Report on the complaint made by the Portuguese political party PAN with regard to the implementation of the Aarhus Convention to the renewal of the operating permit of Almaraz Nuclear Power Plant, Units I and II

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1. Prior considerations

1.1. Regarding the planning of the percentage of nuclear power in Spain's electricity supply

Spain's planning in relation to the percentage of nuclear power in its electricity supply is based on the Integrated National Energy and Climate Plan (PNIEC) 2021-2030, which was sent by the Spanish Government to the European Commission on 31 March 2020. The Plan sets forth the contribution of nuclear power to the energy mix, and envisages the orderly discontinuation of operations of Spain's nuclear power plants in the timeframe of 2027-2035.

Taking into account the provisions of the draft PNIEC, in March 2019 Enresa (*Empresa Nacional de Residuos Radiactivos, S.A., S.M.E.*) [National Radioactive Waste Company] and the owners of the nuclear power plants signed a Protocol of Intent setting forth a schedule for the orderly discontinuation of operations of the nuclear power plants that are currently in operation.

The setting of this schedule for orderly discontinuation is based on the need to establish a strategy for the gradual decommissioning of nuclear power plants, because it is necessary to take into account different conditioning factors, such as the capacity to empty the spent fuel pools of nuclear power plants; the time needed for the Spanish Nuclear Safety Council (CSN) to evaluate the corresponding applications for decommissioning permits; the need for nuclear power plants to carry out a series of activities prior to decommissioning, such as the radiological characterization of systems and equipment; the need to have the necessary human resources and specialized technical resources to disassemble some of the largest components of plants, etc.

1.2. Regarding the "design life" and the "useful life" of nuclear power plants

Spain's legal framework on nuclear power with respect to operating permits for nuclear power plants consists, essentially, of Act 25/1964 of 29 April on Nuclear Power, the last review of which was carried out in Act 12/2011 of 27 May on Civil Liability for Nuclear Damage or Damage Done by Radioactive Materials; Act 15/1980 of 22 April on the Creation of the CSN, amended by Act 33/2007 of 7 November; and the Regulation on Nuclear and Radioactive Facilities, approved by Royal Decree 1836/1999 of 3 December and amended by Royal Decree 35/2008 of 18 January.

None of these three legal instruments defines the concept of "design life" referred to in the complaint, or the concept of "useful life" of a nuclear power plant. The only regulatory approximation to these concepts is contained in Instruction IS-22, review 1, of 15 November 2017, of the CSN, on safety requirements for the management of the ageing and long-term operation of nuclear power plants (Official State Gazette [BOE] of 30 November 2017), in which they are defined as follows:

"Design life: With regard to an SSC (structure, system or component), this refers to the operating time, either estimated or calculated in its design, during which it is expected to fulfil its function, in the terms set forth in the bases for the permit.

In the case of Spanish nuclear power plants, the analyses supporting the safety assessment of plants have been carried out on the assumption of a design life of 40 years, following the practice of the country of origin of the design."

...

"Useful (or 'service') life: With regard to an SSC (structure, system or component), this is the period of time from its launch to its withdrawal from service. Useful life may be longer than the original design life, for example, when actual operating conditions have been less severe than those assumed in the design."

With regard to the EU legal framework, the concepts of "design life" and of "useful life" are not defined in Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations, nor in Council Directive 2014/87/Euratom of 8 July 2014 amending the former.

In view of the above, it may be concluded that neither the Spanish legal framework nor the EU legal framework specifies the length of the "useful life" of a nuclear power plant.

1.3. Background with regard to renewals of nuclear power plant operating permits

Initially, in Spain, nuclear power plant operating permits were renewed for periods that coincided with each plant's recharge cycle (18 months in most cases), with the sole exception of the operating permit of Vandellós I nuclear power plant, which—after successive renewals of the provisional operating permit granted by the Decision of the Directorate-General for Energy of 9 February 1972—was granted a definitive operating permit by the Order of the then Ministry of Industry and Energy of 29 April 1982.

Subsequently, the validity period of nuclear power plant operating permits was extended to two years, and in 1995 the CSN decided to amend the system for granting permits, establishing Periodic Safety Reviews to be conducted by plants every 10 years, a period that was made to coincide with the renewal period for operating permits.

Therefore, in recent years, renewals of nuclear power plant operating permits have been granted for 10-year periods. However, this period is not set forth in Act 25/1964 on Nuclear Energy, nor in the Regulation on Nuclear and Radioactive Facilities.

Moreover, EU law on nuclear safety, namely Council Directive 2014/87/Euratom amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations, when referring to nuclear power plant licences, refers to a single permit or licence, and does not envisage the system for renewing operating permits that is currently applied in Spain.

In other words, EU law on nuclear safety envisages—as is the case of other similar countries, or as was the case of Spain in the past with the operating permit of Vandellós I—that the system to grant operating permits to nuclear plants is based on an operating permit granted by the public administration body responsible for energy, and its validity period is conditional on a plant's compliance with the Periodic Safety Reviews established by the regulatory bodies.

2. Regarding the statements made in the complaint regarding the safety of Almaraz nuclear power plant

2.1. Regarding monitoring and control of this plant by the Spanish Nuclear Safety Council

With regard to the issues involving nuclear safety referred to in the complaint, it is considered that it must be taken into account that, pursuant to Spanish law and, in particular, to Act 15/1980 on the Creation of the CSN, this Council is the only body responsible for nuclear safety and radiological protection, and it is independent of the General State Administration and, therefore, of the Government.

As set forth in Act 15/1980, the CSN's reports are mandatory in all cases and, moreover, binding when they are negative or refuse to grant a permit and also, with regard to the conditions they set forth, when a report is favourable.

Regarding the renewal of the operating permit of Almaraz nuclear power plant, it should be noted that said renewal was subject to the mandatory CSN report, dated 6 May 2020, which the CSN sent to the Ministry for Ecological Transition and Demographic Challenges (MITERD), and in which it reported favourably on the application for renewal of the operating permit of this plant, until 1 November 2027 for Unit I, and until 31 October 2028 for Unit II, provided that the operation respected the limitations and conditions contained in the Appendix to said report.

Moreover, irrespective of the CSN's role in the granting of this renewal, it must also be recalled that the CNS's functions include that of inspecting and monitoring nuclear and radioactive facilities during their functioning and until their closure, in order to ensure compliance with all the rules and conditions set forth—both those that are general in nature and those that are particular to each facility—so that the operation of said facility does not constitute undue risk for persons or for the environment, and it has the authority to suspend operations for safety reasons.

To comply with these functions, the CSN carries out whatever audits and periodic inspections it deems necessary and has two inspectors from its technical corps permanently posted on site at the plant; three in the case of plants with two reactors, such as in the case of Almaraz nuclear power plant.

2.2. Regarding renewal of the permit beyond the plant's design life

As indicated above, Spanish law envisages continual monitoring by the CSN of the operating conditions of nuclear power plants, and to this end, said body, within the limitations and conditions of nuclear power plant operating permits, requires each owner of said facilities, individually, to implement a process for ageing management of the plant's components, including management, in the case of long-term operation, beyond the plant's design life.

In this regard, in 2004 the CSN approved the document titled "Conditions for the long-term operation of nuclear power plants", which contains the basic criteria for applying for long-term operation, and the legal and administrative framework for the renewal of long-term operating permits of nuclear power plants.

Subsequently, CSN Instruction IS-22 of 1 July 2009 on safety requirements for ageing management and long-term operation of nuclear power plants (BOE of 10 July 2009) responded to the need to regulate, in general terms, the criteria applied by the CSN to require nuclear power plants to have an ageing management system for structures, systems and components, including in the case of long-term operation.

The content of Instruction IS-22 is developed further by the CSN in its Safety Guide 1.10 (rev. 2) on Periodic Safety Reviews of nuclear power plants, approved by said body on 30 May 2017. Said Safety Guide, following a procedure analogous to that proposed by the International Atomic Energy Agency (IAEA)¹ in its specific safety guide SSG-25, "Periodic Safety Review for Nuclear Power Plants" of March 2013², sets forth that in the case of a Periodic Safety Review (PSR) prior to the long-term operation of the plant, an updated version of the following documents shall accompany said PSR:

- Integrated Ageing Assessment and Management Plan, which must contain Ageing Management Studies and Time-Limited Ageing Analyses.
- Proposed supplement to the Safety Study, which must include the studies and analyses justifying the long-term operation of the plant.
- Proposed revision of the Technical Operation Specifications, which must include the changes necessary to maintain safe operating conditions during the long-term operation of the plant.
- Study of the radiological impact associated with the long-term operation of the plant.
- Proposed revision of the Management Plan for Radioactive Waste and Spent Fuel, corresponding to the long-term operation of the plant.
- 2.3. Regarding the conditions set forth by the Spanish Nuclear Safety Council to issue a favourable report on the renewal of the permit beyond the plant's design life

¹ The same International Atomic Energy Agency referred to in sections 8 and 10 of the complaint.

² https://www.iaea.org/es/publications/10667/periodic-safety-review-for-nuclear-power-plants

The CSN report dated 6 May 2020, in which, as mentioned in section 2.1 hereof, this body issued a favourable report to MITERD regarding the concession of the renewal of the operating permit for Almaraz nuclear power plant until 1 November 2027 for Unit I and until 31 October 2028 for Unit II, includes an Appendix establishing a number of limitations and conditions.

These conditions included the following:

- Any revisions of the documents referenced in the operating permit (such as the Safety Study, the Operating Regulations, the Internal Emergency Plan, etc.) must flag the changes made and their permit applications must be accompanied by a document setting forth the grounds for each change.
- Implementation of any proposals for action resulting from a Periodic Safety Review, adaptation of the Severe Accident Management Guides to the new standard of the Pressurized Water Reactors Owners Group, and compliance with acquired commitments regarding ventilation systems.
- Analyses corresponding to the change in the Fire Protection licence basis to the NFPA-805 international standard, including safe-shutdown studies in the event of fire, both for plants in operation and in other operating modes, as well as the revision of the documents included in the Probabilistic Fire Safety Analysis and risk analysis, and implementation of proposed design modifications.

2.4 Regarding the recent reviews carried out at this plant by international institutions

With respect to this issue, it should be mentioned that, in recent years, Almaraz nuclear power plant has been inspected by the International Atomic Energy Agency (IAEA) and by the World Association of Nuclear Operators (WANO).

In 2018, a team of international IAEA experts carried out an 18-day inspection, or "OSART mission" (OSART: Operational Safety Review Team).³ The purpose of these missions is to conduct an independent and objective assessment of the safety performance of nuclear power plants, following IAEA safety standards, making suggestions and recommendations which are reported to the nuclear regulatory body of the country in which the nuclear power plants have their headquarters (in this case, to the CSN) and to the Government of that country.

In its press release on this mission, the IAEA affirmed that the power plant "demonstrated a commitment to the long-term safety of the plant" and noted "several good practices to share with the nuclear industry globally."⁴

The action plans based on the conclusions of said mission were reviewed and assessed highly positively by the IAEA in 2019, which considered that the matters addressed in the

³ https://www.iaea.org/services/review-missions/operational-safety-review-team-osart

⁴ https://www.iaea.org/newscenter/pressreleases/iaea-sees-safety-commitment-at-spains-almaraz-nuclear-power-plant-areas-for-enhancement

suggestions and recommendations resulting from the mission had been resolved or that reasonable progress had been made towards their resolution.

Moreover, also in 2018, the World Association of Nuclear Operators (WANO) carried out a three-week peer review at this nuclear power plant. The aim of these missions is to assess the safety performance of nuclear power plants by applying WANO safety standards and comparing their practices with the best practices of the global nuclear industry in order to propose a number of areas for improvement. Said areas for improvement are being addressed through action plans that will be reviewed in detail by WANO in 2022.

Within the WANO internal process, this nuclear power plant was assessed highly positively as a power plant at which no noteworthy weaknesses were detected in the operation and functioning of the plant as far as safety was concerned.⁵

- 3. Regarding the need to undertake an Environmental Impact Assessment as part of the process for renewing the operating permit of Almaraz nuclear power plant
- 3.1 Spanish legal framework applicable to nuclear power plants with respect to Environmental Impact Assessment (EIA)

The Spanish legal framework—which is based on EU law both as regards environmental aspects and as regards nuclear power—does not stipulate that renewal of nuclear power plant operating permits must be subject to an Environmental Impact Assessment (EIA).

Regarding environmental aspects, Annex I of Act 21/2013 of 9 December, on Environmental Assessment, which incorporates Directive 2001/42/EC and Directive 2011/92/EU, provides that nuclear power plant projects and the decommissioning of nuclear power plants must undergo an EIA. However, the mere prolongation of the productive activity of a nuclear power plant is not considered in said Annex I as an activity requiring an EIA.

It should be borne in mind that article 5.3.d) of Act 21/2013 of 9 December, on Environmental Assessment, defines an "Environmental Impact Statement" as the "mandatory and decisive report of the environmental body concluding ordinary environmental impact assessment, which assesses the integration of environmental aspects into the project and determines the conditions that must be established for the proper protection of the environment and of the natural resources during the execution and operation and, where applicable, the discontinuation, decommissioning or demolition of the project."

For its part, **all references** to the requirement to carry out an environmental assessment included in Directive 2011/92/EU of 13 December on the assessment of the effects of

⁵ https://elperiodicodelaenergia.com/almaraz-i-el-reactor-nuclear-mas-seguro-de-europa/

certain public and private projects on the environment, which is transposed into Act 21/2013, in sections 1 and 2 of article 4, **refer to projects.**

Therefore, if there is no project, as is the case at hand, neither Spanish environmental law nor EU environmental law require that an environmental impact assessment be carried out.

Regarding Spanish legislation in the sphere of nuclear power, which derives from Spain's being party to the Treaty establishing the European Community of Atomic Energy (Euratom), article 15.2 of the Regulation on Nuclear and Radioactive Facilities provides that the preliminary authorization of a nuclear facility requires the undertaking of an EIA. This means that, in the case of the construction of a new nuclear power plant, the EIA is carried out in parallel with the preliminary authorization procedure of the facility, which is prior to the building permit for said facility.

Once the preliminary authorization for the power plant has been granted, Spanish law does not require a further EIA to be carried out in order to grant any of the other permits required for the initiation of its operation (building permit and operating permit), nor for the successive renewals of the operating permit, until the decommissioning of the plant. In this latter case, projects involving the decommissioning or definitive closure of nuclear power plants require the undertaking of an EIA, pursuant to Act 21/2013, on Environmental Assessment.

From the above it can be concluded that neither the Spanish nor the EU legal framework requires the undertaking of an EIA for the renewal of a nuclear power plant's operating permit. This has been the case with the renewals of nuclear power plants' operating permits granted to date in our country.

This is the interpretation that was given by Spain's National High Court in its Judgment of 30 June 2011 (Appeal 628/2009), regarding Order ITC/1785/2009, which determined 6 July 2013 as the date for the definitive discontinuation of the operation of Santa María de Garoña nuclear power plant, authorizing its operation until said date, a renewal that entailed said nuclear power plant surpassing its design life.

In fact, Conclusion of Law Eleven of this Judgment, regarding the requirement or not to undertake an EIA (a question raised by Greenpeace in this appeal, given that the permit enabled this power plant to surpass its 40-year design life, having begun operations in 1971), affirms that: "By looking at both environmental legislation and that regulating nuclear power, it transpires that although the EIA is essential, at least, for the preliminary authorization or site permit (please note that article 15 of RINR⁶, which governs this matter, is among the few provisions in sector legislation that refer to such an environmental study), as well as for the decommissioning permit (article 30 et seq of the RINR), no provision is made regarding said Environmental Assessment, however, with respect to operating permits nor with respect to the renewal of said operating permits."

Similarly, in this same Conclusion of Law, the National High Court advises: "Please note, moreover, that when the case-law of the Courts refers to analysing the necessity or

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⁶ Regulation on Nuclear and Radioactive Facilities

not of submitting contested administrative acts to an Environmental Impact Assessment, it always refers to "projects" or (new) facilities: two examples, among others, are the Supreme Court Judgment of 26 May 2009 (Appeal 5398/2006) regarding a wind farm and its power-generating facilities, and the Judgment of the Supreme Court of Justice of the Canary Islands (Las Palmas) of 15 January 2010 (Appeal 200/2009) on a road works project."

3.2. Application of the EU legal framework for nuclear safety

The EU legal framework for nuclear safety is set forth in Directive 2014/87/Euratom, which amends Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations.

Directive 2014/87/Euratom, when referring to nuclear power plant licences, refers to a single permit or licence, and does not envisage the system for renewing operating permits that is currently applied in Spain, in which renewal is made to coincide with the undertaking, every 10 years, of a Periodic Safety Review of the power plant.

In this way, while in Spain the current practice is to grant permit renewals, in other EU Member States there is a single permit that remains in force provided that the power plants comply with the safety reviews of their regulatory bodies, in an analogous manner to the Periodic Safety Reviews which the CSN requires Spanish power plants to undergo every 10 years.

Therefore, as in those EU Member States that have established the single permit system, there is no requirement to undertake an EIA for plants that submit to a Periodic Safety Review, irrespective of the operating life of the plant, nor can a new EIA be demanded for renewals of Spanish nuclear power plants' operating permits. Were this not so, this would entail unequal treatment in relation to the possible application of EU Directives.

3.3. Renewal of nuclear power plant operating permits and the purpose of EIAs

The undertaking of an EIA responds to the necessity of assessing the potential impact on the environment of carrying out a project or a substantial extension thereof and, on the basis of said assessment, of modifying said project based on the conditions established in the corresponding Environmental Impact Statement (EIS) or, where applicable, of declaring the project or its extension non-viable due to its negative impact on the environment.

As indicated in section 3.1, this interpretation, as regards the necessity of undertaking an EIA in the case of a project and not in that of a permit renewal, is that maintained in the aforementioned Judgment of the National High Court of 30 June 2011 (Appeal 628/2009).

With respect to EU case law, this interpretation is also reflected in the Judgment of the Court of Justice of the European Union of 17 March 2011, Case C-275/09, which stipulates that: "The second indent of Article 1(2) of, and point 7 of Annex I to, Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment, as amended by Council Directive 97/11/EEC of 3 March 1997, are to be interpreted as meaning that: the renewal of an existing permit to operate an airport cannot, in the absence of any works or interventions

involving alterations to the physical aspect of the site, be classified as a 'project' or 'construction', respectively, within the meaning of those provisions."

Indeed, there is also a Court of Justice of the European Union Judgment of 29 July 2019, in Case C-411/17, although the prejudicial question referred, in essence, to the fact that the Belgian Act of 28 June 2015 prolonged by 10 years the activity of the Doel 1 and Doel 2 reactors—whose useful life was established at 40 years by an Act of 31 January 2003—without the prior undertaking of an EIA or a cross-border consultation, even though the prolongation of life of these power plants involved the carrying out of modernization works considered a project in the meaning of Directive 2011/92/EU.

As indicated in this report, Spanish law does not specify the years of useful life of nuclear power plants, neither did the renewal of the permit of Almaraz nuclear power plant require any substantial modification of the power plant project (sections 1.2 and 2.3).

3.4. Regarding the undertaking of an EIA in a cross-border context

If, as has been demonstrated in previous sections of this report, neither Spanish nor EU law require the undertaking of an EIA with the corresponding public participation in this procedure, then nor can the participation of citizens from other countries be required.

4. Regarding the information provided by Spain to Portugal in relation to the operation of Almaraz nuclear power plant

Notwithstanding the fact that, as has been explained in this report, given that there is no project nor a substantial modification of an existing project and that requiring an EIA in a cross-border context would go against the spirit in which the requirement for such an assessment was introduced in both Spanish and EU law, it should be noted that the Spanish Administration has always kept the Portuguese Administration informed about the operation of Almaraz nuclear power plant.

Among the means used to provide such information is the participation of Portuguese representatives in the Information Committee of this nuclear plant, who are invited by MITERD through the Embassy of Portugal in Madrid.

This Information Committee meets annually at Almaraz Town Hall, and its purpose is to inform the local population on the operation of the nuclear plant during the previous year. Other participants in the Committee include representatives of MITERD, of CSN, of the Directorate-General for Civil Protection and Emergencies, and of the owner of the plant.

Moreover, the CSN—the functions of which, pursuant to Act 15/1980 on the Creation of the CSN (article 2.g)), include, among others "Assessing the environmental radiological impact of nuclear and radioactive facilities and of activities involving the use of ionizing radiation, in accordance with the provisions of applicable law"—provides the Agência Portuguesa do Ambiente immediately with all information

concerning any incidents that occur at the plant, as well as with any other information that may be of interest for Portugal.

THE DEPUTY DIRECTOR-GENERAL FOR NUCLEAR ENERGY

JOSÉ MANUEL REDONDO GARCÍA

(Signed electronically on the date stated in the margin)