overlaps, as a rule, such assessment focusing on nuclear safety was not comparable in scope with an environmental impact assessment. That also applied to periodic safety reviews.<sup>49</sup>

71. In the light of the above, the Committee considered that Czechia did not comply with the requirement of article 2 (3) of the Convention to undertake an environmental impact assessment in a transboundary context prior to the decision to authorize the lifetime extensions.

## 3. Requirement to notify potentially affected Parties (art. 3 (1))

72. Having determined that the lifetime extension of units 1–4 of Dukovany nuclear power plant fell within the scope of the Convention, the Committee considered that Czechia was required to notify potentially affected Parties in accordance with article 3 (1) of the Convention.

73. The Committee noted that Czechia had not notified Austria or Germany of the lifetime extension for units 1–4 of Dukovany nuclear power plant, despite their requests in 2015 for Czechia to do so (see para. 28 above).

74. It further noted that both Austria and Germany had submitted information to demonstrate that their territory could be affected in case of a severe accident at Dukovany nuclear power plant.

75. The Committee reiterated its earlier opinion in which it emphasized that: “In the absence of notification, particularly with regard to nuclear power plants, where a potentially affected Party considers that a significant adverse transboundary impact of a proposed activity cannot be excluded and expresses the wish to be notified, the Party of origin should apply the Convention. In such situations, failure to notify would infringe on the right of

<sup>47</sup> Letter from Czechia to the Implementation Committee dated 17 December 2021, p. 2.

<sup>48</sup> No. 2 As 9/2011-154, No. 2399/2011 Coll. NSS.

<sup>49</sup> For the periodic safety reviews see ECE/MP.EIA/IC/2014/2, para. 53.

potentially affected Parties and their public to be informed and to participate in a timely manner in the environmental impact assessment procedure.”<sup>50</sup>

76. The Committee pointed out decision IS/1, according to paragraph 4 (b) of which the Party of origin should make the most careful consideration on the basis of the precautionary principle and available scientific evidence when assessing, for the purpose of notification, which Parties are likely to be affected by a proposed nuclear activity listed in appendix I.<sup>51</sup>

77. The Committee also considered the Guidance, which encourages the Party of origin “to take into consideration whether the nuclear power plant in question was planned and constructed before the Convention’s entry into force and the fact that the risk perception may change over time and vary from Party to Party.”<sup>52</sup>

78. Lastly, the Committee noted that, at the current time, neither one of the potentially affected Parties had requested to undertake a transboundary environmental impact assessment several years after the lifetime of the units had been extended, but that both of them had requested to be informed and consulted by Czechia about the environmental impact assessment of any continued operation of nuclear power units in the future in accordance with the provisions of the Convention.

#### 4. Notifications for future lifetime extensions

79. The Committee noted that Austria and Germany had expressed their wish to be notified in accordance with article 3 of the Convention of future lifetime extensions, as well as any activities related to the next periodic safety review of units 1–4 of Dukovany nuclear power plant, if any.

80. For lifetime extension of units 1 and 2, as well as any activities related to periodic safety review of the units of the Temelin nuclear power plant, both Austria and Germany requested to be notified accordingly.

81. The Committee welcomed the commitment made by Czechia during the hearing of 6 October 2022 to notify Austria and Germany ahead of future lifetime extension activities, as well as any activities related to periodic safety review in accordance with article 3 (1) of the Convention.

## IV. Findings

82. Having considered the above, the Committee adopts the following findings, with a view to bringing them to the attention of the Meeting of the Parties for formal adoption in accordance with paragraph 13 of the appendix to decision III/2 (ECE/MP.EIA/6).

### A. Application of the Convention

83. The Committee finds that the activities implemented for the lifetime extension of units 1–4 of Dukovany nuclear power plant, i.e. the renewal of the licences in 2016 and 2017, together with the preparation for long-term operation of the units, amounted to a major change to an activity listed in appendix I to the Convention.

84. Having considered the Guidance as a tool for determining the application of the Convention, the Committee finds that the activity, the renewal of the licences in 2016 and 2017, together with the preparation for long-term operation of units 1–4 of Dukovany nuclear power plant, is a lifetime extension, falling under situation 1, chapter II, section C, of the Guidance (see para. 49 above).

85. The Committee finds that Czechia had not identified all likely significant transboundary impacts when it prepared the units for long-term operation. Consequently, Czechia did not assess all significant adverse transboundary impacts of operational states and

<sup>50</sup> ECE/MP.EIA/2019/14, para. 103.

<sup>51</sup> ECE/MP.EIA/27/Add.1–ECE/MP.EIA/SEA/11/Add.1.

<sup>52</sup> *Guidance on the Applicability of the Convention, para. 78.*

accidents of the continued operation beyond 2016 for unit 1, and beyond 2017 for units 2–4 of Dukovany nuclear power plant.

## **B. Environmental impact assessment (art. 2 (3))**

86. The Committee finds that Czechia was in non-compliance with article 2 (3) of the Convention when it prepared units 1–4 of Dukovany nuclear power plant for long-term operation and renewed the licences in 2016 and 2017 to authorize their continued operation without undertaking a prior transboundary environmental impact assessment in accordance with the Convention.

## **C. Notification of potentially affected Parties (art. 3 (1))**

87. The Committee finds that Czechia was in non-compliance with article 3 (1) of the Convention by not notifying Austria and Germany as potentially affected Parties about the lifetime extension for units 1–4 of Dukovany nuclear power plant in 2016 and 2017.

## **V. Recommendations**

88. The Committee recommends that the Meeting of the Parties:

(a) Endorse the findings of the Implementation Committee that, in accordance with the information provided to the Committee, Czechia was in non-compliance with articles 2 (3) and 3 (1) of the Convention when extending the lifetime of units 1–4 of Dukovany nuclear power plant and preparing the units for long-term operation without applying the Convention;

(b) Welcome the fact that Czechia committed to notifying Austria and Germany ahead of future lifetime extensions of nuclear power plants or significant changes in the licences of the operating units of the nuclear power plants in its territory in accordance with article 3 (1) of the Convention, as was requested by both Parties;

(c) Invite Czechia to continue bilateral consultations and cooperation with Austria and Germany for information exchange in an appropriate way on long-term operation activity of the units of Dukovany and Temelin nuclear power plants;

(d) Encourage Czechia to prepare bilateral agreements on the application of the Convention with Austria and Germany;

(e) Request Czechia to ensure that the Convention is fully applied in the context of any future decision-making regarding any lifetime extension activities of any Czech nuclear power plant, including that:

(i) All impacts of operational states and accidents are properly taken into account during the environmental impact assessment procedure;

(ii) When considering whether the lifetime extension constitutes a major change, the activities implemented to prepare for long-term operation prior to the last licence renewals are taken into account;

(iii) Czechia notifies, in accordance with article 3 (1) of the Convention, any Party which it considers may be affected, including Austria and Germany;

(f) Recommend that Czechia follow the good practice recommendations of the Meeting of the Parties that, given the great public concern and national interests involved when it comes to nuclear energy-related activities, a wide notification, i.e., beyond neighbouring Parties, could prevent later misunderstandings and potential disputes;<sup>53</sup>

<sup>53</sup> Good Practice Recommendations on the Application of the Convention to Nuclear Energy-related Activities (ECE/MP.EIA/2017/10), para. 28, endorsed by the Meeting of the Parties at its seventh session (Minsk, 13–16 June 2017), through decision VII/6.

(g) Welcome the cooperation of Czechia in the proceedings, which facilitated the considerations of the Committee.

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