OCTAVA REUNIÓN DE REVISIÓN DE LA CONVENCIÓN CONJUNTA				
DOCUMENTO DE PREGUNTAS Y RESPUESTAS AL OCTAVO INFORME NACIONAL ESPAÑOL				
Country	**Article**	**Ref. in National Report**	**Question / Comment**	**Answer**
Australia	Article 22	22.1.11	It is stated that there are not enough Spanish students studying in nuclear related fields to keep up with demand in the industry, despite there being a number of university programs. Is there any specific program to attract more students to study nuclear related courses?	The CSN is promoting a series of actions, as part of its Human Resources (HR) Plan for 2024-2030, to improve the knowledge among the public of the CSN as an attractive place for the development of a professional career. One of these actions consists of informative talks at universities by CSN experts who studied the same degree, explaining the motivation that led them to join the regulator, the process they followed to get there, and the tasks they perform now in their day-to-day work as experts (https://x.com/CSN_es/status/1854880195632628170). Another example is the campaigns on social networks aimed at disseminating the selection process (https://x.com/CSN_es/status/1884173567321129327). The CSN HR Plan for 2024-2030 also offers internships, and the creation of collaboration agreements with universities to incorporate students on internships in the areas of knowledge that are determined. Additionally, there are competitive companies in the nuclear sector within the country, and there may also be job opportunities for those planning to work abroad or in domestic projects related to waste management and decommissioning. For this reason, some Spanish universities offer specialized courses. FOR NUCLEAR ENERGY / ENGINEERING: several universities in Spain offer nuclear energy-related post-graduate studies: Universidad Politécnica de Madrid (UPM): Master's Degree in Nuclear Science and Technology (din.industriales.upm.es) Universitat Politècnica de Catalunya (UPC): Master's Degree in Nuclear Engineering (nuclearengineering.masters.upc.edu) Universidad Politécnica de Valencia (UPV): Master's Degree in Nuclear Safety and Radiation Protection (https://www.upv.es/titulaciones/MUSNPR/) Universidad Nebrija: Master's in Nuclear Technology
France	Article 32	Secion B.3 p.44	Decentralised Temporary Storage facilities are being developped with the necessary safety and auxiliary systems to function independently once each NPP is fully decommissioned. This involves, for the José Cabrera NPP, a potential recovery of the spent fuel containers, which is planned between 2024 and 2029. Could Spain provide an update on the current status and implementation steps for the container recoverability measures at José Cabrera NPP?	Decentralised Temporary Storage facilities are being developed for enabling Enresa, in case of need, to carry out two main functions: 1) on site minor cask reparation and 2) preparting casks for transference to another facility for assemblies recovery. These two referred capabilities are under engineering development with the goal to be availble for operation by 2029.
France	Article 32	Section D.3 p.68	It is indicated in the National Report that during the final decommissioning phase of Vandellós I NPP, expected to start in 2030, the graphite sleeves currently stored in the reactor building pit will likely require specific management measures but no further information is provided regarding their long-term management route. The long-term management route is neither addressed for the graphite from the reactor core. Could Spain indicate RW classification chosen for the graphite cores and sleeves and their associated long-term management routes?	Long term management of the graphite arisen from Vandellos 1 NPP has been subject of analysis during these decades. Enresa actively participates in several international activities in this field. Today, Enresa's preferred option is to continue with the studies to demonstrate the feasibility of its disposal at El Cabril LILW disposal centre, under the conditions and limitations that the authorities may determine.
France	Article 13	Section H.13 p. 197	The National Report mentions a temporary storage facility at the Vandellós I NPP site, expected to start in 2027, notably aimed at housing the radioactive waste arising from the spent fuel reprocessed abroad. The spent fuel from Vandellós I has already been reprocessed in France and no information is provided in the National Report on the associated RW which is to be returned to Spain. Could Spain provide information on the characteristics of the waste resulting from spent fuel reprocessing in France (waste classes and quantities) and the deadline for their return?	Acording to the Spanish radioactive waste classification, RW to be repatriated to Spain as result from the reprocessing, in France, of the SF from the operation of Vandellos 1 NPP is describerd as follows: a) HLW vitrified waste, its conditioning is performed in standardised stainless-steel capsules, occupying an approximate total volume of 13 m3. (National report, pg. 28) b) SW vitrified waste and compacted waste to a total amount of 5 m3. It is foreseen that these wastes will be shipped to Spain once the storage facility is available by 2027.
France	Article 10	Section K p.238	In Section K.2.3, it is indicated that Individualized Temporary Storage (ITS) facilities are programmed to start operating in 2026. However, according to the National Report, in keeping with the schedule for the orderly shutdown of Spanish NPPs established in the PNIEC, construction and assembly authorizations for new full-capacity ITS facilities at Almaraz, Ascó, Cofrentes, and Vandellós II NPPs were submitted in 2023 and are currently under evaluation by the Nuclear Safety Council (CSN). This suggests that these ITS facilities are still in the planning or early stages, pending final approval before construction can officially begin. As such, commissionning of these ITS facilities in 2026 seems as a potential challenge.	The ITS facilities of Ascó and Vandellós II have already received the construction permit by the competent Spanish Ministry, after receiving the CSN mandatory report. The facilities of Cofrentes and Almaraz are at their last steps of approval (expected in February 2025). The construction of the ITS facilities will start early 2025. The documentation for the commissioning permit will be presented for approval at the 2Q25. The commissioning of all the ITS facilities is expected along 2026.

France	Article 10	Section G p. 183	The 7th General Radioactive Waste Plan presented in the National Report is in line with the Spanish National Integrated Energy and Climate Plan 2021-2030 (PNIEC), which sets the roadmap for Spain to meet the European climate and energy targets, as well as with the Protocol for the orderly shutdown of NPPs. The approved plan provides a reference scenario which notably includes a detailed roadmap, summarized in the National Report, with 8 implementation stages foreseen for the DGR development (these extend from a start in 2025 up to the expected closure in 2100 - normal operation of the DGR is planned to start in 2074). Such detailed and integrated programming of Spain's main projects could deserve to be seen as an area of good performance.	Thank you very much for this observation. However, we are aware that the path to licensing a DGR is long and requires a first-class technical and political effort. In particular, initiating the site selection process is the major challenge for the coming years. Spain considers the development of Cigeo in France as one of its international references.
Germany	General	Section A.3.3 - p.31	The licence for dry storage of spent fuel is issued for 20 years. What is the basis for this time period and is there a full new licensing process necessary after the period or is it a less extensive licensing process for a renewal?	In practice, the administrative authorisation for the use of a specific dry storage cask design is established in the regulation through a succession of periods of a maximum duration of 20 years each. This makes it possible to establish a timetable for a "periodic safety review" of the cask design at the end of each period. The applicable regulation establishes the conditions required for the granting of a new period. These conditions include the demonstration that the accumulated storage period has not adversely affected the structures, systems and components of the cask that are important for safety in such a way that compliance with the established safety functions is guaranteed. Such demonstration is done in practice through the establishment of an ageing management programme specific to the particular design of the cask. In the preparation of the applicable regulations, it was taken as reference the duration of the licence periods considered in the regulations of the country of origin of the first cask design licensed for use in Spain, in this case, consistent with the requirements of the US regulations. There is no technical basis for the 20-y's validity. It is the period established at the Spanish regulation (RINR), in line with other countries' regulations. The license renewal process is focused on the life management program evaluation. The level of complexity could depend on the kind of system and other particular conditions. ENRESA has already got the license renewal for the DPT dual purpose metallic casks deployed at Trillo ITS, for a period of 20 years more. It took around one year and a half for the thorough assessment by the Spanish regulator (CSN). The following system that would need a license renewal shortly will be the HI-STORM 100Z deployed at José Cabrera ITS (expected application during 2025).
Germany	Article 10	Section G - p.182	The third stage in the DGR program is the site selection process which is planned from 2029 to 2032. The estimated three-year period seems to be very challenging, please provide further information on the time frame.	The site selection process is not expected to conclude by 2032 but rather at the end of Stage 4, which is anticipated in 2039. Even so, this is also a challenging date to achieve. The process being considered by Spanish institutions involves starting with a blank map, as Germany has done, and progressively narrowing down the areas under consideration through successive stages by applying defined selection criteria. Initially, zones will be excluded due to clear unsuitability from geological, environmental, or socio-demographic perspectives. Subsequently, areas whose analysis indicates greater suitability will be shortlisted. In parallel, it will be necessary to conduct extensive information campaigns and enable the participation of social stakeholders. As a result of this evaluation process, the goal for 2032 is to present a list of a few potential sites for further evaluation in the subsequent stage. This date is an estimate and undoubtedly ambitious, but if Spanish institutions and decision-makers work along these lines, we hope it can be achieved.
Germany	Planned Activities	Section K.2.3 - p.238	Spain decided that Decentralised Temporary Storage Facilities (DTS) are built to store spent fuel till final disposal. Are these DTS financed and operated by the power plant operator and is it planned that the DTS will be operated and further financed by ENRESA after dismantling of the plants in the long term?	DTS are financed by Enresa; however they remain under the responsibility of the NPP owner as long as the NPP remains in operation. Enresa becomes owner of the NPP site and therefore licensee responsible for the DTS after final closure and following a declaration of transfer of ownership, issued by the competent Ministry. As long as there is no DGR in operation, available to accommodate the SF from these DTS, Enresa will be the license holder for these facilities. Once the DGR is licensed and ready to receive the SF, the DTS will be emptied and decommissioned, leaving a green field status at the nuclear sites.
United Arab Emirates	Article 24	Section 24.1.2 Page 140	How does the BDN account for facilities and personnel, including those that may not be licensees overseen by the CSN, licensed by the Ministry for Ecological Transition and Demographic Challenge (MITERD), or under the jurisdiction of Autonomous Regional Governments? Furthermore, how does the BDN ensure the accuracy and reliability of its data, such as through periodic analysis or quality assurance programs?	The records included in the BDN (operated and maintained by the CSN) are provided by approved personal dosimetry services. CSN is in charge of the approval of these services and, in the authorisation, there are different requirements related to the records to be uploaded onto the BDN every month. In fulfilment of those requirements, the records of exposed workers controlled by the approved personal dosimetry services in Spain are registered in the BDN. The CSN has staff dedicated to the control of the periodic analysis and quality of the data stored in the BDN, and additionally, through the inspections conducted to the approved dosimetry services it is checked that the data are recorded according to the quality assurance programme required by the CSN.

United Arab Emirates	Article 19	Page 84	Are "Safety Instructions" the binding regulatory requirements for licensees once they are granted licenses by the CSN? Are regulations therefore issued by a different governmental body? How are they different or do the safety instructions compliment the regulations?	As far as competent authorities for granting licenses, it should be clarified that, as it states on page 85, it is the MITERD –a department of the Spanish Government- the competent authority for granting the corresponding authorisations for nuclear and radioactive installations, except for category 2 and 3 radioactive installations where the responsibility has been transferred to the Autonomous Regional Governments. Therefore, the CSN, as the regulatory body, is not the one who grants licences. However, in the administrative procedure taken, a report must be issued by the CSN in terms of nuclear safety and radiation protection, with binding status if it constitutes a refusal, or with regard to the limits and conditions imposed in the event of approval. Having clarified that, the legal framework regarding nuclear safety and radioactive protection and specifically the regulatory framework governing the safe management of radioactive waste and spent fuel is integrated by laws, royal decrees and safety instructions. Laws are approved by the Parliament. Royal Decrees are approved by the Government. The Safety Instructions are approved by the CSN. Laws, royal decrees and safety instructions are binding for authorised parties. In general terms, safety instructions complement the regulations on this matter.
United Arab Emirates	General	Annex F Page 285	How are the roles and functions of the Inspection Unit maintained and integrated with the other roles and functions under the General Secretariat (Technical Directorate of Nuclear Safety and Technical Directorate of Radiological Protection). Also, are resident inspectors part of the inspection unit?	The Inspection Unit's main function is to provide a general overview of the CSN comprehensive inspection programs according to its statute, the Organisation Manual, and the Policy on Inspections and related procedures, as well as to provide feedback and statistical reports about them. The Inspection Unit has no inspectors. All inspections are performed by resident inspectors on site (NNP) and headquarters-based specialist inspectors who belong to both technical directorates, as well as inspectors from the autonomous communities of Spain (only for radioactive facilities). For the latter, the Inspection Unit also performs *ad hoc* internal audits. The Inspection Unit manages the Spanish reactor overview program (SISC) in coordination with the Nuclear Safety Directorate, and leads the periodic SISC self-assessment. The Inspection Unit is also responsible for public information and communication over inspection reports and findings on the CSN web page (www.csn.es/sisc), in coordination with both technical directorates and the CSN press department.
United Arab Emirates	Article 19	Page 86	Could you please elaborate on the regulatory oversight of facilities especially with regard to radioactive waste management, effluent treatment systems, radiation monitoring, radiation protection, etc. at power plants. Section 23.2 Page 136 includes a few, however, more comprehensive overview of the inspection programs and their scope would be appreciated.	For radioactive effluents: Within the Inspection Plan of the Integrated Plant Supervision System (SISC), the internal procedure PT.IV.251 rev3 "Inspection on the treatment, surveillance and control of liquid and gaseous radioactive effluents in nuclear power plants" revised in Nov-2023, aims to establish a general system for the preparation and development of inspections by the CSN. These inspections are related to the treatment, monitoring and control of liquid and gaseous radioactive effluents. For radioactive waste, supervision is carried out by reviewing the periodic information submitted by the licensees (monthly and annually) and also by inspections. The latter are carried out following the annual inspection plan of the Integrated Plant Supervision System (SISC), and are carried out biennially for facilities in operation and annually for facilities under decommissioning. The scope of these inspections includes: the generated waste streams, clearance, waste treatment systems and waste storage systems.
Finland	General	A.2.2	What effects has the abandonment of the Centralised Temporary Storage had on the overall waste management framework and plans in Spain?	The strategy involves: i) Storing Spent Fuel (SF), high-level waste (HLW) and special waste (SW) in Individualised Temporary Storage (ITS) facilities at NPP sites. Therefore, full capacity ITS facilities (called ITS-100) must be set up, additionally to the existing ones, to allow the dismantling of Almaraz NPP as well as the operation and dismantling of Ascó I & II, Cofrentes and Vandellós II NPPs. ii) Upgrade of ITS facilities into Decentralised Temporary Storage (DTS) facilities for every NPP with SF, providing for means to allow the recoverability function at the level of casks: a) for operating NPPs before the dismantling of the pool; for José Cabrera NPP, between 2025 and 2029 and; for Sta María de Garoña by 2026. iii) Setting up of means necessary to keep recoverability function at the level of fuel assembly at one of the NPP sites by 2031 (hot vault, lab, storage capacity). iv) Setting up of a Temporary Storage facility in Vandellós I by 2027 to accommodate the return of HLW and SW resulting from past reprocessing
Finland	General	A.2.5	Knowledge management process is described. How has Spain managed to maintain or gain competencies in the light of the coming nuclear phaseout?	Despite the possible phasing out of nuclear power plants, Spain continues to maintain training capabilities, attraction talent, and support nuclear energy CHAIRS and universities. Enresa interacts with CSN and nuclear power plants to improve the processes of transition from operation to decommissioning, including aspects related to personnel and their qualifications. Enresa hires personnel for new decommissioning operations, such as the current NPP Santa Maria de Garoña, and has a powerful on-site training program for the different stages and operations to be carried out in dismantling. They are based on lessons learned in previous decommissioning operations.
Finland	General	B.3	It is told that a 10-year monitoring period is in place after decommissioning activities before declaration of final decommissioning. What is the aim of this 10-year period?	This period is aimed to actively monitor the site to ensure fulfilment of radiological conditions along time, before declaration of final recommissioning and subsequent site release
Finland	General	D.3	Could you describe the waste characteristics of wastes originating from the Juzbado Fuel Element Factory?	RW is currently generated at the Juzbado Fuel Element Manufactoring facility as result of the manufacturing of such nuclear fuel assemblies. These wastes are mainly LILW and VLLW, suitable for disposal at El Cabril LILW disposal centre.

Luxembourg	Planned Activities	Section K.2.1., p.238	We understand from the report that implementation of the Directive 2013/59/Euratom is not yet complete. What is still required to completely transpose the directive (except modifying Regulation on Nuclear and Radioactive Facilities (RINR)) and what is the timeframe for complete transposition?	After the endorsement of the Regulation on nuclear and radioactive facilities, and other activities related to exposure to ionizing radiation by Royal Decree 1217/2024, of 3rd December, it is just pending the transposition of some sections of Article 102 of Directive 2013/59/Euratom. To that end, an ad-hoc proposal of Royal Decree is being drafted after having analyzed the results of the public consultations carried out in late 2024. Therefore, Spain expetcs to finish transposition by 2025.
Luxembourg	Article 28.1	28.1.4., p. 229	It is stated that “In the exercise of these functions, when it encounters situations involving radioactive sources or equipment in disuse, the CSN urges the Licensees of the facilities to remove them in accordance with the channels provided for in the regulations, and supervises the performance of these actions”. Is the removal based on a legislative requirement, as for HASS sources, or is it more like a recommendation from the CSN?	Article 55.d) of the *Royal Decree 1217/2024, of 3 December, approving the Regulation on Nuclear and Radioactive Facilities and other activities related to exposure to ionising radiation* establishes the following: It shall return any disused source to the supplier without undue delay, by prior arrangement with the supplier, or transfer it to a new Licensee taking into account the provisions of point (f). In any event, the agreements with the supplier shall include the economic conditions accepted by the Licensee for the return of the source to the supplier. Where such return or transfer is not possible, the Licensee shall transfer the disused source to the Licensee of an authorised facility for management as radioactive waste. Therefore, it is not a recommendation as it is a legal provision included in the national regulatory framework.
China	Article 21	F21.2,P119,para 2	The report points out that during this performance period, Spain has undergone significant changes in its civil liability system for nuclear damage, mainly manifested in the Paris Convention on Third Party Liability in the field of Nuclear Energy and the Brussels Convention complementary to the former. At the same time, the statute of limitations and compensation amounts for nuclear damage accidents have been determined. May I ask if there have been any examples of nuclear damage compensation or related events that have occurred in the more than three years since the above regulations were passed? If so, please briefly describe their causes, current progress, and results.	Liability amounts, limitations and prescription periods established in the Law 12/2011 are not based on experiences nor precedents of nuclear damage and claims thereof, but just fully aligned to provisions in Paris and Brussels Conventions.
China	Article 32.1.1	B.5, P52, Para5	It is stated that "Efforts continue to be made to optimise vault occupancy by applying technologies and volume reduction, declassification and decontamination equipment. The approaches to be promoted with regard to volume reduction include in particular the drying of waste, treatment by means of smelting large-scale equipment and components, and waste declassification projects. Improvements in radioactive waste characterisation and package measurement Techniques". Please introduce the specific improvements in radioactive waste characterisation and package measurement techniques.	Regarding improvements in characterization methods, this is a very broad question. Since Enresa acts both as a waste producer during dismantling and as a supervisor of waste for final disposal, different techniques have been progressively improved depending on the specific process to be addressed: - Waste Classification in Dismantling Processes. Dismantling is an industrial process that requires the systematization of several key activities, such as characterization for waste classification (declassifiable, VLLW, LLW, ILW). This classification can be performed either at the same site where the elements to be measured are being disassembled or in dedicated workshops. The process must ensure the correct classification of materials as quickly as possible while maintaining process robustness. The use of high-efficiency equipment, scintillation crystals, or visual tools such as gamma/Compton cameras, which enable a rapid graphical/visual classification, is essential to industrializing the process. o Waste release. Waste declassification is the process that achieves the greatest reduction in waste by releasing it from regulatory control. As a result, significant efforts are being made to improve radiological characterization processes for clearance. One key advancement is the simultaneous use of multiple high-purity germanium detectors to measure large containers instead of the conventional 220-liter drums, which are impractical for dismantling due to their small size. This approach allows for the acquisition of multiple spectra, enabling efficient characterization and compliance with the stringent declassification limits. Additionally, the use of lead-shielded chambers, where the container is placed for measurement using plastic scintillation crystals covering all six sides, significantly enhances measurement efficiency. This setup allows the
China	Article 11	H.11.2,P188,Para6	It is stated that "In the case of power plants in operation, the Nuclear Industry Forum and the CSN have developed a methodology which applies to the declassification of four streams of materials: scrap metal, resins, activated carbon, and timber. Enresa applies the same methodology to its decommissioning projects underway, with the amounts of declassified materials generated by 31 December 2023 - 93,023 tonnes". Please provide an example of the declassification process and destination after declassification for the above wastes.	Nuclear operators, jointly with CSN, have developed corresponding methodologies for RW minimization by clearance. These are applicable to several waste streams. As example, for optimization of clearance processes and methodologies, Enresa has just installed for servicing the Santa Maria de Garoña NPP decommisisoning project a free release chamber, a 4π geometry (shielded) measurement system based on plastic scintillation detectors capable of determining the distribution of isotopic activity and its quantification in measurement times of 30-60 seconds with efficiency detection at clearance levels.
China	Article 15	H.15.1, P205, Para2	Section H.15.1 mentioned that "the CSN is in the process of revising the RINR, one of the aims pursued being the development of a process for the authorisation of nuclear radioactive waste management facilities, to compile the experience acquired with the existing regulations and speciffcally to incorporate those safety and radiation protection aspects deemed necessary, and for which have not yet been established". Please introduce the specific contents of the "safety and radiation protection aspects deemed necessary but not yet established".	With the publication of the new *Regulation on nuclear and radioactive facilities and other activities related to exposure to ionising radiation* (RINR), the information to be submitted by the licensee when requesting the authorisation prior to the construction of nuclear radioactive waste facilities has been extended to include in the Preliminary Descriptive Report, a Preliminary Decommissioning and Closure Plan which shall also include an estimate of the types, quantities and composition of the wastes that might be produced during the construction, operation and decommissioning phases. Furthermore, in the case of radioactive waste disposal facilities, the Construction permit must include the Waste Acceptance Criteria, describing the characteristics and limitations of the radioactive waste, in accordance with the results of the safety assessment of the facility. Radioactive waste management facilities must adapt the conditioning of radioactive waste to comply with these Acceptance Criteria in order to be disposed at the disposal facilities.

China	Article 13	H.13.1.1, P195,Para 5	It is stated that "The only plans made for such an increase in LILW storage capacity are at El Cabril Disposal Facility, bearing in mind that it has in place treatment and conditioning, temporary storage, waste quality verification and other ancillary systems. Meanwhile, since the installations available there for very low-level waste would continue to operate during this period, the increase in capacity at the site itself will avoid the duplication of operating costs". Please introduce the main work content, object and workflow of the waste quality verification system at the El Cabril disposal facility.	Quality control in package production is achieved by monitoring the production process in accordance with the Waste Acceptance Criteria (WAC). This begins with the development of a Package Specification (PS), in which the producer details every aspect to be verified for the waste form, including the waste stream, treatment method, condition, and characterization. The PS undergoes an approval process—supported by surveys and supplementary tests performed by external laboratories—that confirms compliance with the required criteria. Once approved, ongoing controls are implemented to ensure the process remains consistent with the established specifications over time. Two main types of quality control measures can be implemented: On-Site and Off-Site Controls (O&OC) and Laboratory Controls (LC). O&OC are designed to inspect various aspects of the producer's package streams through a series of surveys, such as off-site documentation reviews, on-site inspections of production means, process surveys, waste verification, and activity measurements (both on-site and off-site). Laboratory Controls focus on data validation by measuring the properties defined in the WAC. These include non-destructive tests (for mass, dose rate, package integrity, gamma spectrometry, etc.) as well as destructive tests (for radionuclides that are difficult to measure, core sampling for mechanical tests, leaching tests, and so on). Optimizing and integrating these controls to cover all waste streams from every producer within a defined timeframe would be highly desirable.
China	Article 28	Section J, P232, Para2	It is stated that "In the event that the source detected among the metallic materials is not of national origin, the costs deriving from its management will be borne by the affiliated companies, without prejudice to their passing them on, where appropriate, to the supplier or shipper of the metallic materials to be recycled." In addition to the management costs, for such orphaned radioactive sources, who is responsible for the cost of disposal of the radioactive source? ?	The definition of "FINANCIAL RESOURCES" for the management of "orphan sources" has been established within the Article 19 of Royal Decree 451/2020, of March 10, on "control and recovery of orphan radioactive sources". The definition states that: "The costs derived from the management of orphan sources, as well as the interventions for the recovery of these sources or to deal with radiological emergencies caused by them, will be borne by the last holder of the source in the event that this holder can be identified; if this is not possible, the costs will be assumed by the operator or, failing that, by the owner of the installation in which the source was detected, except to the extent that section 8 of the sixth additional provision applies of Law 54/1997, of November 27, of the Electrical
China	Article 16	H.16.2.1,P212, Para 3	About the "Experience regarding the methodology for the acceptance and quality of waste packages," please introduce which items need to be tested according to the waste packages acceptance criteria and what characterization methods are used.	Enresa's methodology for acceptance and quality of waste packages relies on implementation of two types of Quality Controls: 1. On-Site, Off-Site Controls, O&OC. Off-Site Process Audit. On Site Resources Control. On site Waste Audit. Off Site Inspection Control. On/Off site Activity Control. 2. Laboratory Controls, LC. Non-Destructive Laboratory Control. Destructive Laboratory Control.
China	Article 10	G9.6, P183, Para2	It is stated that "Furthermore, the detailed site characterisation plan and the underground laboratory and surface support facilities project will be submitted to the CSN for evaluation, and the processing of the environmental assessment of this project will be initiated." During the site selection and environmental impact assessment public notice for spent fuel or radioactive waste disposal facilities, is it possible or has there been interference or influence from extreme environmental or animal protection organizations? If such issues exist, how can they be addressed?	In Spain, as in many other countries, some non-governmental organizations (NGOs) are dedicated to environmental protection and animal rights. Some of these organizations are very active in engaging with environmental impact assessments (EIAs) for projects, raising questions or challenging proposed solutions. The purpose of an EIA is precisely to subject projects to scrutiny and to facilitate the opportunity for social stakeholders to express their concerns and propose alternative solutions. When the EIA for the DGR project is undertaken, public questions or comments will be addressed, as has been the case so far with other nuclear-related projects.
China	Article 32.2.1	D.3.P69, Para2	It is stated that "The power plant has its own liquid and solid waste treatment facilities which have remained in use following cessation of operations at the plant". Please introduce in determining the use of the original waste treatment system of the nuclear power plant to treat the waste generated during decommissioning, has the necessary safety evaluation, technological upgrading or key equipment upgrading been undertaken, and who will bear the relevant costs?	Responsibility and cost of any activity during the decommissioning stage bears on Enresa as licensee and solely responsible entity. About the case of Jose Cabrera NPP decommissioning project, Enresa took benefit of existing waste treatment facilities without major modifications so they have been servicing the project until they dismantled.
China	Article 32.1.3	Section B, P46, Para.1	It is stated that "In addition, significant quantities of tailings have been produced in Spain as a result of uranium mining and the manufacturing of concentrates (of the order of 77 million tonnes of mine tailings and some 14 million tonnes of process tailings on 31 December 2023), with low radioactive content and which, depending on their concentration,require specific management action. In most cases, on-site stabilisation has, to date, been the preferred management method". Please provide an introduction to the stabilization practices for existing tailings. If the practices include decommissioning or recycling, please supplement with an explanation of the relevant practices.	Most of these referred projects were carried out during the 90's and early 00's. Designs and technologies used at that time took similar projects in the United States as main reference. Reuse and recycling of components and installations was extremely limited. Some elements of such installations were segregated, treatment and conditioned for disposal at El Cabril LILW disposal centre (detailed list can be found at Third Spanish National Report for the Joint Convention, 2008, pg- 39-41)

China	Article 11	H.11.2, P 188,Para 5	It is stated that "Meanwhile, the Licensees of nuclear facilities undertake declassification projects implementing the requirements of CSN Instruction IS-31, and criteria for the radiological control of waste materials generated at nuclear facilities". Does "declassification" mean the same thing as "clearance"?Which radioactive materials are directed to be clearance by the above laws and regulations? Which items are currently being applied to? Are there any relevant cases? In addition, how is the clearance of liquid radioactive materials considered?	In the context of this Report, "declassificaction" should be understood as "clearance". Materials that become candidates for clearance - threfore, release- are those which activity limits might be close to the clearance levels. Any kind of material -metals, concrete, plastics.. - can became candidate. This approach and methodology is specially relevant for the managment of metal waste. In Spain, in general, clearance practises are not applicable to liquid waste
China	Article 32.1.2	B.4.1,P47, Para3、4	It is stated that "Maintenance of SF, HLW and SW management capacity at nuclear power plants by means of ITS;Start-up of a DTS for SF, HLW, and SW at each nuclear power plant with spent fuel. Each plant s DTS will consist of its ITS or, where appropriate, its ITSs, plus a new complementary facility or additional measures allowing maintenance and repair operations to be carried out on its casks to guarantee the cask-level recoverability function". What pre-treatment or conditioning is required for HLW and SW prior to temporary storage? What are the acceptance requirements for different types of HLW and SW in DTS?	Beyond SF, only HLW and SW that may need to be stored at DTSs will be those RW that, arising from the decommissioning of each NPP, will belong to such RW classes. It is foreseen that only minor inventories of HLW and SW will be generated by each decommissioning project. Before storage, those RW require of proper segmentation to be emplaced in corresponding adapted casks. As far as it is intended that will be a temporary case, there are no other specific requirement that those applicable to the casks housing SF.
China	Article 32.2.3	D.1.2, P6 1-66	Section D.1.2 describes the Independent Temporary Storage (ITS) facility for dry spent fuel storage in Spain, are the ITS facilities designed differently for different nuclear power plants? What's the difference?	Design of each ITS responds to the characteristics and needs of related NPP (fuel type, size of inventory, dedicated site constrains…)
China	Article 14	H,P203,Par a.4	The Vault 31 is in the licensing phase, and incorporates certain improvements. Please introduce what the specific improvements are.	Cell 31 for the disposal of VLLW is very similar in design to preceeding Cells 29 and 30. Main comon features are: 1) Similar Cell dimensions 152m (L) x 45m (B) x 6m (H) 2) Upper perimetral berm (9-17m wide) for circulation and maneuvering 3) Upper deck during operation Main innovations are: a) Access ramp to the bottom of the cell b) One cell and one line for operation. V = 36.000 m3
China	General	A.3.4,P33, Para.7-9	The report mentions that disposal of disused sealed sources have been carried out, could you introduce the condition method of the sources before disposal, same isotope in one package or different isotopes in one package, or mixed with other radioactive waste.	The sources are conditioned by placing them inside a drum and subsequently blocking them with mortar or concrete. Typically, to optimize volume, they are placed together with other metallic waste to ensure the drum is as full as possible, since the sources themselves usually occupy very little space. Additionally, efforts are made to ensure that either the aggregates, the hydration liquid, or both, used in the mortar or concrete for blocking the main waste (sources plus metallic pieces), are also radioactive. Different sources containing different isotopes can be conditioned together in the same drum. The only requirement is that their half-life must be shorter than that of Cs-137. In other words, sources with a half-life greater than 30 years cannot be conditioned and disposed.
Russian Federation	Article 26.1	26.1 p. 152	Which organization is responsible for planning and performing radiological characterization of the facility for its decommissioning after the end of its operational life?	The Regulation on nuclear and radioactive facilities and other regulated activities (RINR) requires that the operator, as part of the documentation necessary to obtain the siting authorisation, submits an Initial Decommissioning Plan including the necessary information for the facility's safe future decommissioning. This plan is developed in the CSN Safety Instruction No. 45, which specifies that it must be prepared by the operator in collaboration with Enresa. The Initial Decommissioning Plan includes provisions for the design and execution of the characterisation of the facility for its future decommissioning, and states that it shall be updated throughout its operational phase. When the plant ceases operation, the transition phase begins, during which the preparatory activities are carried out. These preparatory activities include the collection by Enresa of the available characterisation data, which serve as the basis for the design of the Final Decommissioning Plan to be submitted as part of the decommissioning authorisation request. Once the decommissioning authorisation is granted and the ownership of the installation is transferred to Enresa, Enresa assumes the responsibility for performing the radiological characterisation of the facility until its license termination.
Russian Federation	Article 32	D.5 p.77	What is the release scenario with final restrictions on use envisaged in the Site Restoration Plan of José Cabrera NPP?	Foreesable end point for Jose Cabrera NPP site after decommissioning declaration is industrial use
Russian Federation	Article 32	D.5 p.77	What particular radiological criteria have been applied to release part of or the entire José Cabrera site?	To date, Jose Cabrera NPP site remains as nuclear site so release (total nor partial) has not happened yet.
Russian Federation	General	Section B.4.1	Could you clarify what storage period for SNF is envisaged in decentralized storage facilities at NPPs described on page 47 of the NR?	SF will be stored in DTS facilities until the Deep Geological Repository comes into operation, planned for 2073 for economic calculations and planning purposes.
Russian Federation	General	Section H	Could you please clarify the exact composition of the coverage layers specified on page 197 of the NR for use in the closure of RW storage facilities?	Enresa has developed a long term coverage system aimed to isolate the VLLW disposed of in the cells from the people and the environment. Coverage layers are as follows (see supporting document).
Russian Federation	General	Section H	Could you please clarify for what period of time it is planned to issue a license for the operation of the temporary RW storage facility at the Vandellós I NPP site mentioned on page 197 of the NR?	The 7th GRWP includes the start-up in 2027 of a temporary storage facility at the Vandellós I NPP site to house the radioactive waste from the SF reprocessing.

Armenia	Article 28	Section J. Disused sealed sources; 28.1.7.	Are there any inspection and/or control procedures conducted by the regulatory body in metal scrap and/or recycling companies, particularly regarding the handling of radioactive materials? Specifically, how do these procedures apply to organizations that have signed the Protocol versus those that have not?	*Royal Decree 451/2020 on the control and recovery of orphan radioactive sources* is the Spanish regulation that transposed the European Union Directive 2013/59/EURATOM on this subject. Article 20 of RD 451/2020 indicates that "All activities and entities mentioned in this Royal Decree will be subject to the inspection regime that is the responsibility of the Nuclear Safety Council, by the provisions of Law 15/1980, of April 22, on the creation of the Nuclear Safety Council, without prejudice to the powers of other departments and the autonomous communities." Therefore, the CSN conducts inspections regardless of whether or not a company is attached to the Collaboration Protocol on the Radiological Surveillance of Metallic Materials. The scope of these inspections is limited to verifying compliance with RD 451/2020 by companies dedicated to recycling metallic materials.
Türkiye	Article 22	Section F, page 132	"In Availability of Financial Resources -a) Which instruments are you using to evaluate the fund (i.e. equities, bonds, etc.) and what are the their limitations (i.e. max 30% of equities, 10% real estates etc.)? -b) Why the dismantling and decommissioning or closure of radioactive facilities in the nuclear fuel cycle are not covered by the Fund? How do you calculate the guarantees they pay? -c) Are the GRWP estimated cost and fund total value published publicly? If so, how can we find the documents? -d) How do you choose the Fund Monitoring Committee? -e) Does ENRESA (as government body) manage the fund, or a private fund managers/company manage the fund? "	a) Enresa is responsible for management of the Fund, the prevailing principles being security, cost-effectiveness and liquidity. As repeatedly stated in successive national reports, the endowments of the Fund may only be assigned to cover the cost of actions set out in the GRWP. Supervision, control and rating of transitional investments made by the Fund are the responsibility of a Committee for Tracking and Control attached to the MITERD through the State Secretariat for Energy and governed by Royal Decree 102/2014. This Committee must draw up biannual reports covering the status of the Fund and the investments corresponding to its financial management, along with the rating attributed to fund management, setting out any observations it might deem appropriate. These reports are submitted to the MITERD, the Ministry of Science, Innovation and Universities and the Ministry of Finance. In addition, Royal Decree 102/2014 establishes the obligation on Enresa to present the following reports to the MITERD (which is responsible for strategic management and monitoring and control of Enresa's actions and plans, both technical and economic, via the State Secretariat for Energy): • During the first half of each year: - A memorandum including technical and economic aspects regarding activities in the previous financial year. - An updated economic/financial study on the cost of the activities covered by the GRWP, including remuneration for plan management activities. • By 30 November each year: a technical/economic justification of the annual budget corresponding to the next year and the forecast for the three following years. In the event that, on an exceptional basis, it should prove necessary to cover costs not provided for in the aforementioned economic/financial study, Enresa would first be required to submit the corresponding justification.
Belgium	Article 27	p.223	One notices that, Sweden, France and Belgium shipped to Spain waste resulting from decontamination, cleaning, melting or treatment activities. One waste stream is clearly identified as originally coming from a Spanish nuclear power plant. However, the origin of other waste streams is not clearly specified and one doesn't know if Spain is the producer of the waste. Can you please specify the origin of other waste streams? If relevant, this could be considered as a suggestion for clarification.	In all cases reported, a Spanish NPP is the origin of the returning waste.
Belgium	Article 27	p.223	One may understand that Spain somehow relies on other countries for the treatment of some of its national waste streams. Can you please detail to what extent Spain relies on treatment facilities of other countries for the treatment of its national waste streams? Are waste streams specifically concerned? If a kind of dependency is actually highlighted, considering the increase of decommissioning activities in the next decade due to Spain complete phase-out by 2035, do you intend to reduce this dependency by developing your own specific waste treatment capcity? If relevant, this could be a ssugestion for improvement.	It is planned to keep sending contaminated metallic materials abroad for volume reduction and cleaning purposes as long as it compensates economically. Alternative management routes for such streams are under technical and costs analysis, such as the potential installation of a mobile plant at dismantling NPPs, but both the investement/operative costs and secondary waste generated must be taken into account.
Belgium	Article 32	p. 69, p.78	Spain has several units in decommissioning phase. Was or is a Full System Decontamination (also called Chemical System Decontamination, aiming notably at decreasing the exposure of workers to radiation during future dismantling operations) foreseen for the primary circuits of these units? If yes, do you have treatment facilities to manage the specific type of waste coming from this decontamination process (e.g. highly radioactive spent ion resins, with potentially different characteristics than resins from normal NPP operation)?	Chemical System Decommissionig was carried out for the primary circuit of Jose Cabrera NPP as part of the preparatory activities within the decommissioning project. RW resulting from such process were conditioned for further disposal at El Cabril LILW disposal facility.
Belgium	General	p.32	Section A.3.3 addresses the ageing of radioactive waste management facilities and spent fuel casks. For storage facilities, among all the credible ageing effects (see for instance NUREG-2214), what are the ones which present the higher risk in your situation and why ?	Currently, no outstanding aging effects have been identified that present a higher risk than other countries' experiences. Possibly, the ITS facility that will be built at Vandellós II site, with marine environment, could present a harsher environment for casks that are expected to be deployed there. However, the materials chosen for those casks have an improved behavior against SCC-induced issues.
Belgium	Article 13	H.13.1.1, p.196	It appears that the El Cabril Disposal Facility is of great importance for the radioactive waste management in Spain. Enresa recently formally requested the construction of 27 new disposal vaults on the Southeast Platform of El Cabril. Concerning the continuous expansion of El Cabril, what are the main challenges regarding engineering, environmental impact, and safety provisions when planning for the expansion construction? To what extent were these expansions planned at the conception of El Cabril?	Spain made the prudent decision to deliver to Enresa a property and site much larger than the initial national inventory estimates for LILW and VLLW -Enresa occupies today 30 hectares of the 1,320 Ha-. Both expansion - contruction of a dedicated area for VLLW and construction of the Southeast platform for LILW- don't impose additional charges from safety and environamental perspective as the initial reference inventory is still in force. Such expansions eable Enresa to continue delivering the public service for which its entrusted as well as take benefict of existing infrastructure, site knowledge and social understanding

Belgium	Article 19	E.19.2, p.91	The Royal Decree 1029/2022, of 20 December, adds requirements for exposure to natural radiation, notably radon gas. "It establishes the reference level for radon concentration in enclosed areas and specifies the obligations regarding compliance with this level." How is compliance with the radon concentration level in enclosed areas verified? By which authority? Are the obligations only for occupational exposure?	"Article 75. Obligations of the licensee: The licensees of work activities carried out in the workplaces listed below must estimate the annual average concentration of radon in the air in all areas of the workplace where workers are required to remain or to which they may have access due to their work, excluding outdoor areas: a) Underground workplaces, such as construction sites, tunnels, mines, or caves. b) Locations where groundwater is processed, handled, or utilized, such as thermal activities and spas. c) All workplaces located in below-ground or ground-floor levels within the priority municipalities referred to in Article 79 [Article 79 requires the Nuclear Safety Council to publish a list of municipal terms of priority action]. When any area of a workplace has radon concentrations in the air that, on an annual average, exceed the reference level of 300 Bq/m³, the licensee of the work activity must take appropriate measures to reduce the concentrations and/or exposure to radon, in accordance with the optimization principle. After implementing these measures, the annual average radon concentration in the workplace air must be reassessed. If, despite the measures taken under section 2, any area of the workplace specified in section 1 continues to have radon concentrations in the air that, on an annual average, exceed the reference level of 300 Bq/m³, the licensee of the work activity will be subject to compliance with Article 19 [Article 19 establishes stricter measures of radiation protection to be complied by the licensee under the supervision of the Nuclear Safety Council] and other applicable articles. Article 76. Assessment of the annual average radon concentration. i) The assessment of the annual average concentration of radon in air required by article 75 will be undertaken by the licensee of the work
Belgium	Article 19.2.6	E.19.1, p.85	The report indicates that Category 2 and 3 radioactive installations are licensed by the Autonomous Regions. Please explain how uniformity in safety standards and inspections is ensured across regions? Are there mechanisms to reconcile potential discrepancies in regional implementation? Is the CSN responsible for avoiding any discrepancies?	The CSN has the power to entrust regions with the function of performing tasks on behalf of the Council. Function assignments have the objective to enhance the performance of the CSN's functions through the use of regions' capabilities. The assignment of functions is a system of cooperation between the CSN and the different regions for the performance of certain tasks in exchange for economic compensation, but it does not in any way involve the transfer or delegation of powers. Right now the CSN has function-assignment agreements with nine regions: the Principality of Asturias, Catalonia, Galicia, the Balearic Islands, the Canary Islands, Murcia, Navarra, the Basque Country and Valencia. The CSN does not delegate its functions and competences to the regional communities, so it is the responsibility of the CSN to set up the safety and radiation protection criteria during the licensing process of radioactive facilities. All staff working in the regional communities with a CSN function assignment agreement are trained at the CSN before starting to conduct assessments and inspections of radioactive facilities. Thereby, the CSN assures that the criteria used by regional community staff in performing those activities are the same that have been set up by the CSN. Additionally, every year the CSN organises a workshop where all the regional community staff members are obliged to participate in order to promote continuous training in the assessment and inspection process. Collaboration during the assessment process and inspection performance is continuous, being formal and informal communication channels established to foster this collaboration, mutual knowledge and cooperation.
Belgium	Article 24.2	F.24.2.3, Table 8, p.144	Table 8. Activity of radioactive effluent from nuclear power plants (Bq). This table contains some notable year-to-year variations in effluents. Notably: Almaraz I & II NPP: 100x decrease in dissolved gases from 2021 to 2022, Vandellos II NPP: 100x increase of noble gases from 2021 to 2022, Santa María de Garoña: 100x decrease in Tritium gas from 2020 to 2021. Are there particular explanations for these variations?	Regulatory oversight is carried out on the treatment, surveillance and control of liquid and gaseous radioactive effluents in Nuclear Facilities, where it is evaluated whether there is any anomalous result or if any significant trend is seen, both upwards and downwards, in the data of the released activity. The variations found for VA2 and noble gases are within the historical variations of this NPP. Typos have been detected in Table 8, for example, in ALMARAZ, in the years 2020 and 2021, dissolved gases have
Belgium	General	Annex B.1, p.259	Spanish text is present instead of English.	Translation into English: "Según define el RINR son instalaciones nucleares:" -" Accoرding to Spanish RINR, nuclear installations are the following:"
Korea, Republic of	Article 32	B.3, p.44	(Background) Section B.3 of the document outlines a plan for a Decentralized Temporary Storage (DTS) facility at each nuclear power plant. Each DTS will include an Individualized Temporary Storage (ITS) and supplementary facilities or measures to enable maintenance and repair operations on spent fuel storage casks, ensuring their retrievability. (Inquiry 1) Please provide a detailed description of the maintenance and repair procedures for the spent fuel storage casks. (Inquiry 2) What specific measures or considerations are being implemented to ensure the retrievability of spent fuel assemblies?	Inquiry 1 - Such procedures are still to be defined. Goals are those indicated for cask maitenance (ie. Air outlets) and reparation (ie.external damage of outer liner). Inquiry 2 - retrievability of spent fuel assemblies is far beyond the capacities designed for the DTSs.

Korea, Republic of	Article 6	G.6.1, p.164-165	(Background) Section G.6.1 states that ENRESA is reportedly preparing a licensing application for the use of HI-STROM FW casks for the dry storage of spent nuclear fuel. The HI-STROM FW cask is a storage container developed by Holtec in the United States and has already obtained approval from the US Nuclear Regulatory Commission (NRC). (Inquiry 1) For imported storage containers that have received US NRC approval, are these containers subject to the safety review requirements stipulated in Article 82 of the RINR? (Inquiry 2) For on-site transfer using a transfer cask, what specific safety evaluation criteria must be met for each transfer route? Additionally, please provide a detailed explanation of the on-site transfer program.	Inquiry 1. Regardless of the licences granted for a specific cask design in other countries, the practice followed in Spain implies that all cask designs to be used in Spanish storage facilities, including the HI-STORM FW system currently in the licensing process, must obtain a design approval in accordance with the requirements of article 80 of the RINR. Inquiry 2. The activities corresponding to the loading, conditioning and transfer of the cask within the installation are part of the so-called 'short-term conditions', which are considered to be among the conditions to be assessed by the cask designer to guarantee compliance with the safety functions established in the regulation. The means contemplated for transfers at the facility are therefore partly dependent on the specific design of the storage system. Of the conceptual models of licensed casks in Spain, only the modular systems with welded closure contemplate the use of a specific module for transfers at the installation. The design of these transfer modules and the demonstration of compliance with the safety functions are contemplated as part of the design of the dry cask storage system. Therefore, the specific safety requirements set for the storage cask apply. On the other hand, the design of the storage facility should define a specific programme for transfers of the cask within the facility, taking into account all the restrictions established in the design of the storage container system. An example of this is the need to use lifting devices that comply with the single failure criterion, to which the designer of the container has given credit for exempting a handling accident analysis in the facility. If such a restriction is not met, the consequences of handling accidents must be demonstrated to be acceptable in the licensing process for the installation.
Korea, Republic of	Article 6	G.6.1, p.165	(Background) Due to a lack of social, political, and institutional consensus required for site selection, the centralized temporary storage (CTS) project, as proposed in the 6th General Radioactive Waste Plan (GRWP), was canceled in December 2023. Consequently, nuclear power plant (NPP) operators are undertaking design modifications to increase the storage capacity of their on-site interim storage (ITS) facilities, considering the definitive cessation of operation dates outlined in the National Integrated Energy and Climate Plan (PNIEC) 2021-2030. (Inquiry 1) What are the primary challenges associated with increasing the storage capacity of on-site interim storage facilities? (Inquiry 2) Are there any local community concerns regarding the increase in storage capacity? What measures are being taken to ensure public acceptance? (Inquiry 3) Have there been any regulatory framework improvements such as amendments to relevant regulations, to accommodate the increased storage capacity?	Inquiry 1) Increase of capacity for dry storage of SF on the sites of the NPPs does not encompass any particular challenge as the licensing of ITS facilities follows a widely-known, time-tested and regulated procedure. Inquiry 2) As part of the Environmental Impact Assessment procedure addressed for modifying the NPPs with the construction and setting up of the full capacity ITS facilities, a public consultation and a Public Administration and stakeholders query is carried out. Their results show that, in general terms, local comunities in the municipalities of nuclear power plants don´t show opposition to such increases of storage capacity. Inquiry 3) National framework in force in Spain does not establish any limitation in storage capacity for ITS facilites, so no amendment has been needed.
Korea, Republic of	Article 24	F.2.4.1.2, p.140	(Background) The document states that the radiation dose for workers is generally assessed through individual monitoring using passive dosimeters. (Inquiry 1) Has the evaluation of internal exposure for workers been conducted as well? If so, was the result of this evaluation included in the individual dose? (Inquiry 2) What evaluation method was used to determine the detection limit of the passive dosimeter, and is it defined in the applicable regulations?	Inquiry 1: Yes, exposed workers with internal contamination risk are controlled by measurement carry out by Internal Dosimetry services approved by the CSN. The dose calculated after internal contamination by the Internal dosimetry services is reported and recorded in the National Dose Registry. All exposed workers can consult through CSN web site its individual dose record where internal and external doses are registered. Inquiry 2: The reporting level for external dosimetry is established at level of CSN´ Safety Guide number 7.1. and limits and conditions of external dosimetry services authorization. The reporting level for Hp(10) and Hp(0,07) has been established in a value of 0,10 mSv/month which will be around one tenth of the derived monthly dose value of the annual dose limit for exposed worker (20mSv/year) The reason for adopting this recording or reporting level is to prevent unrealistic attention focusing on to exposure of very small health risk.

Korea, Republic of	Article 7	A.3.3., p.31	(Background) The licensing document for the dry storage facility specifies a 20-year design life for the storage casks. (Inquiry 1) What is the technical justification for limiting the design life of the storage casks to 20 years?	The concepts of licence period, design life and service life established in the applicable regulations should be clarified beforehand: - Licence period: refers to the period for which the administrative authorisation of the cask is granted. - Design life: refers to the operating time foreseen in the design of the cask, during which compliance with the safety functions defined in the regulation is guaranteed, in the terms established in its specifications. It's therefore a parameter established by cask's designer. - Service life: the effective period of time from when the cask is put into service until it's withdrawn. In accordance with these definitions, the applicable regulation (IS-20) limits the licence period, and not the design life of the cask, to a total of 20 years. This implies that, for a specific cask design, the initial licence period to be granted must be consistent with the design life considered by its designer. In addition, the regulation contemplates the renewal of the cask licence, subject to justification that the storage period has not adversely affected the cask, i.e. that compliance with the cask's safety functions continues to be guaranteed, which must be supported by an ageing management programme established specifically for the cask design. In this respect, it should be noted that the service life of a cask design may be longer than its specified design life, for example, when the actual operating conditions have been less severe than those assumed in the design. This circumstance, which must be confirmed through the ageing analysis of the cask, implies that the total licence period may be longer than the original design life established by the cask's designer.
Korea, Republic of	Article 26.1	26.1, p.152	(Background) When the operating license for a nuclear facility expires according to the RINR, the licensee is primarily responsible for decommissioning. Once the necessary authorization is obtained, the licensee must undertake preliminary decommissioning activities. (Inquiry 1) What is the purpose and scope of preliminary decommissioning activities? How do these activities relate to full-scale decommissioning, and are there any overlaps?	Preliminary decommissioning activities include a set of technical activities aimed to facilitate transition from operation to decommissioning so becoming a first stage of the full-scale decommissioning. In Spain, the decommissioning model is based on the transference of trusteeship from the utility (former operator) to Enresa, as licensee for decommissioning, while it only takes place upon fulfilment of a number of requisites set up by the authorities -this includes preparatory activities-. A smooth and quick completion of such activities is a join interest between the utility and Enresa. Such coordination and cooperation prevent overlapping.
Korea, Republic of	Article 24.2	Table 8, 9	(Background) Table 8 and 9 record information on discharge from the NPP. The José Cabrera NPP, which is being under decommissioned, has no records of gaseous discharge. (Inquiry) Is there action that the operator has conducted a safety assessement that does not require monitoring of gaseous discharge?	The execution of the dismantling and restoration of José Cabrera NPP is underway by Enresa, in accordance with the authorisation granted by Ministerial Order ITC/204/2010 of February 1, 2010, and is in the final phase of dismantling. Once the chimney has been dismantled, all gaseous effluent emission routes are evacuated at ground level, in batches, and come from the ventilation of some dismantling areas during the work. Monitoring of these discharges is carried out through a portable system called RADeCO that meets the representative sampling requirements indicated in ANSI 13.1 (1999). This system basically consists of an air mixer, a flow meter, a sampling line, a filter holder and a pump equipped with a volume counter. Its versatility allows it to be connected to both fixed ventilation systems and Portable Ventilation Units (UPVs). This sampling device will be in operation as long as it is being emitted through the corresponding channel and will stop when the extraction stops. The last time it was used was in February 2022, where no isotope of the types of analyses carried out (particles, alpha and strontium) were detected. The system is available in any time, but as the activities being carried out do not involve the emission of gaseous effluents, their use has not been necessary since 2022
Latvia	General	Page 22	The Seventh General Radioactive Waste Plan (7th GRWP) (appvoved on 27 December 2023) establishes start-up of seven Decentralised Temporary Storage facilities (DTSs) for spent fuel and high-level waste providing time for the development Deep Geological Repository (DGR) operational from 2073. Please provide information about the planned time period of building these facilities.	4 new facilities will be constructed, and 3 existing will increse their casks capacity. In 2023 the application for licence including application for favourable report from the regulatory body (CSN) was done. By the end of 2024 two of them have recieved the positive report from CSN, and the ones concerning the other 2 are expected by the end of Feb 25. The Licences of construction are expected several weeks after each CSN positive report. The construction of the 4 new will start in 2025, and in 2026 is foreseen they start operation. Upgrades from ITS facilities to DTS facilities is expected by 2029.

Latvia	General	Page 31-33	The Nuclear Safety Council (CSN) has established the requirements for the management of ageing of temporary storage facilities, including use of casks for the dry storage of spent fuel. Currently the validity of casks is granted for a maximum period of twenty (20) years. The strategic lines established in the 7th GRWP lead to an increase in the period of dry storage of spent fuel in licensed storage casks. Approximately how long is it expected to extend the life of the casks and is it planned to reload the casks after that?	In practice, the administrative authorisation for the use of a specific design of a dry storage cask is established in the regulation through a succession of periods of a maximum duration of 20 years each. The applicable regulation establishes the conditions required for the granting of a new period, which include the demonstration that the accumulated storage period has not adversely affected the structures, systems and components of the cask that are important for safety, in such a way that compliance with the established safety functions is guaranteed. Such demonstration is done in practice by establishing a ageing management programme specific to the particular design of the cask, which ensures that the safety functions of the cask are fulfilled throughout its service life. The roadmap set out in the 7th GRWP envisages having an DGR in place by 2073, which implies an extension of temporary dry storage in casks at least until that date. This implies the need to complete the successive renewals of the casks licence periods in accordance with the framework foreseen in the regulation. Although the development of the DGR project is currently at an early stage, in accordance with the references of other international projects, the reencapsulation of spent fuel prior to transfer to the DGR is foreseen. However, these specific details will form part of the development of the design of this facility.No reloading is thus expected for casks after the discharge of the spent fuel in the DGR.
Latvia	General	Page 239-240	Section K: The Seventh General Radioactive Waste Plan (7th GRWP) is fonded by four non-tax public economic contributions. Government plans modify the fixed unitary tariff relating to the non-tax public economic contributions through which the service provided by Empresa Nacional de Residuos Radiactivos, S.A., S.M.E. (Enresa) to operate nuclear power plants is financed. Has the government managed to arrange the financing, revise the fixed unitary tariff and prevent the effects of inflation on the Fund?	Yes, Royal Decree 589/2024, of June 25th, modifies the tariff relating to the non-tax public economic contributions through which the service provided by Enresa to operating NPPs is financed.
Greece	Article 32	D.1.2 p. 61, B.5 p. 49, p.77, p.78	The desired end-state for the José Cabrera and Santa María de Garoña NPPs is to restore the site completely and free it up for other uses. For the José Cabrera NPP there is an amount of special waste, impossible to be managed at El Cabril Disposal Facility. For the Santa Maria de Garoña NPP the site restoration is envisaged to be completed by 2033, while the expansion of the capacity of El Cabril Disposal Facility might not have been constructed by then. The on-site Individualised Temporary Storage (ITS) at both NPPs will obstruct the decommissioning (site restoration) process. Have you explored any options to facilitate the decommissioning process?	According to the 7th GRWP, SF and SW will remain on site, beyond completion of decommissioning, until the National DGR is available. Only at that time it will be possible to transfer such RW to its destination. This constitutes a boundary condition for all NPPs decommissioning projects. Therefore, site release will be done in two stages for each one of the sites hosting NPPs: 1) release of the main site area of the former site that is not occupied for the storage of such SF and SW and 2) later release of the area that was lastly occupied for such SF and SW storage facilities
Denmark	Article 32.1.4	Annex E, the overview matrix	Does the capacity of the El Cabril Disposal Facility take into account the waste generated from decommissioning of facilities at hospitals, research institutions, industries using radioactive substances or radiation generators? / It is noted that waste external to the fuel cycle is to be stored and disposed via the El Cabril Disposal Facility	The capacity of El Cabril disposal facility should be enough to dispose of all types of LILW and VLLW to be managed in Spain. Enresa every three years revise the National Inventory of Nuclear Spent Fuel and Radioactive Waste to reevaluate the future disposal needs, considering the radioactive wastes arising from nuclear and radioactive installations, during its operation and decommissioning, as well as for other non-regulated activities.
Denmark	Article 26	Section D	Has a licensing process been established for the decommissioning of non-nuclear facilities at hospitals, research institutions, industries using radioactive substances or radiation generators? / It is noted that a licensing process has been established for the decommissioning of nuclear faces.	In accordance with Article 52 "Dismantling and decommissioning" and Article 53 "Deommissioning declaration" of the Regulation on nuclear and radioactive facilites, and other activities regarding to exposure to ionizing radiation, approved by Royal Decree 1217/2024, of December 3rd: "Article 52. Dismantling and decommissioning. It will be the responsibility of the licensee of a radioactive facility its dismantling and decommissioning. The request for a decommissioning declaration will be accompanied by the following documentation: a) Technical study of the decommissioning, carried out based on the characteristics of the facility, indicating the inventory of radioactive materials and waste and of equipment generating ionizing radiation, as well as their destination and the measures taken to dismantle and, where appropriate, decontaminate the facility. b) Economic report, which includes the cost of decommissioning and its financing forecasts"
Belarus	Article 22	Section 22.1.14, p. 132	The Report states that the average age of Enresa employees responsible for NPP decommissioning and radioactive waste management, is 52 years old, highlighting the typical problem of staff aging. What specific measures are being taken by Enresa in the field of knowledge management to ensure the preservation and transfer of knowledge and skills of employees, as well as maintaining their number at the required level?	same answer as to question 40313

Belarus	Article 22	Section 22.1.10, p. 128	In order to assess the qualifications and skills of the contractor's personnel, the licensee shall take the necessary measures to ensure that, prior to commencement of work, the personnel appointed by the external company to perform the contract work have the required qualifications. What criteria does the licensee use to ensure that the personnel of the contractor organizations have the required competencies and skills?	Some safety instructions issued by the CSN address personnel qualification at nuclear facilities: The IS-12 Instruction, issued by the Spanish Nuclear Safety Council (CSN) on February 28, 2007, defines the qualification and training requirements for unlicensed personnel, both staff and external workers, in the context of nuclear power plants. In addition, the IS-11 Instruction, Revision 1, dated January 30, 2019, establishes the general criteria related to the licensing of operating personnel at nuclear power plants, as granted by the CSN. Moreover, the IS-26 Instruction, issued on June 16, 2010, sets out basic nuclear safety requirements applicable to nuclear facilities, including provisions for personnel qualification. These instructions often specify that training and qualification requirements are mandatory for all personnel performing key safety-related tasks, regardless of whether they are part of the facility's staff or external contractors. This is explicitly addressed in IS-12 and more implicitly in IS-26. When contracts are made with external workers, compliance with these safety standards is required. Contracts managed by Enresa are subject to public procurement regulations, meaning that when specific technical qualifications are necessary to carry out a task, this requirement is clearly stated in Enresa's contract terms. Once the company has been hired, the personnel assigned to the tasks that meet the requirements specified in the technical specifications are provided with general training about the facility and additional training tailored to the tasks to be performed at the facility, if necessary.
Belarus	Article 8	Section A.3.3, p. 31; section 8.2, p.174	The introduction to the Report states that the strategic lines established in the 7th GRWP lead to an increase in the period of dry storage of spent fuel in licensed storage casks, thus implying the need to renew the respective approvals granted by the Directorate-General of Energy Policy and Mines for the different cask designs currently in service at the temporary storage facilities located at the nuclear power plant sites. For example, the text of the Report states that "the design approval of the ENSA-DPT cask, which is used in the ITS at Trillo NPP, has been renewed. This renewal has been issued for an additional period of 20 years..." What is the maximum period for which such approvals can be extended, and are there limits on the number of extension cycles?	In practice, the administrative authorisation for the use of a specific design of a dry storage cask is established in the regulation through a succession of periods of a maximum duration of 20 years each. The applicable regulation establishes the conditions required for the granting of a new period. These conditions include the demonstration that the accumulated storage period has not adversely affected the structures, systems and components of the cask that are important for safety, in such a way that compliance with the established safety functions is guaranteed. Such demonstration is done in practice through the establishment of an ageing management programme specific to the particular design of the cask, which ensures that its safety functions are fulfilled throughout its service life. In this respect, it should be noted that the service life of a cask design may be longer than its specified design life, for example, when the actual operating conditions have been less severe than those assumed in the design. This circumstance, which must be confirmed through the cask ageing analysis, implies that the total licence period may be longer than the original design life established by the cask designer. Therefore, there is no predefined limitation to the maximum number of licence periods to be granted, but rather the granting of each period must be consistent with the demonstration of the fulfilment of the safety functions of the cask during the resulting service life.
Belarus	Article 20	Section E. Legislative and Regulatory System	How is the problem of retaining young professionals in the regulatory body solved?	The Human Resources Plan for 2024-2030 approved by the CSN includes specific measures to attract and retain talent. It includes different communication and dissemination activities to attract talent, internships, and activities with universities. Retention of talent is an essential part of human resources management and needs to be transversally addressed. Specific measures include the approval of the new horizontal professional career model, remuneration policies, increasing the sense of belonging, or flexible policies regarding work-life balance.
Belarus	Article 20	Section E. Legislative and Regulatory System	Could you provide more detailed information on: the methods used to preserve knowledge and transfer tacit knowledge, and the assessment of the effectiveness of the methods used; the mechanisms for motivating experts (workers with critical knowledge) to share knowledge; the motivational mechanisms for the retention of highly qualified personnel in the regulatory body.	RECOR Methodology is structured in three phases: preparation-extraction-utilization. It is implemented through a procedure to be applied to each expert who leaves the organization or changes his/her position.It makes sure his/her tacit and explicit knowledge is compiled in a "knowledge book" summarizing the knowledge and experience of the expert.So this knowledge is easily transferable to the rest of the organization and to the technicians who will take charge in the future of their duties.RECOR methodology is supported by a computer application called KITE. KITE is a software to support social networks based on sharing and generate knowledge. Allows members of an organization to communicate in the context of a collaboration channel. Motivation based on recognition of their activity through publication of the activities in a regular bulletin published in the CSN website. Encouragement and recognition.
Belarus	Article 32	A.3.3, p. 31	What document establishes regulatory requirements for managing the aging of RW packages?	From the point of view of spent fuel dry storage casks, CSN Instruction IS-20 establishes that, following the awarding of an initial licensing period, the request for renewal for successive periods must be accompanied by a justification that the storage of fuel has not adversely affected the structures, systems and components of the cask that are important for safety. In practice, this justification is supported by the development and commissioning of an ageing management programme specific to the design of the cask.

Belarus	General	A.2.5, p. 23	On page 24, the knowledge management process is described and it is stated that for the purpose of knowledge management Enresa approved General Training Plan in 2018. Is it possible to see this plan? Does this plan contain solutions to the problems of improving competencies and staffing, which are indicated as challenges at page 28?	Enresa has a training policy approved by its Board of Directors. This corporate training policy is implemented through the "Second General Training Plan of Enresa," based on the training agreement initially signed with employee representatives in May 2018, revised in February 2021 and currently in effect. This plan outlines the company's authority to provide training to employees, which can be general/transversal (e.g., IT, languages) or specific to an area of activity. The plan establishes a process to identify training needs by considering proposals from all company departments, which subsequently form the annual training program for the headquarters and the centers at the facilities. Access to training facilitates professional development improvement, being one of its strengths due to its impact on employee talent attraction and cultivation. Additionally, activities for monitoring, controlling, and evaluating the effectiveness of training initiatives are planned. The document outlining Enresa's Training Policy can be shared; however, the Training Plan is an internal document that is not made available to the public.
Belarus	General	A. 2.4, p. 23	How has the issue of assessing the radiation dose to members of the public associated with the transportation of radioactive materials been resolved based on the results of the ARTEMIS mission, ensuring that the protection and safety system complies with basic safety standards?	One of the conclusions of the joint Integrated Regulatory Review Service (IRRS)-ARTEMIS Mission carried out by the IAEA to Spain in 2018 was the recommendation to perform an estimation of the doses received by members of the public as a consequence of the radioactive material transport activities carried out in Spain, using a graded approach. In response to this recommendation, the Spanish regulatory body has carried out a Dose Assessment Analysis. This analysis required the collaboration of transport operators that carry out the most relevant activities in the most representative radioactive material transport sectors in terms of radiological impact on members of the public. A methodology was established for its development, based on the number of transports and their associated risk. The study was focused on the road mode and air mode (loading, unloading and handling activities at airport cargo terminals).The analysis of the results showed that the doses received by the members of the public from the transport of radioactive materials in Spain are well below the limits set by the regulations. In the majority of the critical scenarios considered, the annual dose to a member of the public is less than 0.1 mSv/year, ensuring that the protection and safety of the transport activities meet the basic safety standards (dose limit of 1 mSv/year for them).
Belarus	Article 32	A. 2.3, p. 23	What technical solutions have been adopted for the disposal of VLLW?	Since 2008 VLLW has been stored in a specific vault for the disposal of this category of waste. Two (#29 and 30) of the four planned vaults (number 29, 30, 31, 32) have been built and are in operation, with authorisation having been granted for an overall volume in all four vaults of 130,000m3. The estimation is that the available storage capacity for VLLW is sufficient in order to cover all the foreseen needs (page 51). Each vault comprises a vessel excavated into the ground with a series of drainage and waterprrofing materials laid ontop. THe VLLW in drums, bags or metal containers is sent to the vault. THis has systems in place for stabilisation by means of inerting and cavity filling. (page 74 and 75)
Belarus	Article 32	A.2, p. 18	Page 18 states, “The Vandellós I reactor has been in the latent phase since January 2005.” What decisions are planned to be made in the future, is the public involved in decision-making on this issue?	The Seventh General Radioactive Waste Plan (GRWP) includes the commissioning, in 2027, of an interim storage facility at the Vandellós I Nuclear Power Plant site to host radioactive waste from spent fuel reprocessing and, if applicable, special waste generated during the decommissioning of the plant. This facility will remain operational until all radioactive waste is transferred to the Deep Geological Repository (DGR). This plan has been subject to public participation regulations for the adoption of plans and programs. During the more than three years required for the environmental assessment of the GRWP draft, the public had the opportunity to review its contents, provide comments, and submit questions. Specifically, periodic information channels are maintained with municipalities near nuclear power plants, and their opinions are given special consideration by the competent Ministry and authorities.
United States of America	General	Section A, pgs. 23, 24, and 28	The United States commends Spain for its comprehensive planning and approach for maintaining staff skills in its knowledge management process.	Spain sincerely welcomes the comment from the United States. This recognition reinforces our continued commitment to knowledge management. Spain also greatly appreciates the efforts made by our international colleagues in the thorough review of our report and the exchange of experiences.
United States of America	General	Section A, p. 33	The National Report notes that, during the period from 1993 to 2000, disused sealed sources were disposed at the El Cabril Disposal Facility irrespective of the half-life of the radioisotope. Are there records of the types and quantities of sealed sources that were disposed of during this period? Were significant quantities of long-lived radionuclides such as Am-241 or Ra-226 disposed in the facility? If so, does this present a long-term safety concern?	Since 1993 disused sealed sources are being disposed at El Cabril Disposal Facility upon compliance with the Waste Acceptance Criteria set up for such facility. This routinely practise is properly recorded in accordance with existing record keeping procedures. Existing Waste Acceptance Criteria for El Cabril Disposal Facility strongly limitates amounts of long lived radionuclides that can be disposed of. Such disposed inventories do not present a long-term safety concern

United States of America	General	Section J, p. 230	Regarding disused sealed sources, the National Report discusses a protocol established in 2014 to detect facilities with viability problems, identify potential risks, and act in a timely manner. What are some of the criteria used to identify high-risk licensees? How effective has this protocol been over the past 10 years in identifying these licensees and taking action before problems in managing disused sources occurred?	Some criteria to identify high-risk licensees are: - Companies which have entered into an arrangement with creditors or have suspended business activities. - Unacceptable operation conditions with the risk of loss of control and custody of sealed sources, identified through the inspections conducted by the CSN. - When the competent security force has information that the company has been sealed, or about the overriding of radioactive facility authorisation or there is a risk of source seizure. Usually, the CSN, as a consequence of the identification of those situations, increases the supervision and control action for these radioactive facilities, as well as the inspection frequency. The analysis of actions carried out by the CSN for those kinds of radioactive facilities is positive. The CSN has been able to act in case of risk avoiding the loss of source control.