The CSN provides users of this website with an unofficial translation of the law in question. You are therefore advised that this translation is for your information only and may not be entirely up to date when you consult it. For official texts, look up the law in the Boletín Oficial del Estado, where you can find laws in any of the official languages of the State of Spain.

CSN

El CSN pone a disposición de los usuarios de esta web una traducción no oficial del texto de la norma de referencia. Se advierte, por tanto, de su carácter puramente divulgativo, y de la posibilidad de que no se encuentre debidamente actualizada en el momento de su consulta. El texto oficial es el publicado en el Boletín Oficial del Estado en cualquiera de las lenguas oficiales del Estado español.

III. OTHER PROVISIONS

SPANISH NUCLEAR SAFETY COUNCIL

856 *Instruction IS-45, dated November 17th 2021, from the Spanish Nuclear Safety Council, regarding safety requirements during the design, construction and operation phases of nuclear and radioactive facilities of the nuclear fuel cycle, to provide for their decommissioning and, where appropriate, their decommissioning and closure.*

In order to harmonise the different European regulations, the Western European Nuclear Regulators Association (WENRA) has established a set of common requirements or reference levels based on international standards, which must be incorporated into the mandatory regulations of the different member countries.

In the preparation of this Instruction, in addition to the generic nuclear safety and radiation protection requirements applicable to all nuclear facilities, the aforementioned reference levels have been taken into account for application to nuclear facilities in their design, construction and operation phases, which are not yet included in the relevant Spanish standards.

Article 2.a) of Law 15/1980, of 22nd April, creating the Spanish Nuclear Safety Council, attributes to this public body the faculty of "drawing up and approving the instructions, circulars and guides of a technical nature relating to nuclear and radioactive facilities and to activities relating to nuclear safety and radiation protection".

Article 12 of the current Regulation regarding nuclear and radioactive facilities, approved by Spanish Royal Decree 1836/1999, dated December 31st, establishes the system of permits required by nuclear facilities: prior authorisation, construction, operation, modification, performance and assembly of the modification, and decommissioning or, in the case of radioactive waste or spent fuel disposal facilities, decommissioning and closure. Articles 14, 17 and 20 of the Regulation also require that the future decommissioning of the facilities be foreseen in advance.

On the other hand, Article 36 "Forecasts during design, construction and operation" of the Regulation on Nuclear Safety at Nuclear Facilities, approved by Spanish Royal Decree 1400/2018, dated November 23, indicates that the licensee of such a facility must establish and maintain a decommissioning plan to take into account the activities required for its future safe decommissioning. The most prominent aspect of the objective of this Instruction is to provide guidelines to foresee the decommissioning of facilities in early stages.

In view of the phase of the lifetime of the facility, the Preliminary Decommissioning Plan, specifically referred to in this Instruction, is the document to be drawn up and implemented during the design and construction of the facility and must be upheld throughout its operation — including the period when the operations of the facility cease — through to the granting of the decommissioning permit or, where appropriate, the decommissioning and closure permit. The Preliminary Decommissioning Plan differs from the Decommissioning Plan in that the latter should be a supporting document for the request for authorisation for the decommissioning. In the case of radioactive waste or spent fuel disposal facilities, the Preliminary Decommissioning Plan refers to the auxiliary facilities

code: BOE-A-2022-856
Verifiable at https://www.boe.es

designed, constructed and operated in support of the disposal system itself.

The Preliminary Decommissioning Plan shall be drawn up and maintained in accordance with the technological, economic and financing forecasts required in articles 14,
17 and 20 of Spanish Royal Decree 1836/1999, the Regulation regarding nuclear and radioactive facilities, in relation to the future decommissioning to be taken into account in requests for the preliminary, construction and operating permits for the facilities. The requirements of this Instruction refer to technological aspects that may affect nuclear safety and radiation protection.

In the case of nuclear facilities, in accordance with Law 25/1964, dated April 29th, regarding nuclear energy, their decommissioning and closure constitutes an essential public service that falls within the responsibility of the Spanish state, making the Empresa Nacional de Residuos Radiactivos S.A. (ENRESA) responsible for its execution. The current strategy contemplated in the PGRR (Plan General de Residuos Radiactivos, the General Radioactive Waste Plan) involves the temporary transfer of the nuclear facilities to ENRESA to conduct their decommissioning and closure.

This Instruction is addressed to the licensees responsible for the prior authorisation, construction and operation of nuclear or radioactive facilities, until the decommissioning or decommissioning and closure permits are granted.

By virtue of the foregoing, and in accordance with the legal authorisation foreseen in article 2 a) of Law 15/1980, dated April 22nd, creating the Spanish Nuclear Safety Council, after consultation with the affected sectors, and following the appropriate technical reports, this Council, in its deliberation of November 17th, 2021, has decided as follows:

First. *Subject and scope of application.*

This Spanish Nuclear Safety Council Instruction is applicable to nuclear facilities and, by extension, to radioactive facilities involved in the nuclear fuel cycle. The purpose of the Instruction is to establish the criteria and requirements for the design of the facilities to provide for their safe decommissioning, and must be applied during the term of the prior authorisation, construction and operation of the facilities, including the period of cessation of operation.

This Instruction does not contemplate the safety criteria and requirements to be applied once the decommissioning permit or, as the case may be, the decommissioning and closure permit, has been granted, in accordance with the terms established in Articles 12.1.f) and 12.1.g) of the Regulation on Nuclear and Radioactive Facilities.

Second. *Definitions.*

The definitions of terms and concepts in this Instruction correspond to those contained in the following provisions:

– The Spanish Nuclear Energy Act, Law 25/1964, dated April 29th
– Law 15/1980, dated April 22nd, on the creation of the Spanish Nuclear Safety Council.
– Spanish Royal Decree 1836/1999, dated 3rd December and approving the Regulation on Nuclear and Radioactive Facilities.
– Spanish Royal Decree 783/2001, dated 6th July, approving the Regulation on health protection against ionising radiation.
– Spanish Royal Decree 102/2014, dated February 21st, regarding the responsible and safe management of spent nuclear fuel and radioactive waste
– Royal Decree 1400/2018, of 23 November, approving the Regulation on Nuclear Safety in Nuclear Facilities.

code: BOE-A-2022-856
Verifiable at https://www.boe.es

In addition, in the context of this Instruction, the following definitions apply (in order of appearance):

Period of cessation of operations: The period that begins after the ministerial declaration of the cessation of operations that terminates the activity for which the facility was conceived. Via the operating permit of the facility, this declaration establishes the conditions to which the activities to be carried out at the facility must conform during the aforementioned period of cessation.

Decommissioning: Combined administrative and technical activities that include the disassembly of equipment, systems and components and the demolition and decontamination of the structures and land of a facility. Decommissioning includes the removal of residual materials and the restoration of the facility site, as well as any other required activity to be executed after the corresponding permit has been obtained. The decommissioning process will end in a Decommission Statement.

Decommission Statement. This is an administrative act which, after completion of the decommissioning activities and verification of compliance with the radiological criteria established for their release, allows the facility to be declassified and releases the licensee from their responsibility as operator of the installation. In the case of restricted site releases, define any applicable use limitations and who is responsible for maintaining and monitoring them.

Closure: This refers to the completion of all operations at some point after the disposal of spent nuclear fuel or radioactive waste in a facility for its permanent disposal; this includes the final engineering or other work required to bring the facility to a safe condition in the long term, which will allow a Closure Statement of the facility to be granted.

Decommissioning strategy: Actions organised for the decommissioning (and, where appropriate, closure) of an installation. Depending on the type and operating history of the installation, as well as other considerations external to the installation, two basic strategies are considered: immediate dismantling and deferred dismantling.

– Immediate dismantling: This is a strategy whereby once the facilities cease to operate, decommissioning activities begin immediately after the decommissioning permit is granted and continue with no significant interruptions until the Decommission Statement is issued.

– Deferred dismantling: This is a strategy whereby the active periods or phases in which decommissioning activities are carried out, are interspersed with inactive phases wherein such activities are suspended, such as waiting or dormancy periods or phases.

Decommissioning Plan: Document (or documentation) that acts as a master plan for the decommissioning process, wherein the planning and foreseen progress of the decommissioning is detailed according to the established strategy. The final Decommissioning Plan (although it may undergo revisions throughout the decommissioning process) must have been drawn up, in accordance with the chosen strategy, prior to the start of the decommissioning activities of the facility, and must be submitted as the documentary basis for the request for decommissioning of the facility required in Article 30 of the Regulation on Nuclear and Radioactive Facilities.

Preliminary Decommissioning Plan: Depending on the phase of the life of the facility, the Preliminary Decommissioning Plan is defined as the document in force during the design, construction and operation phases of the facility, which establishes the strategy and the technological and financial forecasts to demonstrate the viability of its future decommissioning and closure under safe conditions. In the case of radioactive waste or spent fuel disposal facilities, the Preliminary Decommissioning Plan refers to the auxiliary facilities designed, constructed and operated in support of the disposal system itself.

code: BOE-A-2022-856
Verifiable at https://www.boe.es

Relevant modifications: For the purposes of decommissioning, this refers to those design modifications that are implemented in the facility prior to the request for the decommissioning permit and that may incur significant additional doses to the personnel affected by the future decommissioning of the facility, or a significant increase in the generation of radioactive waste. The Spanish Nuclear Safety Council may use Complementary Technical Instructions or other instruments to establish the criteria for determining which design modifications should be considered relevant for the future decommissioning of the facility.

Cessation of operation: The Minister for Ecological Transition and the Demographic Challenge will declare the cessation of the activity for which the facility was conceived, initiating the so-called period of cessation of operation and establishing the conditions to which the activities to be carried out at the facility must conform as from that moment, as well as the period within which the decommissioning or decommissioning and closure permit must be requested.

Third. *Safety management and culture.*

Responsibility.

3.1 Provisions for the decommissioning of a nuclear or radioactive nuclear fuel cycle facility shall be contemplated from the beginning of its licensing. The licensee of the facility is responsible for adopting the necessary measures to facilitate its future safe decommissioning, both in its design and construction phase and during operating activities.

Knowledge and information management.

3.2 The licensee shall ensure sufficient technical knowledge and experience during the lifetime of the facility to allow for safe decommissioning after cessation of operation.

3.3 During the design, construction and operation phases, all information relevant to the future decommissioning of the facility shall be identified and compiled, such as: documents and design modifications prior to the decommissioning request, records on the operating life of the facility, incidents and reportable events, radionuclide inventories, dose rates and contamination levels, documents on the characterisation, conditioning and storage of nuclear substances and radioactive waste generated or managed at the facility, etc.

3.4 The licensee shall ensure that all radioactive wastes present at the facility at the end of its operating lifetime have been inventoried prior to the start of decommissioning.

3.5 Documents and records containing information necessary for the decommissioning of the facility shall be considered permanent records and shall be kept throughout the life of the facility and, if necessary, be transferred to the holder of the decommissioning permit for the facility.

Fourth. *Objectives to be considered during the design, construction and operation phases.*

4.1 The licensee shall take into account the future dismantling of the facility during the design and construction of the installation, as well as in the relevant modifications made during its operation, in order to minimise as far as possible, the doses likely to be received by the personnel affected by its future dismantling and the generation of radioactive wastes.

code: BOE-A-2022-856
Verifiable at https://www.boe.es

4.2 In this respect, the Safety Report in force during the design and construction of the installation should describe, analyse and justify the measures adopted regarding the selection of materials and their finishes, as well as the design features of the systems, equipment and components that facilitate their disassembly, demolition and possible use during dismantling. Particular consideration shall be given to the design of leak detection and collection systems for underground or structurally embedded radioactive fluid conduits.

4.3 Similarly, relevant modifications made during the operation of the installation shall take into account aspects facilitating future decommissioning. Revisions to the Safety Report incorporating such modifications shall describe, analyse and justify the measures taken for this purpose.

4.4 The licensee shall carry out a baseline study of the radiological background of the site before it can be altered by the construction of the facility; this allows for a comparison with the proposed final state of the site following decommissioning of the facility. For those facilities where such baseline studies have not been conducted in the past, those of similar non-impacted areas with similar characteristics may be used.

4.5 During the operation of the facility, the licensee shall establish a monitoring and action programme in those areas within the area under the operator's control that may have been significantly contaminated by different operating events, incidents or accidents involving releases of radioactive material.

Fifth. *Preliminary Decommissioning Strategy and Plan.*

5.1 As of the design stage of the facility, the licensee of the facility, together with the executor of its future decommissioning (ENRESA in the case of nuclear facilities), shall establish a basic strategy for its future decommissioning that is compatible with national requirements and considerations in this respect (General Radioactive Waste Plan).

5.2 The chosen strategy for decommissioning shall include an analysis of the possible options and the expected timeframe for completion, as well as the status and scenario of the intended end use of the site to be released after the closure of the facility. Any option other than immediate decommissioning and unrestricted release of the site shall be justified from a radiation protection point of view.

5.3 The licensee shall work with the organization responsible for its future decommissioning (ENRESA in the case of nuclear facilities) to draw up a Preliminary Decommissioning Plan establishing and documenting the strategy established for decommissioning. The Preliminary Decommissioning Plan shall describe the planned process, with a level of detail that is consistent with the type of facility and the permit it holds.

5.4 If several facilities coexist on the same site, it shall be ensured that the strategy and the Preliminary Decommissioning Plan for each of them have taken into account the possible interactions and interdependencies between their decommissioning processes.

5.5 The Preliminary Decommissioning Plan of the facility shall be submitted in its successive revisions, as support for the requests for the prior authorisation, the construction permit and the operating permit for the facility.

5.6 In the case of radioactive waste disposal facilities, the Preliminary Decommissioning Plan shall refer exclusively to the strategy and process foreseen for the decommissioning of the auxiliary facilities of the disposal system itself and to the declassification or release of the land on which they are located, when it is not foreseen that these auxiliary facilities will remain operative after the Closure Statement.

Sixth. *Contents and revisions of the Preliminary Decommissioning Plan.*

6.1 In accordance with the technological forecasts required in this respect by Spanish Royal Decree 1836/1999, the Regulation on Nuclear and Radioactive Facilities, the Preliminary Decommissioning Plan shall contemplate at least the following during the design, construction and operation phase of a facility:

– The most important nuclear safety and radiation protection aspects during future decommissioning.
– The feasibility that the decommissioning can be executed safely by using techniques already proven or being developed at that time. A generic study on the feasibility of the contemplated decommissioning strategy should be included, taking into account the specific design of the facility.
– The management pathways foreseen for solid radioactive waste and spent nuclear fuel and for the radioactive effluents expected to be generated during future decommissioning.
– Aspects of the operating history recorded during the operation of the facility, especially any events involving releases of radioactive material.
– Any design modifications made that may be relevant to its future decommissioning.

6.2 During the operating phase of the facility, the licensee shall review the Preliminary Decommissioning Plan at least once every ten years (or at the same time as the Periodic Safety Review, and integrated into the same) and update it as necessary. These plan revisions shall in particular consider changes in the operating experience of the facility, in regulatory requirements or in the national strategy reflected in the General Radioactive Waste Plan.

6.3 Following the cessation of operations, the licensee of the facility shall work with the organization responsible for the performance of future decommissioning activities (ENRESA in the case of nuclear facilities) to review the Preliminary Decommissioning Plan, in order to analyse and inventory which existing structures, systems and components may be used during future decommissioning before any of them are removed. In order to ensure the availability of these structures, systems and components when needed, a surveillance and maintenance program should be included in the revision of the Preliminary Decommissioning Plan.

6.4 Within one year of the cessation of operation of a facility, the licensee must submit the revision of the Preliminary Decommissioning Plan to request a favourable appraisal from the Spanish Nuclear Safety Council, and it will remain in force during the cessation period unless the Council authorises an alternative submission period.

Seventh. *Exemptions.*

The licensees of nuclear facilities may request temporary total or partial exemption from compliance with any of the requirements included in the applicable standards within the scope of this Instruction, adequately justifying the reasons for their request and indicating the alternative way in which these requirements will be met, in order to maintain an adequate level of quality and safety.

Eighth. *Infringements and Penalties.*

This Instruction of the Spanish Nuclear Safety Council is binding in accordance with the provisions of Article 2.a) of Law 15/1980, dated 22nd April and creating the Spanish Nuclear Safety Council, meaning that any breach of it will be penalised according to the provisions in Chapter XIV (articles 85 to 93) of Law 25/1964, dated 29th April, regarding Nuclear Energy.

code: BOE-A-2022-856
Verifiable at https://www.boe.es

Single additional provision. *Deadline for submission of the Preliminary Decommissioning Plan.*

Any facilities falling within the scope of Spanish Royal Decree 1400/2018, dated November 23 and approving the Regulation on Nuclear Safety at Nuclear Facilities, which already have a previous construction or operating permit, shall submit the Preliminary Decommissioning Plan to the CSN for its favourable appraisal, under the terms established in Article 5.5 of this Instruction, within eighteen months.

All other nuclear facilities falling outside the scope of the aforementioned Regulation and the radioactive facilities of the nuclear fuel cycle must submit the Preliminary Decommissioning Plan to the CSN for its favourable appraisal within a period of three years.

Excluded from this provision are those nuclear or radioactive facilities of the nuclear fuel cycle for which the decommissioning permit has already been requested.

Single final Provision.

This Instruction shall enter into force on the day following its publication in the "Official State Gazette".

Madrid, November 17th, 2021 —The President of the Spanish Nuclear Safety Council, Josep Maria Serena i Sender.

code: BOE-A-2022-856
Verifiable at https://www.boe.es