SEXTA REUNIÓN DE REVISIÓN DE LA CONVENCIÓN CONJUNTA			
DOCUMENTO DE PREGUNTAS Y RESPUESTAS AL SEXTO INFORME NACIONAL ESPAÑOL			
Country	**Article**	**Reference**	**Question**
Argentina	Article 32.1.1	B, 20	Regarding the NPPs in operation, is it currently considered a possible life extension in any of them?
Answer	The long term operation of the NPPs, always that they comply with the conditions on safety imposed by the CSN, shall be agreed in connection with the energy mix scenario fixed by the Government through the approval of a Comprehensive Energy and Climate Plan, that will allow Spain to comply with the commitments regarding climate change in the context of the European Union, as well as other issues. To that end, in July 2017, the Government created a Commission of experts on energy transition, which is composed of fourteen independent experts of recognized prestige in that matter: four of them were appointed by the Government, one by each Parliamentary group and three by the social agents. The purpose of this Commission is to prepare a report on different possible scenarios of energy transition that guarantee the competitiveness of the economy, economic growth, job creation and environmental sustainability. Based on the results of this commission, the Government plans to approve a Comprehensive Energy and Climate Plan setting the contribution of each source of energy (nuclear, renewable sources, hydraulic, thermal coal, fuel, combined cycles, etc) to the energy mix.		
Argentina	Article 32.1.1	B, 23	Is the cost of the ITS in NPP sites, both the ones already built (Trillo, José Cabrera and Asco) as well as the projected ones (Santa Maria de Garoña, Almaraz and Cofrente), to be financed by ENRESA resources or by the operator of each NPP?
Answer	The ITSs have been constructed in the NPPs' sites because of the delay in the availability of a Centralised Temporary Storage, which is the responsibility of ENRESA. Taking that into account, their costs are financed by the Fund for the financing of activities provided for in the General Radioactive Waste Plan, managed by ENRESA. However, this Fund is fed with the fees paid by the NPPs' operators, except for José Cabrera NPP, whose costs are financed by the electicity fee (tolls).		
Argentina	Article 32.1.1	B.5, 26	Regarding RW characterization at El Cabril: - Does the RW generator perform its RW characterization and El Cabril audit those values? - Can you describe the regulatory control applied to RW characterization
Answer	ENRESA posesses a clear and defined RW characterizacion methodology that RW generators know well through the so called "technical-adminstraitve specification" that govern the relations between ENRESA and each RW generator. Such methodology assigns to RW generator the responsibility to demostrate compliance with the Waste Acceptance Criteria established for El Cabril repository. ENRESA has the responsibiolity to audit such processes before acceptance to delivery for disposal to El Cabril facility. The Regulatory Body (CSN) carries out dedicated audits over RW generation (at generator's sites) and also regarding the operations carried out by ENRESA for their acceptance for disposal		
Argentina	Article 32	D, 42	Given the delay in the construction and licensing of the CTS, and the limited storage capacity for SF that Vandellos II has left, what is the reason why an ITS is not projected in that NPP, as was done with those mentioned in the previous question (question N°2)?
Answer	In the case of Vandellós II, there has been the possibility of implementing new racks in the pool providing additional storage capacity for SF for almost ten additional years. The tasks for re-racking are currently ongoing.		
Argentina	Article 20	E, 67	Regarding the 13 professionals from SGEN, how many of them perform duties associated with RWM?

Answer	Two members of the staff, with a university degree, carry out their tasks and duties in relation to RWM.		
Argentina	Article 20	E, 71	Regarding the 459 employees from CSN, how many of them perform duties associated with RWM?
Answer	The CSN is organized in two different technical directorates one for Nuclear Safety and another for Radiological Protection (Health Physics). According to this organization a project manager for each facility is in charge of managing the documentation and coordinating the communications and, in general, the interaction between the CSN and the licensee. The technical expertise remains in another part of the organization with experts dedicated to analyze the technical information included by the licensee in support of their applications. There are 10 full-time experts dedicated to oversighting the high, medium and low radioactive level wastes, managing the licensing process of the projected Centralized Storage Facility, and the intermediate and low level disposal facility (El Cabril) as well as the licensing process of ISFSF at the NPP sites and the respective storage casks.		
Argentina	Article 11	H, 133,145 and 159	Could you clarify if the operational levels approved in the operational license for El Cabril include the VLLW or only LILW is considered ?
Answer	Operational levels approved in the operational license apply to both installations as they are part of a single facility. However, specific conditions may be set up for one or another component (i.e. Waste package typology and specifications)		
Argentina	Article 11	H, 134-136	Could you provide more information about the methodology (developed by UNESA and CSN) applied to clearance of spent resins from NPPs?
Answer	Nuclide specific clearance levels were derived for certain slightly contaminated waste streams produced during the operation of nuclear plants: used oils, hazardous wastes (used active charcoal and spent resins) and wood. The derivation of conditional clearance levels for these specific waste streams was conducted by the CSN with the participation of the Spanish Association of Electricity (UNESA) through a process called Common Project (CP) for all nuclear power plants (NPP). For each of the selected waste streams a CP applicable to all the Spanish NPP was elaborated by UNESA and submitted to the CSN for its appreciation. The content of the documentation included in a CP refers to the following aspects: - Origin, annual production in nuclear plants, physic, chemical and radiological characteristics of the waste stream. - Classification of the waste from the conventional point of view and description of the management routes on the basis of the regulatory (non radiological) standards in force. - Detailed radiological impact analysis, taking into account the annual production of wastes and the possible scenarios of exposure to radiation associated with existing conventional management routes and the proposal of clearance levels. - Methodology and criteria for radiological characterisation of the wastes and for the verification of compliance with the clearance levels. As result of the mentioned CP and the subsequent favourable appreciation of the CSN the technical and administrative basis for the conditional clearance of each waste stream were established in terms of clearance values, characterisation procedures, possible restrictions on the destination of the residual materials and the documentation that would be necessary in support of the licensee application for a clearance authorisation. Once the spent resins CP has been approved by the CSN, each licensee interested in the clearance of this waste stream would apply for a clearance authorisation to the MINETAD, demonstrating compliance with the technical conditions established by the CSN in the spent resins CP approval statement. Before granting the clearance authorisation a favourable CSN report is compulsory. In specific cases related to specific wastes of a particular facility or with specific management route proposals, a licensee can also apply for a specific conditional clearance authorisation.		
Argentina	Article 11.2	H, 134	What are the volume reduction projects implemented between ENRESA and the nuclear power plants?

Answer	Main activities in this area are related to: 1) improve current practices for sorting of operational RW, 2) improvement of tecniques for characterization of large components with the aim to be able to properly divide such component into pieces that may pertain to different waste classes and 3) consideration of new technologies that may reduce the volume of RW to be managed for disposal		
Argentina	Article 11.2	H, 135	What is the methodology that has been applied to declassify the four currents of materials mentioned?
Answer	Desclasificacion plans must be approved by the authorities (Ministry and Regulatory Body). Basically the methodology include the following: a) Origin, description and physical and chemical characteristics of RW b) Waste classification from a conventional point of view and description of pathway management based on current regulations c) Quantities candidate to be declasssified d) Definition of clearance levels. Bases and justification e) Radiological characterization methodology d) Quality assurance applied in the whole process		
Argentina	Article 17	H, 160	Is there any assessment under consideration for any new RW storage facility when the remaining 26% capacity of El Cabril is completed, taking into account that there are still seven NPP in operation and its future decommission?
Answer	Yes, although there is enough capacity in El Cabril to deal with all VLLW coming from the operation and decommissioning of the existing NPPs, future generation of LILW could compromise current capacity. As part of the tasks for the drafting of a new General Plan for Radioactive Waste Management, ENRESA is assessing the needs of additional future disposal capacity. Currently, it is estimated that new LILW disposal capacity will be needed by the end of the coming decade.		
Argentina	Article 28	J, 158	Prior to the year 2013, the CSN issued an instruction to all licensees of sealed radioactive sources to require actions from those with problems pertaining to viability and, in the case of being in capable of maintaining ad equate control of the sources, the requirement to transfer the same to a reliable entity: another authorized licensee, the supplier or the National Radioactive Waste Management Agency (ENRESA). Does CSN require the written acceptance from the receiver prior granting the authorization?
Answer	Yes, CSN does. There is no way that the CSN may force to any licensee to accept radioactive material if the licensee is not willing to do it.		
Argentina	Article 28	J	Could you provide more information about the actions foreseen in case of detection of illicit material in transit or entering Spain with final destination USA?

Answer	In the framework of "MEGAPORT" initiative, launched by U.S. Government, interested parties started to work to develop an Action Protocol in case of detection of inadvertent or illicit traffic of radioactive materials through Spanish Sea Ports of general interest. Four Spanish ministries (MINETAD, Finances, Infrastructures and Home Affairs), plus ENRESA and the CSN, signed in 2010 this action protocol best known as the MEGAPORT Protocol. The objective of this Protocol is to define the actions to be taken in case of detection of inadvertent or illicit traffic of radioactive materials in order to manage them in sound radiation protection and security conditions, according with national regulations and international conventions, as well as to facilitate the adoption of subsequent control and/or enforcement actions by the different authorities taking part in the Protocol. Functions to be carried out by all actors involved in application of the protocol, as well as specific actions to be taken in case of detection are defined. Provisions for special situations, training of people, protocol follow up and development of detailed procedures for actions in case of detection, communications and financing are also included. Specifically, in case of detection of illicit material in Spain the next actions are foreseen: • The Ministry of Finances, through the Spanish Tax Agency, shall notify immediately all other actors involved in the Protocol, as well as making a first valuation of the detection. • The Ministry of Home Affairs, through the State security forces, shall initiate the investigation while guarding the shipment. The use of NRBQ units, under the supervision in terms of radiation protection, of the CSN. • The Ministry of Infrastructures, through the National Ports Authority, shall coordinate the operations while the shipment is still in port and notify other administrations outside the protocol as cities or regional governments. • The Nuclear Safety Council, as the Spanish independent regulatory body, shall asses all other actors involved in the protocol regarding radiation protection and collaborate in the withdrawal of the radioactive material. Furthermore, CSN is the official representative (contact point) from Spain for implementation of IAEA Code of Conduct on the Safety and Security of Radioactive Sources and the Supplementary Guidance on the Import and Export of Radioactive Sources. In this role, CSN is receiving detailed information related category 1 and 2 radioactive sources arriving or leaving our country. Furthermore, CSN in the course of its functions of licensing and inspection of facilities, activities and radioactive transport receives detailed information on movement of sources and radioactive materials. • ENRESA shall withdraw the radioactive material once it has been radiologically classified.		
Argentina	Planned Activities	K, 180	Regarding the sealed sources in disuse that must be stored in the CTS, has any action aimed at volume reduction been planned; for examples remove certain parts?
Answer	Regarding the management of sealed sources in disuse, as it is stated in Section J, if possible, they are returned to the supplier, but in the scenario of no longer existence of the supplier or orphan sources, they shall be managed by ENRESA. Spain is already implementing some volume-reducing measures, such as those regarding ionisation smoke detectors. Ionisation smoke detectors must be managed in accordance with the provisions of Royal Decree 110/2015, on electrical and electronic equipment and the management of its waste. This Royal Decree sets out a series of obligations for producers and distributors of these devices to ensure that, at the end of their useful life, they are managed by means of systems compliant with the objectives of this regulation. These obligations include the establishment of systems enabling their collection and removal for recovery, reuse or recycling, depending on the type of device. Processing facilities, which are regulated for this purpose under the Royal Decree above mentioned, separate the radioactive material from the rest of the components of the ionisation smoke detectors. ENRESA removes these radioactive waste from the processing facilities once they have been separated, optimizing the space required for their management.		
Australia	Article 32	page 26	how does the provision of new management resources increase operational capacity?

Answer	The increase in the operational capacity of the VLLW storage is a consequence of the start of the operation of cell 30 in 2016, the second one to be dedicated to VLLW disposal. The new installation has taken advantage of the experience developed in managing cell 29 since 2008. The main novelty has been the implementation of a single-body tent to cover the waste while they are being disposed of. The new configuration allows a more flexible work of the cranes and disposing equipment thus achieving a better use of available room in the cell.		
Australia	Article 3	page 29	Is there likely to be waste from defence which will go to civilian disposal sites?
Answer	No, Spain has no nuclear weapons and there is not waste specifically associated to defence purposes to go to the civilian disposal site.		
Australia	Article 20.1	page 60	Is the selective training in the nuclear or radiation protection field?
Answer	No, the selective training course is intended to educate future staff for the different duties and tasks under the competences of the MINETAD, while the only Authority competent for nuclear safety and radiation protection is the CSN. However, a basic training in the radiation protection field is provided to some workers of the SGEN, when considered needed.		
Australia	Article 20	page 66	Will CSN move to the ISO 9001:2015 standard?
Answer	The management system manual is being revised it in accordance with the requirements of GSR part.2. As the management system manual is also based on ISO 9001: 2008 it will also be updated to ISO 9001-2015 standard.		
Australia	Article 20	page 66	as part of the integrated management system is CSN also accredited with ISO 14001 (environment) or ISO 45001 (safety)?
Answer	The CSN isn't accredited with any ISO standard		
Australia	Article 22.1	page 75	Are licences required at nuclear power plants for the management of radioactive waste (before going to ENRESA)?
Answer	According to the conditions set for the collection of waste packages at nuclear power plants, the plants' operators must deliver them conditioned, usually in 220 l drums in the case of LILW, and complying with the Waste Acceptance Criteria for the disposal facility (El Cabril). For the moment being, ENRESA is not accepting spent fuel or ILW from operational NPPs. This kind of waste is stored at the plants.		
Australia	Article 22.1	page 75	At what point is the transfer of ownership of the SF from the power plant to ENRESA? Is it in the pool, in the dry cask storage, or when it goes to the CTS?
Answer	Ownership of the SF will be transferred at the moment of its disposal in a deep geological repository. In the future, before this facility is ready, ENRESA will centralised the storage of SF in a CTS where the responsibility will rest on her but the fuel's owners will be the owners of the NPPs.		
Australia	Article 22.1	page 76	Are staff at ENRESA licenced by CSN?
Answer	According to existing regulations the people with the following responsibilities at the Enresa's nuclear facilities must be licensed by the CSN: Supervisors, Operators, Head of PR Departments, Technical Unit for Radiological Protection.		
Australia	Article 22.1	page 76	What sort of training is required of ENRESA staff

Answer	ENRESA conducts different types of training for its staff: (1) ENRESA's corporate training, based on a Training Plan designed by the Training department and updated every two years, to serve two kind of defined objectives, namely "strategic" objectives and "instrumental" objectives; (2) Specific training for the facilities; (3) Personnel, cultural or social training at the worker's request (eg. language courses) and (4) External training, ie, when ENRESA staff performs training activities in Masters, Courses, Conferences, etc.		
Australia	Article 23	page 77	Does ENRESA need to be ISO 9001 certified?
Answer	Yes. Since 1986, Enresa has used a quality management system based on standard UNE 73401: Quality Assurance in Nuclear Facilities. In the early 1990s, the system was adapted to include the quality requirements corresponding to international standard UNE-EN ISO 9001. AENOR issued the corresponding certificate of compliance with this standard in 1992, which has been renewed to date. In recent years, Enresa has adapted its quality management system to comply with the requirements introduced by the Nuclear Safety Council (CSN) in Safety Instruction IS-19 on the requirements for managing system of a nuclear facility , published in the Official State Gazette in November 2008. This regulation integrated nuclear safety and radiological protection, occupational risk prevention, environmental and physical protection, quality and financial matters into one management system. The underlying purpose of this was to improve safety culture through planning, supervision and monitoring		
Australia	Article 24.1	page 82	Have there been any individuals who have exceeded the dose constraints?
Answer	CSN has not approved specific dose constrains for occupational exposure at NPP as required by Spanish regulation. Nevertheless, licensees of nuclear facilities establish, under the assessment of CSN, reference levels and administrative controls for the optimization of individual doses. Reference levels were not exceeded in 2016 at NPP, being the maximum individual dose lower than 10 mSv		
Australia	Article 24.1	page 82	Does the national register include workers from defence facilities?
Answer	Yes, it does.		
Australia	Article 24.2	page 83	Are the ENRESA emissions measured from the discharge point (water treatment plant or ventilation stack) or the site boundary?
Answer	ENRESA is the licensee of the NPP´s under dismantling and decommissioning and of El Cabril disposal facility. Liquid and gaseous effluents released from these installations are always sampled before (batch releases) or at (continuous releases) the discharge point in order to determine the activity released into the environment as well as to verify the compliance with the authorised limits.		
Australia	Article 24.2	page 85	table 7 has negative values for Trillo NPP effluent activity. This seems impossible.
Answer	This is indeed a typo. There is a PDF file availble with the correct values, as available in the first drafts of the report.		
Australia	Article 24.2	page 86	table 8 needs to be formatted (superscript numbers need to be put in)
Answer	This is indeed a typo. There is a PDF file availble with the correct values, as available in the first drafts of the report.		
Australia	Article 25	page 89	how are the emergency drills monitored? What improvements have come out of the exercise?

Answer	In emergency aspects, the technical staff of the CSN conducts an inspection to evaluate the annually onsite emergency drills. The results of inspecting a nuclear power plant during a drill are collected in the record files of inspections that are sent to the licensee for information and can lead to findings or aspects to be strengthen by licensees in their emergency preparedness and response system. Additionally, licensees evaluate the drill and send a report to the CSN with the observed deviations. All these aspects are checked by inspectors in the following year. The off-site emergency drills are carried out less often, CSN is focused on NS and RP aspects. The findings are written in a specific report which is followed by CSN to be sure the deviations are solved. Both on-site and off-site emergency drills are attended by CSN ERO at the CSN emergency room and a CSN observer checks the drill performance and reports its conclusions to a specific technical group (GTES) that analyze them. As a result the findings are reported to each organization who can solve it (licensee, off-site emergency plan director, CSN). Every year GTES produce a report to inform CSN staff about the findings status and their suggested solution. Usually these findings are solved during the year. In general, improvements are related to the emergency notifications, the activation of the ERO, the communications, the ERO training, the protective measures and corrective actions implemented, the operation of the emergency equipment, etc.		
Australia	Article 4.1	page 97	Were there any significant changes required after the Fukushima stress tests?
Answer	Measures required and implemented after Fukushima stress tests, as specified in Annex F of the National Report, were the following: In the case of fuel pools: - Strengthening of level and temperature of water instrumentation in the pools to maintain availability in the case of prolonged loss of electrical energy. - Strengthening of systems providing additional refrigeration and portable electrical supply systems in the event of prolonged loss of electrical energy. - The adoption of strategies for the redistribution of spent fuel (“chess board” layout, with the hottest elements surrounded by col der elements). For the ITS at Trillo and Asco NPP, measures were covered by the amendments implemented to comply with the Complementary Technical Instruction (mandatory) to tackle situations beyond design basis (severe conditions) including the loss of large areas within the facility. Regarding the ITS at José Cabrera NPP (in dismantling), measures to guarantee the capacity for spent fuel handling and reconditioning in the event of unexpected failure and mitigation measures to respond to events with a potential loss of large areas were required through a specific CSN Instruction		
Australia	General	page 199, Annex E	Is there a timeline for when the Paris Convention and Brussels Supplementary Convention will come into force?
Answer	Both Paris and Brussels Conventions are already in force. However, the entry into force of the amending Protocols of 2004 of these Conventions, is still pending. There is not any definitive timeline for their entry into force and, in any case, they do not depend on the decision of the Spanish Government. Taking into account both article 20 of Paris Convention (which establishes that its amendments shall come into force when ratified or confirmed by two-thirds of the Contracting Parties) and article 2 of Council Decision 2004/294/EC (which establishes that the Member States (of the European Union) which are Contracting Parties to the Paris Convention shall take the necessary steps to deposit simultaneously their instruments of ratification of the Protocol), the 2004 Protocol amending the Paris Convention will entry into force when all the Member States that are Contracting Parties (which represent more than two thirds of the Contracting Parties) deposit their instruments of ratification simultaneously. As for the Brussels Convention, its article 21 establishes that its amendments shall come into force on the date when all Contracting Parties have ratified or confirmed them. Taking into account the nature of both Conventions, the interest of the Contracting Parties is that both Protocols enter into force simultaneously.		

Australia	General	page 195, Annex D	Who pays the Fee relating to electricity fees (tolls)?
Answer	The fee is charged in the electricity bill to the electricity consumers.		
Australia	Article 11.4	page 125	is ENRESA bound to IAEA / ICRP publication requirements by CSN?
Answer	What is meant in page 125 is that the licensing documents of the El Cabril facility (in particular the preliminary safety analysis and the safety analysis) refer to the application of certain IAEA and ICRP standards. In so far as these licensing documents have been approved by the CSN, they become binding for ENRESA.		
Australia	Article 14.3	page 134	At the closure of the El Cabril site, will ENRESA shrink the controlled area to above the disposal cells or maintain the existing boundaries for the monitoring period?
Answer	As such moment is not envisaged to happen in the short term, it is still uncertain which regulatory conditions will apply to the monitoring period. As primary assumption, we consider such monitoring will cover the area taken by the disposal vaults.		
Australia	Article 14.4	page 134	Does the regulation on "reference nuclear power plant" need to change to incorporate CTS?
Answer	The safety rules and standards applicable to the CTS facility have been defined ad hoc, as this installation is the first-of-a-kind in Spain. The safety rules and standards applicable are those adopted by the CSN (eg. IS-29), and others, as defined in the preliminary safety analysis of this facility. Among those are, in particular, American standards adopted by the NRC in the USA. Of course, there is the need to adapt those reference-standards to the particular characteristics of the CTS facility. ENRESA proposes those reference standards in the preliminary safety analysis and it is up to the CSN to evaluate whether these standards are adequate for the CTS facility.		
Australia	Article 16.1	page 139	are the commissioning reports of waste facilities at the nuclear power plants reviewed by CSN?
Answer	The Spanish Nuclear Power Plants send the corresponding reports of their waste facilities on time to the CSN, that is in charge of assessing them accordingly, and come back to the utilities if more information is needed		
Australia	Article 16.1	page 141	reference the decommissioning plans for the radioactive waste facilities for nuclear facilities
Answer	Decommissioning plans for nuclear installations include corresponding provisions related to the radioactive waste management facilities emplaced in each site so their future decommissioning is in scope of such nuclear installation decommissioning plan		
Australia	Article 27.1	page 153	Report states that ADR 2017 started on 1/1/2017, and ADR 2015 allowed to be used until 1/7/2015 - what applied in the meantime?
Answer	On this point there is a mistake in the report. In fact, ADR entered into force on 01/01/2017 and it was possible to apply the ADR 2015 until 30/06/2017 (not 30/06/2015).		

Australia	Article 32	pages 11-12 and page 39	How does the General Radioactive Waste Plan address the management of LLW and ILW containing safeguarded nuclear material? Are they special wastes held at El Cabril's temporary storage facility pending further treatment?
Answer	There are no particular provisions in the General Radioactive Waste Plan for LLW and ILW containing safeguarded nuclear material. They are managed like any other LLW and ILW but specifically accounted as required by the safeguards system. If LLW, the waste is treated and disposed of in El Cabril, if not it is temporary stored at this facility waiting for further steps in the management route. The main management strategy for these wastes, as set in the General Radioactive Waste Plan, is to accommodate them in the CTS facility once this facility is in operation. They shall be subject to further treatment in the CTS facility if so required.		
Australia	Article 6	pages 43-47	Other than the application to extend the BirdLife Special Protection Area, have there been any legal challenges regarding the siting of the Centralised Temporary Storage (CTS) for spent fuel?
Answer	Other legal issue related to the siting of the CTS is the cancellation of the urban planning document of Villar de Cañas, the municipality that will host the CTS. The availability of this document affects the municipal license required to start the civil works. This document, which was approved in June 2015, was cancelled by the regional Government in December 2015. This cancellation was appealed by the National Government Advocacy (who afterwards retired the appeal) and by the municipality of Villar de Cañas. Finally, in January 2018, the appeal was dismissed by the regional High Court of Justice.		
Australia	Article 5	pages 101-103 (articles 5 and 6)	It states: The purpose of temporary storage is to pro vide sufficient capacity to house the spent fuel (SF) generated by Spanish nuclear power plants until a definitive solution is available.What is the target date for find the definitive solution noting that operating period will be 60 years? What is the design life of this facility?
Answer	The design life of the Centralized Storage Facility is 100 years, with an expected life of exploitation in the General Radioactive Waste Plan of 60 years. In accordance with the schedule, the deep geological repository should start normal operation in 2069.		
Australia	Article 5	pages 101-103 (articles 5 and 6)	It is stated that the periodic safety review (PSR) for the nuclear power plant covers the spent fuel pool. Will the periodic safety review of the CTS be part of the NPP or will it be subject to indpendent PSR noting that it is a standalone centralised facility? Please clarify.
Answer	The CTS is an independent storage facility and will be located on an specific site. Under Spanish regulation it is a nuclear facility and subject to the same requirements with regard to PSR as any NPP. For the case of NPP, spent fuel pools as well as on-site dry storage facilities are subjected to PSR.		
Australia	Article 20	page 66	Does CSN plan to update the requirements of their management system to reflect GSR Part 2?
Answer	The management system manual is being revised in accordance with the requirements of GSR part.2 and the ISO 9001-2015 standard		

Australia	Article 6	page 105	Licensing of dual purpose cask (DPC)- what is the certification period of DPC? How often the DPC is subject to periodic safety?
Answer	Dual purpose casks (DPC) follow two independent licensing processes, one for storage and other one for transport, with two corresponding certifications. The certification for storage has 20 years duration and transport certification has 5 years duration, both from the date of its issuance in accordance with the respective applicable regulations. Regarding the periodic safety evaluations, in the case of storage, the certification holder is obliged to send to the CSN a revision of the Safety Study every two years in order to include the design and in manufacturing changes that do not require approval, while in case of transport the Safety Study is reviewed every 5 years, and in both cases whenever the modifications affect the safety		
Australia	Article 9	pages 116 and 140 (articles 9 and 16)	Apart from the CSN, are incidents reported through the IAEA Reporting Systems (e.g. INES, FINAS, USIE)?
Answer	The CSN usually receives notification of radiological safety significant events that occurred within regulated facilities. The events that happen in waste management facilities are promptly rated according the INES scale. The events are communicated to the INES National Officer, who, according to their significance, includes the events into the INES network for their dissemination. As far as the waste management facilities are also part of the Nuclear Fuel Cycle facilities, some of the events of safety significance, which occur at these facilities, are analyzed by the National Coordinator of the FINAS database. The events that are worth as lesson learnt or operating experience of these facilities, are included in the FINAS database providing detailed information on both technical and human factor related to the events.		
Australia	Article 9	pages 115 and 139 (articles 9 and 16)	Are there any specific safety performance indicators established for the operation of CTS and radioactive waste facilities?
Answer	CTS is currently under the evaluation process for the construction permit. Development of safety indicators will be dealt with at a later stage, before the operation permit is granted. Performance indicators for El Cabril installation are established in CSN procedure PG.IV.15, “Sistema de supervision y seguimiento del Centro de Almacenamiento de El Cabril”		
Australia	Article 4.4	page 99	When assessing radiological impacts on the environment, is it assumed that if the public is protected the environment is also protected or are impacts on the environment assessed independently?
Answer	Radiological impact assessment to environment assumes the hypothesis that if the public is protected, the environment is protected.		
Australia	Article 10	page 118	Within Phase 2 (assessment of information and orientation of future phases) or Phase 3 (site selection process), for sites that are geologically suitable for a DGD, is obtaining community support identified as an essential part of the site selection process?

Answer	Both Phase 2 and Phase 3 include societal matters and community engagement as part of its concerns. Actually, the siting process in its social aspects will have to be proposed during Phase 2 according to existing information and analysis of previous domestic and international experiences. Predictably, the process will be refined, discussed and passed by the authorities at the beginning of Phase 3. In both cases, and as stated in previous General Plans for RWM, community support is considered a crucial element of the site selection process.		
Australia	Article 26.1	page 90	It is stated that once the licensee (operator) of the facility has concluded the activities prior to the dismantling, the facility must be transferred temporarily to ENRESA to proceed with dismantling. After ENRESA dismantle a nuclear facility, what happens to the site? Does the licence get removed and the land goes back to the original NPP operator or is it to the state? This could be a very long time after the transfer to ENRESA (20 y +). Annex B, p 193, does not clarify this either.
Answer	The Nuclear and Radioactive Facilities Regulation (RINR) describes the procedure for the dismantling of the nuclear facilities. According to it, the MINETAD issues a dismantling license, jointly with the transfer of holdership to ENRESA. This license enables ENRESA to accomplish the dismantling and decommissioning of the facility and both the facility and the site are transferred to ENRESA upon the conditions established in a bilateal agreement between ENRESA and the operator. Once the dismantling activities have been finalised, a declaration of decommissioning is issued by the MINETAD, and thus the site goes back to the operator. If required, the MINETAD can establish use restrictions on the site. No period of time is established for this transfer.		
Belgium	Article 10	page 118	Could you clarify whether the option of borehole disposal has been studied? If this is the case, what were the conclusions of the studies regarding the suitability of this disposal option? What were the main arguments for or against this option?
Answer	Borehole disposal has never been considered an option in the Spanish radioactive waste management strategy as the amount of ILW, HLW and SF promote a solution like deep geological disposal. It is assumed that this latter alternative has clearer benefits in terms of safety, security and economy.		
Belgium	Article 6	page 103	This section mentions that the Centralised Temporary Storage (CTS) for the storage of the spent fuel would have an operating period of around 60 years. Wat is the reasoning for determining this duration? In particular, how do the 60 years of operations integrate with the current planning of development of the deep geological disposal project? What are the (technical) factors limiting the duration of the operation period of the CTS?
Answer	60 years is the time span that has been estimated for the start of the regular operation of the DGR. It is also to be a reasonable lifetime period for a nuclear facility, on line with the latest international experience. Concerning limiting factors to the operation of the CTS in the long term, ageing of materials will be the most relevant.		

Belgium	Article 11.3	page 123-124	The consideration of interdependencies in waste management requires that all steps are properly taken into account. Could you explain how possible future waste acceptance criteria associated with disposal are taken into consideration in the current management of the waste for which geological disposal is considered as the preferred endpoint ?
Answer	The waste acceptance criteria for the Individual Storage Facilities (ISFs) in the sites of the NPPs, and those waste acceptance criteria that we expect to adopt for the Centralized Temporary Storage (CTS) facility, are conceived solely for these facilities and for the time being they do not incorporate any consideration of a future deep geological disposal facility. Currently, we do not know what the possible waste acceptance criteria for a deep geological disposal facility will be. Nevertheless, retrivability is a key concept in the design of the ISFs and the CTS, the facility to store all waste and SF that in the future will be disposed of at a deep geological repository. Additionally, damaged spent fuel is subject to strict acceptance criteria so their situation do not compromise its future management in the repository.		
Belgium	Article 32	Section B.4 page 22	Please could Spain give the typical duration of the open-air storage of spent fuel ?
Answer	The open-air storages of spent fuel have been conceived as transitory solutions due to the delay in the availability of a CTS, and until the fuel can be transported to the CTS.		
Canada	Article 6	page 38	What has been the reaction of the public and the regional government officials, in the vicinity where the CTS facility is being proposed, regarding the Supreme Court's recent decision that enables the siting work to continue? How does this impact the timelines and funding of the proposed project?
Answer	Supreme Court decision halts temporarily the entering into force of the proposed Declaration of a larger area for bird's protection by the regional government. This ruling is not definitive but, according to Spanish Law, is a cautionary measure adopted by a Court that tries to avoid permanent damages caused by an administrative act which has been appealed and while the definitive decision of the Court is under discussion. Local public feels comfortable with the sentence, regional authorities, according to the media, do not. Timelines and funding keep being the same as shown in the National Report.		
Canada	Article 6	page 21	The national report highlights some of the key advantages of a centralised temporary storage facility for spent fuel and high-level radioactive waste. Are there any safety or public concerns about the additional steps of handling, packaging, financing, and transporting the waste as opposed to directly disposing of these wastes in a deep geological repository? Are there any public concerns that the CTS facility could, one day, be designated as the Centralised Disposal Facility? If not, what assurances are being made to the communities that this will not happen?

Answer	The possibility of the CTS in Villar de Cañas eventually becoming a Deep Geological Repository has not been an issue. Neither at the information campaigns and meetings with local populations nor in the public hearings during the procedure of Environmental Impact Assessment. It is something that local populations or environmental groups have not raised. It is clear that the CTS will operate during 60 or 100 years maximum. ENRESA has also argued that beyond these dates all wastes will be disposed of in a DGR in a different site. A different point is transporting the waste to the CTS which is a permanent argument for the opponents to the facility, together with the unsuitability of the site (poor mechanic characteristics of soils). The hosting municipality does not care about transport but some of the surrounding municipalities do. The Spanish nuclear safety regulator, CSN, asked for an analysis of transport alternatives as part of the EIA. The study was carried out by ENRESA and considered favourably by the CSN and the Ministry of Environment, but rejected by some municipalities and environmentalist groups.		
Canada	Article 20	page 67	Spain's national report identifies the importance of knowledge management. However, it focuses solely on technical staff (those born on or before 1952) who work for the Nuclear Safety Council. Are there other similar actions plans, for example, being developed by government and ENSERA staff?
Answer	Although there is not yet an Overall Knowledge Management (KM) Plan in ENRESA some aspects considered KM relevant tools and components are currently ongoing or have being already implemented. Three of them could be highlighted: a) the Cooperative Working Platform, an IT development able to manage contents and tasks/projects which are planned in an integrated manner; b) the System for Document Management that works as the main repository of information; 3) the participation in several international initiatives on long-term record- keeping and memory whose outcomes are becoming significantly important for ENRESA's missions		
China	Article 22.2	F.22, P76	It is mentioned in F 22.2 that "The costs pertaining to the management of radioactive waste and spent fuel, the dismantling of nuclear facilities, structural costs and R&D projects are allocated to this fund." Does the fund cover the investment for the construction of the infrastructure for the management of radioactive waste? Please give a brief account of the financial assurance measures of this fund.
Answer	Commonly, infrastructure costs are covered by the Fund. This is allowed because the legal provision regulating the Fund expressly establishes that "The cost of waste management will include all costs related to the technical activities and support services necessary to carry out these actions". Financial assurance measures of the Fund are briefed in Annex D, point 4 of the Report.		
China	Article 32.2.1	D.1, P35	(1) In the period covered by this report, the most important new activities related to several assessments of the design of the ITS to verify that everything remains functioning once the DPT casks have been replaced with the ENUN 32P model.(Trillo nuclear power plant) (2) Since its start up in 2008, the ITS at the plant, which stores all SF generated during the operation of this facility in 12 casks, is being operated on a routine basis.(José Cabrera nuclear power plant)Please describe in detail what the report states "everything remains functioning once the DPT casks have been replaced with the ENUN 32P model" and the specific parameters for spent fuel stored in the ITS at the José Cabrera NPP, as well as the chang of the operation license of ITS before and after decommissioning.

Answer	(1) The meaning of "everything remains functioning once the DPT casks have been replaced with the ENUN 32P model" was to evaluate the impact of casks replacement on the stated licensing and operation conditions of the ITS and the corresponding procedures for casks handling and loading. Basically, two initiatives were carried out: a) Radiological evaluation of the ITS for a new situation where the 48 empty positions will be filled up with ENUN 32P instead of DPTs. Under the new parameters it turned out that the use of ENEN 32P will not limit the capacity of the ITS due to radiological considerations. b) Re-assessment of the different interfaces when loading the casks in the plant (SF fuel pit, transfer-pad, etc.…). Some points in the loading procedures needed to be changed, even the vehicle for transferring the casks from the plant to the ITS. (2) The specific parameters of SF stored in the ITS are: 377 fuel assemblies burned during the period 1983- 2006 (fuel from previous cycles was sent to reprocess); Fuel assemblies PWR 14x14 Westinghouse Types HIPAR and LOLOPAR; Range of enrichment: 3. 20 -3.60 wt % U-235, Low burnup fuel with a range: 13.000 y 43.247 MWd/MtU, 26 damaged fuel assemblies. The original Decommissioning Plan of José Cabrera included the decommissioning of the existing ITS, where there are 16 HI_STORMS, 12 with SF and 4 with ILW. All these casks were to be sent to the Centralised Storage Facility (CTS). The stoppage in the licensing program of the CTS will no doubt affect the existing license of the ITS. On the other hand, works for completing the demolition and decontamination of the buildings of the NPP keep on schedule and most likely will be completed by the end of next year.		
China	Article 24.2	F.24.2.1, P83	It is mentioned in F.24.2.1 that “At the El Cabril disposal facility, the zero discharge criteria is applied for radioactive liquid, withonly gaseous radioactive waste released into the environment.” Please give a brief description of the radioactive liquid waste treatment technology applied in EI Cabril disposal facility, the current utilization situation of the addressed liquid waste treatment technology in Spain. What is the discharge standard of gaseous radioactive waste produced in the progress?

Answer	The due regard to interdependencies is present in the overall Spanish national framework for radioactive waste management, being one of the principles that rule radioactive waste management, according to article 3 of Royal Decree 102/2014 (“The interdependence of all stages of the production and management of spent nuclear fuel and radioactive waste shall be taken into account”). This principle can for example be depicted as a condition in the standard IS-26 from the CSN (7.22): The licensee of the nuclear installation shall ensure that, when decisions are made during the different radioactive waste management stages, the interactions and relations with other stages are previously identified and acknowledged such that a well-balanced compromise between safety and overall effectiveness is reached. In practice, this requirement is implemented basically through the application of the Radioactive Waste and Spent Fuel Management Plan, an official document for the operation of nuclear facilities that is submitted to the CSN prior to being approved by the Ministry of Energy. In 2008, the CSN issued Safety Guide 9.03, which establishes the objectives, criteria and contents of these plans. All such plans have been evaluated by the CSN in the light of this Safety Guide and are now approved. This requirement is also reflected in the methodology, defined by ENRESA, for the acceptance of LILW and VLLW at the El Cabril disposal facility. The producers of radioactive wastes at nuclear facilities are responsible for the conditioning of the waste packages such that they fulfil these acceptance criteria. ENRESA is required to verify by means of a process of preliminary acceptance that the waste packages comply with the aforementioned requirements. This has occurred since El Cabril initiated its activities in 1992 and its last concretion was the requirement to ENRESA, made by the CSN in 2010, to draw up specific acceptance processes contemplating generation by the waste producers of final disposal units for direct incorporation in the cells at El Cabril. In a similar way, the Royal Decree 102/2014 includes the following Article: Article 11. Technical-administrative specifications for acceptance. 1. The owners of nuclear and radioactive installations must meet technical-administrative specifications for acceptance of their nuclear spent fuel and waste for subsequent collection and management by ENRESA. 2. This same obligation extends to the owners of any installation or business activities not subject to the regime of nuclear legislation licences but which may give rise to radioactive waste. 3. The aforesaid specifications must clarify their applicable period, up until the end of the lifetime of such installations, covering the dismantling and decommissioning, or closure, of nuclear installations and, as the case may be, radioactive installations. 4. These specifications must be approved by the Ministry Industry, Energy and Tourism, upon prior report from the Nuclear Safety Council. Additionally, it should be noted that, among the information obligations of Enresa to the CSN introduced by Royal Decree 102/2014 (article 12.2), there is the one to remit, during the first quarter of each year, information on the interdependencies, agreements and interfaces of competencies with the holders of other spent nuclear fuel management facilities and radioactive waste.		
China	Article 4.3	G.4.3, P98	It is mentioned in G 4.3 that “The licensee of the nuclear installation shall ensure that, when decisions are made duringthe different radioactive waste management stages, the interactions and relations withother stages are previously identified and acknowledged such that a well-balanced compromise between safety and overall effectiveness is reached.” (1) Please give a brief description of the coordination mechanism and the relevant laws and regulations at the different stages of radioactive waste management. (2) Please give an example of a decision making process of RW management.

Answer	All potentially radioactive effluents are collected in the radioactive liquid effluent system, which has the capacity to store them in the system's tanks. Such aqueous effluents are used in the preparation of the sealing mortar for the waste containers; their activity is evacuated therefore, in solid form to the disposal structure. The production needs for the sealing mortar allow for all the volume of aqueous radioactive liquid effluent generated to be absorbed. There is therefore no need to discharge radioactive liquid effluents in normal operation. The non-aqueous effluents collected from the regular operation of radioactive installations across th whole country are eliminated in the incineration process. The Construction Authorisation establishes the design objective in which the effective equivalent dosage of the individual most exposed in the non-restricted areas due to all the emissions by air and considering all the potential forms of exposure must be as low as reasonably possible and, in all cases, lower than 10 E-2 mSv/year.		
China	Article 11.2	H.11.2, P123	"In the case of operating nuclear power plants, the Spanish Electrical Industry Association (UNESA) and the CSN have developed a methodology that is applied to the clearance of four categories of material: scrap metal, resin, active carbon and wood." Please explain in detail the clearance procedures and the measurement methods of these four types of materials.
Answer	Nuclide specific clearance levels for the conditional clearance of scrap metals to be recycled by melting, and for the recycle or disposal of building rubble are considered in Spain following EC specific recommendations RP-89] and RP-113. Nuclide specific clearance levels were also derived for certain slightly contaminated waste streams produced during the operation of nuclear plants: used oils, hazardous wastes (used active charcoal and spent resins) and wood. The derivation of conditional clearance levels for these specific waste streams was conducted by the CSN with the participation of the Spanish Association of Electricity (UNESA) through a process called Common Project (CP) for all nuclear power plants (NPP). For each of the selected waste streams a CP applicable to all the Spanish NPP was elaborated by UNESA and submitted to the CSN for its appreciation. The content of the documentation included in a CP refers to the following aspects: - Origin, annual production in nuclear plants, physic, chemical and radiological characteristics of the waste stream. - Classification of the waste from the conventional point of view and description of the management routes on the basis of the regulatory standards in force. - Detailed radiological impact analysis, taking into account the annual production of wastes and the possible scenarios of exposure to radiation associated with existing conventional management routes and the proposal of clearance levels. - Methodology and criteria for radiological characterisation of the wastes and for the verification of compliance with the clearance levels. As result of the mentioned CP and the subsequent favourable appreciation of the CSN the technical and administrative basis for the conditional clearance of each waste stream were established in terms of clearance values, characterisation procedures, possible restrictions on the destination of the residual materials and the documentation that would be necessary in support of the licensee application for a clearance authorisation. Once a CP has been approved by the CSN, each licensee interested in the clearance of a waste stream would apply for a clearance authorisation to the MINETAD, demonstrating compliance with the technical conditions established by the CSN in the CP approval statement. Before granting the clearance authorisation a favourable CSN report is compulsory. In specific cases related to specific wastes of a particular facility or with specific management route proposals, a licensee can also apply for a specific conditional clearance authorisation. Measurement methods depends on the type of waste stream: For the radiological control of sampleable residual materials it shall be sufficient to analyse one representative sample of the residual material by means of gamma spectrometry or, when alpha is the most significant type of radiation, to measure the total alpha activity of the sample. For unsampleable residual materials it shall be sufficient to perform any of the following radiological controls: a) Measuring on all surfaces of the residual material, the total beta-gamma or total alpha when this is the most significant type of radiation – surface contamination, averaged over no more than 300 cm2. b) Analysing the assessment unit by means of gamma spectrometry. Radiological control of potentially clearable residual materials must be implemented following the next criteria included in CSN Instruction -31: a) In each residual material assessment unit it must be verified with a 95% level of confidence that the isotope activity per unit mass (Bq/g) or per unit surface (Bq/cm2) fulfils the expression below: $\Sigma(Ci/NDi) \leq 1$ (1) where		

China	Article 16.2	H.16.2.4, P144	It is mentioned that one of the objectives is to compare the values of activity with those declared by the producer and monitor the factors of scale for difficult-to-measure radio nuclides. What is the current monitoring frequency of the factors of scale for difficult-to-measure radio nuclides? Do the factors of scale for difficult-to-measure radio nuclides provide by each power plant alone or several plants together?
Answer	ENRESA has developed factors of scale for each one of the reactors. Factors of scale for difficult-to-measure radio nuclides are reviwed every two years		
China	Article 16.2	H.16.2.4, P144	It is mentioned that one of the objectives is to check the important chemical aspects for safety of storage (comptibility of cask, corrosion, etc.)" What are the specific standards and sampling rate for addressed checking? Will the sampling rate be appropriately reduced after the pass rate is met many times?
Answer	Checking the chemical compliance of waste packages is an important part of testing that its characteristics fulfil the Waste Acceptance Criteria (WAC) for being disposed of at El Cabril. These WAC are the very standards for the waste and they are wider than chemical aspects (they also include radiological as well as mechanical characteristics). Normally, sampling is carried out at every change in the characteristics of the waste matrix at the producers' installations or at every change in the composition of the waste stream. They normally last until there is total evidence that the new flow of waste packages complies with the full set of WACs. The frequency of sampling is stated in an specific procedure ruling the process described above.		
France	Article 32	Section A.3 – pages 7 to 12	In the report, there is a lack of information on the milestones for the ongoing projects regarding radioactive waste management facilities or decommissioning projects. For example: - It is mentioned (Section A.3 - p12) "Until the CTS becomes operational, the Santa Maria de Garoña, Almaraz and Cofrentes nuclear power plants will need additional storage capacity for spent fuel beyond existing pools, with construction of Individualised Temporary Storage facilities planned for each of the sites, as has already been done at Trillo, José Cabrera and Ascó, licensed in each case as modifications to the design of the facilities." Could Spain specify the expected deadline for the commissioning of the temporary individualized storages (ITS) at Garoña, Almaraz and Cofrentes NPPs? - Planned or foreseen periods for decommissioning activities of CIEMAT and Quercus are mentioned neither in the table 5 nor in the associated paragraphs. Could Spain provide more information about the foreseen dismantling activities and also provide associated time schedule for licensing and dismantling?

Answer	With regards to the commissioning dates for the individual storage facilities, it is expected that, after the respective CSN´s reports, the individual storage facilities of Garoña and Almaraz will become operative along 2018. When it comes to Cofrentes, it is still pending on the Environmental Impact Statement from MAPAMA and the execution and assembly and the commissioning authorizations from MINETAD, after the CSN´s reports, so it is expected for 2019. By means of Ministerial Order, dated November 14th, 2005, the Direction General for Energy Policy and Mines authorized the decommissioning of the facilities in the shutdown phase of CIEMAT, in accordance with the request and with documentation presented in support of the same by CIEMAT. According to that authorization, CIEMAT is the owner and responsible for the installations contemplated in the so called "PIMIC" dismantling project, as indicated in Annex I of the aforementioned Order. The dismantling project affects the area that housed the most representative nuclear facilities of the former Nuclear Energy Board (JEN) and is executed by ENRESA, based on a contractual relationship with CIEMAT. In 2006, ENRESA began the decommissioning activities of the facilities included in the authorization. The activities of decommissioning and restoration of lands ended in 2015. After that, the activities were interrupted during 2016 until March 2017. As of that date, and for 15 months, activities related to the management of materials and waste generated in previous years are being carried out. During 2017, and up to the present, regarding the activities of the Project, in addition to the tasks of monitoring and control of the facilities where the radioactive waste generated pending shipment abroad are stored, the following activities are being carried out: • Solidification of radioactive liquid waste from the liquid effluent treatment system. • Management of VLLW of compactable material. • Management and dispatch of VLLW to the El Cabril disposal facility; Once the planned dismantling activities have been completed, the compliance with the provisions of the Site Restoration Plan must be verified. The purpose of the dismantling activities of the Quercus Plant aims that the radiological conditions of the site are as close as possible to the original ones, setting identical stability criteria and radiological activity limits as those set for the decommissioning of the Elephant Plant and restoration of the mines, both adjacent to it and currently in surveillance period. The process of Quercus dismantling will be addressed in three phases, as it is necessary to keep the water treatment infrastructure operational, until its quality allows it to be discharged directly to public waterways. ENUSA, licensee of the facility, requested MINETAD an authorization for Phase I of the dismantling and closure of the facility in September 2015. Within the framework of the application evaluation process, the CSN has asked ENUSA for different requests for additional information, the last of which was presented in December 2017. Once the mandatory report of the CSN is issued, MINETAD will issue the corresponding authorization for the first phase of the dismantling and closure of the Quercus Plant. In relation to environmental regulations, on March 9th 2018, the Director General of Quality and Environmental Assessment of the Ministry of Agriculture and Fisheries, Food and Environment issued a favourable Environmental Impact Statement on Phase I of the project. Once the aforementioned authorization to dismantle and close Quercus is obtained, the demolition, dismantling, decontamination, handling, transport and removal of the materials from the industrial facilities of the Quercus Process Plant (where the dynamic leaching process of the mineral took place) is planned. The materials resulting from the dismantling of the Process Plant will be disposed of in a confinement vault, built for such purposes, in the area adjacent to the Static Leaching Era. Subsequently, said confinement will be sealed. On the other hand, the in situ remodeling of the Static Leaching Era will be carried out by spreading the exhausted minerals, covering the area occupied by the confinement vault. The entire set will be covered with a multilayer of radiological and environmental protection. Finally, a perimeter ditch will be built for rain drains, and revegetation will be carried out.		
France	General	Section L (Annex F) - pages 203-204	In the Annex F “Actions relating to the post-Fukushima National Action Plan”, the specific actions or improvements taken or requested to improve the safety are not mentioned. In this regard, could Spain specify, in Annex F: - the measures (new hydrant network, new fire equipment…) implemented for ISFSI at the José Cabrera NPP site in order to deal with “loss of large areas due to explosions and fire”; - the main findings resulting from the development of “post-accidental phase of an emergency”, including the management of large amount of solid and liquid waste (especially regarding the provisions made in anticipation of a potential nuclear accident).

Answer	The measures for the ISFSI of Jose Cabrera NPP to mitigate the consequences associated to a big fire events (considering the impact of a commercial aircraft on the ITS) included the development by Enresa of two guides “Accident Management Guide for large damage in the ITS” and “Firefight plan for large ITS fires”, with the implementation of measures such as the following: - News sources of water from elevated tanks, as passives sources portable water and irrigation water (more than 1000m3), and new protected hydrants (5 positions) around the ITS, to inject water with portable pumps, being also possible to send water to the facility with irrigation pumps from the river 8250m3/h) - News portable fire equipment at the ISFSI site together with the availability of External Firefight Aid - New autonomous portable lightning equipment (more than 18 hours autonomy) is also available.		
France	Article 6	Section A3 - pages 9-10	In Section A3, it is mentioned that “In July 2015, the regional government [...] began the process of extending the BirdLife Special Protection Area [...], some 11 kilometres from the site of the CTS, which includes the lands of the CTS in its scope. The State Legal Services appealed this extension. In December 2016, the Supreme Court ruled against the extension - as of the date of the preparation of the report, the judicial process is unconcluded. These litigations have delayed the publication of the Environmental Impact Statement”. In considering the judicial process for the extension of a special protection area that would include the CTS planned site: - Could Spain explain the consequences, in terms of delay for the CTS project and in general for the spent fuel and HLW management in Spain, with regards to the storage capacity of ITSs in some NPP sites? - In addition, could Spain indicate whether an alternative solution is foreseen for the CTS site?
Answer	The consequences of the delay of the CTS project depend on the duration of this delay and are being assessed on a case by case basis. As the capacity of the ITSs is limited, an extension of the capacity could be envisaged.		
France	Article 19	Section A (A.3) - page 9	Regulations for unconditional clearance of residual material is one of the challenges set out in the "Country Group 3 - Rapporteur’s Written Report" of the Fifth Review Meeting. In the sixth National Report, the presentation of the Draft Order "Order regulating the clearance of waste materials generated in nuclear facilities" does not bring information about the re-use process of declassified waste material, except that it can be stored in conventional ways. Could Spain provide some information about the process of elimination, recycling, storage or re-use expected for declassified waste materials, in accordance with the Draft Order aiming at regulating the de-classification of waste materials generated in nuclear facilities?

Answer	The 2013/59 Euratom Directive has been partially transposed to the Spanish law in matters related to the clearance of residual materials arising from nuclear facilities (Order ETU/1185/2017 of 06/12/2017). Clearance is defined in Order ETU/1185/2017 as a process by means of which certain residual materials with radioactive content and generated in nuclear or radioactive facilities may be managed as conventional waste without the need of subsequent radiological control. Unconditionally cleared wastes can be managed by conventional routes provided the licensee of the facility guarantees compliance with the unconditional clearance levels set in the Order ETU/1185/2017 (taken from Art. 30 and clearance levels in Annex VII, table A of 2013/59 Euratom Directive). Conventional management of unconditionally cleared wastes by elimination (disposal), recycling or re-use is not subjected to regulatory radiological control, without prejudice of compliance with the regulations that are specifically applicable to it. The expected management process is the same to be applied to waste materials of analogous physic and chemical characteristics. According to Order ETU/1185/2017 dedicated facilities for the conventional management of unconditionally cleared wastes are not permitted in order to guarantee the technological mix with non-active wastes.		
France	Article 20	Section E (20.2.1 8, 20.2.8) - pages 62,	Maintaining and increasing public involvement and engagement on waste management, to provide public confidence and acceptance is one of the overarching issues set out in the final summary report of the Fifth Review Meeting. In the sixth National Report, only the measures to inform and involve the public are presented without any illustration of such involvement in the licensing process for radioactive waste activities and facilities. Could Spain provide information about the measures taken to provide public confidence and acceptance? In particular, could Spain provide information about the public acceptance of the HLW long term storage, given the postponement of availability of the deep geological disposal (from 2050 to 2063) and the delay for the CTS storage project?

Answer	In particular, regarding the Centralized Storage Facility, previous reports of the Joint Convention detailed the ad-hoc process established for the site selection that led to the election of Vilar de Cañas as the chosen municipality, and the information provided to public through the ad-hoc website, created to such effects, www.emplazamientoatc.es, where you can still find all the reports related to this process and the installation. In general, ENRESA channels a significant part of the dissemination and information efforts to citizens about the characteristics of radioactive waste management, the decommissioning of radioactive and nuclear facilities and the environmental restoration of sites. For this, it has several channels through which to publicize its activity. Among the information media of the company, the magazines "Estratos" and "Dinamo" (two publications edited by ENRESA), the information brochures focused on publicizing each specific project and the corporate website www.enresa.es, stand out. This website received, during the period of the report, 356,822 unique visitors. During this period the "video library" section has been created on said corporate website (http://www.enresa.es/esp/inicio/conozca-enresa/videoteca). In this section, you can find the following informative videos: • The audiovisual "25 years of the installation El Cabril" was published in 2017 to mark the 25th anniversary of the installation, this video has a marked historical, human and informative character in which the past, the present and the future of El Cabril facility are narrated. • "Radioactivity and radioactive waste": audiovisual brings the citizen information about the reference title. • El Cabril radioactive waste disposal facility • The Centralized Storage Facility • Decommissioning of José Cabrera nuclear power plant • Decommissioning of Vandellós I nuclear power plant Likewise, during the period under consideration, the manual "Basic training course on radioactivity and radiation measurement for personnel of steel, foundry and recovery companies" was published, which is delivered in the courses taught by the Technical Unit for Radiological Protection of ENRESA within the framework of the commitments assumed by ENRESA in the Collaborative Protocol on Radiological Surveillance of Metallic Materials. In its relationship with the media, ENRESA maintains an active communication policy by proactively providing information to the media that may be of interest to society, and responding to their demands on the company's various projects. In this sense, during the period of the report, numerous press releases have been sent and various specific meetings have been organized with journalists. Among others, it is worth mentioning the meeting that took place in Guadalajara on the occasion of the decommissioning of the reactor vessel of José Cabrera nuclear power plant, and that which took place in Córdoba, on the occasion of the XVII International Seminar on Science, Journalism and the Environment (SIPMA), which brought together more than 150 participants in the rectorate of the University of Córdoba. This edition was focused on scientific dissemination and environmental awareness, and attendees had the opportunity to visit the El Cabril disposal facility. During the period covered by the report, some 350 media information requests regarding the Centralized Storage facility, the Decommissioning and dismantling Plan of José Cabrera nuclear power plant and the El Cabril Disposal facility, among others themes were handled. ENRESA and its activities were present in 23671 news, mostly in digital media. In addition, ENRESA has participated in various public outreach events, such as the Public Information Meeting Exchange (PIME) held in Bucharest in February 2016, the High Level Waste Management course, held in July 2016 in the town of El Escorial or the itinerant Information Center that is installed in the annual meeting of the Spanish Nuclear Society.		
Germany	Article 6	p. 108, Section G	Situation of Centralised Temporary Storage (CTS): Could Spain please give an estimation on how long it will take until the CTS facility will start operation?
Answer	According to the current estimates of ENRESA, the CTS facilitiy would start operation in 2024, while the cask storage facility which is envisaged as part of the CTS would start operation in 2022.		
Germany	Article 6	p. 33 / p. 104, Sections D1/G	Existing and planned Individualised Temporary Storage (ITS): At all NPP sites, ITS facilities are existing or are planned except for the Vandellós site. What is the reason for that?
Answer	The main reason for building dry Individual Interim Storage Facilities (ISFs) at the Spanish NPPs is the saturation of their pools, not being available the Centralized Temporary Storage facility (CTS) so far. Vandellós II, in operation since 1988, belongs to the younger generation of NPPs in Spain, which implies a more extended deadline for saturation. ANAV, the licensee of Vandellós II, has announced a re-racking of the pools to be undertaken soon, a measure that can help accommodating its spent fuel until the CTS facility becomes available. Thus, an ISF might not be necessary for Vandellós II. Nevertheless, if the CTS project in the medium term continues paralized, the ISF should be assessed.		

Germany	Article 32.2.1	p. 45, Section D5	Facilities in decommissioning phase: The dismantling of the José Cabrera NPP is scheduled to be completed in 2018. Will the execution of dismantling and closure of the Jose Cabrera I NPP be finalised as foresee?
Answer	Current planning foresees the dismantling works to be completed mid 2019 while the site restoration may take longer.		
Japan	Article 9.6	116	According to the statement of National Report, plant operators in Spain carry out event analisys for safety improvement. Are there any practice applied to Spanish nuclear facilities that significantly contribute to safety improvement?
Answer	The Spanish Nuclear Power Plants carry out event analyses for safety improvement according to the requirements imposed by the competent authority's rulemaking and this practice itself is the one that greatly contributes to safety improvements in the facilities		
Japan	Article 9.6	117	National Report states that operator's continuous safety assessment is supervised by CSN periodically. Does CSN review its regulatory requirements based on the new knowledge obtained through biennial inspection? It is appreciate if Spain provides some examples of improvement of regulatory requirements taking operational experience into account, in particular, on the example of practice significantly contribute to safety improvement.
Answer	Feedback from inspection programmes is incoroporated into the regulartory frame work when needed. For instances instruction to all NPPs were issued to enhance spent fuel pool inventory. SNF and non-fuel waste national data base were also promoted as a results. Lesson learnt in accidental situations have also been incorported into Safety Instructions for "stress tests", Accident Analsysis at NPPS (IS-37) with safety improvments in beyond design accidents. New Centralised Storage Facility (currently under licensing) has been required to analsize beyond desing situations and incoropate solutions when needed into the design.		
Japan	Planned Activities	167	It is expected that descriptions in section K3 may potentially contain the element of good practice defined in INFCIRC/603. Providing conclete practices derived from the activities indicated in this section with supporting evidence is appreciated.
Answer	There are 7 points presented in section K3 as the main measures in progress for the strengthening of the regulatory system in Spain in the areas of concern of the Joint Convention. Many of them are currently being implemented and as they are long-term programs, it will take some time for the collection of the main outcomes and lessons learned together with the supporting evidence		

Korea, Republic of	Article 13	H, p.129	The procedure and method of closure of LILW disposal facility(El Cabril) are briefly described in section H. (1) Could you explain how to monitor the performance of the cover during the post-closure period? (2) Is there any example of applying alternative design for enhancing the performance of the cover, such as drainage system and integrity? (3) Do you have the long-term instrumentation plan for the cover, including frequency of inspecting the measurement devices and criteria for management of them, etc.
Answer	As such moment is not envisaged to happen in the short term, it is still uncertain which regulatory conditions will apply to the monitoring period. As primary assumption, we consider such monitoring will cover the area taken by the disposal vaults.		
Korea, Republic of	Article 16	H, p.145	As described in section 16.2.6, in order to gather the operational experience of El Cabril, periodic meetings are held where the organizations involved in the design of the facility and the operation and maintenance activities establish the improvement plans. (1) Are there any regulatory requirements related to the meeting? (2) Are there any stakeholders other than the designer and operator who attend the meeting? (3) Could you explain in detail how feedback of the results of the experience gathering program were carried out to improve disposal facility operation such as design changes?
Answer	1) It is a regulatory requierement to ENRESA to extract from the operational experience those lessons learned that may enable to improve safety. 2) No . 3) Continued efforts are made to keep El Cabril at "State-of-art" status. This has required ENRESA to implement a number of design changes as presented in Chapter 16.2.2 of sucessive National Report for the JC		
Korea, Republic of	Article 7	G.7.3, p.111	Regarding the CTS facility at section G.7.3, it is planned to install area or building for receiving spent fuel, and storage modules including special waste storage module. What has been in progress of designing the special waste storage module?
Answer	The CTS has been planned to put together all type of work not suitable to be disposed of in El Cabril. It includes SF, HLW and LL-ILW. According to the Spanish regulations, LL-ILW is named special waste. It does not generate heat and its main activity is due to activation of metallic components (for instance internals from reactors vessels or hulls from fuel elements after being cut in a reprocessing process). There are also high activity sources to be stored with special waste. Current planning is to store all them in a separate building of that for spent fuel and HLW as the criticality, ventilation and shielding requirements are far less demanding. As the rest of facilities in the ATC, the special waste storage module is in the process of being licensed by the Spanish authorities.		
Korea, Republic of	Article 32	B.2, p.17	Are there specific criteria of radioactivity concentration for the classification of high level radioactive waste? In addition, are there quantitative criteria for the classificaton of Special Waste?

Answer	As stated at the beginning of B.2, “Waste in Spain is classified according to the management facilities authorised for a certain volume, radiological inventory and certain limits regarding specific activity concentrations based on the nature of the different radioactive elements in place. In practice, the different facility categories match the radioactive waste classification criteria adopted by the IAEA and the European Commission”. In practice, HLW is that waste containing a significant concentration of alpha emitters and generating heat that cannot be disposed of in El Cabril. At the same time, Special Waste cannot be disposed of in El Cabril but it does not generate heat.		
Romania	General	Page 196	The fees for the provision of services for the management of radioactive waste generated at other non-power facilities, such as radioactive facilities (medicine, industry, agriculture and research) are paid at the time of the provision of the services. Are these expenses supported by the licensee or from the state budget?
Answer	As indicated in the national report, a fee is applied for the provision of services for the management of radioactive waste generated at radioactive facilities such as in medicine, industry, agriculture and research. This rate is calculated by applying to the quantity/type of waste delivered for its management the corresponding tax rates established by law. This fee is always paid by the generators.		
Romania	General	Page 193	What are the legal responsibilities of ENRESA in transporting and storing unrecorded radioactive waste resulting from nuclear accidents, orphan sources or other emergencies?
Answer	Among the tasks attributed to ENRESA by Royal Decree 102/2014 is "h) Acting, in the event of nuclear or radiological emergencies, in the manner and circumstances required by the authorities and agencies with competent jurisdiction". This legal provision should enable ENRESA to act in case of need in nuclear accidents, orphan sources or emergencies. ENRESA's action in such a case is sustained by the consideration of the State's ultimate responsibility, which is a principle routed in the law, and of the radioactive waste management as an essential public service.		
Romania	Article 16.2	Page 144	Considering the audits of process performed by ENRESA within the quality assurance system for radioactive waste management, please indicate the list of the norms/procedures destined for characterization and acceptance of LILW.
Answer	From the point of view of the characterization of LILW, Enresa has a series of own test procedures, aimed at determining the main parameters of the waste or the matrices in which they are conditioned. These procedures can be grouped into three main categories: Physical Determinations, Chemical Determinations and Radiological Determinations [NB: the list of procedures is too long and detailed to be inserted in this answer]. On the other hand, from the point of view of the acceptance of waste, the procedures applied reflect the acceptance methodology developed by ENRESA, as well as the Acceptance Criteria (qualitative and quantitative), which affect the different types of waste. All waste characterization and acceptance activities are audited by the Nuclear Safety Council.		
Slovakia	General	Section K (K.2.3)/ p. 166	When is it foreseen to complete and adopt the Seventh General Radioactive Waste Plan (GRWP) in Spain?

Answer	The 7th General Radioactive Waste Plan (GRWP) requires, before its addressing, a more predictable and stable general reference scenario in Spain, in particular with respect to the electricity mix. This mix shall be fixed by the Government through the approval of a Comprehensive Energy and Climate Plan, that will allow Spain to comply with the commitments regarding climate change in the context of the European Union, as well as other issues. To that end, in July 2017, the Government created a Commission of experts on energy transition, which is composed of fourteen independent experts of recognized prestige in that matter: four of them were appointed by the Government, one by each Parliamentary group and three by the social agents. The purpose of this Commission is to prepare a report on different possible scenarios of energy transition that guarantee the competitiveness of the economy, economic growth, job creation and environmental sustainability. Based on the results of this commission, the Government plans to approve a Comprehensive Energy and Climate Plan setting the contribution of each source of energy (nuclear, renewable sources, hydraulic, thermal coal, fuel, combined cycles, etc) to the energy mix. Once this Comprehensive Energy and Climate Plan is approved, ENRESA shall submit a draft proposal of 7th GRWP to MINETAD for the approval of the Government. In the meantime, annual updates of the economic and financial estimations are submitted by ENRESA to MINETAD so that this Ministry can play its role on the strategic direction and monitoring and control of ENRESA´s plans and actions, from the technical and economic point of view.		
Slovenia	Article 24	F, p. 84	Which are the gaseous and liquid discharge limits for radioactive material from the disposal facility?
Answer	El Cabril disposal facility was licensed according to the criteria of zero releases for radioactive liquids. The limit for gaseous effluents is an effective dose of 0.01 mSv over twelve consecutive months (see page 83). There are no limits established in terms of activity.		
Slovenia	Article 17	H, p. 146	How long will you provide institutional surveillance of radioactive waste disposal facilities?
Answer	Surveillance period after the closure of a disposal facility (active institutional control period) is established according its Safety Case (Safety Study and other official documentation of the facility) that depends on the kind of waste disposed of. The Spanish radioactive waste disposal facility is El Cabril with two different disposal structures: The LILW Low and Inter mediate Level Waste (LILW) structures where are disposed of waste which involves the presence of beta or gamma-emitting radionuclides with a short to medium half-life (under 30 years) and whose content in long-life radionuclides is very low and limited. The surveillance period after the closure of these structures is established in 300 years The Very Low Level Waste (VLLW) structures disposing of waste with radionuclides also with a short to medium half-life (under 30 years) and specific activities between 1 and 10 becquerel per gram, that may also reach several thousands in the case of some low-radiotoxicity radionuclides. The surveillance period after the closure of these structures is established in 60 years.		

United Kingdom	Article 28	Section J p.158	Section 28.1 describes the arrangements for the control of sealed sources and explains that, in 2014 the CSN established a Protocol in order to detect the entities with problems in terms of viability in order to establish the risk of each situation and to act in time. Section 28.1 also describes how, prior to 2013 the CSN issued an instruction to all licensees of sealed radioactive sources to require action from those with problems pertaining to viability and, for those incapable of maintaining adequate control the requirement to transfer the same to a reliable entity (another licensee, the supplier or ENRESA). The Protocol was formally implemented in 2016. It is not clear what legal status the Protocol has and what powers the CSN has to regulate this. Please explain the legal significance of the Protocol, the instructions made to licensees and how this process is regulated.
Answer	The Protocol has no legal significance at all. The Protocol is just a guidance for CSN staff in charge of the supervision and control of radioactive facilities to systematize the oversight of entities with problems. The Protocol provides guidance as to: i) the laws and regulations that may be used to undertake difficult situations (when is warranted to how to prepare a proposal to confiscate radioactive material, what is the procedure, what different instances within the Spanish Administration are involved, how to advice them how to act given the regulations in forec...), ii) the reinforced control that CSN has to apply depending on the risk of the radioactive material, iii) the frequency to report to the CSN upper management on the status of each facility on risk.		
United Kingdom	Article 8	Section G p.117	Pages 117 and 118 discuss the progress towards a Deep Geological Disposal (DGD) facility and describe the development of safety assessment exercise of conceptual designs. It is not clear what level of regulatory involvement there has been and whether the existing legal requirements and safety criteria will be appropriate for a DGD facility. Please explain what regulatory activities have been carried out or are planned to ensure that the legal requirements and safety criteria are appropriate for a DGD facility. To note, this is also referenced in Article 10 & 15.
Answer	In accordance with the existing Spanish legal framework, the licensing of a geological disposal facility would follow a stepwise process integrated by the following authorizations: a) Prior or siting authorization; b) Construction Authorization, c) Operation authorization, d) Modification authorization (if necessary) and e) Dismantling and sealing authorization. The latter one, which is specific for disposal facilities, will end with a closing statement issued by the Ministry of Industry, Energy and Tourism, following a report from the Nuclear Safety Council. The safety criteria applicable to the design, construction, operation and dismantling of the referred facility are those contained in the CSN Instruction IS-26 on basic safety requirements applicable to nuclear installations. In relation to ongoing developments to complete national regulatory framework, a CSN Instruction is being developed to incorporate the WENRA reference levels for disposal, currently not included in the existing regulations, and in particular those related to the post closure period.		

United Kingdom	Article 26	Section L / Annex G p.206	Annex G states that the long-term management policy for decommissioning includes dismantling to green field. Page 183 states that once the dismantling activities are completed, when compliance with the provisions of the site storation plan has been verified and other technical conditions established in the dismantling programme, MINETAD shall issue a declaration of decommissioning, subject to the report of the CSN. This declaration will release the licensee from their responsibility as operator. Please provide details of the criteria for declaration of decommissioning.
Answer	The dismantling process of a nuclear facility ends up with a decommission statement (license termination) freeing the owner of the installation from their responsibilities as an operator, and establishing, if some radiological restriction applies, the future use of the site, and the person or organization in charge of safeguarding such restrictions and ensuring due compliance. As far as the installation site is concerned, the Spanish Regulations require a site remediation plan to be submitted along with the decommissioning authorization application. The site remediation plan should specify, when necessary, the planned monitoring schedules for the verification of the radiation and contamination levels at the site to be released. Releasing a site without restrictions implies eliminating all future radiological monitoring. Radiological criteria for the release of sites containing nuclear installations are given in the Nuclear Safety Council Instruction IS-13. This instruction considers an effective dose to the representative individual from the critical group, from the residual activity in the site's ground, of less than 0.1 mSv per year. These radiological criteria shall apply to the entire released site, regardless of any possible future use restrictions for the site. The new background radiation dose at the released site shall be equal to the addition of the dose arising from residual activity and the existing dose previous to the operation of the installation (in other words the old background dose). The release of part of a site containing a nuclear installation is also allowed in the IS-13 Safety Instruction. As far as radiation protection is concerned, the release of part of the nuclear site prior to the license termination of the facility shall be considered acceptable only if the decommissioning authorization has been previously granted. If such a partial release needs to be carried out with restrictions, the radiological criteria shall apply to the entire site to be released. The operator shall keep the records with the radiological classification data of the released part of the site until the last release becomes effective and the decommission statement (license termination) of the installation is issued. A total or a partial release of a site with future use restrictions shall be considered acceptable: • Provided that it can be proved that any additional reductions in the residual activity required to release the site without restrictions may result in actual harm to the public or the environment, taking into account all possible radiological damages in the process; or provided that the residual levels associated with the restricted conditions are as low as reasonably achievable, taking into account social and economic factors (ALARA). • Provided that the operator supplies sufficient means to establish and keep legal and institutional controls to reasonably guarantee that the effective dose from background residual activity received by the representative individual of the critical group does not exceed 0.1 mSv y-1. This value shall apply to the entire ground of the site, regardless of the compliance with the clearance radiological criteria in force for buildings, facings, and structures. • Provided that it can be ensured that the dose received by the representative individual of the critical group as a consequence of any allowed uses under the restrictions in force does not exceed the maximum established value. Should the institutional control on the restrictions fail and render them ineffective, the dose received by the representative individual of the critical group shall not exceed a value of 1 mSv y-1. The operator shall put forward and provide evidence of compliance with radiological criteria for a set of release levels in accordance with the aforementioned radiological criteria and with the site's planned end use. The operator shall also put forward and provide evidence for the methodology used to perform the final radiological classification for the site, in order to demonstrate that all established radiological criteria are met.		
United Kingdom	Article 20	Section A p.11	Part e) describes the actions taken to respond to recommendations from the IRRS missions for the inclusion of safety culture in the regulatory management system. A document "CSN policy on Culture of Nuclear Safety" has been produced and approved in January 2017. Section K2.4 (page 167) states that it is envisaged that the Plenary of the CSN will decide on the mechanism by which a self-assessment of the safety culture shall be carried out. Please provide details of the activities that are planned within CSN to implement the new policy document.

Answer	A first reflection of the most relevant aspects in relation to the “CSN policy on Safety Culture (SC)” has identified improvements in the CSN Management System, communication aspects and learning/training, that are currently being implemented, such as: Improvements in the CSN Management System: - SC Policy integration in Management system: done - Organizational Manual actualization: under development - Knowledge Management Plan: under consideration by the CSN Commission - Planning process improvement: under development - Differing technical opinions treatment procedure: draft procedure for internal comments: done - Graded approach to safety: draft document describing the methodology prepared - Decision to engage in an internal SC assessment. Analysis of the alternatives for the assessment: in progress Collaboration and communication within the organization: - Presentations on SC Policy and CSN Code of Ethics to the whole organization - Internal Communication Plan: under development - Strengthen of internal communication and collaboration through the Knowledge Management Plan: under development Programs in place to facilitate continuous improvement, learning/training opportunities and self-assessment: - Workshops on Graded Approach to Safety: included in 2018 Training Program - Workshops on inspection and evaluation roles in the CSN: included in 2018 Training Program - Inspectors training on SC oversight in the CSN oversight program. Progressive cultural change in the approach to inspections, from focus on technical deficiencies to include understanding of their causes: done		
United Kingdom	Article 32	Section D p.39	This section describes the temporary storage of Low and Intermediate Level Waste (LILW) at the El Cabril disposal facility and states that the process of identification of packages produced before 1992 continues for transfer to the storage cells once compliance with acceptance criteria is verified. It is not clear how many packages were produced prior to 1992 and how many remain to be identified and transferred to the storage cell. Please explain how many packages were produced prior to 1992 that require identification and how the safety and condition of these packages is assured. To note, this is also relates to Article 16.
Answer	All packages are properly identified. ENRESA is carrying out additional characterization activities aimed to assess their compliance with the waste acceptance criteria in force for disposal. All RW packages produced prior the approval of El Cabril's WAC requied of demostration of compliance with such WAC. The warehouses were almost full in 1992. Today, few ones remain. Dedicated safety requirements are defined for these three warehouses under the general requirements of the operating permit.		

United Kingdom	Article 32.1.1	Section B/32.1 p.20	Three Spanish nuclear power plants have Individualised Temporary Storage facilities (ITSs) on site for the dry storage of spent fuel, as an alternative or as complementary to storage in the plant's pools. The longer term intention is to construct a Centralised Temporary Storage (CTS) dry-vault type storage facility and, once operational it is expected that all spent fuel currently stored in ITSs will be brought there. However, the process for the construction of the CTS has been delayed. Please provide further information on the design life of the ITSs and whether any further delays to the CTS will have any impact on the continued safe storage of fuel within the spent fuel pools or ITSs.
Answer	The delay in the licensing process of the CTS is certainly putting more pressure on the storage facilities of the NPPs. At the date of the drafting of the National Report, three ITSs were operational. Since then two more have been licensed and are at different stages of construction. A third one is under the licensing process and a fourth NPP has decided to re-rack its pool. Obviously, the lack of the CTS is forcing all these new measures. All the existing ITSs are based on modular dry technologies which means that the design life of these installations is not an issue. Additionally, the nuclear safety regulator (CSN) has granted licenses for the casks for a period of 20 years which could be renewed. A quick resolution of the CTS licensing process will not brought much more additional measures than these. Longer decision times will require some other considerations on the storage possibilities of existing storage pads at the NPPs.		
United Kingdom	Article 3	Section K3 p.168	This section describes how the maintenance of human resources is a priority objective for the Nuclear Safety Council (CSN). It reports that a project is in place for the transfer of knowledge and that this will be the base for the consolidation of a broader knowledge management model, but provides little detail. Please provide more information on the resource challenges within CSN and provide examples of how regulatory knowledge has been captured and transferred between staff.

Answer	According paragraph 20.2.6 (page 66 of the report) in the year 2014, the CSN began consultation activity as a first step towards addressing the issue of knowledge management with a project on “Evaluation of Critical Processes of Technical Knowledge” at the Technical Directorate of Nuclear Safety. This project concluded with some recommendations to be taken into account in the development of knowledge management in the CSN. The final objective is to develop a knowledge management model adapted specifically to the needs of the CSN, based on the recommendations of the IAEA, which is fully incorporated into its Management System. During 2016, an action plan focussing on the preservation / recovery of the knowledge and experience of CSN technicians born in and before 1952 was carried out, applied specifically to 16 technicians. The methodology of the preservation of key knowledge in the CSN was called the RECOR Project and includes the following phases: 1. Preparation phase: Identification of holders of critical knowledge. 2. Knowledge extraction and systematization phase. 3. Advantage phase: Roll-out of an agenda for taking advantage of systemised knowledge. Each phase has specific exercises, including: 1. Identification and characterization: Selection of the candidate, creation of an environment for the transfer of knowledge of the expert area of activity. 2. Explore in-depth and systemization: Obtaining the key details of knowledge and creation of pieces/products of knowledge. 3. Validation: Validation of results and planning of actions to take full advantage of knowledge. Several “Knowledge books” have been produced, each of which includes the position and the job profile, command of knowledge, relationship frame work, documents related to the position (procedures and processes), elicited knowledge experiences (narratives, technical files, audiovisual aids) and knowledge products (series, transfer workshops and mentoring itineraries). Moreover, a procedure has been developed to preserve the key knowledge of the CSN as well as several facilitators’ training sessions.		
United Kingdom	Article 25	Section F p.88 (Sub section 25.2)	Sub-section 25.2, under “Level of Internal Responsibility” states that there is an Emergency Support Centre (ESC) which can assist any nuclear power plant in the event of a major accident, providing additional equipment and personnel to tackle such emergency. Please provide more information on the role, capability and staffing of the Emergency Support Centre (ESC) and how this complements individual site response.

Answer	The Emergency Support Center (CAE), common to all power plants and managed by TECNATOM, is able to support a Spanish nuclear power plant in an extreme situation or in the event of a major accident by providing specified equipment, located in a centralized warehouse in Madrid, duly tested and maintained, as well as qualified personnel and trained to install and operate such equipment, and support the operational strategies of the Spanish nuclear power plants within 24 hours of its activation. This center provides the plants diversity, independence and effective complement to the measures available in each plant to respond to an emergency. The main equipment are diesel electric generators and water supply pumps, powered by diesel engines, all of them robust and portables. Their specific technical requirements were defined for each plant, accordingly to the analysis carried out for the required scenarios in each site. Each equipment has the appropriate connections to ensure the capacity of deployment and connection in each one of the sites, and the appropriate size to be transport by different means. The warehouse location close to Madrid allows to keep enough distance to nuclear power plants to ensure reasonably independent from them to avoid common cause failures and to transport the equipment within the established deadlines due to the proximity to two military air bases. The Intervention Unit of the CAE that will be available 365d / 24h for its mobilization in case of activation, displacement to the plant, deployment and commissioning of the equipment, is composed by an intervention technician assigned to each site in operation, a head of the CAE located in the warehouse in Madrid, and a responsible of the CAE. The Intervention Unit has the support of a logistic company for the road transportation. Additionally, it is available agreements with the Military Unit of Emergencies (UME), if were necessary air transportation.		
United Kingdom	Article 27	Section I p.152 - 153	Reference is made to the European Council Directive on the supervision and control of shipments of radioactive waste and spent fuel (Council Directive 2006/117/Euratom). Are any shipments also subject to an agreement under the European Council Directive on the safe management of spent fuel and radioactive waste (Article 4(4) of Council Directive 2011/70/Euratom)? If so, please provide details.
Answer	No, there is no any agreement under the European Council Directive on the safe management of spent fuel and radioactive waste (Article 4(4) of Council Directive 2011/70/Euratom.		
United States of America	Article 13	Section H pg. 129	Please describe the types of public interactions undertaken during the licensing process for the new very low-level waste cells and summarize the public positions on this facility. How much time was the public given to comment on this project before it was approved?
Answer	The project was subject to an Environmental Impact Assessment process, where a public information procedure was followed in accordance with the Law. This public information procedure was started the 9th of march 2005 and took 30 working days, where the public had the opportunity to make observations and comments. Only 12 observations were submitted, all coming from a local ecologist non governmental organization, that were analized and answered by ENRESA. A summary of those observations and the answers to them can be found at the Annex II of the Resolution, of the Direction General for Energy Policy and Mines, grantinf ENRESA for the execution and assembly of the Very Low Level Waste vaults at El Cabril, that can be read at https://www.boe.es/boe/dias/2006/03/14/pdfs/A10315-10320.pdf		
United States of America	Article 20	Section E pg. 66	The U.S. commends Spain on its efforts to develop and integrate knowledge management practices and principles into its Management System.

Answer	Thank you for your comment.		
United States of America	Article 28	Section J pg. 158	The report notes that in 2015 a pilot phase was launched to instruct licensees of sealed sources on how to maintain adequate control and safely transfer sources, if needed, to an authorized licensee or supplier. Please describe the outcome of the pilot project which led to the adoption of the full scale program in 2016.
Answer	During the pilot phase, 60 facilities were included in a CSN Inventory of facilities with either financial or organizational stress whose radioactive sources safety may be impaired. 32 out of the 60 facilities solved the situation, either on their own devices or on CSN request, by transferring all the sources to an authorized licensee or supplier, the National company for management of radioactive waste (ENRESA), etc. In specific cases where the risk was deemed not acceptable, radioactive sources were confiscated following the established legal procedure upon CSN proposal. By the end of 2016, there were 28 out of the 60 facilities that remained submitted to the increase control of CSN: more frequent inspections, telephone calls, CSN letters to request specific answers. Some of them are under enforcement procedures, that may lead to both confiscation of sources and license withdrawal. As a result of the pilot phase, the Protocol has been formalized and the Technical Director for Radiological Protection receives a semi-annual report on the changes and status of the Inventory.		
United States of America	Article 32	Section K.2.2 pg. 166	Please provide the status of the adoption of the 7th General Radioactive Waste Plan and describe key changes from the last plan.
Answer	The 7th General Radioactive Waste Plan (GRWP) requires, before its addressing, a more predictable and stable general reference scenario in Spain, in particular with respect to the electricity mix. This mix shall be fixed by the Government through the approval of a Comprehensive Energy and Climate Plan, that will allow Spain to comply with the commitments regarding climate change in the context of the European Union, as well as other issues. To that end, in July 2017, the Government created a Commission of experts on energy transition, which is composed of fourteen independent experts of recognized prestige in that matter: four of them were appointed by the Government, one by each Parliamentary group and three by the social agents. The purpose of this Commission is to prepare a report on different possible scenarios of energy transition that guarantee the competitiveness of the economy, economic growth, job creation and environmental sustainability. Based on the results of this commission, the Government plans to approve a Comprehensive Energy and Climate Plan setting the contribution of each source of energy (nuclear, renewable sources, hydraulic, thermal coal, fuel, combined cycles, etc) to the energy mix. Once this Comprehensive Energy and Climate Plan is approved, ENRESA shall submit a draft proposal of 7th GRWP to MINETAD for the approval of the Government. In the meantime, annual updates of the economic and financial estimations are submitted by ENRESA to MINETAD so that this Ministry can play its role on the strategic direction and monitoring and control of ENRESA´s plans and actions, from the technical and economic point of view. The next GRWP shall include an updated general reference scenario and the time frames scheduled for the different actions and solutions. While the current GRWP complies with most of the requirements of the RWM Euratom Directive, at the same time it has been highlighted the need to keep moving forward to a long term final solution for the disposal of HLW and SF, when it is considered as a waste, as this is the case of Spain. Due to this, a higher level of detail and more precise time schedule an steps on that issue should be included in the next Plan. A more detailed RW inventory shall also be included. At the same time, legal requirements for public information have been updated and improved since 2006 and so, those should be properly reflected in the next Plan, as well as other minor issues.		