Otázky a odpovědi k Národní zprávě ČR
(Questions and Answers to the National Report of the Czech Republic)

Argentina (Argentina) - 11

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Ag-Cz-1	4	7.2.4/ p. 78	The information presented in table 4.11 (page 34) is inconsistent with that presented in section 7.2.4. Could you please clarify this point (Box II and IV).	The information in chapter 7.2.4 is related to the period when SF handling technologies were installed and used in HLW Storage facility (2007). The drums from box II. have already been disposed in Richard disposal facility. Now is this box used for storage of drums with radioactive waste generated by the reconstruction of waste management installations in Building No. 241.
Ag-Cz-2	4	7.6.2.2.6/ p. 89	Is there any approved procedure for clearance of material from decommissioning in the Czech Republic?	As no nuclear installations in the Czech Republic reached the decommissioning phase (see Chapter 12.3) there is no need to develop procedures for clearance of material from decommissioning. However the clearance procedures have to be developed within the scope of authorisation of decommissioning activities (decommissioning plan), before their beginning.
Ag-Cz-3	11	8.2.3.3/ p. 98	Is it foreseen to develop a hydrogeological monitoring program of potential releases in the surrounding areas of Dukovany repository?	The hydrogeological monitoring system around the Dukovany repository has been established before the construction of the disposal facility, as a result of the construction of NPP Dukovany. Additional hydrogeological monitoring system consisting of wells No. HJ 1-4, 6 and 7 has been designed and build only for the purposed of Dukovany disposal facility and is in the operation since the commissioning of the facility.
Ag-Cz-4	11	8.2.3.4/ p. 100	Which is the institutional control period foreseen for RAW Repository Hostím? Which radionuclides are monitored? Do you expect to perform hydrogeological monitoring during the institutional control period?	The institutional control period for RAW disposal facility Hostim is not officially determined. The facility has been closed in 1997 and since then the owner of repository is the municipality Beroun. RAWRA is monitoring radioactivity of water collected from drills and wells in the vicinity of the disposal facility according to the SUJB requirements. No further hydrogeological monitoring takes place, just radionuclides concentration in potentially affected points is followed. Radionuclides of concern are ^{3}H, ^{90}Sr, ^{14}C. Total alpha, beta and gamma activities are measured as well.
Ag-Cz-5	11	8.5.3/ p.111/ 143	In section 8.5.3.1., it is said that during 2003-2008 there was a reassessment of the already proposed decommissioning method. Is it expected to conduct	No, only the auxiliary facilities will be decommissioned. Radioactive waste, except waste in storage chamber is disposed and the disposal chambers and access corridors will be closed.

			a decommissioning of the auxiliary buildings of the repository or is the waste expected to be removed from there and transported to another place?	
Ag-Cz-6	21	6.4.2.4/ p. 59	How often does SUJB perform its regular sample collection and activity measurements of radionuclides in the environment?	Regular sample collection and activity measurement depends on what is monitored. For example, river water under the release location is sampled for tritium activity measurement monthly and for gamma and beta activity determination quarterly. Another example of quarterly monitored items are: fodder, milk from farms of the NPP's vicinity, etc. Some items are monitored yearly: fruits, vegetables, cereals, wild berries, mushrooms, soil, etc.
Ag-Cz-7	28	10/ p. 130	What is the conditioning process in use for sealed sources disposed in Richard repository?	Sealed sources are usually put into a 200-l drum shielded by 5 cm thick concrete layer and backfilled by concrete.
Ag-Cz-8	32.2.1	11.2/ p. 132	Which assays were performed with the conditioned waste by means of SIAL method in order to assess their acceptance in the Dukovany disposal site?	The conditioning technology using aluminium-silica matrix was a subject of extensive testing with a view to show the compliance of the final product with the WAC for disposal in Dukovany disposal facility. The tests covered mechanical strength tests, assessment of K_d values for critical radionuclides (^{85}Sr, ^{137}Cs, ^{95}Nb, ^{241}Am, ^{63}Ni, ^{14}C) and leaching tests.
Ag-Cz-9	32.2.1	4.2.1.1/ p. 24	For "measuring and segregation of solid RAW": In what consists the "primary measuring"?	Once delivered to BAPP all solid RAW is primary measured with help of RP114 measuring device and depending on surface dose rate the waste is further measured in detail and treated.
Ag-Cz-10	32.2.1	4.2.1.1/ p. 24	For "discharge of solid RAW into the environment": What does the expression "officially measured" exactly consist of? What does the expression "officially measured" mean?	The term "officially measured" means that the measurement is performed by metrologically verified measuring instruments and via approved procedures.
Ag-Cz-11	32.2.1	4.2.3.3/ p. 32	In this section, it is said that RAW Repository Dukovany is used to dispose short lived low level waste. Nevertheless in the inventory, long lived radionuclides are informed as part of the stock of this repository. We would like more clarification on this topic.	The Dukovany disposal facility was designed for the disposal of low and intermediate level radioactive waste contaminated mainly by short lived ^{137}Cs, which is generated by NPPs operation. However based on the safety assessment results the repository accommodates also radioactive waste contaminated by long lived radionuclides.

Austrálie (Australia) - 4

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Au-cz-1	9.7	p. 89	Section 7.6.2.2.6 (Concept for SFSF Temelin decommissioning) – is there a contingency plan in place to cover the possibility that the dry spent-fuel storage facility SFSF Temelín may need to be de-commissioned before 2084?	The SFSF Temelín and also ISFSF and SFSF Dukovany are using passive storage technology. All safety functions are performed by the dual purpose casks, which are in regular intervals controlled and maintained. As a contingency measurement the operator of all storage facilities has to have available a facility for cask opening, repairs and if necessary replacement. Until the decommissioning of NPP reactor pools all these activities can be performed there. The operation licenses of storage facilities require that not later than 12 months before the start of NPP reactor pools decommissioning a separate facility for SF repacking has to be put into the operation.
Au-cz-2	13.1.1	p. 103	Section 8.3 (Siting of Proposed Facilities) – the events at Fukushima suggest that the consequences of low probability events have to be taken into consideration when deciding to ignore particular events in emergency planning; this is also suggested indicated by the basic formula: risk of harm = probability of event x consequences if the event occurs. Given this, is there any move to reassess the decision to ignore low probability events?	In the safety case all events are considered, events with probability higher than 10^{-6}/y have been assessed and events with lower probability max be excluded from detailed assessments. But for emergency planning purposes the impact of low probability events is assessed in safety cases for RAW and SF management facilities.
Au-cz-3	32.2.2	p. 26	Table 4.1 (Radioactive Waste from NPP Dukovany) – if available, what are the total activities for each waste type?	Data to 31 December 2011: * Liquid RAW (active evaporator concentrate) – 2.10^{11} Bq * Liquid RAW (degraded sorbents) – 2.10^{12} Bq * Solid RAW – 8.10^{9} Bq
Au-cz-4	32.2.2	p. 29	Table 4.3 – (Radioactive Waste from NPP Temelin) – if available, what are the total activities for each waste type?	Data to 31 December 2011: * Liquid RAW (active evaporator concentrate) – 2.10^{12} Bq * Liquid RAW (degraded sorbents) – 1.10^{10} Bq * Solid RAW – 2.10^{10} Bq

Bulharsko (Bulgaria) - 2

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Bg-Cz-1	32.2.1	p. 28	In the report it is stated that “the part of solid RAW suitable for discharge into the environment is officially measured to determine the content of radionuclides. The waste meeting criteria of the Decree No. 307/2002 Coll. is discharged into the environment or disposed of on the dump for solid municipal waste ...”. Could the Czech Republic provide some more information on the particular specific requirements of Decree No 307/2002?	The text of the whole Decree No. 307/2002 Coll., on radiation protection is available in English on SUJB web site (http://www.sujb.cz/fileadmin/sujb/docs/legislativa/vyhlasky/ R307_02.pdf). Basic requirements on clearance of materials contaminated by radionuclides are summarised in Section 57.
Bg-Cz-2	22.2	p. 47	In the report it is stated that “The nuclear account is a part of state financial assets and liabilities, it is administered by the Ministry of Finance and its purpose is particularly the long-term accumulation of financial means for the development of a deep geological repository for radioactive waste and spent fuel”.Could the Czech Republic provide some more information on the estimated cost of SF and RAW deep geological disposal facility? Does the Czech Republic considers participating in an international regional project on the construction of SF deep geological disposal facility? Could the Czech Republic provide some more information on national policy on constructing such a facility on home territory?	The estimated total cost of DGR (about 17,5 bil. CZK in prices of year 2006) consist on: – the cost of R&D activities, – the cost of technological installations, – the cost of civil constructions, – the reserve fund, – further expenses – the operational cost. The cost of disposal casks (about 10,5 bil. CZK in prices of year 2006) has been estimated as well. For further details see SÚRAO web site http://www.surao.cz/cze/Informacni-koutek/Dokumenty-ke-stazeni/ Referencni-projekt (in Czech only). No, in the Czech Republic a project of national deep geological repository suitable to accommodate all SF and HLW produced in the country is under development. This approach is in line with the Policy for radioactive waste management and spent fuel management in the Czech Republic approved by the Czech government Resolution No. 487 of 15 May 2002. However, the Policy does not exclude the participation in regional DGR project in the future (see Chapter 2.2). As the import of foreign radioactive waste is forbidden by law such a regional repository cannot be sited in the Czech Republic. But the Policy does not exclude the export of Czech radioactive waste abroad, if this disposal option will be available in the future.

Dánsko (Denmark) - 7

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Dk-Cz-1	4	G/p. 71	(General Safety Requirements): Will the management of the DGR be the responsibility of an authorized private entity or a state authority independent of the nuclear regulatory authorities?	According to the Section 25 of the Atomic Act "… the State guarantees safe disposal of all radioactive waste, including monitoring and supervision of repositories after their closure." Therefore an independent Radioactive Waste Repository Authority has been established in 1997 (see Summary), which is responsible for the development of DGR.
Dk-Cz-2	10	G/p. 90	(Disposal of Spent Fuel): With a view of avoiding to impose undue burdens on future generations, how was the expected date of commissioning of a DGR in 2065 decided?	A decision on the start of DGR operation has been developed based on a need to ensure safe disposal of HLW by means of careful choice of the DGR site and careful safety analysis. Waste producer ČEZ, a. s. does not intend to declare SF as waste during the period of storage in licensed storage facilities and SF is not regarded as a waste before this declaration. So, ČEZ, a. s. is the organisation which will set the time of starting DGR operation. In fact, SÚRAO gives the state guaranty for disposal. From this point of view, the system of SF management is defined with no need of new decisions in the future. As future generation will have sufficient organisational (SÚRAO) and financial (nuclear account) infrastructure to commission and operate DGR, no undue burdens are related to the development of DGR later in this century.
Dk-Cz-3	10	G/p. 90	(Disposal of Spent Fuel): Please specify the alternative process in the event that no municipalities will voluntarily get involved in the site selection process of a future DGR?	In the case that no municipality will agree with the siting of the deep geological disposal facility the State will have to implement the requirement of Section 2 para 4 of the Act No. 500/2004 Coll., Administrative Procedure Code ("The administrative body shall adopt solution in line with public interest and corresponding with case specific conditions. No reasonable differences should arise by the decision making of factually identical or similar cases.").
Dk-Cz-4	32	D/p. 23	(4.2 Inventory and Facilities for RAW Management): What is the rationale for making final repositories for radioactive waste (LLW, ILW) at four different sites in the Czech Republic? Furthermore, with reference to Table 1.1, page 105-109 (Design and Construction of Facilities) and	The disposal facilities were developed in different time horizons (see Chapters 8.2.3.1 -8.2.3.4) and are used for different waste streams. The DGR will accommodate all SF and HLW and also other radioactive waste which does not comply to WAC of operated

			page 124-125 (Institutional Measures after Closure), what will be the criterion for allocation of RAW between the present RAW repositories with expected monitoring periods of 300 years after decommissioning and a DGR to be completed in 2065?	repositories. When the currently operated disposal facilities will be closed and decommissioned all RAW streams will be disposed in DGR.
Dk-Cz-5	32	D/p. 26	(Table 4.1): The actual stored volume of Liquid RAW – Degraded Sorbents is at 65% capacity as of December 31, 2010. What are the provisions to ensure that capacity is not met or exceeded in the near future?	Stored degraded sorbents are subsequently treated, conditioned and disposed using aluminium-silica matrix. Therefore the volume of stored sorbents shows in recent years decreasing tendency (325 m^3 in 2009; 307,2 m^3 in 2010; 221 m^3 in 2011)
Dk-Cz-6	32	D/p. 30	(Table 4.5 and Table 4.6): The total activity for ^{137}Cs is listed twice and with two different values. The total activity of long-term alfa-radionuclides is also listed twice, and in Table 4.5 no alfa-emitting radionuclides are listed.	No, tables are different showing the activities of disposed and stored radioactive waste in Richard disposal facility.
Dk-Cz-7	32	D/p. 33	(Table 4.9): The “Total activity of alfa-radionuclides” for Gallery B is listed to “about 10^{11}” Bq, but only 3.3 x 10^7 Bq is accounted for in the table.	There is a typographical error in Table 4.9, in the English version of National Report. Total activity of all (not only alpha) radionuclides in Gallery B is about 10^{11} Bq. The Czech version of National Report contains correct text in Table 4.9.

Francie (France) - 2

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Fr-Cz-1	19	Summary / p. 10	As a member state of the European Union (EU), the Czech Republic has to transpose in the near future the EU Council Directive 2011/70/Euratom of 19 July 2011, relating to the safety of spent fuel management and the safety of radioactive waste management. Could the Czech Republic provide information on the transposition of this directive and in particular on the changes expected in the national legislation ?	No substantial changes in national legislation are expected, as most requirements of EU Council Directive 2011/70/Euratom of 19 July 2011 have been considered well before its adoption. Only minor changes, such as definition of some terms, incorporation and modification of the existing process of the preparation of the national policy and strategy on RAW and SF management and requirements on the export of radioactive waste for disposal into third countries have to be considered by the preparation of new Atomic act and implementing regulations.
Fr-Cz-2	9	11/ p. 132	Following the Fukushima accident, could the Czech Republic specify how the experience feedback from this accident is taken into account in the safety of radioactive waste and spent fuel?	Except reactor pools the Fukushima accident did not provide any relevant experiences related to purpose build SF storage facilities and RAW management installations in NPP units. Despite of sever character of the accident there were no reported releases of radioactive substances from purpose build SF storage facilities and RAW management installations of all affected NPP units. Therefore no experience feedback can be taken into account for conceptually similar facilities in the Czech Republic. Reactor pools at both NPPs were subject of stress tests and their results are summarised in the “National Report on „Stress Tests“ NPP Dukovany and NPP Temelín, Czech Republic; Evaluation of Safety and Safety Margins in the light of the accident of the NPP Fukushima”, State Office for Nuclear Safety, Czech Republic, December 2011.

Maďarsko (Hungary) - 7

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Hu-Cz-1	3	3/ p.17	The first paragraph in Chapter 3 states: "On the other hand, the DGR design requirements for disposal of HLW from SF reprocessing are more challenging than for direct disposal of SF." Why are considered the design requirements for a DGR accommodating vitrified HLW more challenging than those for a DGR accommodating SF? Could you elaborate on this point a bit more?	From the safety point of view, reprocessing does not considerably increase radiation risk and from the point of view of disposal, reprocessing or the treatment of RAW from reprocessing allows the separation of long-term and dangerous radionuclides. However current technology does not remove certain uranium and plutonium isotopes and provides for about three reprocessing cycles. Consequently, spent MOX fuel has to be directly disposed in a DGR. The composition of spent MOX fuel has larger uncertainty margins than the composition of spent uranium fuel. This is due mainly to the greater complexity of the isotopic chains involved and the smaller experimental database. The higher plutonium contents in spent MOX fuel, especially the higher ^{238}Pu, ^{241}Pu, Am and Cm contents are by far the largest contributors to making SF management more challenging for MOX than for uranium fuels. Therefore, all management steps associated with spent MOX fuel, incl. its disposal, require special precautions to cope with criticality and cooling concerns. Additionally, the high alpha activity results in high radiation damage and a high production rate of helium. Additionally if the fissile materials isolated by reprocessing are not used for the production of nuclear fuel, they have to be stored. Countries operating reprocessing plants promote their advantages, on the other hand there is considerable risk of misuse of separated stored plutonium. Generally, the global trend is to abandon reprocessing (e. g. B, CH, D, UK).
Hu -Cz-2	14	8.4.3.1 - 8.4.3.3/ p. 106 - 107, 56	"Radiation protection is performed by monitoring in agreement with a monitoring program approved by SÚJB. A concept has been approved for the repository's decommissioning" "NI / RAW repository decommissioning stages" Is the intention really to decommission the repositories, or rather to close them?	No, only the auxiliary facilities will be decommissioned. Radioactive waste, except waste in storage chamber of Richard disposal facility, is disposed and the disposal chambers/vaults and access corridors (Richard and Bratrství disposal facilities) will be closed.
Hu -Cz-3	22.2	6.2/ p. 47	In Chapter 6.2 one can find information on the nuclear account and the decommissioning fund that finance the RW&SF management, as well as the decommissioning activities in the Czech Republic.	The financial mechanism for annual contribution to the nuclear account is defined in Governmental Decree No. 416/2002 Coll. The owner of NPPs is obliged to pay 50 Kč/MWh_e, the owner of research reactor with thermal power higher than 0,1 MWh_t 15 Kč/ MWh_t and the

			Could you give some more details on which kind of cost estimation methodology and other relevant assumptions were used when the payments into the nuclear account got determined for the regulation? Further - in a similar way - how were the annual decommissioning provisions (concrete values are given in Chapter 6.2) derived and calculated?	producers of small amount of radioactive waste about 24 500 Kč/200-l drum (for disposal; updated in 2011) or about 27 400 Kč/200-l drum (for storage; updated in 2011). The financial mechanism for annual decommissioning provisions are defined in Decree No. 360/2002 Coll., issued by the Ministry of the Industry and Trade, establishing a method to create a financial reserve for decommissioning of nuclear installations or workplaces in categories III or IV. Licensee of a workplace of III. and IV. category creates an annual contribution to the decommissioning fund calculated as a division of estimated total decommissioning cost to the number of years passed from the time when licence had been issued (according to the Article 9, para 1, letter d of Atomic Act) to the expected end of decommissioning activities. The decommissioning fund is created only in case, when estimated cost of decommissioning activities verified by SÚRAO exceeds 300 000 Kč (about 12 000 Euro). The decree defines also the mechanism for the update of the annual contribution to the decommissioning fund.
Hu -Cz-4	32.1.3	2.2/p. 16	In Chapter 2.2. it reads: “long-term disposal of low and intermediate short-term RAW in Czech Republic lies in their safe disposal in the existing near surface repositories whose economical operation has been continuously evaluated and optimized.” What is meant by long-term disposal? How long is the retrievability of waste packages in these near surface repositories planned to be kept? Does it mean that this disposal option may be altered after the periodical evaluation mentioned in the national report? May the waste packages in question be transferred to other repositories that are to be constructed in the future?	The terminology used in Chapter 2.2 reflects the wording of the Policy for radioactive waste management and spent fuel management in the Czech Republic approved by the Czech government Resolution No. 487 of 15 May 2002 and is not fully compliant with terminology used in the rest of the National Report. There is no requirement to retrieve waste packages.
Hu -Cz-5	32.1.5	2.1/p. 15	How is the distinction made between the low and the intermediate level waste?	There is no need to make distinction between the low and the intermediate level waste, as this categorisation is based on the IAEA waste classification as defined in IAEA Safety Series 111-G-1.1. Disposal of radioactive waste is mainly determined by the compliance of waste with WAC for specific disposal facility and not by its categorisation.

Německo (Germany) - 3

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
De-Cz-1	26	Intro/ p.14 6.6/ p. 68	At the moment there is no facility under decommissioning, but the foreseen strategy is deferred dismantling, as stated in Table 1.1. What is the reason for this premature fixing of a decommissioning strategy?	The decommissioning strategy is not fixed yet and the preliminary decommissioning plans are developed for both immediate and deferred dismantling options. However at this moment the deferred dismantling method seems to be more favourable from the point of view of radiation protection of workers (e. g. for NPP Dukovany the assumed collective dose for immediate dismantling is 40 Sv and for deferred dismantling 5,4 Sv) and the amount of radioactive waste to be disposed (for NPP Dukovany 6000 m^3 vs. 4000 m^3).
De-Cz-2	18	5.3.1/ p. 39	It is stated that the State Office for Nuclear Safety (SÚJB) "shall establish … clearance levels", while the concept of clearance has been used in the Czech Republic for a long time (e.g. based on IAEA TECDOC 855 "Clearance of materials resulting from the use of radionuclides in medicine, industry and research"). No more details on clearance are given in the present report. Are there plans to develop new clearance levels, or to take over existing international recommendations (for example the IAEA Safety Guide No. RS-G-1.7 "Application of the Concepts of Exclusion, Exemption and Clearance")?	"Shall establish … clearance levels" means that the SÚJB is empowered to do so. The concept of clearance has been used and will be used based on international recommendations. No new clearance levels will be developed.
De-Cz-3	28	10/ p. 129	Is there a central register or database for radioactive sources in operation in the Czech Republic which holds the data of all sources (i.e. not only of high-active sources)? Such a register has been found to be helpful in the prevention of sources from becoming orphaned.	Yes, there is a central Register of Ionizing Radiation Sources available in the Czech Republic. The Register covers not only high-active sources but all radioactive sources as well as devices with radioactive sources and generators of ionising radiation. Register of Ionizing Radiation Sources is in routine operation since 2000. It enables the retrieval and display of historical data on recorded sources and facilities containing sources and ionizing radiation generators. The data to be submitted by the license holders for the purpose of the state record system are a subject of the annex to Decree No. 307/2002 Coll. (see http://www.sujb.cz/fileadmin/sujb /docs/legislativa/vyhlasky/R307_02a.pdf) and SÚJB distributes registration cards for particular types of the sources for reporting purposes.

Polsko (Poland) - 3

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Pl-Cz-1	23	6.3.4/ p. 55	Does the supervision in QA include inspections? If it does, please provide some details on the inspection program: how and how often do you inspect QA issues?	QA affects all areas of safety and therefore the regulator performs the control of relevant process and their compliance with QA requirements. This control can be focused on: – fulfilling responsibilities and powers, – adequate qualification of staff performing and assessing the relevant process, – assessment of outputs from the process based on available records; or – fulfillment of other requirements. An inspection program must include requirements to meet the requirements of QA process or activity. Inspections are carried out for both for the licensee and their suppliers. The control of QA implementation at selected suppliers is focused on delivery of equipment or services. These inspections are either scheduled or unscheduled. The regulator carries out the unscheduled inspections in cases where the licensee reports some changes, safety relevant events or discrepancies. The control of QA issues is covered by most regulatory inspections of procedures, systems and processes at the licensee. Inspections at suppliers are performed 1 – 2 times in a year as well.
Pl-Cz-2	25.2	6.5/ p. 65-69	Do you include in the national or regional emergency exercises some scenarios focused on events in RW&SNF facilities? If so, please provide some example, what kind of events do you consider.	In the Czech Republic, regional or national emergency exercises are held to exercise (verify) the off- site emergency plans. These plans are prepared for planning the response in the emergency planning zone (EPZ). In the Czech Republic the EPZs are, with respect to the relevant stipulation in the Atomic Act and in the Governmental Order No. 11/1999, determined for NPPs. Consequently emergency exercises on national or regional level focused on incidents at RAW and SF facilities are not held.
Pl-Cz-3	9	8.1/ p. 118	There is a problem with reading table row "free volume", regarding the volume of deposited RAW.	Free volume: The volume of deposited RAW represents about 40%.

Slovensko (Slovakia) - 2

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Sk-Cz-1	General	General	What is your operation experience in dry storage of the spent fuel?	Except minor operational occurrences and design changes of some components of dual purpose casks there were no serious issues related to dry storage of spent fuel. All monitored parameters are within the limits defined by OLC for storage facilities (surface temperature, surface dose rates, leakthightness, …)
Sk-Cz-2	15	8.5.3.2/ p. 112	For your disposal facility, please explain the way of application of IAEA recommendations to limit activity of long lived radionuclides up to 4000 Bq/g for individual waste package in relation to 400 Bq/g as average limit of those radionuclides.	There is no need to apply the IAEA recommendation published in the IAEA guide No. 111-G-1.1. For the disposal of radioactive waste the compliance of waste with WAC for specific disposal facility is the most important legal requirement. WAC have to be derived in the safety case also considering intrusion scenarios (concentration values in IAEA SS 111-G-1.1 were derived from inadvertent intrusion scenarios) and are specific for every disposal facility.

Slovinsko (Slovenia) - 4

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Sl-Cz-1	23	p. 51	Chapter 6.3.1.2 states that an organisational change was implemented in the company ČEZ a. s. of 1 January 2011 consisting in the establishment of the Quality and Management System Section. How many employees do work in the Quality and Management System organisational unit?	Quality and Management System Section of ČEZ a. s. has 35 employees.
Sl-Cz-2	28	J/p. 131	It is mentioned that fixed or portable detectors are used to detect orphan sources at the metallurgical plants, scrap collecting centres and at border crossings. Who covers the costs associated with a discovery and subsequent management of the source? Are there cases when an orphan source passed the detection system and caused damage?	The cost is covered by a source owner. In the case when the owner is unknown, all cost will be covered by the state budget. There is no evidence of an orphan source passing any detection system.
Sl-Cz-3	24	p. 58	Three limits on discharges of radioactive material from nuclear installations are mentioned in paragraph 6.4.2.2, 250 microSv/y, 1 mSv/y as a general limit for public and 50 microSv/h specifically for NPPs. What is the mechanism for defining the appropriate discharge limit in the licensing process?	The general limit of 1 mSv for the annual effective dose is valid for all sources including releases from NPPs. The general dose constraint of 250 μSv is applied to the effective doses received by the particular critical group of the population due to releases from any installation. For each nuclear installation, an authorized limit is determined and set below 50 μSv. The particular authorized limit value issued by the SÚJB is based on an optimization process performed by licensee and approved by the SÚJB.
Sl-Cz-4	9	G/p. 86	Please shortly describe a site approval process for the Temelin SFSF project. Was the consent of the local municipality a mandatory condition?	The key steps of the development of SFSF Temelín can be found at http://www.sujb.cz/en/nuclear-safety/spent-fuel-management/spent-fuel-storage-facility-temelin/. The consent of the local municipalities is not a mandatory condition.

Ukrajina (Ukraine) - 14

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Ua-Cz-1	4	7.5.2.2/ p. 82	What activities are planned (or completed) at Temelin NPP to allow the use of CASTOR-1000/19 containers for storage of the Russian-design spent fuel (e.g. TVSA-T type)?	For the transport and storage of TVSA-T fuel in CASTOR casks the cask has to be designed for loading of this type of SF and then licensed by the national regulatory body.
Ua –Cz-2	9	7.2.1.1/ p. 72	What are the minimum and maximum permissible boron content in ATABOR material used in tubes of spent fuel racks?	ATABOR steel used in tubes of spent fuel racks contains 1% of boron.
Ua –Cz-3	9	7.6/ p. 83-84, 86-87	What is the maximum permitted temperature for rod cladding for SNF storage in ISFSF & SFSF Dukovany, SFSF Temelin?	The maximum cladding temperatures considered in the safety documentation of different CASTOR cask types (440/84, 440/84M, 1000/19) is in the range of 320 – 350 °C.
Ua -Cz-4	9	7.6.2.2.1.2/ p. 87	What type of corrective actions should be taken in case the pressure drop between the container covers (while SNF is inside) is detected to exceed the permitted limit?	The corrective actions are defined in OLC of storage facilities and in detail in operational procedures of storage facilities operator. If one of lids is leaky, the cask is either repaired in the storage facility (secondary lid) or transported to the reactor pool, where the primary lid is opened, repaired or replaced. Casks designed also for the use of tertiary lid can be equipped with this lid in the storage facility to re-establish two independent confinement barriers, if the primary lid fails to maintain its function. However once the reactor pool is available for cask repairs the cask with tertiary lid has to be transported there and repaired.
Ua -Cz-5	9	7.6.2.2.1.4/ p. 87	What periodic reviews (tests) of the CASTOR container internals should be conducted during SNF storage?	No periodic tests of stored SF are considered due to the favourable experience with the storage of 30 GW·d/t U SF that was examined after 15 years in storage in the USA and due to other similar experience in Japan and the UK. So far, the results of the research indicate that SF can be stored safely under the dry conditions for decades. But the planned encapsulation plant will have to be designed to handle also damaged SF transported to the surface part of DGR, where this facility will be sited.
Ua -Cz-6	20	6.4.3/ p. 61	What issues are addressed in the standard inspection program conducted by the regional centers?	In general the inspections in the area of RAW or SF management are focused on the control of the compliance of the facility or performed activity with license conditions, legal requirements, OLC incl. WAC and operator's procedures.

Ua -Cz-7	22	6.2.1/ p. 48	Please provide additional information on how and for which activities the funds are allocated from the decommissioning fund.	The financial mechanism for annual decommissioning provisions are defined in Decree No. 360/2002 Coll., issued by the Ministry of the Industry and Trade, establishing a method to create a financial reserve for decommissioning of nuclear installations or workplaces in categories III or IV. Licensee of a workplace of III. and IV. category creates an annual contribution to the decommissioning fund calculated as a division of estimated total decommissioning cost to the number of years passed from the time when licence had been issued (according to the Article 9, para 1, letter d of Atomic Act) to the expected end of decommissioning activities. The decommissioning fund is created only in case, when estimated cost of decommissioning activities verified by SÚRAO exceeds 300 000 Kč (about 12 000 Euro). The decree defines also the mechanism for the update of the annual contribution to the decommissioning fund. The decommissioning fund can be use only for the preparation and execution of decommissioning activities.
Ua -Cz-8	24	6.4.2.4	Are there any provisions (procedures, rules) for data sharing between the radiation and environmental laboratories of the Czech NPPs (Dukovany and Temelin) and the National Radiation and Environment Monitoring Network?	Each institution participating in environmental monitoring sends its results to the National Radiation Monitoring Network. The function and structure of the National Radiation Monitoring Network are stipulated in the Decree No. 319/2002 Coll. The monitoring results are publicly accessible on a web page.
Ua -Cz-9	26	12.1, 12.4/ p. 134, 136	The tables specify the spent fuel pool capacity and its actual fill-in status as of 31.12.2010. How do you ensure the requirement of the full core emergency unload at Dukovany NPP? What is the capacity of the standby fuel rack to be installed in the spent fuel pools of Dukovany power units?	The fuel rack in each of reactor pools has to have enough reserve capacity for unloading the whole reactor core and there has to be a reserve storage capacity to unload one CASTOR cask. The capacity of each fuel rack in NPP Dukovany is 699 pcs. of FA (+350 pcs. of FA more in reserve storage rack) and in NPP Temelín 705 pcs. of FA.
Ua -Cz-10	32	4.1.1.1, 4.1.1.2/ p. 18	Please provide some information on whether the “burnup credit” accounting method is used in operation of the spent fuel pool.	The safety assessment for spent fuel pool equipped with compacted storage rack was performed considering fresh fuel stored under optimal moderating conditions. The results for Gd-2M fuel showed that k_{ef} <0,95 (0,912521).
Ua -Cz-11	32	4.1/ p. 18	There is no experience in SFA-VVER-440 and SFA-VVER-1000 long-term storage. What arguments was relied upon in the Safety Analysis Report for the interim dry storage using CASTOR-440 and CASTOR-1000 casks to substantiate the permissible degradation of fuel cladding strength characteristics?	The safety reports for CASTOR casks consider the damage of fuel cladding – e. g. for CASTOR 1000/19 and for normal transport conditions 3% of all loaded fuel assemblies, 100 % of all loaded fuel assemblies for conditions by transport accidents and 10% for storage conditions (+ 60 years of storage).

Ua -Cz-12	32	4.2.1.2.1, 8.2.1/ p. 25, 95	There are references to liquid RAW bituminization in the Chapters. What criteria are used to assess the end product from treatment (in terms of fire safety)?	The fire safety of bituminised matrix is achieved by 4 steps: 1. Complex assessment of thermal stability of final product of conditioning of waste from storage tank performed at semi operational technological line in ÚJV Řež a. s. 2. For every 15th drum of conditioned waste from storage tank a differential thermal analysis is performed. According to the operational procedures the bituminised product is considered for thermally stable, if in the temperature range of 100 – 250 °C the difference of sample temperature in exothermal part of the DTA record does not exceed 10°C. 3. On-line control of inside temperature (cooling trend) in every single drum for about 24 hours. 4. Installation of recooling vessel for thermally unstable, loaded drums.
Ua -Cz-13	32	4.2.2.2.1, 8.2.1/ p. 29, 95	Please provide more specific information on the mobile facility for ion-exchange resins immobilization into SIAL aluminium-silica matrix (pictures, design criteria for the facility and requirements for the final product)	The mobile facility for ion-exchange resins immobilization into SIAL aluminium-silica matrix consists on simple drum mounting frame with mixer, conveyor belt for dosage of solid component of SIAL matrix, peristaltic pump for dosage of liquid component of the SIAL matrix and control panel. The conditioning technology using aluminium-silica matrix was a subject of extensive testing with a view to show the compliance of the final product with the WAC for disposal in Dukovany disposal facility. The tests covered mechanical strength tests, assessment of K_d values for critical radionuclides (^{85}Sr, ^{137}Cs, ^{95}Nb, ^{241}Am, ^{63}Ni, ^{14}C) and leaching tests. Further details are considered for confidential.
Ua -Cz-14	32	4.2.3.3, 8.2.3.3/ p. 32, 98	What are the RAW acceptance criteria to the final disposal facility?	The WAC are disposal facility specific and cannot be implemented without detailed validation to other disposal facilities. E. g. for conditioned waste the volumetric activity of safety relevant nuclides is following: Bratrství disposal facility – ^{226}Ra,10^9 Bq/200l; U, 10^9 Bq/200l; ^{232}Th, 10^9 Bq/200l, total long term alpha nuclides, 10^9 Bq/200l Dukovany disposal facility – ^{14}C, 3.10^9 Bq/m^3; ^{41}Ca, 10^9 Bq/m^3; ^{59}Ni, 10^{10} Bq/m^3; ^{63}Ni, 10^{11} Bq/m^3; ^{90}Sr, 3.10^{10} Bq/m^3; ^{94}Nb, 10^8 Bq/m^3; ^{99}Tc, 3.10^9 Bq/m^3; ^{129}I, 3.10^8 Bq/m^3; ^{137}Cs, 10^{12} Bq/m^3; ^{239}Pu, 2.10^7 Bq/m^3; ^{241}Am, 10^7 Bq/m^3; Richard disposal facility – ^{3}H, 10^{13} Bq/200l; ^{14}C, 3.10^{10} Bq/200l; ^{36}Cl, 10^9 Bq/200l; ^{90}Sr, 3.10^{11} Bq/200l; ^{99}Tc, 5.10^8 Bq/200l; ^{129}I, 2.10^7

				Bq/200l; ^{137}Cs, 3.10^{11} Bq/200l; total activity of long term alpha nuclides, 10^{8} Bq/200l WAC define also other criteria such as total radioactivity of safety relevant nuclides in the whole repository, properties of waste matrix, activity criteria for non-conditioned waste, etc.
			What types of containers are used?	Usually for the disposal of conditioned waste 200-l drums are used, but they do not provide any safety functions during the disposal.

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Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Gb-Cz-1	3	2.2/ p.16	Radioactive Waste Management and Spent Fuel Management Policy: The second bullet point notes that 'long-term disposal of low and intermediate short-term RAW in the Czech Republic lies in their safe disposal in the existing near-surface repositories whose economical operation has been continuously evaluated and optimized'. Maintaining control of the costs of disposal is important but how do you ensure that the process for optimising costs does not adversely affect environmental and radiological performance in the long-term?	All safety relevant changes have to be approved by the national regulatory body, SÚJB, no matter what is their justification. This requirement is set up by Article 9, para 1, letter f) of Atomic Act (A licence issued by the Office is required for… reconstruction or other changes affecting nuclear safety, radiation protection, physical protection and emergency preparedness of a nuclear installation or category III. or IV. workplace).
Gb -Cz-2	8	7.2.2.2/ p. 78	SFSF Temelín: The final para. states that 'based on the available data, one can expect that the operation of SFSF Temelín will be finished in 2080 – 2084'. This suggests that there will be a long storage period for some of the spent fuel currently being stored at SFSF Temelín (and also some at Dukovany) during which the spent fuel casks are likely to need inspection and maintenance. Inspection and maintenance are discussed in Section 7.6.2.2 on page 86 but it is not clear whether this refers to casks in currently in storage. What procedures are in place for inspection and maintenance of the spent fuel casks over the long-term to ensure that they remain intact for future disposal?	As the SFSF Temelín has already been commissioned and at present time is in operation all procedures mentioned in Chapter 7.6.2.2.1 are valid and implemented. The cask license (design approval) is issued for limited time period (max 10 y) and then it has to be renewed following the same approach as by the issue of new design approval and additionally considering the operational experience feedback and expected performance of the cask for next 10 y period. Additionally the transport and storage casks are not designed for disposal! Before disposal all SF has to be transported to encapsulation plant where it will be encapsulated into disposal casks.
Gb -Cz-3	12	11.4.1/ p. 132	RAW Repository Richard: The report states: 'Based on results of the pilot project for chamber closing using the principle of the so-called hydraulic cage, the proposed concept has been optimized and it is now being gradually applied for the released premises.' What does 'released premises' mean in terms of the Richard Repository? Does the 'hydraulic cage' contribute to long-term safety of the	Waste from some chambers has been removed within the scope of reconstruction works and emptied chambers have been equipped with hydraulic cage. The impact of hydraulic cages is considered in safety assessment for Richard repository. The expected lifetime for used concrete is about 2000 y and for backfilling material 3000 y.

			Richard Repository and if so, how long is it expected to maintain its function after closure of the Repository?	
Gb -Cz-4	15	8.2.1/ p. 94	Nuclear Power Plant Dukovany: The report states: 'The aim of liquid RAW treatment is to concentrate radioactive substances contained therein to the minimum volume possible. A fraction of the original content of radioactive substances passes to the treated media that are recycled in the controlled area of NPP Dukovany.'. Similar text appears in Section 8.2.2.1 relating to NPP Temelín. It is good that the approach is to minimise waste volume but can you explain what happens to the fraction of radioactive waste that is passed to the controlled area of these two NPPs and how it is recycled?	No radioactive waste passes back to other controlled areas of both NPPs. Only water from radioactive waste treatment technologies (e. g. from evaporators), which may contain minor fraction of radioactive substances, can be used again in primary circuit systems. This water is collected in dedicated tanks and only after radiochemical analysis can be re-used in NPPs.
Gb -Cz-5	15	8.2.3.2/ p. 98	RAW Repository Bratrství: The report states that 'It has been concluded that the site on a long-term basis meets all requirements for radiation protection and nuclear safety.' What criteria were used as a basis of the judgement underlying this conclusion? Given that the mine requires a drainage system to remove excess mine water, how will this mine water be managed in the long-term, particularly after closure of the repository, to avoid placing a burden on future generations?	At the present time the mine waters (about 0,1 l/s) are collected in a retention vault. Collection of mine waters after closure is intended to be carried out just for a limited time during the period of institutional control. After the repository chambers and access corridors are sealed, no mine waters collection will be possible. Applied safety criterion for radiation protection corresponds to the requirements of Decree No. 307/2002 Coll., on radiation protection – effective dose related to possible impact of disposal facility must not exceed 0,25 mSv/yr, even from the long term point of view.
Gb -Cz-6	15	8.5.3.3/ p. 112	RAW Repository Dukovany : The report refers to waste acceptance criteria for solidified and non-solidified radioactive wastes. What are the waste acceptance criteria for non-solidified wastes? Are non-solidified waste a passively safe wasteform and if not, what influence do they have on the long-term performance of the repository?	The term "non-solidified waste" refers to raw waste in solid form which does not need any further conditioning, but is placed in overpacks allowing safe transport and handling operations. This category of waste (e. g. concrete debris, cut metal, compressed plastics…) is passively safe and its impact on long-term safety has been assessed (^{14}C, 6.10^{8} Bq/m^3; ^{41}Ca, 2.10^{8} Bq/m^3; ^{59}Ni, 2.10^{9} Bq/m^3; ^{63}Ni, 2.10^{10} Bq/m^3; ^{90}Sr, 6.10^{9} Bq/m^3; ^{94}Nb, 2.10^{7} Bq/m^3; ^{99}Tc, 6.10^{8} Bq/m^3; ^{129}I, 6.10^{7} Bq/m^3; ^{137}Cs, 2.10^{11} Bq/m^3; ^{239}Pu, 4.10^{6} Bq/m^3; ^{241}Am, 2.10^{6} Bq/m^3).
Gb -Cz-7	19	5.3.4/ p. 43	Regulatory Body Structure, Technical Support and Material and Human Resources: The report states that 'The number of positions approved in the SÚJB budget for 2011 is 194 …' and that 'In the current situation of the Czech Republic, the material and	The SUJB personnel training is carried out in accordance with in advance elaborated Individual Plan of Professional Growth (IPPG) and is performed in form of lectures, seminars, special training courses (home and abroad; e. g using the full-scope NPP simulator, participation at IAEA workshops and training courses, etc.), self-

			human resources are sufficient to provide the basic functions imposed by law.' At present, SÚJB seems to be in a good position in terms of human resources. What measures does SÚJB have in place to maintain its capabilities and manage possible future human resources challenges arising from, for example, loss of expertise through retirements or difficulties in recruiting suitably experienced staff?	education, consultancies, exercises, etc. Training of the SUJB staff is ensured by the workplace of the Office Bureau dealing with agenda of schooling and training, also providing relevant professional support in training. Each SUJB employee must have his/her own IPPG. This plan, i.e. scope and content of the individual modules, is proposed, upon mutual agreement of the employee with the employee's direct supervisor and the Head of the Department. The Head of the Department discusses the IPPG draft with the employee, and both of them sign the final wording. For SUJB employee with the permanent employment contract the IPPG is prepared for three year period, however the evaluation of fulfilment of its obligations is performed annually, by the direct supervisor of the employee. The final, detailed evaluation of IPPG takes place after the expiration of 3 years period, and is carried out (with the employee) by the direct supervisor and the Head of his/her Department. After that, in co-operation with the Office Bureau, a new IPPG is prepared.
Gb -Cz-8	24	6.4.2.2/ p. 58	Conditions for Discharge of Radioactive Material: Para.2 states that 'The authorized limits for releases from nuclear installations are not provided in any regulatory document.' In what form are the authorized limits provided to nuclear operators if they are not in a regulatory document? How are the authorized limits enforceable if they are not part of the regulatory documentation?	There is a mistake; the correct wording is 'The authorized limits for releases from nuclear installations are not provided in any legislative document.' The limits for releases from nuclear installations are authorised by the SÚJB in a licence to discharge radionuclides into the environment and, such as this, they are enforceable.
Gb -Cz-9	28	10/ p.129	Disused Sealed Sources: In Table 10.1, the title refers to disused sealed sources stored at the Richard Repository whereas the title of Table 10.2 refer to the number of sources disposed of in the Repository. The text in para 1 on page 130 and para 2 on page 131 refers to storage of sealed sources that fail to meet acceptance criteria in a given repository. Does this imply an intention to retrieve the sources that are being stored at the Richard Repository at some point in the future for disposal elsewhere?	Yes, Richard repository contains a storage chamber which is used for storage of disused sealed sources not complying with WAC for disposal in operated near surface disposal facilities. As stated in Chapter 7.7 of the National Report this waste will be disposed in planned DGR.
Gb -Cz-10	32	4.1.3.1/ p. 22	SF Pool in the Reactor Hall: The report notes that the last inspection of the spent fuel in the wet accumulator tank was in 1996, some 15 years ago	The measurement of primary circuit water and storage pool water is performed regularly (weekly and monthly, respectively). The sipping test of fuel assemblies from the core is made when there is a

			and that water level and physicochemical parameters inside the tank are continuously monitored.	suspicion of a damaged fuel assembly in the core. The sipping test of fuel assemblies from storage pool were / are performed before the transport of the assembly from the reactor building to the HLW storage facility (according the "Methodology Of Detection of Damaged Fuel Assembly at LVR-15 Reactor by Spectrometric Water Activity Measurement").
			Has the monitoring provided any indication of possible degradation of the stored spent fuel?	Only two leaked fuel assemblies have been identified in 1996 – 1997. These fuel assemblies have been put into hermetic cases (with water) and before shipment to Russia for reprocessing in 2007 they were repacked to tight stainless steel hermetic canisters. No indication of possible degradation of the SF stored from 1997 at the wet tank in reactor hall has been detected. The sipping tests of all fuel assemblies have been provided before transport from reactor LVR-15 to the HLW storage facility during 1997 - 2005 or before loading to the SKODA VPVR/M casks in 2007. Also visual inspection of the surface of fuel assemblies and check of the ID numbers were made by the underwater radiation resistant camera. The sipping tests of all fuel assemblies which are stored at the pool at reactor hall now (30 FA) and also at the pool at the annex of reactor hall (82 FA), were performed in 2011 – 2012 within the scope of the preparation of the second shipment of the HEU SF (IRT-2M with initial enrichment 36 % of ^{235}U) from LVR-15 reactor. No leaking fuel has been detected at reactor LVR-15 storage pools from 1997 till now.
			What remedial action might be taken if the monitoring data showed evidence of the spent fuel degrading?	If the monitoring data shows evidence of the SF degradation, the sipping tests of all stored fuel assemblies are made. If any leaking fuel is checked, these fuel assemblies are put into hermetic cases (with water) at the pool and before loading to the transport / storage cask (SKODA VPVR/M) they are repacked into tight stainless steel hermetic canisters at the repacking facility at HLW storage facility.
Gb -Cz-11	32	4.2.1.1.1/ p.22	Facilities for management of solid RAW: The report states that 'If RAW cannot be disposed in a RAW repository due to their high specific activity of radionuclides then they are stored in a storage area for radioactive items while their final treatment and disposal will be addressed within the NPP decommissioning process.'. This suggests that	The whole chapter 4.2.1.1.1 deals with the management of solid radioactive waste. This waste, which does not comply with WAC for disposal in operated disposal facilities, is safely stored in dedicated storage chambers of NPP without any need for further treatment. The initial decommissioning plan for NPP Dukovany considers the operation of solid waste management technologies.

			these wastes will be stored in an untreated form until decommissioning of the NPP. Are there any plans to make this waste into a passively safe form for storage given that a deep geological repository might not be available until 2065?	
Gb -Cz-12	32	4.2.3.3/ p. 32	RAW Repository Dukovany: The report states that the repository is used for disposal of short-lived low-level waste but the list of radionuclides given in Table 4.8 includes many with half-lives in excess of 10^4 years and up to 10^6 years. How have these long-lived radionuclides been addressed in the safety case for the repository, and in particular, in the period after closure? What criteria have been used to judge whether long-term safety performance is likely to be acceptable?	The Dukovany disposal facility was designed for the disposal of low and medium level radioactive waste contaminated mainly by short-lived ^{137}Cs, which is generated by NPPs operation. However based on the safety assessment results the repository accommodates also radioactive waste contaminated by long lived radionuclides. The safety assessment has been performed in line with the IAEA requirements, mainly Requirements 12 and 13 of the IAEA Specific Safety Requirements No. SSR-5 on Disposal of Radioactive Waste. Chapter 8.2.3 contains details on criteria used for long-term safety assessment.

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Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
US-Cz-1	32	4.2.3.1/ p. 30	The report states that Repository Richard "is used mainly to dispose institutional radioactive waste containing artificial radionuclides. Separately from disposed waste, there are also wastes that cannot be currently disposed and are waiting to be disposed in a respective repository. They mainly include sealed radionuclide sources, collected radionuclide sources from fire detectors and nuclear materials." Is there a National program to collect unwanted household smoke detectors with radioactive sources? If so, please describe.	According to the provision of Section 24 para 9 of Decree No. 307/2002 Coll., on radiation protection licensee for distribution of smoke detectors has a duty to collect used smoke detectors. Then they can be dismantled and used for other purposes or disposed.
US-Cz-2	32	11/ p. 132	During your presentation on the national report please elaborate on the response to the Fukushima incident and lessons learned relevant to the Joint Convention, i.e. spent fuel and waste management facilities.	Except reactor pools the Fukushima accident did not provide any relevant experiences related to purpose build SF storage facilities and RAW management installations in NPP units. Despite of sever character of the accident there were reported no releases of radioactive substances from SF storage facilities and RAW management installations of all affected NPP units. Therefore no experience feedback can be taken into account for conceptually similar facilities in the Czech Republic. Reactor pools at both NPPs were subject of stress tests and their results are summarised in the “National Report on „Stress Tests“ NPP Dukovany and NPP Temelín, Czech Republic; Evaluation of Safety and Safety Margins in the light of the accident of the NPP Fukushima”, State Office for Nuclear Safety, Czech Republic, December 2011.
US-Cz-3	32	11/ p. 132	In a July 19, 2011 press release, the EU Council adopted the "radioactive waste and spent fuel management directive," proposed by the Commission on November 3, 2010. Please describe the Czech Republic's response to this new directive.	No substantial changes in national legislation are expected, as most requirements of EU Council Directive 2011/70/Euratom of 19 July 2011 have been considered well before its adoption. Only minor changes, such as definition of some terms, incorporation and modification of the existing process of the preparation of the national policy and strategy on RAW and SF management and requirements on the export of radioactive waste for disposal into third countries have to be considered by the preparation of new Atomic act and implementing regulations.

US-Cz-4	32	4.2.2.1.1/ p. 28	At the Temelin nuclear power plant, solid radioactive waste "suitable for discharge into the environment is measured to determine the content of radionuclides. The waste that complies with the criteria of SÚJB authorisation is released into the environment or disposed on the Temelínec waste dump." Temelinec is not mentioned elsewhere in the report. Does this constitute clearance? Is this a radioactive or sanitary waste disposal facility? How is it regulated?	No waste discharged into the environment is regarded as a radioactive waste. So such a waste can be disposed on any domestic waste dump site. Since 2006 most cleared waste is disposed in Petrůvky waste dump and metallic waste is delivered to authorised customers. The Temelínec waste dump can be used practically only for disposal of rubble. Even if there is no need to regulate that, the NPPs perform regular waste dumps monitoring.
US-Cz-5	10	7.7/ p. 90	The national report highlights starting "surveying work" at several potential deep geologic repository locations in 2011-2012, and only if the affected municipalities get involved on a voluntary basis in the selection process. Please elaborate on stakeholder involvement and the actual sites where communities have volunteered. What is being done differently than in 2005 to obtain public acceptance?	A working group for dialogue has been established last year. The stakeholders group consists of 2 representatives from each potentially concerned municipality, representatives of NGOs and representatives of state authorities. A detailed procedure of communication has been established. Besides, by the amendment of Atomic Law, municipalities can obtain up to 4 million CZK for every year of geological investigation of the site concerned, without a duty to accept the siting and construction of disposal facility.