Joint Convention
Questions Posted By Australia in 2009

Q.No 1	Country Argentina	Article Planned Activities	Ref. in National Report Section K.3.1 page K-4
Question/ Comment	A site for a waste repository must be approved by the provincial government in the location selected. In the event that no provincial government gives approval, what options, if any, does the national government have for siting a facility?		
Answer	According to the current legal framework, no option is available for siting a final disposal facility without the provincial government approval.		
Q.No 2	Country Argentina	Article Planned Activities	Ref. in National Report K3.1
Question/ Comment	What is the process for investigating possible locations for low, intermediate and high level radioactive waste repositories?		
Answer	The process for investigating possible locations for radioactive waste repositories was defined by taking into account geological and social criteria to exclude inconvenient areas, as well as by defining regions of different priority. During de '90s the Nuclear Regulatory Authority performed some feasibility studies on granitic geological formations defining the main radiological and safety criteria for a deep geological repository. In addition, CNEA and IAEA participated in a Technical Cooperation Project named GEOLOGY OF REPOSITORIES FOR HLW DISPOSAL (1997 to 2001), which resulted quite useful to help us define selection criteria and the process to be followed to get a proper site. These criteria and process, although intended for HLW, can be adapted to LILW repositories after the introduction of the needed changes.		
Q.No 1	Country Finland	Article Planned Activities	Ref. in National Report Section K
Question/ Comment	The planned activities reported mainly relate to nuclear power plants and spent fuel. What are the planned activities related to radioactive sources used for medical or industrial purposes?		
Answer	The planned activities involve management of some old high-active disused sealed sources which cannot be returned to the manufacturer abroad. As the central storage for small user waste cannot currently accept all the old high-active disused sources, there is need to enhance the capacity of the central storage.		
Q.No 1	Country United Kingdom	Article Planned Activities	Ref. in National Report Section K.9 Page 125
Question/ Comment	The Report states that the MRWS White Paper was due to be published in June 2008. Has this now been published? If so, what were the key outcomes of this process?		
Answer	Yes, the Managing Radioactive Waste Safely White Paper (policy statement) was published on 12 June 2008. It sets out the technical programme to design and deliver a geological disposal facility and the process and criteria to be use to decide the siting of a facility. The key issues covered are: • the approach to compiling and updating the UK Radioactive Waste Inventory and using it as a basis for discussion with potential host communities; • the Nuclear Decommissioning Authority's technical approach for developing a geological disposal facility, including the use of a staged implementation approach and ongoing research and development to support delivery; • the arrangements to ensure sound regulation, scrutiny and control of the geological		

	disposal facility; • how relevant planning processes might be addressed; • the definition of 'community' for the purposes of site selection; • the process for issuing invitations and providing information to communities; • how a partnership arrangement can be used to support a voluntarism approach; • the use of affordable and value for money Engagement and Community Benefits Packages as part of the voluntarism and partnership approach; • the initial sub-surface screening criteria and the way in which Government will apply these criteria; • a refined set of criteria for assessing and evaluating candidate sites and details of further consultation on the way in which these criteria should be applied. The Managing Radioactive Waste Safely White Paper was accompanied by an invitation to communities to express an interest in entering into without commitment discussions with Government about the possibility of hosting a geological disposal facility for higher activity radioactive waste at some point in the future. In the first 9 months three local authorities have made such an Expression of Interest. Further information and a copy of the White Paper is available at www.defra.gov.uk/environment/radioactivity/mrws/index.htm.

Q.No	Country	Article	Ref. in National Report
2	United Kingdom	Planned Activities	Section K.12 Page 126
Question/ Comment	The Report states 'The Environmental Agency plans to consult the draft REPs during 2008.' Q. Has this been done? Were there any key outcomes of this process?		
Answer	Consultation on the draft REPs has been completed. The EA has carefully considered all the responses to the consultation and have revised the REPs appropriately. It is not yet in a position to publish the revised REPs because it wishes to take into account the Statutory Guidance on Radioactive Discharges that the UK Government plans to publish during 2009.		

Q.No	Country	Article	Ref. in National Report
1	Netherlands	General	Section L Page 102
Question/ Comment	Is the 100 year package life a regulatory requirement or an operational decision of the licensee?		
Answer	COVRA has the statutory aim to implement the Dutch national policy on radioactive waste and spent fuel. As mentioned on page 15 of the national report, this policy stipulates storage of the waste for a period of 100 years. For this reason, the 100 year package life was used as an operational design feature for the operations at the COVRA facilities. The requirement was also used as a design feature for the storage facility itself.		

Q.No	Country	Article	Ref. in National Report
1	Greece	Article 3	Section C
Question/ Comment	The reference to spent fuel management in papargraph (a) requires clarification. How is spent fuel managed prior to repatriation to the US?		
Answer	Spent fuel is stored at the reactor site (initially in the reactor pool and after decay at the spent fuel storage tank located within the reactor building) and eventually repatriated to US.		

Q.No	Country	Article	Ref. in National Report
32	Argentina	Article 4	

Question/ Comment	Are there any spent fuel facilities that at the national level through legislation do not have regard to internationally endorsed environmental protection principles and security principles?		
Answer	No, there are not any spent fuel facilities in this situation.		
Q.No 4	Country Czech Republic	Article Article 4	Ref. in National Report
Question/ Comment	Are there any spent fuel facilities that at the national level through legislation do not have regard to internationally endorsed environmental protection principles and security principles?		
Answer	No, there are not.		
Q.No 5	Country Ukraine	Article Article 4	Ref. in National Report
Question/ Comment	Are there any spent fuel facilities that at the national level through legislation do not have regard to internationally endorsed environmental protection principles and security principles?		
Answer	No there are no such facilities.		
Q.No 39	Country Argentina	Article Article 5	Ref. in National Report
Question/ Comment	Are there any existing spent fuel management facilities in Argentina for which a Safety Assessment consistent with current international guidance is not available? How does Argentina provide, at the national level through legislation, for the modification of existing facilities for protection of individuals and society giving due regard to current internationally endorsed criteria and standards.		
Answer	The Spent fuel management facilities are integrated into the operation of nuclear power plants. Their safety assessments are part of the PSA of each nuclear plant and are performed in accordance with international guidance. ARN is responsible for the elaboration of standards and requirements and the verification of their compliance for modifications of existing facilities and the subsequent protection of individuals and society.		
Q.No 40	Country Argentina	Article Article 5	Ref. in National Report
Question/ Comment	Is the Periodic Safety Review used to assess the safety in the existing facilities? If so, is there any guideline for this purpose?		
Answer	Indeed, the Periodic Safety Review is used to assess the safety in the existing facilities in every Operation License updating. However, there are not any specific guidelines for revisions. In general they imply the updating of documentation and procedures, the revision of previous safety evaluations and the implementation of new assessments required by ARN.		
Q.No 6	Country Czech Republic	Article Article 5	Ref. in National Report
Question/ Comment	Are there any existing spent fuel management facilities in Czech Republic for which a Safety Assessment consistent with current international guidance is not available? How does Czech Republic provide, at the national level through legislation, for the modification of existing facilities for protection of individuals and society giving due regard to current internationally endorsed criteria and standards.		

Answer	No, safety assessments for all SF management facilities follow international guidance. This is achieved by using the current internationally endorsed criteria and standards by the preparation of facility specific recommendations for the development of safety case, which are then submitted to the applicant. This process is used for both development of new and modification of existing SF management facilities.		
Q.No 7	Country Czech Republic	Article Article 5	Ref. in National Report
Question/ Comment	Is the Periodic Safety Review used to assess the safety in the existing facilities? If so, is there any guideline for this purpose?		
Answer	Yes, but the concept of periodic safety review is implemented with help of time limited licenses (max 10 y), which have to be renewed following the same approach as by the issue of initial operational licence and additionally considering the operational experience feedback.		
Q.No 15	Country Finland	Article Article 5	Ref. in National Report Section G.5.2
Question/ Comment	What international guidance was taken into account as part of the safety improvements implemented for the facilities for spent nuclear fuel handling and interim storage at the Loviisa and Olkiluoto power plants.		
Answer	The spent fuel storage facilities have been operating well without major problems and without need for modifications for safety reasons. Over the years of operation, improvements have been made e.g. to radiation protection instrumentation and fuel handling equipment, but they have been part of modernisation of systems and components in the respective NPP's. Some operational procedures have also been modified. In implementation of the improvements, in addition to STUK guidance, mainly IAEA guidance has been used.		
Q.No 17	Country France	Article Article 5	Ref. in National Report
Question/ Comment	Are there any guidelines for periodic safety review for Spent Fuel and Waste Management Facilities?		
Answer	A regulatory decision to be promulgated in 2009 should detail periodic safety reviews for spent fuel and waste management facilities. Till the promulgation of this decision, some ASN guidelines on this topic are already used by operators. These guidelines are the basis of the draft decision to be issued. According to the "2006 TSN Act", the licensee of a basic nuclear installation (BNI) has to carry out periodic safety reviews of his installation by taking account of the best international practices (every 10 years). This periodic review must allow the situation of the installation to be appreciated with regard to the rules applying to it and must make it possible to update the assessment of risks or drawbacks the installation presents, by taking account in particular of the state of the installation, the experience learned from operation, and the evolution of knowledge and of the rules applying to similar installations. The licensee must send the Nuclear Safety Authority and the ministers tasked with nuclear safety a report including the conclusions of this review and, where applicable, the provisions it envisages taking to remedy the observed anomalies or to improve the safety of his installation. After analysing the report, the Nuclear Safety Authority can impose new technical prescriptions. It sends the ministers tasked with nuclear safety its analysis of the report. Safety reviews take place every ten years. However, the authorisation decree can lay		

	down a different periodicity if this is justified by the specificities of the installations. An "ASN decision" about the safety review process and another about the content of a safety report are being prepared by the ASN, taking into account the experience gained in those fields and in line with the new regulatory context (TSN Act, decrees, orders). All the operators of BNI will have to comply with the requirements laid down in those decisions.		
Q.No 3	Country Greece	Article Article 5	Ref. in National Report
Question/ Comment	What international guidance is taken into account for the assessment of the safety of the interim fuel storage facility?		
Answer	Safety assessment and operations are performed according to IAEA guidance for research reactor facilities [IAEA-SS-117 (1994) and IAEA-SS-118 (1994)].		
Q.No 36	Country United Kingdom	Article Article 5	Ref. in National Report
Question/ Comment	Are there any existing spent fuel management facilities in the UK for which a Safety Assessment consistent with current international guidance is not available?		
Answer	All facilities on licensed nuclear sites have safety cases, including safety assessments, in accordance with license conditions. These are judged against HSE's Safety Assessment Principles which have been developed to reflect international standards. These standards are intended to be applied to new facilities. Facilities built before the development of the standards may not meet them in full. The extent to which the principles have been satisfied take into account the age of the facility or plant. For facilities that were designed and constructed to standards that are different from current standards the issue of whether sufficient measures are available to satisfy reasonable practicability considerations will be judged case by case.		
Q.No 37	Country United Kingdom	Article Article 5	Ref. in National Report
Question/ Comment	Are there any guidelines for periodic safety review of spent fuel and radioactive waste management facilities?		
Answer	HSE has produced guidance for its inspectors on judging the adequacy of arrangements for periodic safety reviews of nuclear plants in general. This can be found on HSE's website at http://www.hse.gov.uk/foi/internalops/nsd/tech_asst_guides/tast050.pdf		
Q.No 9	Country Czech Republic	Article Article 6	Ref. in National Report Section 7.7 page 84
Question/ Comment	Have the issues that led to suspension of the geological survey been resolved? Are MPO and SÚRAO to take a different approach upon resumption of the survey?		
Answer	The steps leading to investigation activities in potential sites of geological repository have to be implemented with support of the Ministry of Industry and Trade (MPO) and the Ministry of Environment (MŽP). Investigation of seven potential sites will start in 2010. SÚRAO will apply to the Ministry of Environment for permit in 2009.		
Q.No 43	Country Argentina	Article Article 7	Ref. in National Report
Question/ Comment	Does Argentina consider burn-up credit in the design to ensure criticality safety? If so, is there any guideline for using burn-up credit in the design?		
Answer	Argentina does not consider burn-up credit in the design to ensure criticality safety. In the case of NPPs in operation, it was not necessary to consider burn-up credit in the design to ensure criticality safety, because they are PHWR whose fuel elements contain		

	very low enriched (0,85% in the case of Atucha I) or natural uranium (CANDU NPP in Embalse) and the fuel storage pools are filled with light water. Also, preliminary assessments indicate that criticality safety is widely fulfilled for the FACIRI design (see section G-5), considering stored MTR-research reactor fuel elements as “fresh”.		
Q.No 44	Country Argentina	Article Article 7	Ref. in National Report
Question/ Comment	What criteria are used in the Probabilistic Safety Analysis for Spent Fuel and waste Management Facilities? For the PSA, what criteria and objectives are used for individual and societal risk in environmental risk management?		
Answer	The criteria used for risk consideration in the PSA is established in the Regulatory Standards AR – 3.1.3 "Radiological criteria related to accidents in nuclear power reactors” and AR – 4.1.3 “Radiological criteria related to accidents in nuclear research reactors”. Besides, the criteria and objectives used to consider individual and societal risk in environmental risk management are established in the Regulatory Standard AR 10.1.1. - "Basic radiological safety standard” (see ARN website: http://www.arn.gov.ar/normas/index.htm)		
Q.No 13	Country Czech Republic	Article Article 7	Ref. in National Report
Question/ Comment	Does Czech Republic consider burn-up credit in the design to ensure criticality safety? If so, is there any guideline for using burn-up credit in the design?		
Answer	No, by designing of purpose build dry SF storage facilities incl. storage casks the burn-up credit in criticality safety assessment was not considered.		
Q.No 14	Country Czech Republic	Article Article 7	Ref. in National Report
Question/ Comment	Is Probabilistic Safety Analysis (PSA) used to assess the safety of the Spent Fuel and Waste Management Facilities? If so, what criteria are used in the PSA? For the PSA, what criteria and objectives are used for individual and societal risk in environmental risk management?		
Answer	No, the safety of existing SF and RAW management facilities and facilities under development (SF storage facilities only) is based on deterministic assessment methods following the deterministic nature of national legal and regulatory system. Question not applicable (see previous answer).		
Q.No 22	Country France	Article Article 7	Ref. in National Report
Question/ Comment	Is there any guideline for using burn-up credit in the design of Spent Fuel Facilities?		
Answer	The V1 CRISTAL version, released in 2005, takes into account the "Burn-Up Credit" in the criticality studies.		
Q.No 23	Country France	Article Article 7	Ref. in National Report
Question/ Comment	What criteria are used in the Probabilistic Safety Analysis (PSA) for Spent Fuel and Waste Management Facilities?		

	For the PSA, what criteria and objectives are used for individual and societal risk in environmental risk management?
Answer	For spent fuel facilities and waste management facilities, deterministic approaches are privileged. Therefore no criteria is yet determined. A case-by-case approach is privileged, depending on the site, the population and the environment. The IAEA reference level for evacuation and sheltering are taken into account. However, for spent fuel and storage facilities it is considered that a threshold of 10mSv must not be exceeded for the design basis accident (good practice). For waste repositories, different scenarios of altered situations (road works, buildings on the site...) after the surveillance period are considered. As indicated in the Report, the acceptability of the calculated impact in such situations depends on the exposure mode and time and on the conservative calculation hypotheses which have been selected. Andra has considered that for those situations an impact on the public of a few mSv IS acceptable (with a maximum of about 10 mSv if the considered scenario is improbable or if the hypotheses are very conservative).

Q.No	Country	Article	Ref. in National Report
12	Ukraine	Article 7	
Question/ Comment	Does Ukraine consider burn-up credit in the design to ensure criticality safety? If so, is there any guideline for using burn-up credit in the design?		
Answer	Yes. The deepness of burn up of spent nuclear fuel that is stored in DSFSF of ZNPP is taken into account when substantiating safety level of container loading. Considering of fuel burn up when loading containers is performed with application of methodology approved by the regulatory authority of Ukraine (SNRCU): “Methodological recommendations on performance of nuclear safety substantiation of fuel loading of ventilated storage containers to the DSFSF with considering of deepness of burn up of spent nuclear fuel”; “Methodological recommendations on control of burn up deepness of spent nuclear fuel at the stage of loading of ventilated storage containers to the DSFSF”; Branch regulation “Storage of spent fuel in ventilated containers of DSFSF of VVER-1000. Procedure for issuance of permission and requirements to the documents and calculations of neutron-physical characteristics of loading of ventilated storage containers to the DSFSF of ZNPP” is also used. Instrumental confirmation of burn-up deepness of spent nuclear fuel, performed with application of IAEA device FDET is an obligatory condition in the process of safety substantiation of container loading.		

Q.No	Country	Article	Ref. in National Report
13	Ukraine	Article 7	
Question/ Comment	Is Probabilistic Safety Analysis (PSA) used to assess the safety of the Spent Fuel and Waste Management Facilities? If so, what criteria are used in the PSA? For the PSA, what criteria and objectives are used for individual and societal risk in environmental risk management?		
Answer	Safety of spent fuel and radwaste management facilities is mainly substantiated by deterministic method of safety analysis, which in general corresponds to the IAEA recommendations (para 2.2 «Safety Assessment for Spent Fuel Storage Facilities» SAFETY SERIES No. 118, 1994, para .2.6 «Safety of Nuclear Fuel Cycle Facilities» NS-R-5, 2008). Safety analysis of DSFSF at the site of ZNPP, probabilistic assessments are applied to calculate the frequency of origin of outgoing events (violation of normal		

	operation, design-basis and beyond design-basis accidents) analyzed in frames of Safety analysis report ("Recommendations to the structure and content of safety analysis report for spent nuclear fuel storages" RD306.8.02/2.067-2003). Fullscope Probabilistic Safety Analysis according to the methodology applied at NPPs is not being developed. At present the issue to introduce the development fullscope PSA for spent fuel and radwaste management facilities is under discussion in accordance with IAEA document «Procedures for conducting probabilistic safety assessment for non-reactor nuclear facilities», IAEA-TECDOC-1267, 2002.		
Q.No 43	Country United Kingdom	Article Article 7	Ref. in National Report
Question/ Comment	Is there any guideline for using burn-up credit in the design of Spent Fuel facilities?		
Answer	There are no specific guidelines set down within the UK. The designs for Spent Fuel facilities are agreed with the regulator following the assessment of individual safety case submissions presented by Licensees.		
Q.No 44	Country United Kingdom	Article Article 7	Ref. in National Report
Question/ Comment	What criteria are used in the Probabilistic Safety Analysis (PSA) for Spent Fuel and Waste Management Facilities? For the PSA, what criteria and objectives are used for individual and societal risk in environmental risk management?		
Answer	We use generic criteria for all the types of facilities that we regulate (including spent fuel and radioactive waste management facilities) which assist in our judgement of the overall adequacy of the safety of the facility. Our approach to PSA is set out in [give para numbers] of our Safety Assessment Principles (http://www.hse.gov.uk/nuclear/saps/saps2006.pdf). The PSA is assessed against the numerical targets (criteria) set out in paras 568ff of the SAPs. Our criteria include: Criteria for design basis faults (for persons on and off site) Criteria for individual risk (worker and public on and off site) Criteria for Individual risk to people off site Criteria for societal risk		
Q.No 45	Country Argentina	Article Article 9	Ref. in National Report
Question/ Comment	What are the requirements for ground water monitoring around the facility for Spent Fuel storage? Is there any guideline to deal with corroded/compromised spent fuel?		
Answer	The facilities for Spent Fuel storage (located at NPPs sites and AGE) are under the Environmental Monitoring Program of the sites, which requires a periodic ground water monitoring to meet the Regulatory Standard AR 10.1.1.- "Basic radiological safety standard". (see ARN website: http://www.arn.gov.ar/normas/index.htm) There is no guideline available to control the corrosion of stored spent fuels.		

	Nevertheless, periodic inspections are performed with the aim of assessing eventually corrosion process in spent fuels.		
Q.No 17	Country Czech Republic	Article Article 9	Ref. in National Report
Question/ Comment	What are the requirements for ground water monitoring around the facility for Spent Fuel storage? Is there any guideline to deal with corroded/compromised spent fuel?		
Answer	As the ISFSF and SFSF are placed at the NPP Dukovany site, the requirements are identical as for the whole NPP site and are described in the NPP monitoring programme. There is no corroded fuel stored in purpose build dry SF storage facilities. Mechanically damaged fuel or leaky fuel is stored in reactor pools in special hermetic tight canisters. It is expected that this fuel will be removed from the reactor pools and placed in specially designed casks in the process of NPPs decommissioning.		
Q.No 15	Country Ukraine	Article Article 9	Ref. in National Report
Question/ Comment	What are the requirements for ground water monitoring around the facility for Spent Fuel storage? Is there any guideline to deal with corroded/compromised spent fuel? What requirements are there for regular inspection of spent fuel in dry storage?		
Answer	¡°Regulations for radiation control of the site for spent fuel storage¡± establish following requirements for monitoring of subsoil waters near the spent fuel storage facility. a. Check-up of contamination with radionuclides of ground waters (measuring of total beta-activity of samples from wells around the site of spent fuel storage facility) ¨C quarterly. Quarterly and annual reports on radiation monitoring of the environment around the site of spent fuel storage facility are submitted to the SNRCU on a regular basis. Part 12 of the SAR for SFSF of ZNPP ¡°Limitations and conditions for safe operation of SFSF. Operational limits and conditions¡± define admissible fuel condition that is to be stored in storage facility and ¡°Control Regulations in the process of normal operation¡±. Spent fuel parameters, which is to be stored: - Fuel element clad ¨C zirconium without known or admissible defects. - Residual heat: ¡Ü 0.99 kW per one fuel assembly; - Burnout - 41500 MW*d/t.uranium without application of peaking factors; - Cooling time in spent fuel pool ¡Ý 5 years; - Maximal primary enrichment 4.4. %; - Weight ¨C without absorber rods of the control and protection system (burnable absorber rods) ¨C max. 716 kg, with absorber rods of the control and protection system (burnable absorber rods) ¨C 735 kg; - Level of neutron and gamma exposure at fuel assembly - 1.260*10E08 neutron/s and 6.77*10E015 photon/s.		

	¡°Regulations for control of nuclear fuel condition in the process normal operation¡± foresee the following regular inspections at SFSF: - Inspection of radiation condition of ventilated storage container and storage site of SFSF according to the ¡°Regulations for radiation control at the storage site of SFSF¡±; - Visual inspection of ventilation inlets and outlets (every week); - Inspection of external containers surface (every month); - Control of internal space of reinforced concrete container and external surface of hermetic steel basket (once per four years).		
Q.No 46	Country United Kingdom	Article Article 9	Ref. in National Report
Question/ Comment	Is there any guideline to deal with corroded/compromised spent fuel?		
Answer	There are no specific guidelines. It is for the licensee to produce an adequate safety case for the specific circumstances of any corroded or spent fuel under its management.		
Q.No 18	Country Ukraine	Article Article 11	Ref. in National Report
Question/ Comment	The Report states: heat removal provision will be considered while designing and construction of storages What engineering features will be considered for heat removal?		
Answer	Heat-removal is provided at all regimes of operation of storage facility through container design (passive heat-removal system) where spent nuclear fuel will be stored. Detailed calculation and substantiation of functioning of heat-removal system will be carried out at the stage of CSFSF design.		
Q.No 53	Country Argentina	Article Article 12	Ref. in National Report
Question/ Comment	Are there any existing radioactive waste management facilities in Argentina for which a Safety Assessment consistent with current international guidance is not available?		
Answer	The Radioactive waste management facilities located at NPPs are integrated in the operation of nuclear power plants. Their safety assessments are part of the PSA of each nuclear plant and are performed in accordance with international guidance. In addition to those facilities, a central storage for disused sealed sources is in operation at AGE where the safety assessment is carried out in accordance with international guidance. Regarding the disposal system, a safety assessment is being carried out that is also consistent with international guidance.		
Q.No 23	Country Czech Republic	Article Article 12	Ref. in National Report
Question/ Comment	Are there any existing radioactive waste management facilities in Czech Republic for which a Safety Assessment consistent with current international guidance is not available?		
Answer	No, there are not.		
Q.No 24	Country Czech Republic	Article Article 12	Ref. in National Report
Question/ Comment	Are there existing mining facilities or waste from past mining practices that require the safe management of radioactive waste?		
Answer	According to Czech legal system heaps and tailing ponds (uranium mining activities) are not considered to be radioactive waste. They are subject of the regulations related to		

	the safe management of nuclear materials and radiation sources.		
Q.No 9	Country Denmark	Article Article 12	Ref. in National Report
Question/ Comment	Are there any existing radioactive waste management facilities in Denmark for which a Safety Assessment consistent with current international guidance is not available?		
Answer	The radioactive Waste Management Facility at Danish Decommissioning (DD) is the only facility of its kind in Denmark. In addition to the recommendations by the Nuclear Regulatory Authorities, the safety assessments of the nuclear facilities at the Risø-site were traditionally based on Nordic and US guidance, more specifically: Nordic Working Group on Reactor Safety, Publication 1, Safety Assessment Documents (NARS 1, 1975); USNRC Regulatory Guide 1.70, Standard Format and Content of Safety Analysis Report for Nuclear Power Plants (RG 1.70). As the scope of these guides were nuclear power plants some of the recommendations were adjusted in order to correspond to the significantly smaller activities handled at the research reactors at the Risø-site. The original safety assessments have been re-examined in the framework of the IAEA, Safety Assessment of Research Reactors and Preparation of the Safety Analysis Report" (Safety Series No. 35-G1, 1994). The original safety assessments were largely in line with the IAEA recommendations, the main difference being the lack of a central quality assurance system. In accordance with the requirements set by the Nuclear Regulatory Authorities, a quality assurance system for the entire process of decommissioning including all radioactive waste management has been put into operation. It is based on international standards, which at present, for the general Quality Assurance is DS/EN ISO 9001, version 2000. Furthermore, in 2007 the Clearance Laboratory was accredited by the Danish Accreditation and Metrology Fund (DANAK) according to the ISO 17025 standard on general requirements for the competence of testing and calibration laboratories. The documentation is available to the relevant authorities.		
Q.No 33	Country Finland	Article Article 12	Ref. in National Report
Question/ Comment	Are there any existing radioactive waste management facilities in Finland for which a Safety Assessment consistent with current international guidance is not available?		
Answer	At the Paukkajavaara site, uranium mining and milling took place about 50 years ago and the site was remediated in the 1990's. For the remediation, no safety assessment was made but the goal was to return the natural radiological status of the site. The monitoring performed after the remediation indicated that this goal was achieved quite well. Also, some NORM waste from conventional mining and metals processing industry has been disposed of in landfills without radiological safety assessments.		
Q.No 35	Country France	Article Article 12	Ref. in National Report
Question/ Comment	Are there any existing radioactive waste management facilities in France for which a Safety Assessment consistent with current international guidance is not available?		
Answer	For each radioactive waste management facility operated by Andra (CSFMA, CSTFA		

	disposal facilities) and by the other nuclear operators of Basic Nuclear Installations (BNIs), civil or working for defence, dealing with the treatment, conditioning, storage of radioactive waste, there is a safety assessment consistent with current international guidance. Concerning the classified facilities on environmental-protection grounds (ICPE), those having the most polluting and hazardous activities are subject to a licensed process which implies an impact statement and a waste study. For the uranium mines, now shut down, recent studies required by the "2006 Planning Act" on their long-term behaviour and impact are now available and will be analysed by the ASN in 2009. For wastes with enhanced natural radioactivity, the "2006 Planning Act" requires an appraisal in 2009 of the short and long-term management solutions proposing new solutions, if applicable.		
Q.No 5	Country Greece	Article Article 12	Ref. in National Report
Question/ Comment	Are there any existing radioactive waste management facilities in Greece for which a Safety Assessment consistent with current international guidance is not available?		
Answer	A Safety Assessment study for the interim storage facility in NCSR based on the international guidance is under preparation.		
Q.No 6	Country Greece	Article Article 12	Ref. in National Report Section H
Question/ Comment	What are the specifications of the vaults used for storing short-lived solid waste?		
Answer	The specifications are mentioned in RPR § 4.5.1.a.i. More specifically for the vault it is mentioned that: “an enclosure for the safe storage of radioisotopes and radioactive waste with at least two safe areas for radioisotopes and a place to keep solid radioactive waste. The screening of the enclosure must be such that the maximum rate of exposure may not exceed 10ìSv/h at any point of its surface for the maximum permissible quantity of radionuclides for this category.”		
Q.No 2	Country Luxembourg	Article Article 12	Ref. in National Report
Question/ Comment	Are there any existing radioactive waste management facilities in Luxembourg for which a Safety Assessment consistent with current international guidance is not available? Are there existing mining facilities or waste from past mining practices that require the safe management of radioactive waste?		
Answer	The national legislation is based on European directives and other international guidance documents. The national radioactive waste interim storage facility fully complies with the national legislation and as such with international guidance. No mining facilities or waste from past mining practices exists in Luxembourg.		
Q.No 19	Country Nigeria	Article Article 12	Ref. in National Report
Question/ Comment	There is no mention of performing a Safety Assessment of the existing ZARIA RWMF. Could a Safety Assessment be considered, using current international guidance and ideally the methodology of the SAFRAN software tool for Safety Assessment?		
Answer			
Q.No	Country	Article	Ref. in National Report

24	Sweden	Article 12	
Question/ Comment	Are there any existing radioactive waste management facilities in Sweden for which a Safety Assessment consistent with current international guidance is not available?		
Answer	The short and simple answer is no. A SAR (or Safety Assessment) is only required for facilities regulated under the Act of Nuclear Safety. Thus, all radioactive (or nuclear) waste management facilities have a SAR according to international guidance documents. However, for small non-nuclear facilities (e.g., hospitals and laboratories), which might also involve some waste management, there are no requirements on a SAR. (Those facilities are regulated under the Radiation Protection Act.)		
Q.No 22	Country Ukraine	Article Article 12	Ref. in National Report
Question/ Comment	Are there existing mining facilities or waste from past mining practices that require the safe management of radioactive waste? Are there any existing radioactive waste management facilities in Ukraine for which a Safety Assessment consistent with current international guidance is not available?		
Answer	At present Ukraine has one uranium mining enterprise – State enterprise “East Mine Concentrating Industrial Complex”. All waste from mining and milling of uranium ore (tails) are located in special tailing pits, which are under regulatory control (tailing pits “Carer burych zhelezniakov” and “Scherbakovskoe”). Waste from milling of uranium ore, which were generated as a result of previous activity at the industrial site of former enterprise “Pridneprovskiy chimichnyi zavod” (PChZ) is located in 9 (nine) tailing pits. Works on transformation of facilities of the PChZ into ecologically safe condition and protection of the population from the hazardous impact of the ionizing radiation are underway in frames of implementation of State Program on transformation of radiation dangerous objects of the PChZ into ecologically safe condition and protection of the population from the hazardous impact of the ionizing radiation during 2005-2014 as well as the “Plan of primary actions for 2008-2009 to improve environmental condition of Dneprodzerzhinsk” approved by the Resolution of the Cabinet of Ministers of 12.11.2008. Safety assessment for all existing radioactive waste management facilities consistent with current international guidance is not available for all facilities. For all facilities this issue will be solved during safety re-assessment in the licensing process.		
Q.No 48	Country United Kingdom	Article Article 12	Ref. in National Report
Question/ Comment	Are there any existing radioactive waste management facilities in the United Kingdom for which a Safety Assessment consistent with current international guidance is not available?		
Answer	All facilities on licensed nuclear sites have safety cases, including safety assessments, in accordance with license conditions. These are judged against HSE's Safety Assessment Principles which have been developed to reflect international standards. These standards are intended to be applied to new facilities. Facilities built before the development of the standards may not meet them in full. The extent to which the principles have been satisfied take into account the age of the facility or plant. For facilities that were designed and constructed to standards that are different from current standards the issue of whether sufficient measures are available to satisfy reasonable practicability considerations will be judged case by case.		

Q.No 56	Country Argentina	Article Article 13	Ref. in National Report
Question/ Comment	The comment that the siting of facilities shall not require any additional authorisation does not seem to fully address the requirements of the Article. Have the steps required under this Article been carried out and described in a previous report? When will the funding referred to in the report be in place?		
Answer	It is important to remark that Article 11 of Law N° 24804 (Section L 10 of the Third National Report) fulfills the requirements set in Article 13 of the Joint Convention. The comment stating that the facility siting shall not require any additional authorization (Article 13, Law N° 24804, Section L10 of the Third National Report) refers to the existing facilities at the time when the above stated Law was enacted. The fund integration is primarily related to the actions and decisions corresponding to the scope of the Executive Power, and then to what the Congress states regarding the administration rules to be defined by law. Therefore still it is not possible to state the deadlines in which these decisions are to be achieved.		
Q.No 31	Country Belgium	Article Article 13	Ref. in National Report Section 2.3 page 20
Question/ Comment	How is a 'justified interest' determined for the purpose of involving neighbouring municipalities in participatory processes? Does the Dessel municipality have an option to withdraw from hosting process, or is the 2006 decision final?		
Answer	In the license application processes for nuclear class I facilities, all municipalities in a perimeter of 5 km of the facility are involved, so will it the case for the radwaste disposal facility. Some of the societal conditions defined by the partnership of Dessel also have an interface and possible impact on neighbouring municipalities (e.g. infrastructure for emergency planning). The STORA partnership between Dessel and ONDRAF/NIRAS still has an option to withdraw from the process, if at a certain point it assesses that not all technical and societal conditions of the STOLA-Dessel final report are fulfilled.		
Q.No 30	Country Czech Republic	Article Article 13	Ref. in National Report
Question/ Comment	What procedures and policies apply to the siting process?		
Answer	The siting process is regulated by the Atomic Act and by the Decree No. 215/1997 Coll., on criteria for siting of nuclear installations and very significant sources of ionizing radiation. The criteria are divided to exclusion and conditional ones. For further details see www.sujb.cz/docs/R215_97.pdf.		
Q.No 10	Country Denmark	Article Article 13	Ref. in National Report
Question/ Comment	What are the requirements for siting of a facility?		
Answer	For a final repository, the selected location must meet the requirements in Denmark's overall policy for the disposal of LILW, which is based on "IAEA, 1995. Safety Series		

	no. 111-F. The Principles of Radioactive Waste Management": 1. Protection of humans and the environment Radioactive waste shall be managed in such a way as to secure an acceptable level of protection for humans and the environment. 2. Protection beyond national borders Radioactive waste shall be managed in such a way as to assure that possible effects on human health and the environment beyond national borders will be taken into account. 3. Protection of future generations Radioactive waste shall be managed in such a way that predicted impacts on the health of future generations will not be greater than relevant levels of impact that are acceptable today. Likewise, radioactive waste shall be managed in such a way that it will not impose undue burdens on future generations. 4. The legal framework Radioactive waste shall be managed within an appropriate national legal framework including clear allocation of responsibilities and provisions for independent regulatory functions. Specific requirements for siting a facility has not been established at this stage, but it will be based on the results of the up-coming desktop studies as well as on international recommendations, e.g. in IAEA Safety Standards.

Q.No	Country	Article	Ref. in National Report
38	Finland	Article 13	Section H13 page 62
Question/ Comment	How is a site feature determined to be "substantially adverse" to long-term safety? Is allowance made for facility design to address less satisfactory site features?		
Answer	Our regulatory guide gives the following features that may indicate suitability of the site: • proximity of exploitable natural resources • abnormally high rock stresses with respect to strength of the rock • predictable anomalously high seismic or tectonic activity • exceptionally adverse groundwater characteristics, such as lack of reducing buffering capacity and high concentrations of substances which might substantially impair the performance of barriers. The suitability of the site must be considered as a whole and particularly in case of LILW disposal, less favourable site characteristics may be compensated by proper design of the disposal facility.		

Q.No	Country	Article	Ref. in National Report
30	Sweden	Article 13	
Question/ Comment	Are the siting assessments updated as new information becomes available, or as new standards are introduced?		
Answer	Yes. Licensing, construction and commissioning of a nuclear facility are steps in a process based on subsequently updated safety assessments in the siting process. Generally, a preliminary safety assessment must be submitted to support the licence application. The safety assessment should be updated before trial operation commences, as well as before routine operation commences.		

	As regards the ongoing process to site a repository for spent nuclear fuel, the site selection process has been going on for many years, within the framework of SKB's R&D-program. Within the process, the safety assessment for a spent fuel repository has been updated as new information has become available, e.g.improved safety asessment methodology.		
Q.No 25	Country Ukraine	Article Article 13	Ref. in National Report
Question/ Comment	Is there a detailed description of the "Vector" Complex site in an earlier report?		
Answer	There is no detailed description of "Vector" Complex in previous National Report. "Vector" Complex description is given in Article 32 of 3rd National Report.		
Q.No 51	Country United Kingdom	Article Article 13	Ref. in National Report
Question/ Comment	The siting requirements appear to be comprehensive with respect to siting of spent fuel facilities. Do the same requirements apply to general radioactive waste management facilities?		
Answer	The same siting requirements apply to all licensed nuclear facilities in the United Kingdom.		
Q.No 28	Country Ukraine	Article Article 14	Ref. in National Report
Question/ Comment	What is the design lifetime for temporary storages for liquid and solid radioactive waste?		
Answer	Lifetime operation and design capacity of temporary storages for liquid and solid radioactive waste – 30 years. Upon expiration of mentioned period complex safety reassessment will be carried out and on its basis the decision on possibility of extension of safe operation will be taken. If necessary, measures on safety enhancement of temporary storages for liquid and solid radioactive waste will be defined based on the results of complex safety assessment.		
Q.No 57	Country Argentina	Article Article 15	Ref. in National Report
Question/ Comment	Have the safety assessments required by this Article been carried out?		
Answer	At present the Article 15 of the Joint Convention is applied to the new facilities. As a requirement, safety reevaluations are performed in the facilities existing before said Article came into force.		
Q.No 16	Country Denmark	Article Article 15	Ref. in National Report
Question/ Comment	Have detailed safety assessments and environmental assessments been performed?		
Answer	Detailed safety assessments and environmental assessments have not been performed at this early stage. However, since the Parliament on the 29th of January 2009 unanimously supported the continuation of the process of establishing a final repository for LILW, a series of desktop studies have been initiated. One of these includes a delineation of three repository concepts, inc. conceptual safety analysis. It is anticipated at this stage that the desktop studies will be completed within a timeframe of 2-2 ½ years.		

Q.No 44	Country Czech Republic	Article Article 17	Ref. in National Report
Question/ Comment	Are there any requirements regarding the implementation of active and passive controls and mitigating measures during the institutional control period?		
Answer	Requirements regarding the implementation of active and passive controls will be a part of license conditions for closure of disposal facilities, which are at present time in operation. Repository Hostim was closed according to legal requirements valid in first half of 1990's, before the Atomic Act was approved by the Chamber of Deputies of the Czech Parliament in January 1997.		
Q.No 41	Country Finland	Article Article 17	Ref. in National Report Section H 17.3
Question/ Comment	Is there a contingency plan in place to deal with the possibility that engineered barriers may not perform according to design criteria and material may migrate to the environment? Has an impact assessment of the likely consequences of such underperformance of engineered barriers been carried out?		
Answer	The safety approach is based on the principle that the performance of the engineered barriers shall be ensured with high certainty before the permanent closure of the repository. Studies on and monitoring of the performance of the engineered barriers must be done also during the operational period that may last about 100 years. Retrieval of disposed spent fuel is feasible during the operational period and in principle also in the post-closure period as long as no major radioactive leakages have taken place. The safety cases made for the repositories include various kind of scenarios, also ones assuming deficient performances of the engineered barriers. In case of LILW disposal, it is unlikely any the deficient performance of the engineered barriers would lead to significant intervention measures. In case of spent fuel disposal more severe contamination of the environment is in principle possible as a result of worst scenarios but the size of such contaminated area would remain quite limited.		
Q.No 51	Country France	Article Article 17	Ref. in National Report Page 161
Question/ Comment	Is a 10 year monitoring plan adequate to demonstrate the post-closure safety of a facility that may contain radionuclides with half-lives much longer than 10 years, and be composed of structures that may only maintain their integrity for the order of several thousand years? Long-term safety is very difficult to demonstrate. How has long-term safety been addressed? Over what period are the current disposal facilities expected to maintain their structural integrity?		
Answer	The surveillance period of the Centre de la Manche facility should last about 300 years. During this period the monitoring plan (as well as the safety report, the general operating rules that the operator will implement in the next 10 years, the emergency plan) will be updated every 10 years and submitted to the ASN. All these revisions shall include the experience gained by the operator. For long-term safety assessment, two kinds of situation are studied: - a normal evolution (during the surveillance phase of 300 years, and beyond) based on the most likely behaviour of the repository. The calculated dose must be less than 0.25 mSV/year, - "altered-scenarios situations": conventional intrusion scenarios with a transfer by air (road works, residence, playing grounds for children) and several altered (and conventional) scenarios leading to a transfer by the water (barrier failing, well at the		

	post-closure phase, etc.). As indicated in the Report, the acceptability of the calculated impact in such situations depends on the exposure mode and time and on the conservative calculation hypotheses which have been selected. Andra has considered that for those situations an impact on the public of a few mSVs are acceptable (with a maximum of about 10 mSV if the considered scenario is improbable or if the hypotheses are very conservative). The current disposal facilities are expected to maintain their concrete structure integrity over a long period (1000 or 2000 years). However, according to the Basic Safety Rule I.2, impacts are calculated in the hypothesis that, after the surveillance period, structures and waste packages have no longer a retention role (transfer by water), and even are detritus (transfer by air).		
Q.No 11	Country Greece	Article Article 17	Ref. in National Report
Question/ Comment	Is there a plan in place for any post-closure remedial or rehabilitation work that might need to be carried out? Have funds been set aside for any post-closure remedial or rehabilitation work that may be required?		
Answer	NCSR “Demokritos” is a state funded research organization and any post-closure remedial or rehabilitation performed at the site will be covered by state funds. No specific plans have been made or funds have been set aside for the purpose at this moment.		
Q.No 8	Country Luxembourg	Article Article 17	Ref. in National Report
Question/ Comment	Is there a plan in place to deal with the consequences of accidents when adding items to, or removing items from, the interim storage facility? Are regular surveys carried out to check the integrity of all items in the interim store? Are there procedures in place to deal with items in the interim store that might leak?		
Answer	The consequences of an accident while moving items from or into the storage room or in case of a leak, the situation would be dealt with by own means and/or by the Radiological Protection Unit of the Rescue Services Agency. The containers are verified once per year on potential outside contamination. Depending on the degree of contamination, decontamination may be performed by own means, by the Radiological Protection Unit of the Rescue Services Agency or by private company specialized in such services and licensed to this effect in Luxembourg. However specific written procedures do not exist.		
Q.No 39	Country Sweden	Article Article 17	Ref. in National Report
Question/ Comment	Are there contingency plans in place to cope with the possibility that the long-term integrity of a facility (after closure) may be compromised by some event or process (degradation, malicious damage, earthquake, etc)?		
Answer	There are no requirements for contingency plans as repositories are to be designed such that intervention should not be required. All the same, extreme events outside the scope of the plausible scenarios should be addressed in the safety assessment as part of a sensitivity analysis, in order to understand the possible consequences.		
Q.No	Country	Article	Ref. in National Report

30	Ukraine	Article 17	
Question/ Comment	What requirements are in place for the retention and preservation of records involving the location, design and inventory of facilities?		
Answer	According to the Article 11 of the Law of Ukraine “On radioactive waste management” licensees in the area of radioactive waste management are obliged to perform their own account of radioactive waste. After closure of radwaste storage facility information should be transmitted to organization that provides administrative control (active or passive) for the whole period of institutional control. Licensees submit information to the State Register of radioactive waste, State Cadastre of radioactive waste storage facilities (approved by the resolution of the Cabinet of Ministers of Ukraine). Moreover, state inventory of radwaste is performed once per three years, procedure and requirement of which are established by the SNRCU. Already three state inventories of radwaste were carried out: in 2000-2001, 2004-2004 and 2006-2007. General requirements on safety provision of radwaste disposal in geological formations contain requirement on storage of all information that could be important for safety in future. At present licensees carry out actions on transformation of the existing information onto the modern electronic devices. Establishing of requirements as for terms and amounts of storage, duplication, formatting and archive of information on location, design and inventory of facilities is included in SNRCU plans for 2010-2011.		
Q.No 59	Country Argentina	Article Article 18	Ref. in National Report
Question/ Comment	What is national policy in Argentina for "disposal" of radioactive waste?		
Answer	The Strategic Plan is based in technical, economical and societal considerations and defines the methodologies for treatment and the technological systems for final disposal for the different classes of wastes: for low and intermediate level wastes near surface repositories, for high level waste deep geological repository. The Strategic Plan is reviewed every three years and modifications based on the optimization of the waste management or other considerations may be introduced. The decision about the convenience of reprocessing the Spent Fuels shall be taken by 2030.		
Q.No 46	Country Czech Republic	Article Article 18	Ref. in National Report
Question/ Comment	What is national policy in Czech Republic for “disposal” of radioactive waste?		
Answer	The preferred option for the disposal of RAW is their placement into operational repositories, or in case of HLW, SF and LILW not complying with WAC of existing repositories development and operation of national DGR. For more details see p. 14/138 and the National Report under the Joint Convention submitted by the Czech Republic, Revision 1.1 of February 2003 (www.sujb.cz/docs/ NZ_VP_RAO_1_1A.pdf).		
Q.No 19	Country Denmark	Article Article 18	Ref. in National Report
Question/ Comment	What is national policy in Denmark for “disposal” of radioactive waste?		
Answer	Danish policy on the disposal of LILW is, that all radioactive waste, except sealed		

	sources and spent fuel that is returned to the manufacturer, shall be stored at the governmental institution Danish Decommissioning for later disposal in Denmark in compliance with international obligations and recommendations, primarily relevant IAEA Safety Standards. Based on recommendations from the IAEA (IAEA, 1995. Safety Series no. 111-F. The Principles of Radioactive Waste Management), four main principles have been described: 1. Protection of humans and the environment Radioactive waste shall be managed in such a way as to secure an acceptable level of protection for humans and the environment. 2. Protection beyond national borders Radioactive waste shall be managed in such a way as to assure that possible effects on human health and the environment beyond national borders will be taken into account. 3. Protection of future generations Radioactive waste shall be managed in such a way that predicted impacts on the health of future generations will not be greater than relevant levels of impact that are acceptable today. Likewise, radioactive waste shall be managed in such a way that it will not impose undue burdens on future generations. 4. The legal framework Radioactive waste shall be managed within an appropriate national legal framework including clear allocation of responsibilities and provisions for independent regulatory functions.

Q.No 46	Country Finland	Article Article 18	Ref. in National Report
Question/ Comment	What is national policy in Finland for “disposal” of radioactive waste?		
Answer	Both Finnish NPP utilities have in operation repositories for LILW from their plants. Besides the NPPs, radioactive waste arises also from some other activities (hospitals, industry, and research). Such waste which cannot be managed by clearance or controlled discharge, or by returning to the manufacturer abroad, is transferred to the state and put into a central storage operated by STUK. There is an agreement between the operator of the Olkiluoto NPP and the State that all waste in the central storage, meeting the acceptance criteria, will be disposed of into the Olkiluoto repository. Some high-activity or long-lived sealed sources in the storage do not comply with the acceptance criteria, so currently no disposal route exists for those sources.		

Q.No 12	Country Greece	Article Article 18	Ref. in National Report
Question/ Comment	What is national policy in Greece for “disposal” of radioactive waste?		
Answer	The answer is given in the Introduction of the National Report, Section A: The national policy for the radioactive waste produced in research and medical applications is on-site storage, decay and/or discharge; radioactive waste is released from regulatory control when its activity becomes lower than generic (unconditional) clearance levels. In addition, the import license for radioactive sealed sources is granted by the GAEC,		

	under the condition that the foreign supplier certifies to take back the source when it is used.		
Q.No 11	Country Luxembourg	Article Article 18	Ref. in National Report
Question/ Comment	What is national policy in Luxembourg for “disposal” of radioactive waste?		
Answer	Volume and activity of waste produced being very low, the Luxembourg Government takes the position that the option of a national management facility and of a final disposal facility would be unrealistic, because not at all commensurate. Therefore all disused sealed sources have to be returned either to the foreign supplier or to foreign company specialised in recycling radioactive source. If this turns out to be impossible disused sources are registered as radioactive waste. Concerning the small quantities of radioactive waste arising in Luxembourg, the Belgian government has exceptionally, and due to the small quantities, accepted to treat the waste coming from the Grand Duchy of Luxembourg, in Belgium.		
Q.No 42	Country Sweden	Article Article 18	Ref. in National Report
Question/ Comment	What is national policy in Sweden for “disposal” of radioactive waste?		
Answer	The Swedish policy is to avoid long-term storage and arrange for disposal of waste as soon as possible. This is also the case for operational waste from nuclear reactors and other nuclear facilities, as the repository for operational waste is already in place as well as shallow land burials available for very low level waste. For other types of wastes where there is no disposal option yet available, interim storage is required. Sweden will elaborate on this issue in the national presentation. The existing national system for disposal of radioactive waste comprises the following options pending the characteristics of the waste: Clearance for unrestricted use or for disposal as conventional non-radioactive waste. Permanent implacement of very low level waste (VLLW) in shallow land burials at the nuclear power plants or at Studsvik Permanent implacement of shortlived low- and intermediate level waste (LILW) in the existing repository for operational waste (SFR) Permanent implacement of longlived low- and intermediate level waste (LILW) in a geological repository for longlived low- and intermediate waste (planned to be constructed about 2040).		
Q.No 32	Country Ukraine	Article Article 18	Ref. in National Report
Question/ Comment	What is national policy in Ukraine for “disposal” of radioactive waste?		
Answer	National policy on disposal of radioactive waste is settled in the Law of Ukraine “On Radioactive Waste Management” According to Article 17 of this Law: Long-lived radioactive waste is subject to disposal only in solid condition, in stable geological formations with obligatory transfer into explosive-safe, fire-safe, nuclear safe form that secures for waste localization. The disposal of short-lived radwaste in solid condition could be performed in near-surface and above-surface radwaste storage facilities.		

	National environmental program on radioactive waste management for 2008-2017 was approved on 17 September 2008 by the Law of Ukraine. This Program contains detailed description of tasks on construction of storage facilities for all types of radwaste and carrying out of a number of research, assessing, scientific-methodological, design works on site selection for location of geological storage facility for disposal of long-lived and high-activity radwaste.		
Q.No 59	Country United Kingdom	Article Article 18	Ref. in National Report
Question/ Comment	What is national policy in United Kingdom for “disposal” of radioactive waste?		
Answer	The Government’s Low Level Radioactive Waste (LLW) policy statement published on 26 March 2007, made the Nuclear Decommissioning Authority (NDA) responsible for developing a UK-wide strategy for the management of nuclear industry LLW, including the identification of the need for additional LLW disposal capacity and facilities. The policy for LLW requires high levels of safety to be maintained through the use of a risk assessed approach and the preparation of safety cases that are acceptable to the independent regulators, including the Health and Safety Executive and the environment agencies, The policy allows greater flexibility in managing the wide range of LLW that already exists and will arise in the future from the NDA’s activities and other nuclear and non-nuclear industry arisings. It also seeks to minimise the amount of LLW for disposal by application of the principles of the waste management hierarchy and emphasises the need for effective consultation and public involvement in the development and delivery of LLW management plans. In parallel, Government is developing a strategy for UK non-nuclear industry low level waste from hospitals, the pharmaceutical industry, research and educational establishments etc. Government will ensure both strategies are aligned. Higher activity radioactive waste The UK Government and the devolved administrations for Wales and Northern Ireland are sponsors of the Managing Radioactive Waste Safely White Paper (policy statement) published on 12 June 2008 (copy available at www.defra.gov.uk/environment/radioactivity/mrws/index.htm). This sets out a framework for managing higher activity radioactive waste in the long-term through geological disposal, coupled with safe and secure interim storage and ongoing research and development to support its optimal implementation. The Government is of the view that an approach based on voluntarism and partnership as a means of siting a geological disposal facility is the best way forward. The Scottish Executive is not a sponsor of the MRWS programme. It continues to support long-term interim storage for higher activity radioactive waste and an on-going programme of research and development. The Managing Radioactive Waste Safely White Paper sets out the technical programme to design and deliver a geological disposal facility and the process and criteria to be use to decide the siting of a facility. The key issues covered are: • the approach to compiling and updating the UK Radioactive Waste Inventory and using it as a basis for discussion with potential host communities; • the Nuclear Decommissioning Authority’s technical approach for developing a geological disposal facility, including the use of a staged implementation approach and ongoing research and development to support delivery; • the arrangements to ensure sound regulation, scrutiny and control of the geological disposal facility;		

	• how relevant planning processes might be addressed; • the definition of 'community' for the purposes of site selection; • the process for issuing invitations and providing information to communities; • how a partnership arrangement can be used to support a voluntarism approach; • the use of affordable and value for money Engagement and Community Benefits Packages as part of the voluntarism and partnership approach; • the initial sub-surface screening criteria and the way in which Government will apply these criteria; • a refined set of criteria for assessing and evaluating candidate sites and details of further consultation on the way in which these criteria should be applied.		
Q.No 44	Country Sweden	Article Article 19	Ref. in National Report Section E.2 page 43
Question/ Comment	What is the rationale for limiting the number of subcontractors that can be used for one particular activity?		
Answer	According to the Government's bill on the Act on Nuclear activities the reason for limiting the number of subcontractors is to avoid unclear responsibilities in relation to the original licence-holder of the nuclear activity.		
Q.No 45	Country Sweden	Article Article 19	Ref. in National Report Section E.2.1.2 page 46
Question/ Comment	What is the composition of the "local safety board"? How are its members selected?		
Answer	A Local Safety Board consists of 13 members. The members are appointed by the Government. Ten of the 13 members are chosen on the proposition of the "nuclear municipality", the other three on the proposition of neighbouring municipalities which are included in the nuclear emergency planning. The members ought to (but must not) live in the municipality that proposed them (residents). Many of the persons proposed are, or has been, local politicians, but that is not a requirement.		
Q.No 60	Country United Kingdom	Article Article 19	Ref. in National Report Section E
Question/ Comment	What is the frequency of revising the Safety Assessment Principles? Do the devolved administrations have the power to set their own legislative and regulatory framework, or are they responsible only for implementing legislation of the UK Parliament?		
Answer	There is no set frequency for revising the Safety Assessment Principles. Legislation on Health and Safety and on Nuclear Safety in England Scotland and Wales is a matter reserved for the UK Parliament. The devolved administrations in Scotland and Wales have powers with respect to environmental matters. As stated in paragraph E38 of our report, Northern Ireland has its own regulatory framework. Paragraphs E88 and E89 of our report set out the responsibilities of UK Government and the devolved administrations.		
Q.No 66	Country Argentina	Article Article 22	Ref. in National Report
Question/ Comment	Does the regulatory authority prescribe the minimum qualifications for operators of Spent Fuel and Waste Management Facilities? Is there any established process for the accreditation of operators of SF and RWM facilities?		

Answer	These requirements are available in www.arn.gov.ar and are:- AR 0.11.1. Rev. 3 "Licensing of Class I facilities' personnel" - AR 0.11.2. Rev. 2 "Psychophysical aptitude requirements for specific authorizations" - AR 0.11.3. Rev. 1 "Re-training of Class I facilities personnel". 4. CNEA as the Responsible Organization must ensure the fulfillment of the regulatory standards and must therefore also evaluate the personnel's psychophysical aptitude by means of an organization appointed by the responsible organization and recognized by ARN that must have sufficient professional support for establishing psychophysical profiles of specified functions and evaluating psychophysical aptitude of applicants.		
Q.No 57	Country Czech Republic	Article Article 22	Ref. in National Report
Question/ Comment	Does the regulatory authority prescribe the minimum qualifications for operators of Spent Fuel and Waste Management Facilities? Is there any established process for the accreditation of operators of SF and RWM facilities?		
Answer	For all workers with ionizing radiation sources different requirements on their qualifications level are prescribed, but no special ones for the operators of SF or RAW waste management facilities. Question not applicable (see first answer).		
Q.No 58	Country Czech Republic	Article Article 22	Ref. in National Report Section 6.2 page 45
Question/ Comment	Who is responsible for funding management and/or disposal of non-NPP radioactive waste? Are non-NPP generators of radioactive waste required to demonstrate ability to fund radioactive waste management or disposal?		
Answer	Disposal of all categories of RAW, incl. institutional ones is the responsibility of SÚRAO. In this case general principle of "producer pay" is applicable. According to the Atomic Act every producer of radioactive waste (Article 24, para 2) is responsible for financial aspects of management of RAW generated by the producer. Government Order No. 416/2002 Coll., on establishing amounts of allocations and method of their payment by generators of radioactive waste to the nuclear account and amounts of annual contributions to municipalities and rules for their provision as amended by Government Order No. 46/2005 Coll. specifies the sum which the producers of institutional waste pay for its disposal (Article 2, para 2). Demonstration of ability to pay or to create some financial reserves for radioactive waste is not required for producers of institutional waste.		
Q.No 44	Country Ukraine	Article Article 22	Ref. in National Report
Question/ Comment	Does the regulatory authority prescribe the minimum qualifications for operators of Spent Fuel and Waste Management Facilities? Is there any established process for the accreditation of operators of SF and RWM facilities?		
Answer	Requirements for personnel qualification are established by the Operator depending on the personnel responsibility. Operating organization develops and implements system		

	of professional training and upgrading of qualification of NPP personnel (para 10.2.2., 10.2.3. of the General provisions of NPP safety), personnel of the enterprises on radioactive waste management (para 3.4., 3.8 of the Conditions and requirements of safety (licensing conditions) for performing activities on processing, storage and disposal of radwaste).		
Q.No 50	Country Ukraine	Article Article 24	Ref. in National Report
Question/ Comment	Do the cited dose limits from discharges and releases refer to combined gaseous and liquid discharges?		
Answer	On the basis of quota of dose limits for each NPP the levels of permitted releases and effluents are established in compliance with the regulatory document in force: Order of Establishing the Permitted Values of Releases and Effluents at NPP of Ukraine (radiation hygienic regulations of the Ministry of Health of Ukraine). The permitted value of releases/effluents – a prescribed maximum summary value of gas/airborne release / liquid effluent, at which the summary annual effective dose for a member of a critical group of the public, accounting all radionuclides in the release/effluent is equal to the quota of the dose limit.		
Q.No 51	Country Ukraine	Article Article 24	Ref. in National Report Section F 4.1.2 Page 33
Question/ Comment	The Report states that “analysis of individual dose distributions of Ukrainian NPPs personnel shows that the most part of NPP personnel have doses lower than 10 µSv/yr, and percentage ratio....who have doses higher than 15 µSv/yr does not exceed 0.5%”. Similarly in the next few sentences it is stated “the average individual dose at SSE complex....did not exceed...2 µSv/yr”. Could the units reported be verified?		
Answer	A typing mistake. It should be milliSievert/year (mSv/year) Thank you for your remark.		
Q.No 68	Country Argentina	Article Article 25	Ref. in National Report
Question/ Comment	What is the frequency of emergency exercise at Spent Fuel and waste Management facilities?		
Answer	Emergency exercises at Spent Fuel and Waste Management facilities are performed once a year.		
Q.No 63	Country Czech Republic	Article Article 25	Ref. in National Report
Question/ Comment	What is the frequency of emergency exercise at Spent Fuel and Waste Management facilities?		
Answer	According to the SÚJB Degree No. 318/2002 Coll. the frequency of emergency exercise for: a) extraordinary event of degree one or two is at least once a year, b) extraordinary event of degree three is at least once in two years. According to the SÚJB Degree No. 318/2002 Coll. the frequency of transport emergency exercise for: a) extraordinary event of degree one or two is at least once a year, b) extraordinary event of degree three is at least once in three years. For more details see www.sujb.cz/docs/D318_02.pdf.		
Q.No	Country	Article	Ref. in National Report

99	France	Article 25	
Question/ Comment	What is the frequency of emergency exercise at Spent Fuel and Waste management facilities?		
Answer	On-site plans : The frequency of the internal emergency exercises is specified in the on-site emergency plan, which is approved by ASN. It depends on the complexity, size and risks of the facility. Off-site plans : Regulations require the authorities to organize a national emergency exercise at least every five years for each facility. In practice the periodicity is 2 or 3 years.		
Q.No 100	Country France	Article Article 25	Ref. in National Report
Question/ Comment	What arrangements are in place to exercise and/or confirm the effectiveness of radiation emergency plans for the shipment of spent fuel and radioactive waste by sea.		
Answer	The sender is in charge of the safety of the transport, which includes an effective transport emergency plan. This plan is tested during exercises, are subjected to inspections.		
Q.No 54	Country Ukraine	Article Article 25	Ref. in National Report
Question/ Comment	What is the frequency of emergency exercise at Spent Fuel and Waste Management facilities?		
Answer	The regulatory documents in force have no specific requirements concerning periodicity of emergency exercises. In fact, at ZNPP spent fuel storage facility 4 exercises of the emergency crew are conducted. Besides, annual training schedule provides for a larger-scale exercises, for example, the emergency exercise with a drop of a “VKH-WWER” cask, with involvement of ZNPP evacuation commission, manpower forces of the Ministry of Emergencies in Zaporizzhya region, and the Emergency Technical Center of NNEGC Energoatom.		
Q.No 77	Country United Kingdom	Article Article 25	Ref. in National Report
Question/ Comment	What is the frequency of emergency exercise at Spent Fuel and Waste Management facilities?		
Answer	Demonstration exercises at Spent Fuel and Waste Management facilities are held annually on site and 3-yearly off-site		
Q.No 71	Country Argentina	Article Article 26	Ref. in National Report
Question/ Comment	What requirements are in place for relevant records regarding decommissioning to be kept?		
Answer	The responsible for a facility shall keep the relevant records in a complete and actualized version during the entire lifetime of the facility and until the decommissioning is completed. Physical Protection procedures as duplication of information and back-up in different medias, maintained in conditioned rooms (fire and rodent protection, etc.), shall be implemented.		
Q.No 72	Country Argentina	Article Article 26	Ref. in National Report
Question/	Does Argentina have any training and accreditation program and requirements for the		

Comment	decommissioning workers?		
Answer	Since the decommissioning of any relevant nuclear facility is not foreseen in the short term, the need to establish training and accreditation programs and requirements for decommissioning workers have not been defined yet. However, CNEA is implementing a training program that includes personnel training abroad, the organization of regional workshops in the country and the development of decommissioning techniques.		
Q.No 66	Country Czech Republic	Article Article 26	Ref. in National Report
Question/ Comment	Q1. Do the inspectors actively supervise the decommissioning work? Q2. If the inspectors do supervise the decommissioning work, what responsibilities do they take over from the licensee? Q3. What authority and chain of command is used with the inspectors supervising? Q4. Does this mean the responsibility of safety rests with the Regulator?		
Answer	No, as there are no ongoing decommissioning projects in the Czech Republic. All nuclear installations are in operation, as clearly stated in Chapter 12.3 (p. 125/138). So far only periodic updates of decommissioning plans are performed (every 5 y). Question not applicable (see first answer). Question not applicable (see first answer). Question not applicable (see first answer).		
Q.No 26	Country Denmark	Article Article 26	Ref. in National Report
Question/ Comment	Q1. What are the qualifications of staff? Q2. What are the details of financial resources? Q3. What are the details regarding emergency preparedness? Q4. What are the details on record keeping?		
Answer	On January 29, 2009 the Danish Parliament unanimously supported the “Basis for Decision” for establishing a Danish final repository for low and intermediate waste. As stated in the National Report the “Basis for Decision” establishes 4 principles that shall apply for all work related to construction and operation of the Danish final repository. No specific requirements on qualifications of staff, emergency preparedness and record keeping have been established at this early stage of the process. Adequate financial resources are a governmental matter and will be assured step by step by the Government after approval in the Parliament during the process leading to the final repository.		
Q.No 26	Country Greece	Article Article 26	Ref. in National Report
Question/ Comment	Q1. Have basic decommissioning plans been developed? Q2. What decommissioning documentation will be developed? Q3. What qualifications or accreditations are necessary for workers?		
Answer	1. As required by the refurbishment programme, the decommissioning plan for the primary cooling system of the GRR-1 is under preparation. The complete GRR-1		

	decommissioning plan will follow. 2.The documentation will be developed according to IAEA guidelines following the recommendations referred in “Standard Format and Content for Safety Related Decommissioning Documents”, Safety Reports Series No. 45, IAEA 2005. 3.Radiation protection workers accreditation by GAEC.		
Q.No 21	Country Luxembourg	Article Article 26	Ref. in National Report
Question/ Comment	Q1. Are decommissioning plans and regulations and requirements documented for decommissioning? Q2. Is monitoring of discharge and operator doses required? Q3. Are there regulatory actions specified if limits are exceeded? Q4. What are the details of financing?		
Answer	Given that no nuclear facility exists in Luxembourg, Article 26 is not applicable to Luxembourg. The spirit of Article 26 is nevertheless reflected in the practical implementation of the relevant regulations with regard to holders of radioactive materials, as reported throughout the report.		
Q.No 22	Country Luxembourg	Article Article 26	Ref. in National Report
Question/ Comment	What steps are in place to ensure that qualified staff and adequate financial resources are available to carry out decommissioning activities?		
Answer	Given that no nuclear facility exists in Luxembourg, Article 26 is not applicable. Thus, there is no need to ensure that qualified staff and adequate financial resources are available to carry out decommissioning activities of such facilities.		
Q.No 30	Country Nigeria	Article Article 26	Ref. in National Report
Question/ Comment	Q1. What legislation or regulations for decommissioning facilities is in place? Q2. Are there listed requirements, guides or other documentation which show how decommissioning will be handled and licensed?		
Answer			
Q.No 63	Country Ukraine	Article Article 26	Ref. in National Report
Question/ Comment	Q1. Does the site licence cover the decommissioning of all facilities on the site? Q2. Are the special permissions for each stage of decommissioning required for each individual facility? Q3. As SFSF-2 will not be constructed until about 2013 and the spent fuel transfer will take 8 or 9 years, will the SFSF-1 licence need to be applied for and issued closer to this date of completion? Q4. What stages of special permissions will be required for SFSF-2? Q5. What kind of regulatory assessment and review is necessary before SFSF-1 can continue operation for the next 15 years (see p48)? Q6. As far as temporary storage is concerned, what kind of approvals are required for demolition of general plant and buildings? Q7. What kind of facilities for decommissioning were constructed and what approval processes were involved? Q8. What was involved in re-construction of life support systems? Q9. Do you have guideline documentation for developing safe decommissioning activities, the action plans and working documentation? Q10. The Report states that the university develops the decommissioning plan. What		

	necessary expertise and guidance is used in the development of the plan? Q11. What accreditation system is in place for those working on the decommissioning projects?
Answer	Q1. The license for the activity “nuclear facility decommissioning” issued by the State Nuclear Regulatory Committee of Ukraine covers the activity on decommissioning of Units 1,2, and 3 with RBMK-type reactors at ChNPP site. ChNPP has also a separate license for the activity “operation of nuclear facility - Spent Fuel Storage Facility (SFSF-1) of ChNPP”. Q2. Special permissions for decommissioning of each facility are required. Q3. There is no need to make changes in the conditions of the license “operation of the nuclear facility – Spent Fuel Storage Facility (SFSF-1)”. The term of validity of the mentioned license is up to completion of the life cycle “nuclear facility operation”. Q4. Conditions of the license “Construction of the nuclear facility” issued by the State Nuclear Regulatory Committee of Ukraine on 13 May 2003 provide for implementation of SFSF-2 construction only after approval in the established order of the updated Construction Design of Interim Spent Fuel Storage Facility ISF-2, and endorsement by the State Nuclear Regulatory Committee of the Preliminary Safety Analysis Report of ISF-2. After completion of ISF-2 construction it is planned to issue a license on its commissioning, and then, the operation license. Q5. Conditions of the license “Operation of the nuclear facility SFSF-1” issued by the State Nuclear Regulatory Committee of Ukraine on 25 June 2008 provided for ChNPP quarterly reporting on the progress of the “Plan of measures on enhancement of the quality management system of Chernobyl NPP”, as well as development (by 31 December 2012) of the SFSF-1 Decommissioning Concept. According to the decision of the Border of the State Nuclear Regulatory Committee of Ukraine of 26 June 2008, the term of SFSF-1 safety reassessment is December 2012. Q6. For demolishing all constructions and buildings being a part of the NPP complex, a license of the State Nuclear Regulatory Committee of Ukraine for the activity “decommissioning of the nuclear installation” is required. In the framework of the nuclear facility decommissioning license the operator must obtain separate permits from the State Nuclear Regulatory Committee for each stage of decommissioning, including dismantling. Sequence of dismantling of particular buildings and structures is defined in the Decommissioning Program and in the projects for particular decommissioning stages. Q7. To facilitate ChNPP decommissioning, the following facilities have been constructed (or being constructed now): 1. Heat Supplying plant; 2. Liquid Radwaste Treatment Plant (LRTP) 3. Industrial Complex for Solid Radioactive Waste Management (ICSRM); 4. Interim Storage Facility (ISF-2) for spent nuclear fuel. Design documents of all four indicated facilities passed the regulatory reviews and then were approved by the Cabinet of Ministers of Ukraine. Concerning the Liquid Radwaste Treatment Plant and Industrial Complex for Solid Radioactive Waste Management, their commissioning and operation will start after issuing separate permissions. Process of licensing regarding ISF-2 is briefly described in Q4. Q8. After making a decision about early decommissioning of ChNPP Units 1, 2, and 3 the work was done on reconstruction of certain systems, to reduce power consumption by supporting systems of the shutdown RBMK-type units. Q9. Regulations concerning the development of measures on ChNPP safe decommissioning are: 1. The Law of Ukraine “On National Program of Chernobyl NPP Decommissioning

	and Transformation of the Shelter into Ecologically Safe System"; 2. The Law of Ukraine "On National Special-Purpose Program for Radioactive waste Management"; 3. Integrated Program of Chernobyl NPP Decommissioning; 4. General Safety Provisions of Nuclear Power Plants; 5. General Provisions of Safety Assurance at Decommissioning of Nuclear Power Plants and Nuclear Research Reactors; 6. Requirements to Structure and Contents of Safety Analysis Report for Decommissioning of Nuclear Power Plants and Nuclear Research Reactors; 7. Radiation Safety Standards of Ukraine (NRBU-97); 8. Order of Exemption of Radioactive Waste and By-Product Materials from the Regulatory Control. To ensure ChNPP decommissioning in compliance with the requirements of the law the following documents were developed and endorsed by the State Nuclear Regulatory Committee of Ukraine: 1. Concept of Chernobyl NPP Decommissioning; 2. Program of Chernobyl NPP Decommissioning; 3. Integrated Program of Radioactive Waste Management at the Stage of Termination of ChNPP Operation and Transformation of the Shelter into Ecologically Safe System; 4. Program of Radioactive Waste Management at Decommissioning of Chernobyl Nuclear Facilities at the Stage of Final Closure; 5. Radiation Protection Program at Decommissioning of Chernobyl Nuclear Facilities at the Stage of Final Closure; 6. Quality Assurance Program. Chernobyl NPP Decommissioning. Q10. The issues of Sevastopol Research Reactor operation are regulated by the operation license of this facility. The work on development of a concept of its decommissioning will start in 2010. Q11. Accreditation system depends on the nature of activities. There are different accreditations according to the requirements of quality management system. For example, laboratory for radiation monitoring should be accredited by the State Metrology Service.

Q.No	Country	Article	Ref. in National Report
33	Nigeria	Article 27	
Question/ Comment	Does the Nigerian Code of Practice only apply to transport of radioactive material by road and rail?		
Answer			
Q.No	Country	Article	Ref. in National Report
73	Ukraine	Article 27	
Question/ Comment	Which edition of the IAEA Regulations for Safe Transport of Radioactive Material is used to ensure harmonisation with international regulations for transboundary movement of radioactive material?		
Answer	2005 Edition		
Q.No	Country	Article	Ref. in National Report
77	Argentina	Article 28	Section J.4
Question/ Comment	Is there any incentive for users to manage disposal or storage of disused sources rather than allow ARN/CNEA to confiscate them?		
Answer	There are not any special incentives. Users shall maintain disused equipments containing sealed sources in appropriate temporary storage until the radioactive		

	material is transferred to CNEA as radioactive waste. In cases where severe non compliance of security is detected, the regulatory authority supported by the Justice asks to confiscate the equipment which will be deposited at CNEA facilities. The license holder (or authorization) will have to pay a fine established by ARN plus the cost of confiscation.		
Q.No 78	Country Argentina	Article Article 28	Ref. in National Report Section J.5
Question/ Comment	The National Report states: 'Since 1991 and prior to IAEA-INFCIRC 225 / Rev. 4, the ARN is paying special attention not only to the early detection of potential sabotages to facilities containing nuclear materials, but also in case of robbery and theft of radioactive sources and the early detection of the generated fraudulent acts.' Q. What is the special attention?		
Answer	As it is stated in Section J.5, special attention for early prevention or detection of malicious acts involves permanent contact and exchange of information between the ARN and the border control organizations, intelligence services and security forces.		
Q.No 79	Country Argentina	Article Article 28	Ref. in National Report Section K.3.1
Question/ Comment	In relation to the Atucha I Nuclear Power Plant, the report states that 'the available positions in the pools will be used up in March 2015, and on that date a new option must be available for the storage of spent fuel.' Q. Do you anticipate any difficulties in establishing alternative options by 2015?		
Answer	There are not any foreseen difficulties. Options have already been established for storage after 2015.		
Q.No 80	Country Argentina	Article Article 28	Ref. in National Report
Question/ Comment	What is national policy for management of disused sealed sources to ensure their safety and security and in a manner that does not impose an undue on future generations? What options exist or are planned for disposal of orphan and other disused sealed radioactive sources where an option for return to the manufacturer does not exist – including legacy radium sources?		
Answer	Disused sealed sources must be transferred to the PNGRR. They are stored in a special deposit licensed by ARN that fulfils all the present requirements for safety, security and radiological protection. In the future they will be disposed of in repositories according to their acceptance criteria and the classification of each disused sealed source (based on specific activity and type of radionuclide).		
Q.No 75	Country Czech Republic	Article Article 28	Ref. in National Report
Question/ Comment	What is national policy for management of disused sealed sources to ensure their safety and security and in a manner that does not impose an undue on future generations? What options exist or are planned for disposal of orphan and other disused sealed radioactive sources where an option for return to the manufacturer does not exist – including legacy radium sources?		
Answer	Disused sealed sources are by definition considered to be radioactive waste and therefore they are subject of all requirement defined in Part III of Decree No. 307/2002		

	Coll. (RAW management; see www.sujb.cz/docs/R307_02.pdf). Safety of disposal is addressed by Article 52 of this decree and by the requirements of the Atomic Act on waste disposal facilities (reported in safety cases). Additionally management of radiation sources is one of licensed activities and is regulated by the Atomic Act. For further details see Annexes A-D and I of Atomic Act (www.sujb.cz/docs/ SUJB_CR_Atomic_Act.pdf). Chapter 10 contains an overview of disposed disused sealed sources placed in repositories Richard and Bratrství. If the disused sealed sources do not comply with the WAC derived for the disposal they can be safely stored e. g. in a storage chamber of Richard repository.		
Q.No 76	Country Czech Republic	Article Article 28	Ref. in National Report Section 10 Page 120
Question/ Comment	The Report states 'The movement of a sealed source is monitored from its manufacture or introduction into distribution until its disposal or storage. The storage option is used only if the sealed source fails to meet acceptance conditions for disposal in a given repository.' Q. How are the sources movements monitored? Are acceptance criteria developed? The report states 'Provided the owner of a found source is not identified the costs associated with its disposal or storage shall be paid from the state budget.' Q. How often has this occurred?		
Answer	The movement of a sealed source is monitored from its manufacturing or introduction into distribution until its storage or disposal. All steps of the management of sealed sources are supervised by SÚJB. Owner of a sealed source must report their movement into the central database of sealed sources managed by SÚJB. Acceptance criteria for storage or disposal of sealed sources are derived in the safety assessments of relevant storage facility or repository. The frequency of abandoned source finding is on order of lower tenths per year. (in 2008 27 sources with activity from less than 1 kBq to several MBq were identified).		
Q.No 77	Country Czech Republic	Article Article 28	Ref. in National Report Section 11.2 Page 122
Question/ Comment	The report states 'Acceptability of the resulting product for RAW repository Dukovany has been verified by an independent analysis.' Q what does independent mean in this context?		
Answer	The properties of RAW conditioned by aluminosilicate matrix was verified by analyses performed not only by the technology supplier, but also by independent organisations. Some of these organisations are subsidiaries of SÚJB (SÚRO).		
Q.No 78	Country Czech Republic	Article Article 28	Ref. in National Report Section 11.3 Page 122
Question/ Comment	What are the planned activities to improve safety at ÚJV Øež a. s.?		
Answer	As stated in Chapter 11.3 the listed installations are considered as old environmental liabilities and are a subject of dismantling process.		
Q.No	Country	Article	Ref. in National Report

28	Denmark	Article 28	
Question/ Comment	What is national policy for management of disused sealed sources to ensure their safety and security and in a manner that does not impose an undue on future generations? What options exist or are planned for disposal of orphan and other disused sealed radioactive sources where an option for return to the manufacturer does not exist – including legacy radium sources?		
Answer	The policy and practice for radioactive waste management has so far been to collect and store all Danish radioactive waste under safe and secure conditions at the Waste Management Plant at the Risø site. The Danish Parliament unanimously supported on January 29, 2009 the "Basis for Decision" for establishing the Danish final repository for low and intermediate waste. As stated in the National Report the "Basis for Decision" establishes 4 principles based on recommendations from the IAEA ("IAEA, 1995. Safety Series no. 111-F. The Principles of Radioactive Waste Management), that shall apply for all work related to establishing the Danish final repository: 1. Protection of humans and the environment Radioactive waste shall be managed in such a way as to secure an acceptable level of protection for humans and the environment. 2. Protection beyond national borders Radioactive waste shall be managed in such a way as to assure that possible effects on human health and the environment beyond national borders will be taken into account. 3. Protection of future generations Radioactive waste shall be managed in such a way that predicted impacts on the health of future generations will not be greater than relevant levels of impact that are acceptable today. Likewise, radioactive waste shall be managed in a way that it will not impose undue burdens on future generations. Consideration for future generations is of fundamental importance in the management of radioactive waste. This principle is derived from an ethical concern for the health and environment of future generations, as well as a principle that the generations that receive the benefits of a practice should bear the responsibility to manage the resulting waste. 4. The legal framework Radioactive waste shall be managed within an appropriate national legal framework including clear allocation of responsibilities and provisions for independent regulatory functions. Regarding disposal of disused sealed radioactive sources where the option for return to the manufacturer does not exist, the obligations of the license holder is to ensure the transfer of such sources to the Waste Management Plant of Danish Decommissioning at the Risø site. The license holder pays for the service; however, this payment does not fully cover Danish Decommissioning's handling of the waste. Regarding orphan sources the Ministry of Health and Prevention is authorised to cover all costs associated with the retrieval and securing of such sources.		

Q.No 29	Country Denmark	Article Article 28	Ref. in National Report Section J Page 24
Question/ Comment	How do the provisions of Order no. 985 of 11 July 2007 and Order no. 154 of 6. March 1990 ensure that disused sources are handled in a safe manner? Is there any requirement to return sources to the supplier? Are users required to store disused sources under particular conditions or are they stored by the Authority? Is there a register of disused sources in storage? How many disused sources are in storage? Are there any fixed radiation monitors at the gates of scrap metal facilities to detect any radioactive material being brought in?		
Answer	According to § 7 and § 16 in Order no. 985 of 11 July 2007 each disused source shall immediately be returned to the supplier or to a recognised installation authorised by the National Institute of Radiation Protection for storage and/or disposal. For sealed sources categorized in security group A (IAEA), § 13 states that before an agreement on transfer can be authorized by the National Institute of Radiation Protection there has to be a binding agreement between the license holder and the supplier securing return of the source to the supplier, when it becomes a disused source. Concerning smoke detectors with radioactive sources it is stated in § 32 in Order no. 154 of 6 March 1990 that disused smoke detectors shall be returned to the supplier or transferred to the Waste Management Plant of Danish Decommissioning at the Risø site. Disused sources are not stored by the regulatory authority. The disused sources stored by Danish Decommissioning are registered in the Waste Documentation System (WDS). The WDS is an electronic system based on bar-code registration and is particularly designed for the waste-flow at Danish Decommissioning. The WDS comprise decommissioning waste as well as conventional radioactive waste such as disused sources. Small sources like smoke detectors are registered in bulk by weight, whereas larger disused sources are registered singly. Several scrap metal facilities have fixed radiation monitors to detect radioactive material being brought in. The National Institute of Radiation Protection recommends scrap and reuse metal facilities to ensure that contracts are in place with the supplier including binding requirements on the supplier to ensure transfer of non-radioactive material.		
Q.No 93	Country Finland	Article Article 28	Ref. in National Report
Question/ Comment	What is national policy for management of disused sealed sources to ensure their safety and security and in a manner that does not impose an undue on future generations? What options exist or are planned for disposal of orphan and other disused sealed radioactive sources where an option for return to the manufacturer does not exist – including legacy radium sources?		
Answer	The policy is to return disused high-activity sealed sources to the supplier/manufacturer. (a commitment to return is required when authorising a new		

	source). However, this is not possible for some old sources. These sources can be handed over to STUK and transferred to the central storage. The fee for the transfer covers also the later disposal of the source into the Olkiluoto LILW repository. STUK is also responsible to take care of orphan sources. The waste acceptance criteria of the repository will not allow the disposal of all the disused sealed sources currently in the central storage or in the possession of the licensees. However, the number of such high-activity or long-lived sources is small and they can be safely stored. We can assume that such sources can be disposed of into future repositories for spent fuel or decommissioning waste.		
Q.No 94	Country Finland	Article Article 28	Ref. in National Report Section J.28.2 page 72
Question/ Comment	In the section on handling of disused sealed sources, the Report states that 'that ra¬dioactive sources that have no further use must be rendered harmless..' How does STUK render sources "harmless"? How long are disused sources typically stored for? Does the financial incentive favour return to supplier or hand over to the central store managed by the State?		
Answer	Rendering harmless disused sealed sources means, in practice, either decay storage or disposal. STUK operates together with TVO company a central storage for disused sealed sources and other small user waste. According to the contract, the waste items in the storage which meet the acceptance criteria of TVO's repository (presumably over 95 % by volume) will be later disposed of there. The primary objective for the management of high-active disused sealed sources is return to the supplier/manufacturer. The transfer of disused high-activity disused sealed sources into the central storage is resolved on case-by-case basis. The inventory limits of the central storage do not allow reception of the most highly active sources.		
Q.No 95	Country Finland	Article Article 28	Ref. in National Report Section J.28.3 page 73
Question/ Comment	Management of orphan sources What actions are taken to "render harmless" radioactive sources?		
Answer	If the origin of a radiation source is unknown or the responsible party cannot be identified, the State has the obligation to render it harmless. In Radiation Decree, this responsibility is allocated to STUK. Rendering harmless disused sealed sources means, in practice, either decay storage or disposal. STUK operates together with TVO company a central storage for disused sealed sources and other small user waste. According to the contract, the waste items in the storage which meet the acceptance criteria of TVO's repository (presumably over 95 % by volume) will be later disposed of there.		
Q.No 117	Country France	Article Article 28	Ref. in National Report Section J.1 Page 169
Question/ Comment	The Report states 'The general regulatory framework for sources is described in § F.4.1.2.4. Any user to whom a sealed source has been delivered must have them collected by the supplier as soon as it is out of use and no later than 10 years after the initial approval appearing on the corresponding supply form. Those provisions relating to the recovery of sources and to financial responsibilities apply in France since the early 90s.'		

	Q. How are sources >10 years old managed
Answer	If the user does not want to extend lifetime of radioactive sources above 10 years, such sources are sent back to their supplier who is in charge of their management. Furthermore, all radioactive source suppliers have to fund a financial warranty in order to guarantee sources management even if he is not able to. Source suppliers formed in 1996 a non-profit association, called “Ressources”, with a view to constituting a guarantee fund to reimburse Andra or any other certified organisation the costs associated with the removal of sources from users, either in the case of default of the supplier normally responsible for removing them or in the absence of any supplier likely to do so when orphan sources are involved.

Q.No	Country	Article	Ref. in National Report
118	France	Article 28	Section J.2 Page 170
Question/ Comment	The report states ‘The inventory of CEA radioactive sources is maintained via a database thanks to the input from the waste-holding units. The database indicates the status of the source (in use or disused), its disposal system, if known, or interim-storage conditions pending final disposal (surface or deep geological disposal, etc.). ‘ Q Approximately how many disused sources does the database indicate are requiring management?		
Answer	CEA has to manage several hundred thousands of disused sources: a part of them (~ some ten thousands) are high âã activity sources, some thousands are high á activity and neutron sources and several hundred thousands are of low activity (specially 241Am fire detectors). At the end of 2008, ANDRA has proposed the different types of disposal conditions according to the nature and radioactivity of the different sources. Relatively, CEA is now studying the packaging and storage procedures in order to find the better way to manage each type of disused source.		

Q.No	Country	Article	Ref. in National Report
30	Greece	Article 28	
Question/ Comment	What is national policy for management of disused sealed sources to ensure their safety and security and in a manner that does not impose an undue on future generations? What options exist or are planned for disposal of orphan and other disused sealed radioactive sources where an option for return to the manufacturer does not exist – including legacy radium sources?		
Answer	We believe that the text in the National Report, under Art. 28 provides the answer to the question. As it concerns the legacy sources, GAEC takes them under its responsibility. Up to now, this type of sources have been exported for recycling. The same procedure will be applied, if needed, in the future.		

Q.No	Country	Article	Ref. in National Report
31	Greece	Article 28	Section J Page 18
Question/ Comment	The Report states ‘when the supplier makes an offer, the cost of taking the source back in a few years’ time has to be considered.’ Q. Is the cost of returning the source built into the purchase cost? The Report states ‘In case the source user or the supplier bankrupts, the government		

	will cover the additional funds needed for disposing of the source.' Q. Does the government manage storage of such sources until a disposal option is available? The Report states 'A programme exists for collecting all spent and disused sources, imported into the country before 1990.' Q. Is there a program or plan for sources imported since 1990? The Report states 'Up to now, all the old "legacy" sources have been collected and exported to a foreign country for recycling according to a programme started by the GAEC in 2003.' Q. Which facility are sources exported to?
Answer	1. Yes it is 2. Yes it does 3. Since 1990, see National Report (Art. 28). 4. To a foreign country with appropriate infrastructure.

Q.No	Country	Article	Ref. in National Report
25	Luxembourg	Article 28	

Question/ Comment	What is national policy for management of disused sealed sources to ensure their safety and security and in a manner that does not impose an undue on future generations? What options exist or are planned for disposal of orphan and other disused sealed radioactive sources where an option for return to the manufacturer does not exist – including legacy radium sources?
Answer	As reported on page 7 of the national report, under "Management of disused sealed sources", the priority is given to returning disused sources to the foreign supplier of the sources. If this turns out to be impossible, sources including legacy sources have to be sent to a foreign waste management facility, according to the bilateral agreement with Belgium.

Q.No	Country	Article	Ref. in National Report
26	Luxembourg	Article 28	Section B Page 7

Question/ Comment	The Report states, 'As part of the licensing procedure, the applicant must have written commitment from the foreign supplier, where the latter agrees to take back the sources if disused.' Q. What happens if the applicant becomes bankrupt and abandons the site and/or source? The report states, 'the user or holder is obliged to take all necessary administrative steps to send his disused source to any other supplier of radioactive sources or foreign waste management facility.' Q. What happens to the source if the 'other ' supplier or foreign waste management facility will not accept the source?
Answer	In case of bankruptcy and abandon of the site, the radioactive sources become orphan sources. The DRP would thus immediately overtake the radioactive sources, transfer them to the interim storage facility and organize a return to the supplier according to the

	general policy. The related costs could, if all other possibilities fail, be covered by a specially labelled credit of the state budget. However several licensees operate dredging vessels worldwide that are registered in Luxembourg and use high activity sealed sources. If these licensees became bankrupt and abandon the vessel with the source, it could very difficult to maintain theses sources under regulatory control. Concerning the 2nd question, the bilateral agreement with Belgium on accepting limited amounts of radioactive wastes comprises all types of disused sources.		
Q.No 37	Country Nigeria	Article Article 28	Ref. in National Report Section B Page 5 & 13
Question/ Comment	In order to not impose undue burden on future generations (p.5), it is important to have definite policy and plans for disposal of all disused sealed sources and other radioactive waste that cannot be returned to the supplier. Q.What is the national policy including siting and timeline for construction of a waste repository?		
Answer			
Q.No 90	Country Sweden	Article Article 28	Ref. in National Report
Question/ Comment	What is national policy for management of disused sealed sources to ensure their safety and security and in a manner that does not impose an undue on future generations? What options exist or are planned for disposal of orphan and other disused sealed radioactive sources where an option for return to the manufacturer does not exist – including legacy radium sources?		
Answer	The existing options are to return the disused source to the producer or vendor or to treat the disused source as radioactive waste. In the latter case the source must be delivered to a waste treatment facility which safely and securely can store or dispose of the radioactive waste. More stringent rules are imposed on High Activity Sealed Sources (HASS). Special require¬ments were laid down in the European Council Directive 2003/122/Euratom, imple¬mented in SSMFS 2008:9 “The Swedish Radiation Safety Authority’s Regulations on Control of Sealed Radioactive Sources of High Activity”. These regulations are further supplemented by rules for importing, exporting, transiting, re¬porting and transferring of radioactive sources, in accor¬dance with the classification of the Code of Conduct on the Safety and Security of Radio¬active Sources, IAEA, Vienna, 2004, issued in SSMFS 2008:10 “The Swedish Safety Authority’s Regulations on Import, Export and Re¬porting of radioactive substances.” The Swedish radium sources were collected and conditioned for interim storage at the Studsvik waste management facility, pending the planned future commissioning of a deep geological disposal facility. The interim storage is a rock cavern with satisfactory safety and security arrangements. Other sources are conditioned and subsequently sent to the repository SFR for disposal.		
Q.No 91	Country Sweden	Article Article 28	Ref. in National Report Section J Page 133
Question/ Comment	The Report states ‘A special funding arrangement has been established to cover the costs for the management and final disposal of non-nuclear legacy waste and orphan sources.’		

	Q. Is this government funded or industry funded? Please explain how it works? The Report states 'Regulations on the Use of Equipment in Industry Containing Sealed Sources or X-Ray Tubes (SSI • FS 1995:2) stipulate that equipment containing a radioactive source that will not be used anymore, shall be sent to a radioactive waste management facility within six months.' Q. Is there any form of register of disused sources awaiting transfer to a supplier or radioactive waste management facility?
Answer	It is government funded. Since 2006, the SSM (previously SSI) receives a sum of 100,000 Euro per year to carry costs for the management and final disposal of non-nuclear waste from past practices (old radium and thorium containing products, sources) held by private persons and orphan sources. (For 2009 this sum is increased to approximately 250 000 Euro for the purpose of securing final management of smoke detectors). This financing is a supplementary part of the system, used for private persons with little or no funding or orphan sources. All industry sources (or X-ray tubes) which are used by the licensee's are kept in a register at the SSM and each licensee also has to keep a register of their equipment. Annually the licen¬see pays a fee to the authority. In case of de-licensing (and not having to pay the fee) it has to be proven that equipment containing radioactive sources have been sent to a radioactive waste management facility and that x-ray machines have been rendered unusable or sold to another licensee. The delivery to the waste management facility is confirmed by the issue of a "scrap certificate" by the receiving waste management facility. The SSM occasionally, by direct request to the licensees, check the inventories of sources and equipments. Another way of control is by direct inspections at facilities and industries using radioactive sources.

Q.No	Country	Article	Ref. in National Report
92	Sweden	Article 28	Section J.1.2 Page 134
Question/ Comment	The Report states 'Disused sealed sources are either returned to the supplier or manufacturer, or sent to Studsvik Nuclear AB. Studsvik is the only approved radioactive waste management facility in Sweden for handling radiation sources that need a licence. However, Studsvik Nuclear AB is not required to accept, handle or dispose of disused sealed sources. The company operates on a commercial basis. Hence, problems may arise if the holder of a sealed source cannot afford the cost for the handling at Studsvik, or if Studsvik refuses to handle a sealed source.' Q. What happens if Studsvik will not or can not take a source? The Report states 'SSI has since 2006 received special funding corresponding to EUR 100 000 per year from the Government, to cover the costs for the management and final disposal of non-nuclear waste from past practices, e.g. old radium and thorium products possessed by private persons and orphan sources.' Q. Will this run in parallel with current Studsvik and return to supplier options or replace them?		
Answer	If the private company Studsvik Nuclear AB not is able to manage a certain kind of waste, a solution must be found and the Government and its authorities have the		

	responsibility to do this within the ex¬isting legal and financial system. So far however, the lion's share of sources and radioactive waste which has been delivered to Studsvik Nuclear AB has also been managed. Sweden is fortunate to have a competent and cost-effective waste management organisation with access to the repository SFR for direct disposal of radioactive waste and a central interim storage for long-lived or high activity waste. The sources which are difficult for Studsvik Nuclear AB to handle are for example the gaseous 3H-, 85Kr-sources where existing licence conditions for SFR create a problem, despite the waste being classified as low-level waste by the new IAEA classification. The issue is investigated and pending a solution, sources are stored by the possessors. The special funding arrangement of EUR 100 000 is to secure proper funding for Studsvik to accept, handle and dispose disused sealed sources. This financing is a supplementary part of the system, used for private persons with little or no funding or orphan sources.

Q.No	Country	Article	Ref. in National Report
77	Ukraine	Article 28	
Question/ Comment	What is national policy for management of disused sealed sources to ensure their safety and security and in a manner that does not impose an undue on future generations? What options exist or are planned for disposal of orphan and other disused sealed radioactive sources where an option for return to the manufacturer does not exist – including legacy radium sources?		
Answer	Disused radioactive sources are in fact radioactive waste, and national policy as regards these sources is implemented in the framework of the "National Environmental Program of Radioactive Waste Management", approved by the Cabinet of Ministers of Ukraine 03.08.2006. All disused or orphan sources (including legacy radium sources), in case of impossibility of their returning back to the manufacturer, are placed into special facilities of UkrDO "Radon" to ensure the safety of their storage. Further they are to be transferred to a special storage facility for high-level sources, which is to be built as a part of the second stage of the Complex "Vector", or the disposal facilities of the second state of the Complex "Vector".		
Q.No	Country	Article	Ref. in National Report
78	Ukraine	Article 28	Section J Page 64
Question/ Comment	The Report states ' The noticed program is aimed at spent radionuclide sources which were produced before 1990 and used in irradiators, measuring and other facilities and devices.' Q. What occurs to sources produced after 1990? The Report states ' These sources were not transferred to the specialised enterprises as a result of bankruptcy or financial insolvency of enterprises-proprietors and other reasons.' Q. What are the specialised enterprises? Are they Government organisations and what do they do with the sources? The Report states 'The feasibility study for the second stage of Complex "Vector"		

	foresees construction of the centralised repository for spent radionuclide sources.' Q. Is there a timetable planned for construction of the centralised repository? The Report notes the decision of the Government of Ukraine in relation to the conditions for the importation of Category 1 sources. Q What occurs with the importation of Category 2 or other sources? Are there any conditions applied?
Answer	1. Produced after 1990 1 category radioactive sources that were used in Ukraine were radiotherapy sources. These sources after they became disused were returned to the supplier. 2. Specialized enterprises are Government organisations. These organizations are often referred in the National Report as Specialized enterprises of UkrDO "Radon" (see B 4.4). These enterprises collect and store disused radioactive sources and other radioactive waste produced by medicine and industry (except from nuclear power plants). 3. Centralised repository for highly active spent radionuclide sources commissioning is planned for 2013. 4. The sources of categories 2-5 are transferred to the specialized enterprises of UkrDO "Radon" for storage. After commissioning of second stage of Complex "Vector" these radwaste will be transferred to the facilities of this Comlex.

Q.No	Country	Article	Ref. in National Report
89	United Kingdom	Article 28	
Question/ Comment	What is national policy for management of disused sealed sources to ensure their safety and security and in a manner that does not impose an undue on future generations? What options exist or are planned for disposal of orphan and other disused sealed radioactive sources where an option for return to the manufacturer does not exist – including legacy radium sources?		
Answer	Information is on p122 of the UK report. The long-term storage facilities at Sellafield and Harwell are used for this purpose in the UK. Specialist contractors e.g. in Germany offer recycling services for some radionuclides (but not radium).		
Q.No	Country	Article	Ref. in National Report
90	United Kingdom	Article 28	Section J Page 122 - 123
Question/ Comment	The Report states 'Under the HASS Regulations, before issuing such an authorisation, the relevant competent authority must ensure that adequate arrangements exist for the safe management of sources, including when they become disused sources. These latter arrangements may provide for the transfer of disused sources to the supplier or to a recognised storage facility. Q. If this provision is not made what happens to the sources? The Report states 'The Environment Agency has managed the Government funded Surplus Source Disposal Programme. The programme has been a major success in arranging safe management, recycling and disposal of a legacy of about 9000 disused radioactive sources throughout the UK.' Q. Is this programme completed or are there additional disused sources still to be		

	managed? If so, how many are outstanding or what % of the programme has been completed?		
Answer	Current holders of high-activity sources have these arrangements in place. If a new applicant for a HASS authorisation was unable to make this provision, then the relevant environment agency would refuse the application and the applicant would be unable to hold a HASS lawfully. The programme was completed in December 2008.		
Q.No 81	Country Argentina	Article Article 32	Ref. in National Report B.4.3
Question/ Comment	Is the site selection process for the geological repository based on the FEPs (Features, Events, Processes) protocol, as recommended by ISAM? How will the spent fuel be 'conditioned' prior to final disposal in the deep geological repository?		
Answer	We are using (because the site selection process is in the initial phase) selection criteria related to geological and social factors defining exclusion areas as well as defining regions with different levels of priority. Up to now, we are not using FEPs protocol, recommended by ISAM, which is mainly related to near surface disposal. At present, the spent fuels originated in the operation of nuclear power reactors are temporarily stored in installations designed for this purpose at the same NPP sites. MTR type SF arising from research and production reactors (mainly from RA-3 reactor) are temporarily stored in pools, inside the same reactor installation and/or in the installation designed for this purpose existing at the Ezeiza Atomic Center. According to the Strategic Plan for the Management of Radiactive Waste issued by CNEA in consonance with the National Law Nº 25018, the decision about the fuel cycle back-end strategy, reprocessing for reusing fissionable material, related to economical and political issues, or final disposal, should be taken by 2030.		
Q.No 80	Country Belgium	Article Article 32	Ref. in National Report Section A Page 24
Question/ Comment	The report mentions new approaches to public consultation – World Café's and Experts round table – to start in January 2009. Please advise on the progress and effectiveness to date of the new approach.		
Answer	The public consultation process will be launched mid April 2009. Two approaches will be followed: 1. public dialogues, each taking one day, in order to obtain a better view on the main questions and concerns of citizens that are important to be taken into account and treated in the Waste Plan and when making a choice of a long term management option for the high-level and long-lived waste. 2. a one day Interdisciplinary Conference with experts in environmental issues and decision-making in situations with important uncertainties. Both approaches aim at enabling ONDRAF/NIRAS to better focus the Waste Plan on the questions and concerns expressed by society.		
Q.No 37	Country Greece	Article Article 32	Ref. in National Report Section B
Question/ Comment	Are there no repatriation issues with respect to intermediate level waste from reprocessing of their spent fuel in the US?		

Answer	The spent fuel was returned to the US without any Greek involvement as far as its further fate.		
Q.No 38	Country Greece	Article Article 32	Ref. in National Report Section B
Question/ Comment	Q: What are final disposal options for radwaste in Greece?		
Answer	Storage in supervised surface facilities for decay and release from regulatory control when their activity becomes lower than generic (unconditional) clearance levels. Temporary storage in supervised surface facilities and exportation for recycling.		
Q.No 39	Country Greece	Article Article 32	Ref. in National Report Section B
Question/ Comment	Is it appropriate to consider co-disposal of radwaste with infectious waste (2nd para)? Q: What is the current system for dealing with I-131 waste (2nd para)? Q: What are the security/safety features of the 'interim storage facility built on the campus of NCSR "Demokritos"' (3rd para)?		
Answer	The hospital waste (radioactive and infectious) is transferred to a facility for treatment and incineration of infectious waste only after it has reached the clearance levels. Incineration facilities have portals to detect the radioactivity in wastes. The interim storage facility is under the NCSR "Demokritos" physical protection system; as it concerns safety, the radiation protection service of NCSR "Demokritos" takes care according to the provisions of the RPR.		
Q.No 28	Country Luxembourg	Article Article 32	Ref. in National Report Section B
Question/ Comment	What are the details of the 'user's premises' used for the storage of transition radioactive waste until decay?		
Answer	The national iodine-131 therapy centre is equipped with 3 retention tanks for all wastewaters from sanitary installations, each one capable to store up to 6 months of wastewater. These waters can only be released after taking a sample and measuring its remaining activity in the laboratory of the DRP. Considering all other transition wastes, the licensees are obliged to implement and to follow clear procedures for the safe management of these wastes. In particular, type of storage containers, labelling of the containers, storage room, physical protection measures, clear guidelines on when and how a package may be released as non-radioactive waste and all related responsibilities have to be defined.		
Q.No 32	Country Netherlands	Article Article 32	Ref. in National Report Section B page 17
Question/ Comment	Is it envisaged that final, irreversible closure of the disposal facility will occur at some time? Assuming that reversibility requires active management by future generations to maintain access to the repository, how does the policy of retrievability take into account the requirement of no burden on future generations?		
Answer	According to the 1993 position paper, a disposal facility for radioactive waste and spent fuel should be designed in such a way that each step in the process from design to commissioning of the facility is reversible. This implies that retrievability is intended to remain after closure, leaving the possibility to future generations to apply other		

	management techniques, if they would become available. The issue of reversibility does imply an (extra) burden for future generations compared to a situation of an irreversible disposal facility, as closure of the disposal facility, though reversible, is still foreseen.		
Q.No 41	Country Nigeria	Article Article 32	Ref. in National Report Section B Page 7
Question/ Comment	Why does Nigeria not regard disposal at intermediate depth (such as in a borehole facility) as appropriate for at least some Category III waste		
Answer			
Q.No 94	Country United Kingdom	Article Article 32	Ref. in National Report Para B.3 page 31
Question/ Comment	Is the assumption that spent fuel from new build will not be reprocessed for repository planning purposes? Does this reflect national policy?		
Answer	In the January 2008 White Paper (policy statement) on Nuclear Power, the Government concluded that any new nuclear power stations that might be built in the UK should proceed on the basis that spent fuel will not be reprocessed and that plans for, and financing of, waste management should proceed on this basis. The Government also said that they were not currently expecting any proposals to reprocess spent fuel from new nuclear power stations and that should such proposals come forward in the future, they would need to be considered on their merits at the time and they would expect to consult on them.		
Q.No 107	Country United States of America	Article Article 32	Ref. in National Report Page 25
Question/ Comment	How much spare capacity does the US have for the storage of spent nuclear fuel? How long is fuel kept in wet storage before being moved to dry storage?		
Answer	The U.S. nuclear power plants have been able to manage their spent fuel storage capacity by increasing reliance on dry cask storage. Most U.S. nuclear power plants do not have site or space limitations for increasing their capacity of dry cask storage. The minimum required cooling time for spent fuel to be stored in wet storage (spent fuel pool) is dependent upon fuel design, burnup and dry storage system design. Typical cooling times for spent fuel are in the 5 to 7 year range.		