

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

Argentina (Argentina) - 13

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Ag-Cz-1	Article 16	12.9.9/ 137	Similar comment about the glossary in section 8.2.4.1, page 93	The term "liquidation process" is equivalent to the dismantling of the technological equipment which is already out of operation.
Ag-Cz-2	Article 16	8/89, 11/122	Could you please give a brief description of the treatment of immobilization in the SIAL matrix?	Drums with sludge and traces of ion exchange resins are transferred from the temporary storage facility to the place of their homogenisation. After the homogenisation samples are taken for laboratory tests (pH, dry mass, content of ion-exchange resins in sludge, volumetric activity of selected nuclides, ...). Based on the results of laboratory tests pH values and the composition of matrix components are adjusted. Then the sludge is mixed with both solid and liquid component of matrix and samples for the laboratory tests of conditioned waste are taken (final product is in an aluminosilicate form). Waste conditioned in 200 l drums is then placed in storage room, where, after 48 h, the mechanical strength tests are performed. Waste is conditioned into a form complying with the WAC for disposal facility Dukovany and transported there.
Ag-Cz-3	Article 16	8.6.3.4 /112	How long does the foreseen institutional control period for Repository Hostim last? When is a new safety assessment expected to be done according with the present licence?	Duration of the institutional control is not defined. By a SÚJB requirement, SÚRAO continues in site monitoring according to the developed monitoring programme. As an initiative of SÚRAO a safety case was prepared in 2008. Presently no safety case re-evaluation is planned.
Ag-Cz-4	Article 16	8.5.3.1 /103, 8.7.1/ 116	What does decommissioning mean for you when you talk about repository closure?	In the first case (p. 103) the term decommissioning refers to the closure of the repository, in the second one (p. 116) it is related to the waste coming from the decommissioning of NPP Dukovany.
Ag-Cz-5	Article 16	8.2.4.1 /93	Is the "liquidation process" equivalent to facility decommissioning? If not, could you explain the difference? If both terms are equivalent, it would be clearer to adopt the IAEA glossary.	The "liquidation process" is equivalent to the dismantling of the technological equipment which is already out of operation.
Ag-Cz-6	Article 16	8.2.3.3 /89	Have you observed any swelling phenomenon because of radiolysis in the long term behaviour of	Swelling phenomena of bituminized matrix as a result of its radiolysis was not observed.

			bituminized matrix?	
Ag-Cz-7	Article 16	8.2.2.2 /89	Why did you select aluminosilicate matrix for sludge immobilization and ion exchangers instead of bitumen?	Technical problems with bituminization of ion exchangers and sludge were the only reasons for decision to use the aluminosilicate matrix for their conditioning.
Ag-Cz-8	Article 24	6.4.2.4/ 54	Could Czech Republic provide information about the methodology used to establish reference levels?	Reference levels are established by licensees. There are many licensees establishing their own sets of reference levels. There are three types of reference levels: <ul style="list-style-type: none"> – Recording levels are such reference levels upon the exceeding of which the values will be recorded and filed. Generally they cover usually observed values of monitored parameters. – Investigation levels are such reference levels for which their exceeding will lead to a consecutive investigation of causes and possible consequences, but without the need for intervention. – Intervention levels are such reference levels for which their exceeding will commence or introduce the remedial measures. These levels are close to the dose constraints or approved authorized limits. For more details see www.sujb.cz/docs/R307_02.pdf , Article 75.
Ag-Cz-9	Article 24	6.4.2.1/ 53	Please revise the translation: where it is said “The effective dose constraints forshall be 100 mSv within five consecutive calendar years...”. it should say “ The effective dose limit for....shall not exceed 100 mSv within five consecutive calendar years....”	The text in general follows the original Czech wording of the Decree No. 307/2002 Coll. (“The limits for exposed workers shall be: <ul style="list-style-type: none"> a) 100 mSv for a period of five consecutive calendar years as the sum of effective doses from external exposure and committed effective doses from internal exposure; b) ...”) However the term “constraint” is not used in Chapter 6.4.2.1 in correct way and should be replaced by the term “limit”.
Ag-Cz-10	Article 27	9/117- 119	Could Czech Republic inform if the Czech National Regulations for the safe transport of radioactive waste and spent fuel are coherent with IAEA TS-R-1?	Yes, Decree No. 317/2002 Coll., on type-approval of packages for transport, storage and disposal of nuclear materials and radioactive substances, on type-approval of ionizing radiation sources and transport of nuclear materials and specified radioactive substances (on type-approval and transport) is based on IAEA TS-R-1.
Ag-Cz-11	Article 28	10/120	Could Czech Republic clarify the meaning of “insignificant type-approved minor sources”?	Chapter 10 deals among others with the state system of accounting for ionizing radiation sources (data on ionizing radiation sources, except insignificant AND [missing in English translation of National report] type-approved minor sources, unless the license condition establishes otherwise). Detailed information about insignificant and minor sources can be found in Article 6 and 7 of Decree No. 317/2002 Coll. (see www.sujb.cz/docs/R317_02.pdf).

Ag-Cz-12	Article 32	4.2.2.1.1 /25	What are the criteria of SÚJB authorization to “discharge” solid RAW into the environment?	Materials, substances and objects containing radionuclides or contaminated by radionuclides can be discharged into the environment without a licence issued by the Office under Section 9 paragraph 1 letter h) of the Atomic Act when such activity is reasonable by the benefits under Section 4 paragraph 2 of the Act, and a collective effective dose related to the discharge shall not exceed 1 Sv per each calendar year, an effective dose to individuals shall not exceed 10 µSv, and the Office shall be informed at least 60 day beforehand about the kind of radionuclides, activities, location, date and method of the discharge into the environment as well as about an estimate of the related exposure. See Article 56 and 57 of Decree No. 307/2002 Coll. (see www.sujb.cz/docs/R307_02.pdf).
Ag-Cz-13	Article 32	4.2.1.2.2 /23	Are you planning to treat the stored liquid organic wastes (oils)?	Contaminated liquid organic waste is usually treated by means of very simple extraction technology and then incinerated.

Austrálie (Australia) - 20

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Au-cz-1	Article 4		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?	No, there are not.
Au-cz-2	Article 5		Is the Periodic Safety Review used to assess the safety in the existing facilities? If so, is there any guideline for this purpose?	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.
Au-cz-3	Article 5		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.	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.
Au-cz-4	Article 6	7.7/84	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?	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.
Au-cz-5	Article 7		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?	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).
Au-cz-6	Article 7		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?	No, by designing of purpose build dry SF storage facilities incl. storage casks the burn-up credit in criticality safety assessment was not considered.

Au-cz-7	Article 9		<p>What are the requirements for ground water monitoring around the facility for Spent Fuel storage?</p> <p>Is there any guideline to deal with corroded/compromised spent fuel?</p>	<p>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.</p> <p>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.</p>
Au-cz-8	Article 12		Are there existing mining facilities or waste from past mining practices that require the safe management of radioactive waste?	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.
Au-cz-9	Article 12		Are there any existing radioactive waste management facilities in Czech Republic for which a Safety Assessment consistent with current international guidance is not available?	No, there are not.
Au-cz-10	Article 13		What procedures and policies apply to the siting process?	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 .
Au-cz-11	Article 17		Are there any requirements regarding the implementation of active and passive controls and mitigating measures during the institutional control period?	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.
Au-cz-12	Article 18		What is national policy in Czech Republic for "disposal" of radioactive waste?	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).
Au-cz-13	Article 22	6.2/45	Who is responsible for funding management and/or disposal of non-NPP radioactive waste?	Disposal of all categories of RAW, incl. institutional ones is the responsibility of SÚRAO.

			Are non-NPP generators of radioactive waste required to demonstrate ability to fund radioactive waste management or disposal?	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.
Au-cz-14	Article 22		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?	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).
Au-cz-15	Article 25		What is the frequency of emergency exercise at Spent Fuel and Waste Management facilities?	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 .
Au-cz-16	Article 26		Do the inspectors actively supervise the decommissioning work? If the inspectors do supervise the decommissioning work, what responsibilities do they take over from the licensee? What authority and chain of command is used with the inspectors supervising?	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).

			Does this mean the responsibility of safety rests with the Regulator?	Question not applicable (see first answer).
Au-cz-17	Article 28	11.3 / 122	What are the planned activities to improve safety at ÚJV Řež a. s.?	As stated in Chapter 11.3 the listed installations are considered as old environmental liabilities and are a subject of dismantling process.
Au-cz-18	Article 28	11.2 / 122	The report states 'Acceptability of the resulting product for RAW repository Dukovany has been verified by an independent analysis.' What does independent mean in this context?	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).
Au-cz-19	Article 28	10/120	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.' 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.' How often has this occurred?	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).
Au-cz-20	Article 28		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	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

			orphan and other disused sealed radioactive sources where an option for return to the manufacturer does not exist – incl. legacy radium sources?	placed in repositories Richard and Bratrstvi. 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.
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Bulharsko (Bulgaria) - 2

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Bg-Cz-1	Article 27		Where is it stored the encountered nuclear or radioactive material and in what manner is it processed and under what financial arrangements?	Found nuclear or radioactive material can be stored e. g. in the storage chamber of Richard repository. Its processing depends on its physical and chemical properties. According to Section 26, paragraph 3, letter k of the Atomic Act, the found material shall be administered by SÚRAO. Provided the owner of a found material is not identified the costs associated with its disposal or storage shall be paid from the state budget.
Bg-Cz-2	Article 27		Would you care to describe what is the procedure for action in case of detection of illicit trafficking of nuclear or radioactive material across the border or in case of detection of such in scrap metal?	SÚJB has developed comprehensive recommendations of actions in case of detection of illicit trafficking of nuclear (VDMI 014) or radioactive materials (VDMI 005). They cover following sequence of actions: <ul style="list-style-type: none">– acceptance and initial evaluation of the announcement (action of SÚJB's Emergency Response Centre, involvement of police, identification of nuclear or radioactive materials, ...),– action of the mobile service groups operated by SÚJB (radioactive materials),– on-site inspection,– decision on consecutive management of nuclear or radioactive materials,– preparation of final reports,– final evaluation of the event.

Francie (France) - 8

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Fr-Cz-1	Article 3	p. 15	It should be indicated in the Scope of Application that NORM is not considered in the text.	It is. Waste contaminated by NORM is considered in the National Report (Chapter 3 – “The presented National Report provides comprehensive evaluation of the management practices used for all RAW categories covered by the Joint Convention, i.e. both operating and institutional RAW management. Beyond the scope of requirements set forth in Article 3 of the Joint Convention, Chapter 12.9 provides updates on residues after mining and milling of uranium ores that contain natural radionuclides ...”).
Fr-Cz-2	Article 5	8.2.3.2/ p. 90 & 8.5.2/ 104	Could Czech Republic explain how is organized the surveillance of the efficiency of the draining system over time in Bratrstvi repository (containing natural radionuclides)? How is justified the end of institutional control after 300 years?	Visual control of the clearness of mine drainage system is one of the requirements defined in operational limits and conditions. The drainage system is controlled regularly by every single entrance to the repository. One of the outputs of the safety case is a proposal for institutional control lasting for 300 y. Preliminary closure plan for Bratrstvi repository includes a 50 years institutional control period and then its optional prolongation on the basis of evaluation of current situation.
Fr-Cz-3	Article 12	12/136	Description of safety measures related to mining sites is a little bit theoretical. The report would be improved if some concrete remediation measures were described, showing the benefit in term of safety (on exhaust water contamination level, for example).	For an example after remediation measures on the tailings impoundment KI (13.2 hectare overlaid & reclaimed) in Mydlovary (former uranium chemical processing plant) the gamma dose rate has been reduced to the level 0.2 µGy/h i.e. to the level of background radiation.
Fr-Cz-4	Article 28	10/120	Could China detail legislative requirements imposing to send back disused sealed sources to their producers?	The Czech Republic (Europe) is not a part of China (Asia). In the Czech Republic the management of ionisation radiation sources is also a subject of a licensing procedure. The applicant for a license has to submit to the SÚJB safety documentation according to the Annex I. of Atomic Act (see www.sujb.cz/docs/SUJB_CR_Atomic_Act.pdf), which among others contains information on expected management of RAW generated by the use of ionisation radiation source. This arrangement can cover also an agreement between the manufacturer and user of sealed source on the return of disused sealed source to the manufacturer.

Fr-Cz-5	Article 32	2.1/15	Clearance is required for transient waste in the waste classification. Very low level waste, not necessitating any decay, should also be mentioned. Methods used to sort out waste to be freely released, on evacuation paths of this material and on annual volumes should be detailed.	For better understanding of principles of discharge of radionuclides into the environment and clearance please refer to the SÚJB web site www.sujb.cz/docs/R307_02.pdf (Articles 56 and 57).
Fr-Cz-6	Article 32	4.2.1.1.1 / 21	Could Czech Republic precise traceability tools, in particular, when solid waste is discharged in the environment?	Municipal dump sites – all waste before discharge is 100% measured by spectrometric methods. Area specified at particular dump site is monitored before and after disposal of waste. Every discharge is documented. Metal recycling – metal is 100% spectrometrically measured and handed over to authorized organization. This process is documented.
Fr-Cz-7	Article 32	4.2.1.1 / 21	Could Czech Republic precise the management of HLW resulting from in-core activation at Dukovany NPP?	In-core activation samples do not have a character of HLW, but they are categorised as long lived LILW. The samples are analysed in ÚJV Řež a. s. and then stored in the hot cell facility at the same site until the NPP operator makes a decision on their further management.
Fr-Cz-8	General	K – 11/ 122	In the planned activities to improve safety, it should be indicated that studies related to deep geological disposal facilities have to be developed.	In 2008 SÚRAO has started the update of the reference project of the deep geological repository. Development of initial safety case evaluating radiological impacts of optional source terms (inventories, activities and forms) is one of substantial objectives of the project. The planned duration of the project is three years.

Korea (Republic of Korea) - 1

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Kr-Cz-1	Article 26	F.6.6/63	<p>In some sections including Section F.6.6 of the report, the categories of workplaces are mentioned. How are the categories of workplaces classified? Please exemplify representative workplace which is classified into each category.</p>	<p>Part I, Chapter III (Categorisation of Workplaces Performing Radiation Activities) of Decree No. 307/2002 Coll. on Radiation Protection contains details on workplaces classification system (see www.sujb.cz/docs/R307_02.pdf). The workplaces which perform radiation activities, with the exception of the workplaces using only insignificant source, shall be categorised in the ascending order according to a hazard caused by ionising radiation to health and the environment into categories I, II, III and IV on the basis of:</p> <ul style="list-style-type: none"> a) classification of ionising radiation sources to be handled at the workplaces; b) expected normal operation of the workplace and a related measure of possible occupational and public exposures; c) orientation of radiation activity and difficulties of ensuring radiation protection and quality during this activity; d) the equipment and methods of work safety at the workplace with ionising radiation sources, especially by use of protective aids, insulation and shield equipment, ventilation and drainage; e) possible radioactive contamination of the workplace or its vicinity by radionuclides; f) possible generation of radioactive waste and difficulties of its disposal; g) potential risk arising from the predictable malfunctions and deviations from normal operation; and h) risk of a radiation incident or radiation accident, magnitude of consequences of such event and the possibilities of interventions.

Lucembursko (Luxembourg) - 2

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Lu-Cz-1	Article 6	s.7.7	During the previous meeting the Czech Republic declared under "Planned Measures to Improve Safety" to agree on a site selection procedure for a DGR in 2009 and to select two potential sites by 2015. The present report refers to a planned commissioning of a DGR after 2065 while presently having geological survey discontinued up to 2009. Please explain the next steps with regard to site selection of a DGR?	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 activities will be performed for following five years SÚRAO will apply to the Ministry of Environment for permit in 2009. The activities will last for five years and in 2015 the choice of sites will be limited to at least two, using the results of geological survey. The commissioning of geological repository is still planned for the year 2065.
Lu-Cz-2	Article 20	s. 5.3.6	Does SÚJB foresee to conduct a self-assessment or to invite an independent evaluation mission during the following reporting period?	No, last independent IAEA mission (IRRT) was performed in summer 2001. It is not expected to conduct similar type of self-assessment prior 2011 or 2012.

Maďarsko (Hungary) - 11

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Hu-Cz-1	Article 7	7.4/72	A container storage facility similar to the one already operated at the site of Dukovany NPP is planned to be built at the site of Temelín NPP. What were the main factors or aspects of the decision?	The main aspect of this decision was the operational experience with existing storage facilities at NPP Dukovany site. SFSF Temelín is already under construction.
Hu -Cz-2	Article 10	7.7/84	What (<i>How</i>) do you do to increase public acceptance of the geological survey for a HLW repository?	At present time there are several ongoing activities, namely increasing information background of the public in potential sites. An effort is devoted with ambition to increase the financial support to municipalities potentially affected by the site investigation programme, within the framework of Atomic Act.
Hu -Cz-3	Article 12	8.2.4.1 /92	What is the volume reduction factor of the solid waste compactor and do you plan to use a high-pressure compactor in the future?	Average volume reduction factor for compactable waste (paper, plastics, textile) is 2,5 - 3. There is no plan to use high pressure compactor in the near future.
Hu -Cz-4	Article 12	8.2.3.2 /90	What do you do with the water from the Bratrstvi repository if its activity will be higher than the limit?	If the activity concentration set up in operational limits and conditions is exceeded and if the mining water can not be discharged into the environment the retaining tank has to be closed and the mining water will be managed as RAW. Additionally the isolation system has to be controlled and fixed.
Hu -Cz-5	Article 12	8.2.1 /86	What is the rate of the regenerated and reused boric-acid from the SVO 6 (Dukovany)?	The annual consumption of fresh boric acid is 12 – 15 tons/4 units. Volume of processed boric acid solution (SVO6) is approx. 6500 – 7000 m ³ (boric acid content 2-7 g/l).
Hu-Cz-6	Article 14	8.4.3.3 /98	Is there any upper limit for the total activity of waste stored in the repository in Dukovany?	There is no waste stored in Dukovany repository. All waste in this facility is disposed of. The total inventory of disposed RAW (for each safety significant radionuclide + separately for the whole facility, one vault and one m ³) is derived from the safety case and is published in WAC.
Hu-Cz-7	Article 14	8.4.3.3 /98	How does the double drainage system work in the Dukovany repository?	The term “double drainage system” refers to the two drainage systems collecting water from the area below each of disposal vault and from the side backfilling of the vaults to 4 control shafts.
Hu-Cz-8	Article 14	8.4/97	What is the uncertainty of the total activity of the waste inventories?	The uncertainty of gamma spectrometric data is ± 35% and for radiochemical data it depends on particular samples and nuclides (influenced by sampling method, activity of sample....)
Hu-Cz-9	Article 15	8.5.3.3 /104	The safety analysis of the Dukovany repository extends (if we understand correctly) to a period of time of 300 years. Do you take into account the dose of the long lived isotopes after 300 years?	No, the statement in Chapter 8.5.3.3 is just the opposite (“The scenarios were anticipated to take place after termination of institutional control, i.e. 300 year after the operation of the facility is finished.” = after the closure of the repository). The safety assessment

				contains time dependent dose rates for assessed scenarios covering the maximal values of dose rates for every single safety relevant nuclide.
Hu-Cz-10	Article 21	6.1/44	SÚRAO is the licensee of radioactive waste repositories. According to the list of abbreviations the full name of SÚRAO is Radioactive Waste Repository Authority. Does SÚRAO has any regulatory authority or competence?	No, all regulatory authorities are within SÚJB.
Hu-Cz-11	Article 32	4.1.1.3 /17	For how long is the spent fuel storage capacity in Dukovany NPP sufficient? What kind of plans do you have to extend the storage capacity in the case of a possible life time extension of Dukovany NPP?	The SF storage facilities ISFSF and SFSF at Dukovany site should have sufficient capacities to accommodate all SF produced also by the extended operation of 4 units at NPP Dukovany.

Německo (Germany) - 7

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
De-Cz-1	Article 6	7.3/72	<p>Some questions arose concerning former activities.</p> <p>In Section 7.3, it is described how former activities for the siting of installations are in compliance with the Joint Convention. Are there general legal rules for such activities – e.g. the siting of a repository?</p> <p>In Section 7.5, it is described how former activities for the assessment of the safety of facilities are in compliance with the Joint Convention. Where are general legal rules for such activities laid down?</p>	<p>Yes, 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.</p> <p>Construction process is regulated by the Atomic Act, in Annex B. "Documentation for the issue of a licence for construction of a nuclear installation or a category IV workplace shall contain:</p> <ol style="list-style-type: none"> I. Preliminary Safety Report which shall include <ol style="list-style-type: none"> 1. Evidence that the proposed design meets all requirements for nuclear safety, radiation protection and emergency preparedness as laid down in an implementing regulations; 2. Safety analyses and analyses of the potential unauthorised handling of nuclear materials and ionising radiation sources, and an assessment of their consequences for personnel, public and environment; 3. ...". <p>Commissioning process is regulated also by the Atomic Act, Annex C. For further details see www.sujb.cz/docs/SUJB_CR_Atomic_Act.pdf.</p>
De-Cz-2	Article 9	7.6.1.2/ 78	<p>At the Dukovany site, the Interim Spent Fuel Storage Facility ISFSF Dukovany is in operation since 1995. Are there any requirements for the collection and evaluation of data concerning ageing phenomena?</p>	<p>On regular basis the operator collects information on radiological situation in the storage facility, on cask seals tightness (performance of seals and pressure sensors) and surface temperature. Additionally, based on operational experience feedback from ZLN Greifswald, the operator of ISFSF regularly controls the conditions of trunnion bolts of all stored casks. Detailed requirements of these operations are elaborated in operational manuals (see Chapter 7.6.1.2.1 of previous National report v. 2.3 - www.sujb.cz/docs/NZ_VP_RAO_2_3_CZ.pdf). The regulator discusses with the operator the possibility of detailed cask inventory and cask components controls after 20 y of the operation.</p>

		<p>Concerning operational experience, it is reported on p. 80 that “In agreement with the legislative requirements, NPP Dukovany has developed a system for investigation of operational occurrences and a system to share the external operational experience. These systems are related both to the operation of reactors units and SFSF Dukovany” (which has only been in licenced operation since 2008). How is experience from the operation of the older ISFSF Dukovany evaluated and taken into account?</p> <p>Is there a mechanism implemented for the exchange of experience between radioactive waste or spent fuel management facilities?</p> <p>Are there any occurrences or experience from the surveillance programs performed during the long-term storage of the spent fuel casks?</p>	<p>Based on the operational experience of older ISFSF a new SFSF was designed and built at the site of NPP Dukovany. The experience from the operation of both storage facilities at Dukovany site was taken into account by the selection of dry cask storage technology for NPP Temelín. Concerning storage casks the operation of both facilities is without abnormal situations (minor operational occurrences were related to the electric power supply and software interfaces).</p> <p>As both ISFSF and SFSF are interconnected, they built one technological unit (even if licensed as separate nuclear installations) and are operated by the same operator's staff. The exchange of operational experience is implemented in this way. Formally the operational documents for both facilities are identical and differ only in case of design changes of used casks (CASTOR 440/84 vs. CASTOR 440/84M) and storage buildings (ISFSF vs. SFSF).</p> <p>The key surveillance programme was prepared and implemented for the controls of pressure sensors (main monitoring system). Prophylactic control of each pressure sensor is performed every 6 months. Each pressure sensor is then dismantled every 6 years and controlled in accredited laboratory. Many sensors were controlled for third time (the oldest is in operation for 13.5 y) and maximal deviation is less then 0.5% of maximal pressure. The only occurrence from other surveillance programs is the potential corrosion of trunnion bolts affecting the cask retrievability, which was also observed at the same CASTOR casks used in ZLN Greifswald (Germany). Based on the operational experience from ZLN Greifswald the operator of ISFSF and SFSF (ČEZ, a. s.) has developed a special technological procedure for the control of trunnion bolts condition, which was implemented in 2005. Therefore periodic inspections of pressure sensors include the inspections of trunnions' bolts to check their potential corrosion. In agreement with a standard technological procedure TTČ-2003/01 the bolts are dismantled, inspected, cleaned and, if applicable, replaced and the trunnions are load tested. The design of newer CASTOR 440/84M casks takes into account this</p>
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				experience and the sealing system of trunnions was modified.
De-Cz-3	Article 11	8.1/86	In Section 8.1, it is stated that according to the Atomic Act any activity has to justify the risks for the population. What is the policy about other burdens – e.g. financial burdens or the responsibility to be in charge of contaminated sites?	<p>In case of financial burdens 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 radioactive management. Government Order No. 416/2002 Coll., on the establishment of 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 waste pay for its disposal (Article 1, 2).</p> <p>According to the Article 28, para 2 of the Atomic Act “The State may provide a subsidy to eliminate old radiation liabilities, namely for</p> <ol style="list-style-type: none"> a) management of radioactive waste which arose prior to privatisation of its producers; b) elimination of radioactive environmental contamination that occurred before privatisation of its generators; c) ...” <p>For further details see www.sujb.cz/docs/SUJB_CR_Atomic_Act.pdf.</p>
De-Cz-4	Article 16	8.6.3.1/ 110	Table 8.1 presents some data on the RAW repository Richard. It would be helpful if you could give some clarification on the figures. Is the value for the filled volume (7,300 m ³) related to the value for the total volume adapted for the repository (17,000 m ³), i. e., are 43% of the capacity already filled? Or is that value to be understood as the real waste volume? The same question may be asked on the value for the free volume (2,200 m ³). Does it mean the volume adapted for the repository or the real waste volume?	The values refer to the filled or void volume of the disposal chambers of the Richard repository and not to the volume of the waste itself.
De-Cz-5	Article 17	8.7/116	Section 8.7 deals with institutional measures after closure. It is pointed out that the licensee is in charge of keeping records of information about a facility. Are there rules specified how this is to be done – e.g. for several centuries in case of a geological repository?	Requirements on record keeping for geological repository of HLW were not defined yet, as the repository should be commissioned after 2065.
De-Cz-6	Article 32	2.2/14	Section 2.2 explains the “Policy of Radioactive Waste Management and Spent Fuel Management”.	

			<p>We would ask for clarification in some points.</p> <p>The term “long-term disposal” is used. Is this to be understood as disposal as it is defined in the IAEA Glossary as an emplacement of radioactive waste in an appropriate facility without the intention of retrieval?</p> <p>The term “long-term RAW” is used. Is this to be understood as long lived waste?</p> <p>It is stated that one option for the management of ILW and HLW is geological disposal. What other options are considered?</p>	<p>Yes, the term “long-term disposal” is used in the “Policy of Radioactive Waste Management and Spent Fuel Management” and corresponds to the term “disposal” as defined by the IAEA Glossary (“Emplacement of waste in an appropriate facility without the intention of retrieval”).</p> <p>Yes</p> <p>The details on the “Policy of Radioactive Waste Management and Spent Fuel Management” are provided, as stated in Chapter 2.2, in National Report under the Joint Convention submitted by the Czech Republic, Revision 1.1 of February 2003 (available in www.sujb.cz). Options are e. g. reprocessing of SF, use of future advanced waste processing technologies such as transmutations, etc.</p>
De-Cz-7	Article 32	Introduction/12	<p>Table 1.1 shows the management of selected categories of radioactive waste as an overview on different policies. It is not clear if this includes all waste. Does this include all kinds of radioactive waste or are there kinds of radioactive waste that have not been selected for this table?</p>	<p>Table 1.1 considers all RAW covered by the scope of JC and by the “Guidelines regarding the Form and Structure of National Reports” adopted at the Preparatory Meeting of the Contracting Parties to the Joint Convention held from 10 to 12 December 2001 as modified at the Second Review Meeting of the Contracting Parties held from 15 to 24 May 2006.</p>

Polsko (Poland) - 2

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
PI-Cz-1	Article 32	p. 18	In description of SF pools for Temelín NPP there is information about failed spent fuel (31 FAs) for both units. Can you give some more details about nature of this failure?	At the moment of the preparation of the answers to Contracting Parties' questions (March 2009) there were 32 failed spent fuel assemblies (12+20) and 45 failed spent fuel rods (24+21) in both reactor pools at NPP Temelín. Fuel rods were removed from fuel assemblies as a result of FAs repair and are placed in baskets for failed fuel rods. The main cause of the fuel failure is so called grid-to-rod fretting; i.e. cladding damage due to the friction and vibration of fuel rods in spacer grids. Most damages to fuel cladding can cause direct contact of the fuel with the coolant.
PI-Cz-2	Planned Activities	p. 9	It is stated in summary that national deep geological repository for spent fuel and radioactive waste should be commissioned after 2065 year. Can you explain why so long term is predicted for this task?	Spent fuel is presently not declared as radioactive waste. By law SF is a raw material owned by its producer (ČEZ, a. s.). Respecting the planned periods of NPPs operations and regarding future possibilities of SF management, ČEZ, a. s. indicated that SF will be not ready to disposal earlier than in year 2065.

Rakousko (Austria) - 1

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
At-Cz-1	Article 21		Will the obligation of the licensee regarding waste management expire when the disposal of nuclear waste has been completed and the regulatory body has confirmed that the nuclear waste is permanently disposed of in an approved manner?	No, according to the Atomic Act SÚRAO is responsible among others for institutional control after closure of repositories as the only licensee of the radioactive waste disposal facilities in the Czech Republic (see Atomic Act, Article 26).

Řecko (Greece) - 3

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
gr-cz-1	Article 20	5.3.2/39	The Atomic Act provides to SUJB the right to impose penalties. Does this concern any violation of radiation protection regulations? Could Czech Republic provide some examples of imposed penalties or sanctions?	<p>Any violation of radiation protection regulations is considered as illegal act. Article 41 of Atomic Act provides details on penalties which shall be imposed by the Office (CZK 100 million on those who violate the prohibition on nuclear energy utilisation for other than peaceful purposes, CZK 50 million on a person performing activities under Article 9 para 1, without a licence CZK 10 million on a licensee violating an obligation defined under Articles 17 to 20...). For more details see www.sujb.cz/docs/SUJB_CR_Atomic_Act.pdf.</p> <p>For instance an enforcement action was used in year 2007 when the operator of Temelín NPP (ČEZ, a. s.) released tritium solution into Vltava river without SÚJB license.</p>
gr-cz-2	Article 21	6.4.2.2/ 54	Could Czech Republic justify and explain the choice of 250 µSv as a dose criterion due to releases?	It is assumed that there are no more than 4 large licensees (NPPs, RAW management facilities, ...) within every single county of the Czech Republic. Therefore the release dose criterion of 250 µSv/y will assure that 1 mSv/y dose limit for an individual from population is not exceeded. Every NPP, independent of the number of reactor units and other on site licensed facilities, must not exceed this value, which can be considered for a dose constraint. Authorized values approved by SUJB for NPPs are 40 µSv/y for airborne releases and 3/6 µSv/y (Temelín / Dukovany NPP) for waterborne releases.
gr-cz-3	Article 21	6.4.2.4/ 54,55	As it concerns the environmental monitoring methods used, have you compared the dose results provided by the different methods used? Could Czech Republic justify the use of a network based on TLD?	The TLD Network is one part of the Radiation Monitoring Network in the Czech Republic. For further details please refer to www.sujb.cz/docs/SUJB_Annual_Report_2006_Part_II.pdf , Chapter 1.2.

Slovensko (Slovakia) - 5

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Sk-Cz-1	Article 4	p. 74	It is stated that "In the process of periodical ...". In which areas differences have been identified?	The question is referring to the section of Chapter 7.5.1.1 dealing with the scope of safety assessment of the reactor pools at NPP Dukovany (extraordinary events such as fall of a fuel assembly during SF handling, loss of water in the reactor pool, etc.). For more details see www.sujb.cz/docs/NZ_VP_RAO_1_1.pdf .
Sk-Cz-2	Article 22	p. 45	What is your financial mechanism in order to collect appropriate and adequate financial resources for decommissioning of radwaste management facilities (other than NPP)? Please specify in more details.	The financial mechanism is 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.
Sk-Cz-3	Article 32	15/89+ 28	What kinds of scenarios do you consider for activity heterogeneity in repository?	Heterogeneities are considered in safety cases for Richard and Bratrství repository only in connection with intrusion scenarios after the end of the institutional control. The mine character of the repository excludes so called exotic scenarios (ingestion of a radioactive source etc.). Exposure pathways are inhalation of dispersed waste disturbed by drilling and external exposure. The scenario has a very low probability in the conditions of closed repository filled with inert material.
Sk-Cz-4	Article 32	p. 22	The previous national report (2005) in its chapter 11.1 on NPP Dukovany mentioned that tests are going on for treatment of sludges and ion exchangers. What are the experiences gained since that time (with the SIAL technology)?	Approximately 7 tons of sludge were conditioned at NPP Temelín in 2007 without any problems. Conditioning of sludge will continue at NPP Dukovany this year (2009). The project of ion exchange resins conditioning into aluminosilicate matrix in NPP Dukovany is under preparation. The trial operation should start in year 2010.
Sk-Cz-5	Article 32	p. 26	Could you specify your licensing procedure for mobile radwaste management facility?	There are no mobile waste management facilities in use in the Czech Republic. The use of mobile equipment for solidification in aluminosilicate matrix (SIAL [®]) was considered within the licensing

				process of waste management activities at NPP Temelín.
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Slovinsko (Slovenia) - 1

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
SI-Cz-1	Article 25	p.60	Can you please provide the number of exercises related to the scope of Joint Convention (local and national) for the last year?	Following exercises were performed in last year in line with Decree No. 318/2002 Coll.: <ul style="list-style-type: none">– ZONA 2008 (at national level in EPZ of NPP Dukovany),– CMX 2008 (NATO exercise),– Convex 1a, Convex 2a, Convex 2b a Convex 3 (IAEA exercises).

Velká Británie (UK) - 6

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Gb-Cz-1	Article 7 also Article 14	8.4/97	<p>These sections refer to SÚJB's assessment relating to an application for a licence.</p> <p>(1) Can the Czech Republic please describe the contents of the safety case?</p>	<p>The content of the safety case (documentation) is defined for every stage of facility lifetime, from siting up to its decommissioning. As stated in Chapter 5.2.2, construction of a nuclear installation is an activity which is a subject SÚJB licensing activity in agreement with Article 9 paragraph 1, letter b) of the Atomic Act. Details on safety documentation are provided in Annex B of the Atomic Act. "Documentation for the issue of a licence for construction of a nuclear installation or a category IV workplace shall contain:</p> <p>I. Preliminary Safety Report which shall include</p> <ol style="list-style-type: none"> 1. Evidence that the proposed design meets all requirements for nuclear safety, radiation protection and emergency preparedness as laid down in an implementing regulations; 2. Safety analyses and analyses of the potential unauthorised handling of nuclear materials and ionising radiation sources, and an assessment of their consequences for personnel, public and environment; 3. Information on predicted lifetime of nuclear installation or very significant ionising radiation source; 4. Assessment of nuclear waste generation and management of it during commissioning and operation of the installation or workplace being licensed; 5. Conception of safe termination of operation and decommissioning of the installation or workplace being licensed, including disposal of nuclear waste; 6. Conception for spent nuclear fuel management; 7. Assessment of quality assurance during preparation for construction, method of quality assurance for the carrying out of construction work and principles of quality assurance for linking stages; 8. List of classified equipment. <p>II. Proposed method of providing physical protection".</p> <p>Additionally according to the Article 13 of the Atomic Act the applicant in the process of license application shall submit to the Office the results of environmental impact assessment and the quality assurance</p>

			(2) How is a safety case assessed by SÚJB and what criteria for acceptability are used?	programme. The safety documentation is assessed by SÚJB review teams, taking into account the results of independent assessments and additional information provided by the applicant. The main criteria of safety documentation acceptability are the compliance with requirements and limits set up in national regulations (Atomic Act + related Decrees).
Gb-Cz-2	Article 15	8.5.1/120	The report suggests that the safety assessment is limited to an assessment of the dose to the most exposed person during what is stated to be the most significant incident for gaseous RAW at Dukovany. (1) Is this the extent of the safety case or is the analysis more comprehensive? (2) Please describe what this analysis covers?	It is not clear to which part of the National Report this question refers to (there is no Chapter 8.5.1 on page 120). Chapter 8.5.1 starts on page 101 and contains brief description of selected parts of pre-operational safety case, which are related to RAW management at NPP Dukovany (example provided for liquid and gaseous RAW). The safety case is of course more comprehensive covering detailed assessments of the source term and separately description of solid, liquid and gaseous waste management systems, their operation and assessment of releases into the environment. The safety assessment of all waste management systems is included in the safety documentation submitted by the applicant for the license to manage RAW according to the conditions of Article 9 para 1 letter j of Atomic Act.
Gb-Cz-3	Article 19 also article 16	7.6.1.3.5 81	This section deals with regular evaluations by SÚJB of operations at SFSF Dukovany and refers to one planned inspection of the SFSF jointly with the ISFSF. Please provide further details of the form and content of this inspection.	The inspections are performed in a form of site visits. The inspectors are verifying the compliance of facilities' statuses with operational limits and conditions set up in documents approved by SÚJB (see p. 78 and 79/138 for ISFSF and p. 79 and 80/138 for SFSF) and the results of corrective actions from previous inspections (if applicable).
Gb-Cz-4	Article 20	5.3.2/40	The report states that SÚJB may impose penalties in the event of violations of a legal obligation. (1) What penalties are available for violations of legal obligations? (2) Have any enforcement actions of this sort taken place and can you please provide summary details of these cases?	Article 41 of Atomic Act provides details on penalties which shall be imposed by the Office (CZK 100 million on those who violate the prohibition on nuclear energy utilisation for other than peaceful purposes, CZK 50 million on a person performing activities under Article 9 para 1, without a licence CZK 10 million on a licensee violating an obligation defined under Articles 17 to 20...). For more details see www.sujb.cz/docs/SUJB_CR_Atomic_Act.pdf . For instance an enforcement action was implemented in the case when licensee (SÚRAO) performed his activities related to radioactive waste management (upgrade of disposal chamber) without a relevant

			<p>(3) If the answer to (2) is yes, what penalties were imposed?</p> <p>(4) Are there any other enforcement powers, for example through criminal courts, and have any enforcement actions taken place this way?</p>	<p>permission of the Office.</p> <p>In the above mentioned case the financial penalty was about 1000 EUR.</p> <p>Yes, Article 186 (Illegal manufacturing and possession of radioactive material and highly dangerous material), Para 1 of Criminal Code (412/2002 Coll.) declares: "Who manufactures, imports, takes through, exports, harbours or provides to others radioactive material or highly dangerous material or goods assigned to their production without permission, will be punished by imprisonment from one to five years, prohibition of activity or financial penalty."</p>
Gb-Cz-5	Article 21	6.3.1.7 /51	<p>The report states, "According to Section 39 of the Atomic Act, SÚJB is responsible for supervision of the licensee with respect to compliance with provisions of this Act, including the above quality assurance requirements. If deemed necessary, SÚJB may extend this task to cover its contractors". How would SÚJB to regulate the way in which its licensee controls contractors and sub-contractors and ensure its licensee maintains its responsibility for safety when it is using a contractor and when its contractors are using subcontractors?</p>	<p>SÚJB inspects according to Article 39 of Atomic Act license holder and his contractors which make and ensure activities relating to use of nuclear energy or radiation practice defined in the Atomic Act. License holder and his suppliers have to have implemented a system of quality assurance in such a way and scope which is determined by the Decree No. 132/2008 Coll. on Quality Assurance in Activities Related to the Utilisation of Nuclear Energy and in Radiation Activities. SÚJB inspects fulfillment of requirements on the quality system and quality assurance at contactors and subcontractors in compliance with requirements of Decree No. 132/2008 Coll. concerning so called selected equipments, i. e. equipments which are important from the viewpoint of nuclear and technical safety. They are divided into safety categories and are also controlled by SÚJB together with activities of authorized persons. Inspection activities of SÚJB are planed and their outputs are recorded and regularly evaluated.</p>
Gb-Cz-6	Article 25	6.5.2.5 /61	<p>This section deals with the responsibilities of SÚJB in response to extraordinary events. Is it envisaged that SÚJB will monitor the performance of the licensee during such an event, for example so that it may take enforcement action later if the licensee does not deal with the event adequately?</p>	<p>Yes, this is envisaged.</p>

Ukrajina (Ukraine) - 2

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
Ua-Cz-1	Article 10	7.7/84	<p>The chapter of the Report contains the term of construction of Deep Geological Repository in 2065 and disposal in it the SF after classification as Radwaste. Is it possible to provide more detailed information about procedures and criteria of such classification?</p> <p>As far as design terms of operation of ISFSF and SFSF will terminate until the construction of Deep Geological Repository how will the SF be stored after the termination of ISFSF and SFSF operation?</p>	<p>Article 24, para 3 of Atomic Act defines the procedure for the classification of SF as RAW: "Until a generator or the Office declares spent or irradiated fuel to be radioactive waste, its management, apart from the requirements arising out of other provisions of this Act, is subject to the same requirements as apply to radioactive waste. An owner of spent or irradiated fuel shall manage it in such a way as not to encumber the potential for subsequent conditioning."</p> <p>The expected lifetime of both ISFSF and SFSF Dukovany should be sufficient enough to reach the period after the commissioning of DGR (2065). The beginning of decommissioning activities is planned for the year 2070 (ISFSF Dukovany), 2073 (SFSF Dukovany) and 2084 (SFSF Temelín).</p>
Ua-Cz-2	Article 26	6.6/63	<p>What are the main provisions of Decommissioning Strategy for operating NPPs (in accordance with item 6.6.1 of the Report the licensing documents for nuclear installation must include 'concept of safe decommissioning')?</p>	<p>There are three main options for the decommissioning of both NPPs:</p> <ul style="list-style-type: none"> – immediate dismantling, – deferred dismantling (protective closure of reactors within reactor buildings), – deferred dismantling (protective closure of so called "nuclear island"; i. e. reactor buildings, auxiliary buildings, waste management facility, ...)

USA - 10

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
US-Cz-1	Article 6	7.7/84	The HLW storage facility UJV Rez is scheduled for decommissioning in 2045 and a disposal facility will not be available until after 2065. New storage facility construction or existing facility reconstruction will be required. What are the challenges preventing operation of a disposal facility by 2045?	The deep geological repository will be not available in 2045 and therefore following activities will be performed: In the adequate time period before the beginning of decommissioning of the HLW storage facility, the condition of the HLW storage facility will be assessed with regards to the extension of its operation period. The analysis will compare two options - the extension of operation period of existing HLW storage facility and construction of a new storage facility taking into account the future availability of DGR and the needs of UJV Rez. UJV Rez will apply for licence for reconstruction of the HLW storage facility to extend its operational period or the process of sitting, design and construction of a new storage facility will commence.
US-Cz-2	Article 10	7.7/84	During geologic surveys related to repository development, the mayors of the affected municipalities in the considered locations strongly opposed potential location of the DGR. Geologic surveys were discontinued in these locations until 2009. Please provide your expectations for continuing geologic surveys and public participation processes envisioned to gain support for siting a DGR in your national presentation in May 2009.	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 to geological survey in 2009. Investigation activities will be performed for following five years and in 2015, the choice of sites will be limited to at least two, using the results of geological survey. At present time more activities are focussed on public involvement projects. SÚRAO supports information background of the public in potential sites. An effort is devoted with ambition to increase the financial support to municipalities potentially affected by the site investigation programme, within the framework of the Atomic Act.
US-Cz-3	Article 12	12.9.4, /136	Pits and tailing ponds administered by the state enterprise DIAMO that have been closed due to the terminated mining activities have reclamation and redevelopment works under way. Please summarize on the reclamation activities.	The fundamental remediation activities are as follows: <ul style="list-style-type: none"> - remediation after in situ leach mining (affected in sum 266 million m³ groundwater), - remediation of the tailing ponds of the processing plants (in sum 19 ponds, 576 ha total area), - remediation, removing or reprocessing of the waste dumps (395 dumps, cap. 54 million m³), - long-term mine water treatment (in sum 14 water treatment plants, 15 million m³/year), - long-term maintenance and monitoring.

US-Cz-4	Article 20	5.3/36	The Report does not elaborate on how the Czech Republic evaluates and maintains adequate staffing levels and competence of their regulatory staff.	<p>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-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.</p> <p>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.</p>
US-Cz-5	Article 22	12.9.3/ 136	It is mentioned that "the state enterprise DIAMO has an adequate number of professionally qualified personnel" to ensure radiation protection and safety during management of materials from mining activities. What are the criteria to assess the number and appropriate technical competencies of "qualified personnel"? Are these criteria set by SUJB?	Yes, the criteria are set by SUJB or more precisely are given by the legal regulation e.g. Atomic Act. and Decree No. 146/1997 Coll., specifying activities directly affecting nuclear safety and activities especially important from radiation protection viewpoint, on requirements for qualification and professional training, on methods for verification of special professional competence and issue of authorizations to selected personnel, and the form of documentation to be approved for licensing of training of selected personnel, as enacted by Decree No. 315/2002 Coll. The number of professionally qualified personnel results from Article 27 of Decree No. 307/2002 Coll., on radiation protection.
US-Cz-6	Article 26	12.9.2/ 134	Is contamination in the environment resulting from mining activities considered within the scope and safety provisions of the Joint Convention? Please explain.	No, the environmental contamination resulting from mining activities is not considered within the scope of "Safety Provisions - Joint Convention (Article 21 - 26)" because it is not a matter of nuclear materials, nuclear installation or radioactive waste (see p. 15/138 of National Report). This issue is solved within the scope of the national mining and environmental legislation.

US-Cz-7	Article 27	9/119	Please clarify the policy on export of radioactive sources. Does the Czech Republic intend to adopt a Council Directive 2006/117/EURATOM of 12 November 2006 on supervision and control of shipments of radioactive waste and spent fuel? If not please explain.	Export of radionuclide sources is regulated by Decree No. 317/2002 Coll., Article 39 (see www.sujb.cz/docs/R307_02.pdf). A Council Directive 2006/117/EURATOM of 20 November 2006 has already been transposed into the Czech legal system (Decree No. 77/2009 Coll. enacting Decree No. 317/2002 Coll. – new Annex 6 with new forms used for the monitoring of RAW and SF shipments + Government Order No. 73/2009 Coll. on information exchange related to the international transport of RAW and SF; both legal documents are effective from 30 March 2009).
US-Cz-8	Article 28	10/120	Please elaborate on how the regulatory infrastructure addresses the safety of disposal, re-manufacture or recycle of disused sealed sources.	Disused sealed sources are by definition considered to be radioactive waste and therefore are subject of all requirement defined in Section III of Decree No. 307/2002 Coll. (RAW management; see www.sujb.cz/docs/R307_02.pdf). Safety of their disposal is addressed by Article 52 of this decree and by the requirements of the Atomic Act on waste disposal facilities (safety cases). Additionally management (incl. re-manufacturing or recycling) 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).
US-Cz-9	Article 28	10/120	What are "insignificant type - approved minor sources"?	Chapter 10 deals among others with the state system of accounting for ionizing radiation sources (data on ionizing radiation sources, except insignificant AND [missing in English translation of National report] type-approved minor sources, unless the license condition establish otherwise). Detailed information about insignificant and minor sources can be found in Article 6 and 7 of Decree No. 307/2002 Coll. (see www.sujb.cz/docs/R307_02.pdf).
US-Cz-10	Article 32	1/10	Constructing a stand-alone dry storage facility at the Temelín NPP site is cited as a 2008-2012 activity to improve safety. This facility was authorized for construction in August 2008. Trial operations are required no later than 2010 (page 72). In your national presentation in May 2009 please update construction progress.	Site preparation works have already been performed at the end of 2008. At the moment of preparation of the answers to Contracting Parties' questions (March 2009) the construction licence had been already issued by the SÚJB, construction permit had been issued by the Construction Department of the Ministry of Industry and Trade and the construction works have already started. Other planned milestones: April 2009 – finalisation of footing bottom construction June 2009 – basement and base plate construction September 2009 – construction of walls up to the level of crane railroad October 2009 – construction of walls up to the ties March 2010 – roof construction

				April 2010 – assembly of gantry cranes July 2010 – facility to be ready to accept first two casks
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