Otázky a odpovědi k Národní zprávě ČR 2024
(Questions and Answers to the National Report of the Czech Republic 2024)

Bulharsko (Bulgaria) – CG1

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
BG-CZ-1	Article 5	7.2.1.3. p. 91	Could additional information be provided regarding the storage of spent nuclear fuel (SNF) using the "dry storage" technology in CASTOR-440/84M and SKODA-440/84 casks? Have inspections of the SNF assemblies been conducted by removing them from the casks? If so, what were the reasons for these inspections? What changes were observed in the condition of the assemblies after storage? For what period were the assemblies stored before the inspections? Are there any documented results or analyses regarding the changes in the SNF assemblies during storage?	No, during the storage of SF in dry casks, no inspections of loaded SF are performed. It is expected that SF will be inspected after delivery to the repacking station of the DGR, before being placed in the disposal cask (after 2050). Except for a special experiment in the USA as part of the EPRI project, there is no known case of opening a dry SF storage system for inspections. An SF cask provides safe storage under stable conditions, even in the event of a fuel defect. Opening a single cask for inspection would not be representative of all fuel types, burnup levels and cooling times (answer by SÚJB/ONRV + ČEZ).

Polsko (Poland) – CG1

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
PL-CZ-1	Article 15	Section 8.5	Does Czech Republic law require a probabilistic safety assessment for non-reactor nuclear facilities?	No, see Article 48 of the Atomic Act - https://sujb.gov.cz/fileadmin/sujb/docs/legislativa/zakony/Act_263_2016_web_20220311.pdf (answer by SÚJB/ONRV).
PL-CZ-2	Article 8	Section 7.5	How often is a periodic safety assessment prepared for each facility?	Every 6 / 10 years – see Article 15 of Decree No. 162/2017 Coll. (https://sujb.gov.cz/fileadmin/sujb/docs/legislativa/vyhlasky/Decree_162_2017_20220309.pdf) (answer by SÚJB/ONRV).
PL-CZ-3	Article 25	Section 6.5.2.2, p. 77	Did SUJB play any role in the process of creating a standard plan for the radiation accident? If so, what was the role? If not, why?	SÚJB was the developer of the plan and has collaborated with relevant bodies in its preparation. The Radiation Accident Type Plan (as well as all ministerial type plans for dealing with emergencies) is publicly available in Czech language (answer by SÚJB/OMKŘ).
PL-CZ-4	Article 20.1	Section 5.3.4, p. 54	Does SUJB see the need to hire new personnel with plans to build new nuclear facilities in Czech Republic?	Yes, it does. Since there are plans to build new nuclear power units all over the country, the SÚJB will get 52 new professional positions between 2025 and 2027 (answer by SÚJB/KÚ).
PL-CZ-5	Article 19	Section 5.2.2 p. 44	How often does SUJB perform inspections at different types of installations? Are they done periodically or after certain conditions arise e.g. modification of the facility?	See Section 5.2.2, p. 44 of the National Report. Inspections are performed periodically and if needed when certain conditions arise (answer by SÚJB/ONRV).
PL-CZ-6	Article 32	Section 4.1	What is the total activity of radioactive waste at each facility?	There is no RAW in SF pools at NPPs and RR sites. No RAW is either stored in SF stores at NPPs sites. The total SF activity in each of SF storage facilities at NPPs sites is in the order of 10^{18} – 10^{19} Bq. The total SF activity in Building No. 211/8 - HAW Storage Facility at UJV Řež site is less than 10^{16} Bq and the total RAW activity is around 5.10^{11} Bq (answer by SÚJB/ONRV).
PL-CZ-7	Article 32	Section 4.1	This section of the document does not include a description of the material in spent fuel. / par. 2	Yes, it does. From the types of used casks for SF storage it is obvious, that in SF storage facilities it is stored either SF from VVER-440 units (cask types CASTOR 440/84, CASTOR 440/84M,…), or VVER-1000 units (cask types CASTOR 1000/19, CASTOR 1000/19M,…). Each type of cask is approved for certain type of spent fuel assemblies, which is

				recorded in the SÚJB cask type approval (answer by SÚJB/ONRV + ČEZ).
PL-CZ-8	Article 3	Section 3 p. 20	With increased interest in nuclear energy and plans to build new nuclear power plants, the demand for nuclear fuel will increase. Do you see a need to update the policy in the near future to anticipate the reprocessing of spent fuel?	The next update of the Policy is currently being prepared with a planned submission to the Government and the SEA process to be carried out in 2025. The Policy does not exclude the option of SF reprocessing, but NPPs operator does not consider SF reprocessing for realistic option how to manage SF in the future. Reprocessing could be the option providing that the future economic and political situation will change. (answer by SÚJB/ONRV+ČEZ).
PL-CZ-9	Article 32	Section 2.2.1 p. 18	This section of the report provides information on main sources of liquid and solid RAW. What are the main sources of gaseous radioactive waste?	Gaseous RAW is considered to be air from active process circuits or from rooms within the controlled area of the NPP. This air is contaminated with radioactive gases and aerosols and its expected activity level prevents uncontrolled release to the environment. The main source of gaseous RAW is the ventilation of rooms and tanks with active liquid within the controlled area.The disposal of gaseous RAW is further described in Sections 4.2.1.3 and 4.2.2.3. In general the sources of gaseous radioactive waste in nuclear power plants are: 1. Reactor Coolant System: During the operation of a nuclear reactor, radioactive isotopes such as noble gases (e.g., xenon and krypton) and tritium are produced as by-products of nuclear fission. These isotopes can become entrained in the reactor coolant and are subsequently released into the gaseous waste stream during venting or processing. 2. Airborne Contaminants from Fuel Cladding Defects: If there are defects in the fuel cladding, fission products such as noble gases, iodine isotopes, and particulates can escape into the reactor coolant and subsequently into the gaseous waste system. 3. Containment Ventilation Systems: Air from areas within the plant where radioactive materials are handled (e.g., reactor containment, spent fuel storage pools) may become contaminated with airborne radioactive particles or gases. 4. Spent Fuel Handling: When SF is handled or stored in pools, radioactive gases such as tritium and noble gases can be released into the surrounding atmosphere. 5. Radioactive Decay of Coolant Contaminants: Radionuclides in the reactor coolant or auxiliary systems may decay into gaseous forms, contributing to the gaseous waste. 6. Maintenance and Operational Activities: Activities such as valve or system venting, maintenance of contaminated equipment, or flushing of systems can release gaseous radioactive materials into the plant's ventilation system. 7. Leaks from Systems and Components: Small leaks in systems containing radioactive materials, such as the reactor coolant system, can introduce radioactive gases into the plant environment. (answer by ČEZ + SÚJB/ONRV - AI)

PL-CZ-10	Article 32	Section 2.2 p. 14	In what situation the indicator is allowed to be below 1? If the value is less than 1, what action can be taken to ensure sufficient disposal capacity?	The total disposal volume of the facility is one from the limits given by basic document – operational limits and conditions. The information about filling of the disposal space is reported annually to the regulatory body. Actions to ensure sufficient capacity consist in preparation and implementation of projects for reconstruction of already existing chambers in the facilities. The projects are included in the annual and long-term activity plans of SÚRAO. See also Section 12.5 of the National Report (answer by SÚRAO).
PL-CZ-11	Planned Activities	Summary p. 8	Can you elaborate on the topic of activities improving the safety of the management of SF and RAW in period 2021-2024? What steps have been taken?	See Section 11 of the National Report (answer by SÚJB/ONRV).

SRN (Germany) – CG2

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
DE-CZ-1	Article 5	Section 1 p.41	You mention in the report that one aim is to simplify and streamline licensing processes and regulatory requirements to enable the construction of new NPPs. How do you plan for the amount of waste that will have to be disposed of in a future DGR while continuing to produce waste with new NPPs, especially considering possible delays in construction and planning of a DGR?	New NPP units and their RAW production will be considered in the current inventory update. This is done before the final site for the DGR is selected (by 2028). The total volume of the inventory has an impact on the capacity of the DGR (answer by SÚRAO).
DE-CZ-2	Article 5	Section 1 p.87	Who are the experts making up the Advisory Panel? How is their independence ensured? As this is the second advisory panel of experts: were there any learnings and/or changes implemented from the first expert panel? Is waste management included in the responsibilities of the Advisory Panel?	The Expert Panel is composed of 9 independent experts nominated by all relevant stakeholders, including regions and municipalities. The independence is guaranteed by no connection and participation of experts in any other SURAO project in the site selection process. The Advisory Panel I. brought important insights: the participation of additional experts, participation from the beginning of the detailed site characterization, strong relationship with the regulatory body (answer by SÚRAO).
DE-CZ-3	Article 5	Section 1 p.40	The report mentions the plan to reflect on the current requirements of the Aarhus Convention and to strengthen transparency and public participation. What specific measures are you planning to implement to achieve this goal?	Public participation is ensured by the possibility of participation in local working groups, by observers in the expert panel and by special procedures based on Act No. 53/2024 Coll.

RF – CG2

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
RF-CZ-1	Article 32	p.18	What SNF storage options are currently provided at the sites of SNF producer? Which of the two SNF storage options, i.e., “dry” or “wet” storage, is mainly applied? How much SNF is generated on average per year?	See Sections 4.1.1 and 4.1.2 of the National Report. The annual production of SF at the Temelín NPP is about 20 tons per reactor unit and at the Dukovany NPP about 34 tons for all 4 reactor units (answer by SÚJB/ONRV + ČEZ).
RF-CZ-2	Article 32	p.152	What management options are expected for intermediate- and high-level waste (table 12.6)?	As stated in the table 12.6 all RAW not meeting WAC of operated RAW disposal facilities will be disposed in DGR, which is currently under development. It is assumed that large solid RAW from operation and decommissioning of the NPPs will be fragmented into a form suitable for disposal in DGR and disposed of in the concrete containers (answer by SÚJB/ONRV + ČEZ).
RF-CZ-3	Article 32	p.157	Do you consider the processing (fragmentation) option for NPP steam generators with expired service life?	Yes, decommissioning plans of both NPPs consider fragmentation of large NPP components, incl. steam generators. The expected service life of NPP steam generators is until 2060+. Their fragmentation will be done together with fragmentation of the rest of active technology in NPP radiation-controlled area during the NPP decommissioning process. The decommissioning plans for NPP are regularly updated by ČEZ and approved by SÚJB. (answer by SÚJB/ONRV + ČEZ).
RF-CZ-4	Article 32	Section 2.2	What is the expected design capacity (in terms of SNF and RW disposal volume) of the deep geological repository which will be ready for operation by 2050?	The capacity will reflect the requirement of State Policy of Radioactive Waste and Spent Fuel Management. Currently it takes into account operation of current NPP and 3 new sources, meaning 9500 t of SF and

				4500 m^3 of other waste. The Policy is now in process of update and numbers will be changed based on current requirements. See Section 7.7 of the National Report (answer by SÚRAO + SÚJB/ONRV).
RF-CZ-5	Article 32	Section 2.1	What key changes have been made to Czech legislation since the adoption of the Atomic Energy Act No. 263/2016 to improve SNF and radioactive waste management?	Since the entry into force of Act No. 263/2016 Coll., the Atomic Act (1. 1. 2017), there have been no changes in the field of radioactive waste and spent fuel management. The first change will occur with the amendment to the Atomic Act, which will take effect on July 1, 2025. In the field of SNF and radioactive waste management key change is connected to the so-called nuclear account. The Nuclear Account is a key financial mechanism ensuring the long-term sustainability and safety of radioactive waste disposal in the Czech Republic. The amendment to the Atomic Act introduces a new system for determining fees, making the financial contributions more flexible and responsive to inflation and rising costs associated with DGR construction and waste disposal. Until now, the rate of regular fees paid into the Nuclear Account (which must be paid by operators of nuclear energy facilities and nuclear research facilities) was set as a fixed statutory amount: – 55 CZK per megawatt-hour (MWh) of electricity produced for operators of nuclear energy facilities. – 30 CZK per MWh for operators of nuclear research facilities. Under the new more flexible system (amendment to Section 122), which will come into effect since 1. 1. 2026, these fees will be determined on a regular five-year cycle. The maximum rate (120 and 80 CZK) will be set by law, but the exact amount for each five-year period will be determined by the government through its regulation –amendment to Government Regulation No. 35/2017 Sb., which establishes the rate of the one-time fee for the disposal of radioactive waste and the amount of contributions from the nuclear account to municipalities, as well as the rules for their provision. The law now explicitly stipulates that when determining the specific amount of the fee, the government must take into account the following factors in its regulation: a) The current estimated costs for the construction and operation of radioactive waste disposal facilities. b) The current financial balance of the Nuclear Account, including the value of investment instruments acquired using Nuclear Account funds. c) The expected energy production from nuclear facilities, based on the State Energy Policy. These criteria ensure that the fee structure remains responsive to economic conditions, nuclear waste management needs, and long-term financial sustainability of the Nuclear Account.

				Unlike the other part of the amendment this rule is expected to take effect on January 1, 2026, when a new, higher fee rate will come into force. The amendment to the Atomic Act is also accompanied by amendments to its implementing legal regulations. As a result, a minor technical amendment to Decree No. 377/2016 Coll., on the requirements for the safe management of radioactive waste and on the decommissioning of nuclear installations or category III or IV workplaces, will take effect in mid-2025. However, these changes do not introduce any significant modifications to the regulation of radioactive waste and spent fuel management. In addition to the amendment to the Atomic Act, a special law—Act No. 53/2024 Sb., on proceedings related to the deep geological repository for radioactive waste—came into effect on July 1, 2024. This law enhances public participation in the site selection process for the deep geological repository (DGR) by establishing special procedures for its preparation, construction, and operation. It also defines how the interests of municipalities—which are entitled to contributions from the nuclear account under the Atomic Act—and their citizens are safeguarded throughout the process (answer by SÚJB/PrO).
RF-CZ-6	Article 32	Section 4	Will additional safety measures be applied when increasing the capacity of ISFSF and SFSF at Dukovany NPP?	The dual-purpose metal cask is one of the safest storage technologies, robust and reliable. Each cask passively performs all security functions. All casks are constantly monitored. The same safe technology is expected to be used for the increased capacity of SFSF. Additional safety measures are not anticipated unless specifically required (answer by ČEZ).

Rakousko (Austria) – CG2

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
AT-CZ-1	Article 19	Section 5.2.1 p. 41	In your report, you mention that an amendment to the Atomic Act will enter into force on 1 January 2025. Among others, the amendments pertain to "[...] - reflecting on the current requirements for proper implementation of the Aarhus Convention and overall strengthening of transparency and public participation in the processes envisaged by the Atomic Energy Act, - [...] - reflecting on current practical knowledge and correcting shortcomings of the legislation that have been identified during the five years of application since its entry into force in 2017,[...]". Can you 1) give further information on the shortcomings you have identified, and 2) on the changes and improvements regarding transparency and public participation?	From the perspective of cases reviewed by the Aarhus Compliance Committee (ACC), inadequate public information and participation in processes related to the licensing of nuclear facilities has been identified as problematic. This issue is particularly relevant in cases of extending the operation license of existing facilities, where no construction work takes place and, as a result, no other administrative proceedings occur apart from those under the Atomic Act. The amendment to the Atomic Act, which is set to come into effect on July 1, 2025, directly responds to these issues. Additionally, according to the ACC's conclusions, the lack of public involvement in the Periodic Safety Review (PSR) process was also seen as problematic. The new wording of Section 19 (1) aims to ensure that proceedings where it is appropriate are opened to the possible public participation.

				Broader public participation is therefore allowed in cases where environmental impacts may occur, while ensuring that this does not lead to redundancies or excessive administrative burdens through multiple assessments of the same interests by different authorities. If a parallel proceeding is conducted for the same project—alongside the proceeding under the Atomic Act—such as a construction proceeding following an EIA process, then environmental interests are already safeguarded in that process. In such cases, SÚJB submits a statement/opinion (§ 208 and 228), which reflects its protected interests and serves as a material equivalent to its permit. Through participation in this parallel proceeding, the public can also express opinions on matters protected under the Atomic Act, which has historically been the case. In these situations, the new legal text applies: "if the activity is subject to proceedings under another legal regulation"—meaning that in such cases, exclusive participation remains in place, as public interests are already represented through the parallel proceeding (e.g., a construction permit process). However, in cases where no EIA or other process allowing public participation is conducted, exclusive participation could violate the Aarhus Convention. This is because decisions on project modifications with potential environmental impacts (not all of which require an EIA) could be made without allowing public participation in the decision-making process. To address this, the new law introduces an exception, stating that in such cases, exclusive participation of the applicant does not apply. Instead, standard legal participation rules in administrative proceedings will be used, ensuring that the public can be involved when relevant environmental impacts are at stake. Moreover, the new wording of Section 28(1)(a) requires the publication of information on initiated proceedings concerning the use of nuclear energy. Such proceedings may have significant environmental impacts and are typically of interest to non-governmental organizations (NGOs) and the public. The publication of this information allows interested parties to determine whether their rights or the environment might be affected and to exercise their rights—either in proceedings conducted by SÚJB (as per the newly proposed participation rules) or in other parallel processes. At the same time, by increasing public awareness, access to information becomes more straightforward. The public will more easily be able to request information, consult with SÚJB or other institutions, and even contact the applicant for a license, such as a nuclear facility operator. Another enhancement of transparency is the introduction of an explicit rule in Section 28(1)(f), which establishes the obligation to publish the results of the Periodic Safety Review (PSR). The publication of information on a completed periodic safety review aims to allow the public to assess the situation. If the public identifies the need

				for related follow-up formal processes, they will have the ability to initiate them with SÚJB. Additionally, Section 49(1)(w) explicitly establishes the obligation for license holders to inform the public, in a manner that allows remote access, about events significant to nuclear safety, radiation protection, technical safety, radiation monitoring, management of radiation emergencies, and security measures. This obligation applies to events that occur during the performance of licensed activities, ensuring greater transparency and public awareness in matters related to nuclear and radiation safety (answer by SÚJB/PrO).

Slovensko (Slovakia) – CG3

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
SK-CZ-1	Article 32.2.2	Section 8 on pages 111, 116, 117, 128, 130 and 131	For disposal facilities Bratrstvi, Richard, Hostim a drainage system for the removal of groundwater and wastewater is mentioned. Is it possible to provide information on the volumes of water involved and whether any treatment is required before releasing it into the environment?	The volume of water in the drainage systems of the Dukovany and Richard disposal facilities varies depending on precipitation. Mine water in the Bratrství disposal facility is drained from the disposal chambers into the old mine shaft. There is no drainage system in the closed Hostim disposal facility. Water (drainage, mine water, surface, hydrological wells) is sampled for radiological control (weekly, monthly, quarterly). The monitoring system, intervention limits and actions are specified in the monitoring program approved by the regulatory authority (answer by SÚRAO).
SK-CZ-2	Article 11	Section 8.2.3.4 p. 113	The Hostim disposal facility was closed in 1997. The last hydrogeological monitoring at this site was conducted in 1990-1991. Has any monitoring of groundwater and surface water been conducted since then?	No such a statement is provided in the National Report! In 1990-1991 a hydrogeological monitoring system was developed and it is operated by SÚRAO since then. Since 1997 SÚRAO performs radiological monitoring by the sampling of groundwater and surface waters in the vicinity. (answer by SÚJB/ONRV + SÚRAO).
SK-CZ-3	Article 11	Section 8.5.3.4 p. 125	Has the monitoring by SURAO already started, if not, when will it begin? What is the scope of this monitoring?	In Section 8.5.3.4 of the National Repot it is clearly stated, that “The monitoring program approved by SUJB determines the annual period of surface and underground water control. SÚRAO will monitor the site for at least another 50 years” (answer by SÚJB/ONRV).
SK-CZ-4	Article 24	Sections 8.5.1, 8.5.2 and 8.5.3, p. 120-125	On what basis were the scenarios determined for the impact of barrier damage or unexpected events at individual disposal facilities and their effects on the environment and the population?	The barrier degradation scenarios were defined on the basis of the normal evolution scenario of the disposal facility, alternative evolution scenarios and what if scenarios were also included. The scenarios were derived on the basis of the list of FEPs, relevant to the disposal facility site (answer by SÚRAO).
SK-CZ-5	Article 15	Section 8.5.3, p. 123	Do individual repository aging management programs also include aging managed of packaging files? For which other systems, structures and components is this program implemented?	No, as the packages do not have any safety function from the moment of their disposal into disposal vaults or chambers. Ageing management program consider RAW matrix, backfill, vault insulation, drainage system, etc. This program is the part of the documentation approved and controlled by the regulatory body (answer by SÚJB/ONRV + SÚRAO).
SK-CZ-6	Article 28	Section 10, p. 140 and 142	Table 10.1 and Table 10.2 have the same title, but the data therein are different. Are these tables identical?	No, tables do not have the same title and are different, read carefully! Table 10.1 contain inventory of disposed sources and Table 10.2 the inventory of stored sources in disposal facility Richard. For further details, see Section 10 of the National Report (answer by SÚJB/ONRV).
SK-CZ-7	Article 32.2.2	Section 8.2.3.1 p. 110, figure 8.1	Is the storage of barrels in the Richard and Bratrstvi disposal facilities in a horizontal position, or is it a top-down view into a vault with barrels containing fixed radioactive waste?	In the Disposal Facility Richard stored packages with RAW are placed in vertical position, Fig. 8.1 shows disposed packages. No RAW is stored in Disposal Facility Bratrství and disposed packages are also placed vertically, see Fig. 8.2 in the National Report (answer by SÚJB/ONRV).
SK-CZ-8	Article 10	Section 7.7. p. 103-104	Regarding the siting of the DGR, local communities around selected sites may fear the potential risks associated with radioactive waste, such as perceived risks from accidents, environmental concerns (e.g., contamination of water sources), or economic impacts. Have the issues of public acceptance been addressed in these communities?	The Czech Republic has adopted a science-based approach to DGR siting. Communication and public concerns are mainly focused on issues related to the DGR construction, groundwater quality and environmental changes. The public is regularly informed about the activities related to the siting process of the DGR (answer by SÚRAO).
SK-CZ-9	Article 6	Section 6.5.2.3., p. 80	How does the National Radiation Emergency Plan deal with accidents that may threaten the territory of the Czech Republic but occur across borders?	Radioactive contamination of the territory of Czech Republic occurring as the result of radiation accident across borders falls under the threat category E according to National Radiation Emergency Plan.

				The radiation monitoring system on the territory of the Czech Republic would indicate increased radiation levels. The protective actions to be taken into account, would be the same as in the case of radiation accident on the territory of the Czech Republic with impacts outside the emergency planning zone of the nuclear facility. The most likely scenario would be to introduce sheltering of the population and restriction of the use of local food and agricultural products. Other regime measures may be proposed by SÚJB for the affected area (answer by SÚJB/OMKŘ).
SK-CZ-10	General	General	The report does not mention the method of ensuring the protection of the disposal facilities - Richard, Bratrství and Hostim How is the protection ensured at these disposal facilities?	Unclear question. What is meant by "protection"? If physical protection, keep in mind that the JC objectives do not cover physical protection. Additionally all details of physical protection arrangements on site are confidential. Besides it the physical protection is ensured according to the corresponding legislative and controlled by the regulator. (answer by SÚJB/ONRV + SÚRAO).
SK-CZ-11	Article 32.1.1	Summary, p. 8	The long-term storage of spent fuel from all operated NPPs at the territory of the Czech Republic complies with the adopted government policy using type-approved casks placed in dry spent fuel storage facilities at NPP Dukovany and NPP Temelín sites. Could you please explain what factors influenced the building of two separate facilities for the long-term storage for spent fuel instead of one centralized facility?	The Czech Republic has chosen to build separate spent fuel storage facilities at the Dukovany and Temelín NPP sites, rather than a centralized facility, for several key reasons: 1. Risk reduction: Building storage facilities at each individual nuclear power plant significantly reduces operational risks associated with transporting spent fuel casks over long distances. 2. Operational simplicity: On-site storage simplifies the processes of storage, maintenance, and periodic controls, as NPP personnel can be utilized for all required operations. 3. Technological compatibility: Both NPPs use different types of fuel and respective types of casks. The storage facilities are designed to be compatible with each plant's specific technology. 4. Government policy alignment: The construction of spent fuel storage facilities at NPP sites follows the Czech Government Decree No. 121/1997, which recommended building such facilities at the sites of operated NPPs. 5. Environmental considerations: Utilizing existing NPP sites for spent fuel storage eliminates the need to intervene in untouched landscapes, which would be necessary for a centralized facility. 6. Capacity planning: The storage facilities at Dukovany and Temelín have been designed with sufficient capacity to accommodate spent fuel for several decades of each plant's operation. While these factors have influenced the decision to build separate facilities, it's worth noting that centralized spent fuel storage remains a potential future option for long-term storage in the Czech Republic. The current approach is consistent with the country's adopted government policy on radioactive waste and spent fuel management, which prioritizes safe, efficient and environmentally sound solutions (answer by ČEZ).
SK-CZ-12	Article 32	Section 4.1.1.3 p. 23	The spent fuel storage facility (SFSF Dukovany) at NPP Dukovany has an anticipated capacity sufficient until 2030. The operation of NPP Dukovany units is planned until this year as well. Will the storage facility's capacity suffice in case when the operation of NPP Dukovany units is extended to 60 years?	The operation of NPP Dukovany is currently planned until 2045-47, i.e. for 60 y. The current capacity of the SFSF Dukovany is sufficient for the fuel delivered to the NPP units until 2032, but the storage itself will be full of this fuel around 2043. Therefore, it is necessary to build a new storage facility on the NPP site to accommodate all the SF produced during the

				extended operation of the NPP. (see Table 1.2 of the National Report) (answer by SÚJB/ONRV + ČEZ).
SK-CZ-13	Article 32	Section 4.2.3.1 p. 34 and p. 35	Table 4.5 and Table 4.6 have the same title, but the data therein are different. Could you please clarify whether these tables are identical?	No, tables do not have the same title and are different, read carefully! Table 4.5 contain inventory of disposed RAW and Table 4.6 the inventory of stored RAW. For further details see Section 4.2.3.1 of the National Report (answer by SÚJB/ONRV).
SK-CZ-14	Article 6	Section 6.5.2.2. p. 76	How does the Ministry of the Environment ensure forecasts of the development of the meteorological situation and the spread of radioactive substances?	Institute (ČHMÚ), which is under the Ministry of the Environment, on the basis of a contract with SÚJB. ČHMÚ calculates forecasts using its own calculation code, performs these forecasts on a weekly basis for both Czech nuclear power plants and sends them to SÚJB. In the event of a radiological accident, they will calculate the forecasts as necessary at the request of the SÚJB (answer by SÚJB/OMKŘ).

Čína (China) – CG3

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
CN-CZ-1	Article 32	Section 2.2.1 p. 18 para 6	The report mentions that some organisations in Czech Republic hold licenses to provide processing services for other waste producers. Please introduce examples of which organisations have processing licenses except ÚJV Řež, a. s. and specific processing examples.	For list of licensed companies processing RAW see Section 1 of the National Report and the table at the end of the annual RAW management report on https://sujb.gov.cz/fileadmin/sujb/docs/jaderna-bezpecnost/nakladani-s-rao/Hosp_RAO_2023.pdf (2023, in Czech only). The used technologies compromise of e.g. evaporation and conditioning in cement matrix (answer by SÚJB/ONRV).
CN-CZ-2	Article 32	Section 4.2.1.1.1 p. 27 para 5	The report mentions that intermediate level radioactive waste which fail to meet the waste acceptance criteria for disposal in RAW disposal facility, centralized temporary storage is adopted, and its final treatment and disposal will be addressed within the NPP decommissioning process. Please explain the temporary storage requirements for intermediate level radioactive waste, such as packaging, monitoring, environment, etc., and introduce the regulatory requirements for long-term temporary storage of intermediate level radioactive waste in NPP.	The report does not state, that there is a “centralized temporary storage” for ILW not meeting the WAC for disposal in existing disposal facilities. RAW which cannot be currently disposed is stored in NPPs premises dedicated for this purpose. Regulatory requirements for the storage of RAW are set up in Decree No. 377/2016 Coll., especially in para 6. The facility has its own monitoring program in compliance with Decree No. 422/2016 Coll. (answer by SÚJB/ONRV).
CN-CZ-3	Article 12	Section 8.2.1.1 p. 107 para 4	The report mentions that the objective of using "media" to treat radioactive liquid waste is to concentrate radioactive substances to minimize waste, and the cleaned media are reused in NPP. Please briefly describe the treatment process and material types used for "media".	The report does not state, that “the objective of using "media" to treat radioactive liquid waste is to concentrate radioactive substances to minimize waste”. The term “media” refers to contaminated water from different NPP’s systems, which have to be cleaned and re-used. The residual material is then managed as RAW. The system for treatment of liquid radioactive media at both NPPs is briefly described in Sections 8.2.1.1. and 8.2.2.1. of the National Report (answer by SÚJB/ONRV).
CN-CZ-4	Article 12	Section 8.2.2.2 p. 109 para 3-4	The report mentions that the bitumen solidification used in liquid RAW and for sludge and ion exchange resin, mobile equipment is used for processing. Please briefly describe the safety considerations and regulatory requirements for bitumen solidification and mobile processing equipment.	The regulatory requirements for bitumen solidification are provided in Article 5 of Decree No. 377/2016 Coll. and for mobile processing equipment in Article 2 para 5 of the same decree (see https://sujb.gov.cz/fileadmin/sujb/docs/legislativa/vyhlasky/377_Radioactive_Waste.pdf). The safety considerations for bitumen solidification and mobile processing equipment are provided in NPPs´ internal operational guides (answer by SÚJB/ONRV).
CN-CZ-5	Article 28	Section 10 p. 41 para 7	The report mentions that disused sealed sources which fail to meet acceptance criteria for disposal and are stored in a separate premises in the disposal facility. Please describe the specific requirements for the	There are no special requirements for the storage rooms. DSS is stored in waste packages of defined characteristics in storage chambers at the

			separate premises, including requirements for shielding, safety, and waste packaging, as well as whether further conditioning will be carried out on the above-mentioned disused sealed sources to meet the disposal acceptance criteria.	Richard disposal facility. The waste packages are placed in steel racks to facilitate visual inspection and manipulation if required. The conditions of the waste package are given by the Waste Acceptance Criteria for storage. WAC are described in the document approved by the regulatory body and it is not a publicly available document. Only solid/solidified waste is stored. The criteria include durability (material) of the waste package, surface dose rate, labeling of packages, weight, and surface contamination level (answer by SÚRAO).
CN-CZ-6	Article 32	Summary	Report 2.2 Introduction: The Czech Republic has established key performance indicators for radioactive waste, including the available disposal capacity for low - and intermediate - level radioactive waste. This indicator is calculated as the ratio of the available disposal capacity in the operating disposal facilities to the amount of low - and intermediate - level radioactive waste generated in the next ten years. Please give an example to introduce the calculation method of this indicator, including the disposal capacity standards of operating disposal facilities, the estimation methods of waste generation in power plants in the next ten years, and the temporary measures to be taken when the indicator is less than 1.	Here is the example of KPI for Disposal facility Dukovany: The KPI value for ÚRAO Dukovany is higher than 1 for the years 2024-2033, so no further measures need to be taken. The existing available disposal capacity of disposal facility Dukovany covers the expected production of radioactive waste from the existing six units at the Temelín (ETE) and Dukovany (EDU) nuclear power plants for the entire anticipated operational period (60 years), including the expected RAO generated from the decommissioning of these nuclear facilities. Calculations indicate that capacity will also be available for one new nuclear power source (most likely EDU 5 or multiple SMRs) or for further extension of the operation of existing units beyond 60 years, which is under consideration for the reactors at ETE. Preliminary calculations suggest that the capacity of ÚRAO Dukovany is sufficient for the entire lifecycle operation of one new large nuclear source (see also the 2019 Concept). During the last five years of nuclear power plant operation (2019-2023), the amount of stored waste has never exceeded the expected annual production (350 m^3) of generated waste, suggesting that additional available capacity can be identified. Since the start of operation in 1995, the current capacity of the disposal facility Dukovany has been used only up to 25% (double rows C and D: row D is 100% filled, and RAO storage in row C started in mid-2023; double rows A and B: both rows A and B remain unfilled) (answer by SÚRAO).
CN-CZ-7	Article 32.2.2	Section 4.2.1.2.1	Report 4.2.1.2.1 Introduction to Liquid Radioactive Waste Management Facilities: 45.8 tons of radioactive sludge was treated in 2019. Please introduce the radioactivity level, classification, storage, and treatment methods of the sludge from operating power plants.	It was sludge accumulated in the storage tank for radioactive concentrate 0TW10B04 during 30 years of NPP operation. The volume of the tank is 550 m3. It was low-level sludge that was pumped directly into 200-liter drums, where it was fixed in a geopolymer matrix. It was then disposed of in the disposal facility Dukovany. The average activity of the sludge is $2{,}10^5$ Bq/kg (answer by ČEZ).
CN-CZ-8	Article 32.2.1	Section 4.2.1.1.1. p. 26	It is mentioned in the report that collection points are equipped with polyethylene bags and metal boxes for collecting small - sized metal waste. Solid radioactive waste with a dose - equivalent rate greater than 1 mSv/h is collected in shielded boxes. The collected waste is transported from the collection points to the waste treatment plant. Please introduce the management measures for large - sized metal waste, the treatment processes of metal waste, and if the melting decontamination process is adopted, please introduce the metal products after melting and the industries using them.	Each large-sized metal waste item is handled individually. Generally, the maximum size of this type of RAW is 110x35x35 cm. The melting is used for the volume reduction of metallic RAW. It is performed abroad in compliance with the WAC for the meltimng facility (Sweden). The contaminated slug is returned back to the Czech Republic for disposal. The metal ingots are free released to the market as a commodity (in Sweden after taking ownership) (answer by ČEZ).
CN-CZ-9	Article 32.2.1	Table 4.9	Table 4.9 in the report, "Inventory of the Hostim Radioactive Waste Disposal Facility - Radioactivity Information in 1991", includes nuclides	The radionuclide inventory was taken from the archived waste records of the former operator of the facility. After the decision on the final closure

			such as ^{3}H, ^{14}C, ^{90}Sr, ^{63}Ni, ^{147}Pm. Please introduce information such as the methods of obtaining radioactivity of these nuclides and calculation methods.	of the facility, only very low level waste (as mentioned in the National Report) was left on the site. Most of the LLW was transferred to the disposal facility Richard. The most commonly available radiological methods were used to characterize the waste. (answer by ČEZ).

Maďarsko (Hungary) – CG3

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
HU-CZ-1	Article 32	Page 27	What type of radioactive wastes are incinerated? Is there a designated incinerator for the radioactive wastes?	As stated in Section 9 of the National Report, incinerable RAW is transported to incineration facilities abroad (Sweden, Slovakia) as there is no designated RAW incinerator in the Czech Republic. The type of incinerated RAW has to comply with WAC of these incineration facilities. Suitable incinerable waste includes contaminated fabric (work clothes, gloves, rags), paper, cardboard, protective footwear, leather, wood, air filter liners and foils. The selection of the incineration facility is based on a public procurement procedure (answer by SÚJB/ONRV + ČEZ**).**
HU-CZ-2	Article 32	Page 27	How is treated the powder from waste, which comes from incineration? What type of waste treatment technology is applied to ensure the final disposal requirements and when is applied?	RAW, which comes from incineration (ash), is directly disposed as solid RAW in compliance with WAC of RAW Disposal Facility Dukovany (answer by SÚJB/ONRV)**.**
HU-CZ-3	Article 28	Page 142	What type of storage system is used for the storage of the sealed and unsealed radiation sources?	Used sources complying with WAC of operated disposal facilities are disposed there or stored in storage chamber of disposal facility Richard. The waste packages are placed in the steel stands, which allow visual control and manipulation if necessary. The characteristics of the waste package are given by the WAC. Only solid/solidified waste may be stored in the Richard disposal facility.Used sources not complying with WAC of operated disposal facilities are stored in the premises of licensees for RAW management until their further management (re-cycling, disposal in DGR, …) (answer by SÚJB/ONRV + SÚRAO).
HU-CZ-4	Article 4	(v)	How many leaking fuel assemblies have been identified in the VVER 440 nuclear power plants since their commissioning?	There are 5 FAs declared as damaged (1 mechanically, 4 leaky) in NPP Dukovany SF pools (answer by SÚJB/ONRV).
HU-CZ-5	Article 4	(v)	How many leaking fuel assemblies are expected to be identified during the lifetime of the VVER 440 nuclear power plants?	It is not expected that there will be substantially more leaky SF assemblies than currently stored in NPP Dukovany storage pools. Their further management will be performed prior to the decommissioning of NPP Dukovany (after 2045-47). To date, the small number of leaking fuels has not necessitated their disposal. Based on the operating experience, the number of leaking assemblies is expected to be very low until the end of operation (answer by SÚJB/ONRV + ČEZ).
HU-CZ-6	Article 4	(v)	How are leaking fuel assemblies from VVER440 power plants stored and how are they disposed permanently?	All leaky SF assemblies are stored in the SF pools (next to the reactors). Only one assembly is stored in the closed capsule and the others (very low leakage rate identified) are in standard open positions. At the end of the NPP operation, a special cask will be required to safely transport the leaking assemblies to the DGR**.** See also Section 4.1.1.1 (p. 22) of the National Report. Leaky SF assemblies will be disposed in DGR (answer by ČEZ + SÚJB/ONRV).

Arménsko (Armenia) – CG4

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
AR-CZ-1	General	N/A	How is aging management and LTO conducted for spent nuclear fuel facilities? Are the SNF assemblies and casks are subject for aging management and LTO? Are these casks regularly monitored? Additionally, is there a requirement for re-assessment of SNF facilities due to changes in nuclear fuel type?	Aging management for SNF systems (including casks) is performed similarly to the rest of the NPP in accordance with Decree No. 21/2017 Coll. It is also required by the conditions of the operation license of the SF storage facility. The necessary documents (including facility "health" reports, ageing management reports, maintenance reports, safety operation reports, etc.) are regularly updated and their results are used for monitoring the condition of the SNF facility and its equipment. The casks themselves are continuously monitored in terms of their external temperature, pressure between the sealing lids and radiation situation. There is no need to re-assess SF storage facilities in case of SF type changes, as only licensed casks can be used for SF storage in these facilities (answer by ČEZ + SÚJB/ONRV).

ROK – CG4

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
ROK-CZ-1	Article 32	Section 4.1 p.21	(Background) The document indicates that prior to the commencement of nuclear power plant (NPP) decommissioning, damaged spent fuel is stored in a wet storage pool within sealed containers. (Inquiry 1) What are the proposed plans for the management of canned damaged fuel once decommissioning activities begin?	The management of damaged SF will be performed prior to the decommissioning of NPPs, in case of NPP Dukovany after 2045-47. It is expected that damaged SF will be loaded into dry cask for storage and once DGR available, it will be safety disposed there (answer by SÚJB/ONRV).
ROK-CZ-2	Article 15.1	Section 8.5.3	(Background) The report states that a long-term safety assessment project is currently underway for three disposal facilities operated by SÚRAO: RAW Disposal Facility Richard, RAW Disposal Facility Bratrství, and 8.5.3.3. RAW Disposal Facility Dukovany. The project includes studies on radionuclide migration parameters within the disposal facility environment. The report indicates that the findings from this project will be incorporated into periodic safety assessments. (Inquiry 1) What specific radionuclide migration parameters are being studied in the long-term safety assessment project? (Inquiry 2) Are there any regulations governing the periodic safety assessment of disposal facilities? If so, what is the prescribed frequency and scope of these assessments? (Inquiry 3) Have any periodic safety assessments been conducted for these disposal facilities in the past? If so, what safety enhancements resulted from these assessments?	The sorption and diffusion parameters of selected radionuclides in cementitious materials and host-rock conditions were studied (answer by SÚRAO). For the prescribed frequency and scope of periodic assessments see Decree No. 162/2017 Coll. (https://sujb.gov.cz/fileadmin/sujb/docs/legislativa/vyhlasky/Decree_162_2017_20220309.pdf) (answer by SÚJB/ONRV). The periodic long-term safety assessment project is performed for first time as it is required by the Atomic Act No. 263/2016 Coll. In past the long-term safety of disposal facilities was assessed on regular basis of every 5 years. The results of the safety reports were limits and conditions including waste acceptance criteria (answer by SÚRAO).

ROK-CZ-3	Article 10	Section G.7.7 p. 103-104	(Background) The document states that based on the requirements of the Taxonomy, the start of operations for the national Deep Geological Repository (DGR) has been advanced to 2050, a decade earlier than the original 2060 target. (Inquiry 1) What specific actions is the SURAO taking to ensure the timely commencement of DGR operations by 2050?	SURAO optimized the schedule and identified all time reserves in preparation of DGR. The concrete actions are: 1) Use the generic underground laboratory 2) Optimize the construction and site characterization works 3) Optimize the RD programme. (answer by SÚRAO)
ROK-CZ-4	Article 10	Section G.7.7 p. 103-104	(Background) The document states that geological investigations are currently underway at four potential sites for a Deep Geological Repository (DGR). (Inquiry 1) Have there been any objections from the local communities or surrounding areas regarding the proposed DGR sites? If so, what measures have been taken to address these concerns? (Inquiry 2) Could you please elaborate on the specific criteria used to evaluate the suitability of a site for a DGR?	 Some of the communities' appeal against site exploration activities, SURAO and Ministry of Industry and Trade established voluntary Local working groups, Expert Panel and Ministerial working group in order to ensure the transparency and involvement of communities in the process (answer by SÚRAO) The site selection criteria for comparing DGR sites have been developed by SÚRAO and are publically available on SÚRAO web site (https://www.surao.cz/wp-content/uploads/2019/02/kriteria.pdf) in document MP.22 (Requirements, Suitability Indicators and Site Selection Criteria for DGR siting, Rev. 3, 2017). This document is regularly updated during each phase of site selection process. However first criteria of the geological properties of the DGR host rock have already been proposed in 1993. For the site selection process the following criteria are applied: long-term and operational safety, technical feasibility and environmental impact. (answer by SÚJB/ONRV + SÚRAO)
ROK-CZ-5	General		(Background) The report provides an overview of the current status of the Deep Geological Repository (DGR) development project. (Inquiry 1) Could you please elaborate on the specific mechanisms in place to institutionalize and ensure public participation throughout the site selection process for the DGR?	SURAO and the Ministry of Industry and Trade established voluntary local working groups, an expert panel and a ministerial working group to ensure transparency and community involvement in the process. The process of site selection and public participation is also regulated by special act No. 53/2024 Coll. (answer by SÚRAO).

Francie (France) – CG5

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
FR-CZ-1	Article 32	Section 5.3.6	The Czeck Republic shows a strong commitment to addressing the May 2023 IRRS recommendations, as reflected by the development of the new Building Act and amendments to the Atomic Act expected in January 2025. Congratulations for this.	Thank you for the appreciation of our efforts to reflect all outcomes of IRRS 2023 mission in our legal framework. Just a small note - the spelling of our country name in English is Czech Republic, not Czeck Republic. ☺ (answer by SÚJB/ONRV).
FR-CZ-2	Article 5	Section 5.2.2 p. 44 - 45	In the licensing and approval process for nuclear installations, with the shift from a three-stage authorization process to a single procedure under the new Building Act, there may be changes in how compliance with safety requirements, regulations, and safety assessments are conducted. Understanding what specific measures are in place to ensure that the evaluations previously part of each stage are not overlooked or simplified would provide clarity on how safety standards are maintained in this new process. Can the Czeck Republic indicate how the new unified authorization procedure ensure that the evaluations previously conducted during each stage (zoning, building, final approval) remain equally thorough and comprehensive?	First and foremost, it is necessary to underline that although the Building Act introduces a simplified permitting regime, the parallel, technically detailed licensing process under the Atomic Act remains in place. Within this framework, the State Office for Nuclear Safety (SÚJB) will continue to issue permits for the individual phases of the nuclear facility's life cycle – including site selection, construction, commissioning, operation, and the various stages of decommissioning. It means that SÚJB will still conduct a phased review and issue separate approvals for critical stages of a nuclear facility's development. The new simplified licensing model under the Building Act certainly places greater demands on the quality and scope of documentation, especially for large-scale projects. While the previous three-phase process has been consolidated, the new system still beside the project permit requires a final occupancy decision (kolaudační rozhodnutí) for nuclear facilities under the Building Act. This decision is the outcome of an occupancy approval procedure (kolaudační řízení), and without it, the facility cannot be put into use. Regarding the initial zoning phase (územní rozhodnutí), the new Building Act introduces an optional licensing stage for nuclear facilities known as the framework permit (rámcové povolení). While this permit does not authorize project execution, it sets the conditions for the subsequent project permit (povolení záměru), which can only be issued in accordance with and under the conditions of the framework permit approved by the building authority. The issuance of a framework permit allows for the early identification of potential issues before construction begins, ensuring that the investor or developer can address them in advance. This mechanism also facilitates a smoother decision-making process in the later stages of the licensing procedure. The requirements for construction documentation are defined by Decree No. 131/2024 Coll., on Construction Documentation. This decree consolidates what previously had to be submitted in two separate phases under the previous legal framework. As a result, no aspects of the previous regulations are omitted; rather, the process is streamlined by eliminating duplicate requirements for designers that existed under the two previous procedures (zoning and building). Throughout the entire process, no substantive aspects are overlooked—the changes only bring procedural simplifications. Material law and the

				substantive requirements imposed on the builder remain unchanged (answer by SÚJB/PrO).
FR-CZ-3	Article 5	Section 5.2.2	In the context of the new Building Act, the Transport and Energy Construction Authority is now in charge of nuclear installation licensing. The Building Act requires that SÚJB's opinion be provided for the license requests. SÚJB's opinion is provided as a separate and prior procedure set out in the Atomic Act. It would be helpful to understand how this opinion is integrated into the subsequent decisions made by the Transport and Energy Construction Authority. Clarifying how any challenges, such as differing assessments or potential delays between the two processes (SUJB's opinion and Transport and Energy Construction Authority approval) are managed could provide assurance about the overall effectiveness of the authorization framework. Can the Czeck Republic indicate what mechanisms are in place to ensure that the prior assessments and opinions from SÚJB are effectively incorporated into the licensing and approval process under the Building Act? How are potential delays or differing interpretations between these separate procedures addressed to ensure a smooth and timely approval process?	First and foremost, it is necessary to underline that although the Building Act introduces a simplified permitting regime, the parallel, technically detailed licensing process under the Atomic Act remains in place. Within this framework, the State Office for Nuclear Safety (SÚJB) will continue to issue permits for the individual phases of the nuclear facility's life cycle – including site selection, construction, commissioning, operation, and the various stages of decommissioning. It means that SÚJB will still conduct a phased review and issue separate approvals for critical stages of a nuclear facility's development. In addition to the independent and parallel licensing process under the Atomic Act, where the State Office for Nuclear Safety (SÚJB) issues its decisions, a separate process is also conducted under the Building Act, as nuclear facilities fall under the category of reserved constructions (vyhrazené stavby) according to this law. The competent authority for this process is the Transport and Energy Construction Authority. To ensure that the decision-making process of this second authority does not significantly differ from that of SÚJB (though SÚJB's approvals primarily focus on nuclear safety, radiation protection, safeguards, and security, rather than exclusively on construction-related aspects), SÚJB provides a mandatory statement/opinion (vyjádření) as part of the project permit process (povolení záměru) under the Building Act. This statement/opinion is a required component of the Building Act approval process. If the applicant fails to submit SÚJB's opinion along with the permit application, the building authority will request it directly. This ensures that SÚJB's position is always taken into account in the permitting process under the Building Act. Furthermore, SÚJB is expected to align its opinion with its prior decisions issued under the Atomic Act. The Building Act explicitly states that SÚJB, as a concerned authority, should not deviate from the conclusions of its initial opinion during subsequent permitting phases. The Building Act further stipulates that a concerned authority (dotčený orgán) may issue a new opinion on the same matter only to the extent of newly discovered facts that could not have been identified earlier, or in the event of a change in legal regulations that alters the conditions under which the original opinion was issued. Even in such cases, the new opinion may only reflect the extent of the changed conditions. As part of the project permit process, issues related to nuclear safety can also be addressed, as concerned authorities (dotčené orgány) are required to provide the administrative authority conducting the proceedings with all relevant information necessary for the decision-making process (Section 136 of the Administrative Procedure Code). The statement/opinion of SÚJB serves as a mandatory basis for the decision of the administrative authority, i.e., the building authority.

				In cases where discrepancies arise between the administrative authority conducting the proceedings and the concerned authorities, or among the concerned authorities themselves regarding an issue subject to decision-making, the Czech legal system provides a comprehensive dispute resolution framework. Ultimately, central state administration bodies resolve such disputes through a conciliation procedure (dohodovací řízení). If a developer/investor/builder/other party to proceedings believes that the final administrative decision contradicts the opinion issued by SÚJB, they have the right to appeal the decision and, if necessary, file a lawsuit with the administrative court. All these mechanisms ensure that decisions made under the Building Act and the Atomic Act remain consistent and fully integrated within the licensing process for nuclear facilities (answer by SÚJB/PrO).

USA – CG6

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
US-CZ-1	General	2.1/p.13	In the Czech Republic, "SF shall not be considered radioactive waste under the Atomic Act unless it has been declared as RAW by its owner or by SÚJB." Please elaborate, under which conditions would Spent Fuel not be declared as RAW, and how is Spent Fuel handled differently depending on whether it has been declared RAW or not?	SF may not be declared as RAW only if a decision is made to reprocess it. This option is considered in the Policy, but at the moment the Czech Republic does not foresee reprocessing of SF generated by the operation of its NPPs. SF is managed as RAW taking into account specific properties of SF (answer by SÚJB/ONRV).

Slovinsko (Slovenia) – CG6

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
SL-CZ-1	Article 28	p. 141	There is a short quote on the detectors and monitoring of orphan sources, e.g. in metallurgical plants, scrap collecting centres and at border crossings. Have there been any cases, e.g. in the last three to six years, when such measure(ment)s prevented any radioactive source in the metal streams (just) before being melted in a foundry?	In recent years, two sources of ionizing radiation (^{137}Cs and ^{60}Co) have been detected at the entrance to scrap collection points or foundries. Otherwise, there are quite regular seizures of NORM materials and consumer products containing a radionuclide (answer by SÚJB/SRO).
SL-CZ-2	Article 27	p. 139	There is a short quote on SÚJB carrying out a number of inspections - including shipments/transports of fresh fuel and high-activity radioactive sources. As the Chapter covers "transboundary" movement, we would be keen to obtain more feedback on possible findings or lessons-learnt from those cases - if any - when non-compliances were detected, as appropriate.	In recent years no non-compliances during transboundary transports of fresh fuel and high-activity radioactive sources were identified (answer by SÚJB/ONRV).

Turecko (Türkiye) – CG6

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
TK-CZ-1	Article 32	Section 4.2.1.1.2	Could you please explain the remelting method for which type of low-level solid radioactive waste is chosen and what are the main criteria to select this method in the NPP (apart from compacting and incineration), what are the advantages and disadvantages of remelting method in the RW management of NPP? Additionally, do the operator face with the challenges that occurred from remelting method?	The melting is used for the volume reduction of metallic RAW. It is performed abroad in compliance with the WAC for this facility and them the contaminated slug is returned back to the Czech Republic for disposal. WAC for melting facility are very strict about choosing the right materia for melting processl. Therefore, the amount of melted RAW is not high (answer by SÚJB/ONRV + ČEZ).
TK-CZ-2	Article 32	Section 4.2.1.1.1	Could you elaborate on the clearance of low-level solid radioactive waste generated at NPPs into the environment? Please give some examples on the methods and challenges during the procedure.	No RAW, except very short lived, is cleared from workplaces. The clearance of radioactive material follows the requirements of the Atomic Act and Decree No. 422/2016 Coll., on radiation protection (answer by SÚJB/ONRV).
TK-CZ-3	Article 32	Section 2.2	Could you please clarify which activities/initiatives are needed to increase the ratio of available disposal capacities in the case of the ratio is less than 1?	The total disposal volume of the facility is one from the limits given by basic document – operational limits and conditions. The information about filling of the disposal space is reported annually to the regulator. The actions for sufficient capacity ensuring lie in preparing and carrying out the projects of reconstruction of already existing chambers in the installations. The projects are included in annual and long-term activity plans of SÚRAO (answer by SÚRAO).

TK-CZ-4	Article 22	Section. 6.2	In the Atomic Act in S. 31 stated "Activities of particular relevance to nuclear safety and radiation protection may be performed by a selected worker only on the basis of authorization granted by the Office". Could you please specify the main obligations of selected workers such as shift personnel or personnel who work in the control access area etc.?	Question outside the scope of JC. Activities of particular relevance to nuclear safety and radiation protection are defined in Decree no. 409/2016 Coll. „on Activities Especially Important from Nuclear Safety and Radiation Protection Viewpoint, Special Professional Qualification and Training of Persons Ensuring Radiation Protection of the Registrant “. § 2 Activities especially important from nuclear safety viewpoint (1) The activity especially important from nuclear safety viewpoint performed at a nuclear power installation with a thermal power greater than 50 MW (hereinafter referred to as a “nuclear power installation”) is a) the control and supervision of commissioning and operation of a nuclear power installation and the independent nuclear reactor shutdown, including the manipulation in the main control room and the emergency control room; b) the control and supervision of commissioning and operation of one reactor unit and the independent nuclear reactor shutdown, including the manipulation in the main control room and the emergency control room; c) the manipulation in the main control room and the emergency control room relating to the primary part of reactor unit, including 1. the independent nuclear reactor shutdown; and 2. the control and supervision of commissioning and operation of the primary part of reactor unit; d) the manipulation in the main control room and the emergency control room relating to the secondary part of reactor unit, including the control and supervision of commissioning and operation; e) the control of performance of individual steps of physical and power start-up tests in the main control room of the reactor unit; or f) the control and supervision of handling of the individual fuel assemblies inside the reactor unit, off-side the fresh fuel storage. (2) The activity especially important from nuclear safety viewpoint performed at a nuclear research installation is a) the manipulation in the control room, and the control of performance of individual steps of physical and power start-up tests of the nuclear reactor, and the control and supervision of another start-up works; b) the manipulation in the control room, the control and supervision of commissioning and operation of the nuclear reactor, the control and supervision of fuel handling in the nuclear reactor core, and the control and supervision of shift activities; c) the control and supervision of set-up and configuration of the nuclear reactor core, the realisation of physical measurements during the physical and power start-up of the nuclear reactor, and the control and supervision of basic critical experiment; or d) the manipulation in the control room, the control and supervision of the commissioning and the control and supervision of the reactor operation.

				The activities especially important from radiation protection viewpoint are a) the systematic surveillance over the fulfilment of radiation protection requirements as 1. a supervisor; or 2. a person with a direct supervision of radiation protection; b) the control and performance of the assessment of the properties of ionising radiation source pursuant to § 9(2) f) point 8 of the Atomic Act; or c) the performance of services important from radiation protection viewpoint pursuant to § 9(2) h) points 1 to 3 and 5 to 7 of the Atomic Act (answer by SÚJB).
TK-CZ-5	Article 22	Section 6.2 page 59	Could the Czech Republic provide further details on how the disposal of institutional radioactive waste is funded? This could include information on fee structures for disposal services, any contributions required from institutional waste generators to centralized funds, and whether any government subsidies are available to support disposal costs.	The costs of the handling of LLW and ILW prior to its disposal are covered by the relevant RAW generators and form a part of routine operating expenses. In the case of institutional waste generators, the collection, classification, processing and treatment of almost 90% of such waste is provided for by ÚJV Řež. The costs of the operation and closure of existing disposal facilities are paid from the Nuclear Account into which individual waste generators pay contributions depending on the nature and amount of the waste disposed of. The amounts of one-off charges are determined according to the relevant methodology and are published in the form of a Government Regulation. In 2025 the one-off charge is approx. 6,8 thousand. € /cubic meter. State budget funds can be used only for old radiation liabilities (answer by SÚRAO).
TK-CZ-6	Article 14	Section 8.4 and Section 8.5	Could you please specify the requirements for additional wet (ISNFS) and dry (SNFS) storage facilities at the NPP sites, as well as the procedure for planning these facilities after the commissioning of NPPs?	There are no requirements for additional wet storage of SF in NPPs. However, for dry storage of SF it is planned to extend the capacity of SFSF Temelín and to build another SFSF at NPP Dukovany site. An example of the procedure for SFSF development is provided at https://sujb.gov.cz/en/nuclear-safety/spent-fuel-management/spent-fuel-storage-facility-temelin for SFSF Temelín. NPP Temelín units were put into the operation in 2000 and 2001 (answer by SÚJB/ONRV).
TK-CZ-7	Article 11	Section 8.2.3 and Section 8.2.4	According to the Requirement 5 of the SSR-5, passive safety features shall be evaluated. Regarding this could you please elaborate on the challenges for the passive features (such as passive heat removal systems, shielding and containment etc.)?	The primary barrier in the planned DGR is a steel container, double walled, which must prove its long-term performance for up to 1 million years. It must also provide heat dissipation to the engineered barrier buffer and distribution to the surrounding rock environment (answer by SÚRAO).
TK-CZ-8	General	Introduction	Could you clarify whether the volumes of cleared radioactive waste are included into the nuclear account funding?	No RAW, except very short lived after decay storage, is cleared from workplaces. Licensees (waste producers, RAW management organizations) are allowed to dispose of radioactive materials, and this activity is financed from their own financial resources. Only SÚRAO, as a governmental waste management organization, is financed from the nuclear account (answer by SÚJB/ONRV + SÚRAO).

Japonsko (Japan) – CG7

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
JP-CZ-1	Article 32	P22-23,25	Are casks of spent fuel stored at ISFSF Dukovany, SFSF Dukovany and SFSF Temelin fixed to the floor?	No, they are not (answer by SÚJB/ONRV).
JP-CZ-2	Article 32	P27	Low-level waste seems to be processed and stored in casks and box pallets. How does the intermediate level solid RAW stored?	If RAW cannot be disposed of in the RAW disposal facility due to its high specific activity of radionuclides, it is stored in the radioactive materials storage area, while the final treatment and disposal is considered in the NPP decommissioning process. (answer by ČEZ).
JP-CZ-3	Article 19	P41	The legislative process for the revision of the Atomic Act is currently underway. Are there any amendments related to the site selection process for DGR?	The area of radioactive waste and spent fuel management remains virtually unchanged in the amendment to the Atomic Act. The only exception is a modification to the system for determining the amount of regular fees paid into the nuclear account. These fees, paid by radioactive waste producers, are deposited into a special account held at the Czech National Bank. The funds from this account are used to finance the construction and operation of radioactive waste disposal facilities. Under the new system, these fees will be determined on a regular five-year cycle. The maximum rate will be set by law, but the exact amount for each five-year period will be determined by the government through its regulation. This rule is expected to take effect on January 1, 2026, when a new, higher fee rate will come into force, reflecting inflation trends and rising costs associated with developing a deep geological repository (DGR) in the Czech Republic. In addition to the amendment to the Atomic Act, a special law—Act No. 53/2024 Sb., on proceedings related to the deep geological repository for radioactive waste—came into effect on July 1, 2024. This law enhances public participation in the site selection process for the deep geological repository (DGR) by establishing special procedures for its preparation, construction, and operation. It also defines how the interests of municipalities—which are entitled to contributions from the nuclear account under the Atomic Act—and their citizens are safeguarded throughout the process (answer by SÚJB/PrO).
JP-CZ-4	Article 19	P42	The revision of the Atomic Act No. 263/2016 Coll. is currently being prepared to introduce flexibility in setting the fees that producers of radioactive waste pay to the nuclear fund. What is the rationale for this change and what improvements are expected?	The Nuclear Account is a key financial mechanism ensuring the long-term sustainability and safety of radioactive waste disposal in the Czech Republic. The amendment to the Atomic Act introduces a new system for determining fees, making the financial contributions more flexible and responsive to inflation and rising costs associated with DGR construction and waste disposal. Until now, the rate of regular fees paid into the Nuclear Account (which must be paid by operators of nuclear energy facilities and nuclear research facilities) was set as a fixed statutory amount: – 55 CZK per megawatt-hour (MWh) of electricity produced for operators of nuclear energy facilities. – 30 CZK per MWh for operators of nuclear research facilities.

				Under the new more flexible system (amendment to Section 122), which will come into effect since 1. 1. 2026, these fees will be determined on a regular five-year cycle. The maximum rate (120 and 80 CZK) will be set by law, but the exact amount for each five-year period will be determined by the government through its regulation –amendment to Government Regulation No. 35/2017 Sb., which establishes the rate of the one-time fee for the disposal of radioactive waste and the amount of contributions from the nuclear account to municipalities, as well as the rules for their provision. The law now explicitly stipulates that when determining the specific amount of the fee, the government must take into account the following factors in its regulation: a) The current estimated costs for the construction and operation of radioactive waste disposal facilities. b) The current financial balance of the Nuclear Account, including the value of investment instruments acquired using Nuclear Account funds. c) The expected energy production from nuclear facilities, based on the State Energy Policy. These criteria ensure that the fee structure remains responsive to economic conditions, nuclear waste management needs, and long-term financial sustainability of the Nuclear Account. This rule is expected to take effect on January 1, 2026, when a new, higher fee rate will come into force (answer by SÚJB/PrO).
JP-CZ-5	Article 12	P111	The RAW disposal facility, Bratrstvi, is located on the site of a former uranium mine with crystalline complex containing water, What measures do you take for the corrosion of casks?	Drums and other packages used for disposal of RAW do not have any safety function once they are placed into the disposal chambers of disposal facility Bratrství. Therefore, there is no need to perform any measures dealing with their corrosion. Nevertheless, it is considered, after ensuring further disposal capacity, to use stainless-steel waste packages. (answer by SÚJB/ONRV + SÚRAO).
JP-CZ-6	Article 13	p.86	Continuously ensuring transparency in the selection process of final and backup site will be the challenge, considering the past history of opposition from residents in the vicinity of candidate sites.	SURAO and Ministry of Industry and Trade established voluntary Local working groups, Expert Panel and Ministerial working group in order to ensure the transparency and involvement of communities in the process. The site selection process and public participation is also set by special law No. 53/2024 Coll. (answer by SÚRAO)

Bělorusko (Belorus) – CG7

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
BY-CZ-1	Article 10	8.	How is the ALARA principle implemented when conducting, planning, preparing and performing radiation-hazardous work?	The implementation of the optimization principles is in the operational documentation of the licence holders and registered persons. Obligations common to licence holders and registered persons in the area of ensuring radiation protection are specified in Atomic Act No. 263/2016 Coll, § 66, § 68, § 82 and § 84 (answer by SÚJB/SRO).
BY-CZ-2	Article 10	8.4.3.4, 8.5.3.4 p. 118, 125	After the end of operation, the Hostim facility was sealed with concrete and closed in 1997, and a monitoring and control system was approved, which is designed to last for another 50 years.	The Hostim disposal facility has been closed in 1997. The monitoring program approved by SUJB determines the annual period of surface and underground water control. The exact period of institutional control was

			Why this particular period of post-operational monitoring is specified and in what cases can it be extended?	not determined but SURAO expects to monitor this site at least for another 50 years. After this period the inventory will be recalculated and the situation will be revised (answer by SÚJB/ONRV + SÚRAO).
BY-CZ-3	Article 12	8.4.3.2 p. 117	How is a certain regime maintained at the Bratrství disposal facility given the presence of a high concentration of radon decay products? How is the problem of the initial elevated radiation background of a uranium mine containing radioactive waste solved?	Disposal facility Bratrství is a passive facility where operational staff is present only during the maintenance and delivery of RAW packages for disposal. The ventilation system in the facility is put into the operation well before the beginning of any works inside the disposal area. As Category III. facility there is a legal requirement to have in place a Radiation Protection Programme. In 2023 the annual dose rate from Rn inhalation did not exceed 0,009 mSv and the volumetric activity of Rn reached the values of 18 - 3316 Bq/m^3 (answer by SÚJB/ONRV).
BY-CZ-4	Article 10	8.2.3.1, 8.2.3.2 p. 110, 111	What kind of engineering and technical barrier system is provided at the Bratrství and Richard radioactive waste disposal facilities?	Safety relevant barriers considered in both disposal facilities are the conditioned RAW, concrete layer in double wall packages (used in some packages), backfill of disposal chambers and the host rock. The technical parameters of the backfill and RAW package characteristics are given by the operational limits and conditions described in the basic document approved and controlled by the regulatory body. (answer by SÚJB/ONRV + SÚRAO).
BY-CZ-5	Article 10	8.2.1, 8.2.2 p. 107, 108	Technological sets for processing liquid radioactive media have been installed at the Dukovany and Temelín nuclear power plants. What do these sets include, what are the components of the purification system? Please provide more information on technological sets for processing liquid radioactive media, including their technical description, capabilities and performance indicators.	Technological sets for processing liquid radioactive media are similar to all VVER type NPPs and include six treatment stations for liquids: primary circuit cleaning system, treatment system for organised leakage and drainage water, wastewater treatment system, SF pool water treatment station, steam generator dewatering treatment station and boric acid treatment station. All treatment stations are a combination of one or more filters, capturing both mechanical and ionic impurities. After the filters, an ion exchanger is inserted to trap the released ionex resins. The individual treatment stations are linked to auxiliary systems that supply additional media for treatment station operation. The detailed technical descriptions, capabilities and performance indicators are provided in NPPs´ internal operational guides (answer by SÚJB/ONRV).
BY-CZ-6	Article 12	4.2.1.2 p. 28-29	Have decisions regarding long-term storage of bitumen compounds been subject to safety assessment based on the dynamics of denitration processes, which may lead to an increase in salt filling in the underlying layers of the compound? What are the results of this assessment?	Bitumenised RAW is not stored, but disposed after a short term storage (less than one year) in NPPs' storage premises (answer by SÚJB/ONRV).
BY-CZ-7	Article 10	4.2.1.2 p. 28-29	How will the safety of bituminized radioactive waste be ensured for the entire period of potential danger of radioactive waste?	The long-term safety of bituminized RAW is ensured by the control of the quality of incoming bitumen and of the final form of bituminised RAW (see also answers to questions BY-CZ-8 - 9) (answer by SÚJB/ONRV).
BY-CZ-8	Article 10	4.2.1.2 p. 28-29	How was the quality (quality indicators) of bitumen compound conditioning technologies assessed when converting to a monolithic state?	Physical and chemical properties of incoming bitumen (softening point, ductility, penetration, flammability, dynamic viscosity, …) and the bituminized RAW (leaching, flammability and thermal stability, …) are regularly controlled to be in full compliance with OLCs of RAW conditioning and disposal facilities. The performance of RAW conditioning technologies are assessed based on NPPs´ internal operational guides (answer by SÚJB/ONRV).
BY-CZ-9	Article 12	4.2.1.2 p. 28-29	What fire resistance requirements are provided and justified in the project for the disposal of bituminous radioactive waste?	Fire resistance requirements, such as flash point and thermal stability are provided in the design of RAW conditioning facilities at both NPPs and

				are included into the OLCs of RAW conditioning facilities. The fire resistance 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 re-cooling vessel for thermally unstable, loaded drums, if they occur. In this way the quality of the conditioned RAW together with the design of the disposal facility assures the fire resistance of the disposed RAW. (answer by SÚJB/ONRV).
BY-CZ-10	Article 10	4.2.1.2, 8.2.1.2, 8.2.2.2 p. 28-29, 107, 109	For what reason was bituminization, despite its disadvantages (low mechanical strength, fire hazard), chosen as a method for conditioning liquid radioactive waste?	Long-term operational experience at both NPPs does not support concerns about the use of bituminization. Fire hazard is very limited and physical and chemical properties of bituminized RAW (composition, leaching, flammability and thermal stability, …) are regularly controlled to be in full compliance with OLCs of RAW conditioning and disposal facilities (answer by SÚJB/ONRV).
BY-CZ-11	Article 10	7.7 p. 103, 104	DGR is expected to accommodate all RAW that cannot be disposed in near-surface disposal facilities, as well as high-level waste from potential reprocessing of spent nuclear fuel from NPP Dukovany and NPP Temelín. What processing and packaging method will be chosen for this radioactive waste?	For RAW that cannot be disposed in operating disposal facilities and is placed in steel drums a packaging set in the shape of a cube, allowing to place 4 steel drums with a capacity of 216 l, will be developed. This RAW will be disposed in a separate part of the DGR, away from disposed packages with SF. SF reprocessing is not considered due to economic reasons (answer by SÚJB/ONRV).
			The program of DGR development was launched in 1992 and faced public resistance in 2005. What kind of work was implemented with the public before resuming the project and could this become an obstacle at this stage of the work?	Details of the work with the public that was undertaken prior to the DGR project's relaunch after 2005 are provided in Section 7.7 of the National Report. The Advisory Panel of Experts has been established in 2023 also to respond to the potential concerns of the public in considered DGR sites. Representatives from municipalities also participate in the Panel's work as observers.SURAO and Ministry of Industry and Trade also established voluntary local working groups and ministerial working group in order to contribute to the transparency and involvement of communities in the process. The site selection process and public participation is also defined by special law No. 53/2024 Coll..
			At what stage is the construction of the DGR for spent nuclear fuel and radioactive waste?	As stated in the Section 7.7 of the National Report the start of DGR construction is scheduled for the year 2038 (start of mining activities) (answer by SÚJB/ONRV + SÚRAO).
BY-CZ-12	Article 12	4.2.1.1, 4.2.2.1 p. 26-28, 31-32	What is the procedure for ash residue management after solid radioactive waste incineration?	RAW, which comes from incineration (ash), is directly disposed as solid RAW in compliance with WAC of disposal facility Dukovany (answer by SÚJB/ONRV).

BY-CZ-13	Article 10	Section 5.	How is the problem of retaining young professionals in the regulatory body solved?	The employee retention rate at SÚJB as a whole is relatively stable. One of the main factors affecting the retention of young employees in professional inspector positions is their financial compensation, which SÚJB cannot compete with compared to the business environment. On the other hand, SÚJB enables these new employees to deepen their professional education in areas of their choice, particularly through professional internships, international and domestic conferences, training courses at the ČEZ training center, participation in lectures by internal SÚJB lecturers, language education, and more. SÚJB also regularly conducts employee satisfaction surveys, which are linked to ongoing optimization and improvement of SÚJB's management system. These are based on ensuring feedback by obtaining new impulses, ideas, and suggestions from all employees. The inputs obtained from this survey are addressed with the relevant superiors or discussed at management meetings and are applied back into SÚJB's operations, thereby improving employees' working conditions (answer by SÚJB/KÚ).
BY-CZ-14	Article 10	Section 5.	Could you provide more detailed information on: – the methods used to preserve knowledge and transfer tacit knowledge, and the assessment of the effectiveness of the methods used; – the mechanisms for motivating experts (workers with critical knowledge) to share knowledge; – the motivational mechanisms for the retention of highly qualified personnel in the regulatory body.	SÚJB has developed an organizational standard called "Strategy for Long-term Human Resources Development." The purpose of this organizational standard is to contribute to ensuring long-term human resources development for the continuous qualified performance of SÚJB, including control and supervision in the use of nuclear energy and ionizing radiation, and in the non-proliferation of weapons of mass destruction. The aim of the standard is to establish strategic principles for long-term human resources development at SÚJB to create the best possible conditions for effective management of the office's activities, including the transfer of knowledge from highly specialized employees with critical knowledge. The strategic direction of human resources development is focused on ensuring and developing the necessary competencies of the office in accordance with legal requirements set by current legislation, including ensuring effective safety management at all management levels of SÚJB. Professional competencies have established basic, intermediate, and advanced levels (according to SARCoN) and are linked to specific internal employees in relation to their job duties. This allows for direct planning of employee replacement before their departure and linking the competency development plan to individuals for internal competencies (answer by SÚJB/KÚ).
BY-CZ-15	Article 12	Section 5.	What are the main internal procedures and methods used to verify the competence of the regulatory body's personnel?	The main internal procedures and methods used to verify the competence of the SÚJB´s personnel are based on so called Individual Personal Development Plan. For its details (preparation, use, assessment) see Section 5.3.4, p. 54-55 of the National Report. New inspectors of SÚJB, who are civil servants, have to pass two exams verifying their competence: – the civil service exam, which consists of a general part (organisation and operation of the civil service, legal rights and duties, ethics of civil servants, EU law, …) and a special part; and – the inspector exam, the aim of which is to achieve the required level of the theoretical and practical knowledge and experience required to perform the function of the SÚJB inspector. In preparation for the inspector exam a series of internal lectures focusing on legislation,

				radiation protection, nuclear safety, monitoring of the radiation situation, entry into the controlled area, RAW and SF management, etc. is organised. Details of internal procedures and methods for the training, education and verification of the competence of the SÚJB´s personnel is described in SÚJB's internal document VDS 039 Training and Education System of SÚJB Staff, which is a part of SÚJB´s management system (answer by SÚJB/ONRV).
BY-CZ-16	Article 10	8.1. p. 105	How do hazardous weather events, such as Storm Boris, affect the safety of radioactive waste management facilities? What actions are taken by responsible persons to assess and minimize possible negative consequences from the natural hazard events phenomena that have occurred?	Hazardous events had no impact on the safety of the RAW management facilities, as they are performed inside the NPP facilities. Therefore, there was no need to respond to these events. The buildings of NPPs, including the RAW management facilities, were assessed, e.g., with regard to strong winds in accordance with Articles 4.5 to 4.11 of IAEA NS-G-3.4 and Articles 4.12 to 4.17 of IAEA SSG-18. Weather conditions can only affect the open air processes of RAW disposal in the at the Dukovany disposal facility. However, the OLCs of this facility contain a limitation of the maximum wind speed (12 m/s), which cannot be exceeded during the operation of the handling crane (answer by SÚJB/ONRV).
BY-CZ-17	Article 10	7.7. p. 104, para 3.	What approaches and principles were used to determine the weighting factors for the criteria for comparing competitive DGR sites?	The site selection criteria for comparing DGR sites have been developed by SÚRAO and are publically available on SÚRAO web site (https://www.surao.cz/wp-content/uploads/2019/02/kriteria.pdf) in document MP.22 (Requirements, Suitability Indicators and Site Selection Criteria for DGR siting, Rev. 3, 2017). This document is regularly updated during each phase of site selection process. The weight of criteria for period of reducing the number of sites from 9 to 4 in 2020 were estimated by expert opinion via SAATY method. However, first, initial criteria of the geological properties of the DGR host rock have already been proposed in 1993 (answer by SÚJB/ONRV + SÚRAO).
BY-CZ-18	Article 10	7.7. p. 104, para 3.	The SÚRAO Director has established an Advisory Panel of Experts, an independent advisory body that guarantees high expertise, independence and transparency in the process of selecting the final and backup DGR site. What approaches and principles were used to include candidates in the Advisory Panel of Experts?	The members of the second Advisory Panel of Experts are experts from leading Czech institutions who deal with topics closely related to the development of DGR – e.g. hydrogeology, radiation protection or underground construction. The Panel also includes two experts nominated by the municipalities and one nominated by the regions where the sites are located. Representatives of the municipalities and of the regulatory body - State Office for Nuclear Safety participate as observers. The main principles for nomination were high-level of scientific background, independence on SURAO activities in site selection process and voluntarism. (answer by SÚJB/ONRV + SÚRAO).
BY-CZ-19	Article 12	2.2	To assess the fulfilment of the objectives of the Czech Republic Policy, the following key performance indicator has been established, among others: available disposal capacity for low- and intermediate-level radioactive waste. Its calculation requires periodic forecasting of the low- and intermediate-level waste formation over a period of 10 years. How exactly is it planned to perform such calculations? Is there a methodology for making a forecast? What data and with what reliability are needed to make a forecast?	The calculation is based on available information of disposal capacity of operating disposal facilities, their current RAW loading factor and assessment of future RAW production in existing and planned NPPs and other facilities producing different RAW streams. Data reliability varies and decreases depending on future RAW production rate (answer by SÚJB/ONRV).

Ukrajina (Ukraine) – CG8

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
UA-CZ-1	General	Summary, p.8	Based on Table 1.2, the long-term spent fuel management policy envisaged the possibility of spent fuel processing. What official government document envisages activities to implement geological disposal of spent fuel until 2050? What analysis justifies the acceptability of the decision on the geological spent fuel disposal strategy?	The Policy (ie. national policy and practice according to the Joint Convention terminology), which is prepared by the MPO pursuant to Section (§) 108(1) of the Atomic Act, is the initial document formulating the RAW and SF management policy and strategy of the state and state authorities (RAW generated from nuclear installations and workplaces with radiation sources in healthcare, research and industry). SF reprocessing is kept only as an option in the Policy, but it is not considered for realistic. For further details see Section 2.2 of the National Report (answer by SÚJB/ONRV).
UA-CZ-2	Article 32.1.5	Section 2.1, p.13	Could you provide the numerical values of criteria for assigning solid radioactive waste to the respective class depending on disposal in the disposal facilities of the respective type, in particular the assignment to very low-level waste?	Misleading question. Disposal of RAW is controlled by the facility specific WAC. The RAW classification plays practically no role in this process (answer by SÚJB/ONRV).
UA-CZ-3	Article 32.1.3	Section 2.2.1, p.18	What type of disposal facilities is used for disposal of very low-level waste?	Misleading question. All operational disposal facilities are used for disposal of any class of RAW once complying with facility specific WAC (answer by SÚJB/ONRV).
UA-CZ-4	Article 32.1.1	Section 2.2	Section 2.2 refers to the possible construction of new NPPs after 2025. Question: Does the Czech Republic conduct public outreach when a decision is made on the construction of radioactive waste and spent fuel management facilities? If yes, at what stage of decision making on the construction does public outreach start and what does it consist of?	Every plan for the construction of a new nuclear facility (such as a nuclear power plant, radioactive waste disposal facility, or spent fuel storage facility) in the Czech Republic is subject to a mandatory environmental impact assessment (EIA) before the actual licensing process begins. As part of this process, the project notification is publicly announced, and the general public has access to the entire documentation via the CENIA portal: https://portal.cenia.cz/eiasea/view/eia100_cr?lang=en. Under the EIA process, the public has the right to: – Submit a written statement to the Ministry of the Environment regarding the notification within 30 days from the publication of the announcement. – Participate in the public hearing on the project. – Take part in subsequent administrative proceedings related to the EIA process and, if necessary, file a lawsuit with an administrative court against related decisions. The primary follow-up proceeding to the EIA process is the approval of the project under Act No. 283/2021 Sb., the Construction Act, in which the affected public has the right to participate. SÚJB (State Office for Nuclear Safety) issues its statements/opinions within this proceeding. In addition to this proceeding under the Construction Act, a multi-phase licensing process takes place under the Atomic Act. From July 1, 2025, transparency in the licensing process under the Atomic Act will be enhanced, introducing a new obligation to inform the

				public about all initiated administrative proceedings in a manner that enables remote access. All these instruments therefore enable public information and participation in the construction of new nuclear facilities (answer by SÚJB/PrO).
UA-CZ-5	Article 32	Section 2.2	Available storage capacity for spent fuel - this indicator will be calculated as the ratio of available storage capacity in SFSF to spent fuel production over the next 10 years. Question: The period of 10 years is too short to determine this indicator. It is more acceptable to define the indicator taking into account spent fuel accumulation during the entire design life of NPP units and design capacity of the spent fuel storage facility. What conclusion regarding the indicator can be made if it is less than 1 in the second year after the end of the 10-year interval for which the acceptability calculation is performed?	This is a KPI from the National Policy, which has an evaluation period of 10 years. This interval also reflects the possible optimization of the DGR schedule. This KPI is evaluated every 3 years, not only in the second year after the end of the 10-year interval. Additional SF storage capacity will be developed as needed. For further details see also Section 12.4 of the National Report (answer by SÚRAO + SÚJB/ONRV).
UA-CZ-6	Article 32.2.3	Section 4.2.1.1.1	What list of measured radionuclides (reference and hard-to-measure) is monitored during the characterization of low-level radioactive waste to be removed from the NPP site?	Partly misleading question. No RAW is “removed” from NPP Dukovany site, as the disposal facility is located at the same site. Nuclides defined in WAC for disposal facility have to be declared for each RAW package accepted for the disposal. For the list of nuclides see Tables 4.5, 4.7 and 4.8 of the National Report. For nuclide vector calculations the activity of Cs-137 and Co-60 nuclides in RAW stream is measured and used (answer by SÚJB/ONRV).
UA-CZ-7	Article 32.2.3	Section 4.2	What are the main measures taken to minimize the generation of liquid and solid radioactive waste at the Dukovany NPP and Temelín NPP?	Minimizing the generation of liquid and solid radioactive waste involves several key measures. Prevention and process optimization include minimizing leaks and contamination, using chemical treatment of coolant, and recycling technological water. Solid waste is minimized by strict material control, compaction and incineration. The release of waste also plays a crucial role in minimization (answer by ČEZ).
UA-CZ-8	Article 32.2.3	Section 4.2.1	What technology is used at the Dukovany NPP for immobilization of spent filtering materials and sludge?	For conditioning of spent filtering materials and sludge the aluminosilicate matrix is used at both NPPs – further details see Sections 4.2.2.1, 8.2.1.2, 8.4.2, 8.4.3, … of the National Report (answer by SÚJB/ONRV).
UA-CZ-9	Article 32.2.3	Section 4.2	What is the salt content of the bitumen-based product after processing of liquid radioactive waste using the bituminization technology at the Dukovany NPP and Temelín NPP? Has the salt bitumen product been studied for explosion safety?	The bitumen product in both NPP contains a salt content ranging from 35 to 40 percent by weight. A thermal stability test is consistently performed on the bitumen product. Differential Thermal Analysis (DTA) and monitoring of the cooling process are also conducted for the salt bitumen product (answer by ČEZ).
UA-CZ-10	Article 19	Section 5.2.1	Para. 5.2.1 provides information on the adaptation of licensing processes and regulatory requirements to new technologies, in particular small modular reactors (SMRs), which are being considered for wider deployment in the near future. Question: What is the process of adapting licensing processes and regulatory requirements to new technologies, in particular SMRs, and which authority is responsible for such adaptation?	In the field of peaceful use of nuclear energy and ionizing radiation, the State Office for Nuclear Safety (SÚJB) has jurisdiction (Section 207 of the Atomic Act). For this reason, Act No. 2/1969 Sb., the Competence Act, grants this authority the responsibility for drafting legislative proposals within its scope. Therefore, amendments to nuclear legislation fall under the competence of SÚJB. Any changes to the law in the Czech Republic must undergo an interdepartmental review process, be approved by the government, and subsequently ratified by the Chamber of Deputies and the Senate. At the final stage of the legislative process, the amendments must be signed by the President of the Republic. To implement the Atomic Act, the SÚJB is authorized by several provisions of the Act to issue secondary legal regulations—decrees.

				These fall exclusively under the competence of the SÚJB and only need to go through an interdepartmental review process before being formally approved by the Chair of the SÚJB. This is also the case with the latest amendment to the Atomic Act, which will come into effect on July 1, 2025, and introduces a more flexible mechanism for licensing new technologies. This amendment will subsequently be supplemented by amendments to approximately 15 decrees issued by SÚJB, which are also intended to ensure that Czech legislation remains technology-neutral, allowing the licensing of new technologies, such as small modular reactors (SMRs). Among the legal instruments facilitating this process is the newly defined graded approach, which must always be applied based on the risk associated with the performed activities and their nature (Section 5(8) of the Atomic Act). Additionally, there is the option to request a preliminary opinion from SÚJB on how it will assess a license application (Section 228a of the Atomic Act). Another key instrument is the newly introduced exemptions from regulatory requirements (Section 228b of the Atomic Act) that allows SÚJB to grant an exemption from any rigid rule set by the Atomic Act, provided that the rule is replaced by an alternative measure that maintains the level of nuclear safety, complies with the latest international recommendations, and meets other strictly defined conditions. This final provision is particularly significant, as it enables the licensing of new technologies that are not yet explicitly covered by current legislation and would otherwise not be permissible under existing regulatory frameworks (Answer by SÚJB/PrO).
UA-CZ-11	Article 21	Section 6.1	Para. 6.1 states that according to the implemented system code, if any event related to nuclear safety or radiation protection occurs, the event should be recorded and investigated with subsequent corrective measures taken to prevent its recurrence Question: Does the Czech Republic have a system for recording events associated with radioactive waste management facilities and what corrective measures are taken to prevent their recurrence?	The licensee has implemented its own control system in order to meet the requirements under the Atomic Act. In compliance with the Management System Program and the elaborated obligations or delegated responsibility within other documents, the authorized work procedures and the specified dates for periodical testing are subject to supervision. In compliance with the implemented system code, if any event occurs that is related to nuclear safety or radiation protection, the event shall be recorded and investigated and followed by corrective actions to prevent its recurrence. This entire process is evaluated and monitored regularly and systematically by the inspectors performing state supervision. All safety relevant events, not only associated with RAW management, have to be reported to the regulatory body based on the requirement of the Atomic Act (Article 25). These events are then listed in annual reports of RAW management licensees (answer by SÚJB/ONRV).
UA-CZ-12	Article 22	Section 6.2.1	Please describe the algorithm for the formation of a nuclear account to provide for the decommissioning of Czech nuclear facilities? What does “mandatory financial reserve for decommissioning” mean? What decommissioning cost components are taken into account in the formation of the mandatory financial reserve for decommissioning of the Dukovany NPP (CZK 1,143.364 million per year) and Temelín NPP (CZK	Holders of a licence for the first physical start-up of a nuclear installation with a nuclear reactor and holders of a licence for the operation of the workplace cat. III or IV shall steadily accumulate decommissioning financial reserves (Article 51 and 75 of the Atomic Act). Decommissioning plan must include cost estimate, SURAO verifies it (Article 51 of the Atomic Act). The estimate of decommissioning costs must include the

			628.392 million per year)? How does state organization SÚRAO manage the financial reserve for NF decommissioning?	costs of all activities related to the preparation and implementation of decommissioning. Requirements for decommissioning plans are set out in Decree No. 377/2016 Coll. Update of decommissioning plan along with the decommissioning cost estimate must be done at least once every 5 years. Internal, segregated funds are owned and managed by nuclear operators or operators of workplaces with sources of ionising radiation in so-called blocked accounts for the purpose of meeting their future decommissioning costs. SURAO inspects and verifies the provisions created by operators in blocked accounts (decommissioning financial reserves). Determination of the annual reserve/contribution in case of cost estimate update is set in the Decree 250/2020 Coll. Reserves in blocked account may be used to buy Czech state bonds (Article 10a of the Decree 593/1992 Coll.). Note: Nuclear account owned by the State and managed by the Ministry of Finance receives contributions from NPP operators and provides financing for the disposal of SF/RW including the development of the DGR (answer by SÚRAO).
UA-CZ-13	Article 24	Section 6.4.2	Please provide total indices of radioactive releases and discharges from NPPs into the environment (compared to the reference and permissible levels).	See Table 4.2 and 4.4 of the National Report (answer by SÚJB/ONRV).
UA-CZ-14	Article 24	Section 6.4.2.1	Please specify the average individual dose to NPP personnel. Have there been any cases of exceeding the dose limits? What restrictions apply to women of childbearing age and pregnant women working with radiation sources?	Question outside the scope of JC. The average individual dose in 2024 for NPP Dukovany personnel (suppliers) was 0,17 mSv (0,49 mSv), for NPP Temelín 0,102 mSv (0,133 mSv). There was no case of exceeding the dose limits. Radiation protection for pregnant women is defined in Atomic Act 263/2016 Coll., § 64 3) As soon as holders of a licence for the performance of activities in exposure situations are informed by a pregnant woman working in their category I to IV workplace of her pregnancy, they shall adjust her employment conditions to restrict exposure of the unborn child so that the total of effective doses from external exposure and committed effective doses from internal exposure of the unborn child are unlikely to exceed 1 mSv during at least the remainder of the pregnancy (answer by SÚJB/SRO).
UA-CZ-15	Article 24	Section 6.4.2.1	For personnel of which professions and during which activities/operations the exposure of the lens of the eye is monitored? What doses to the lens of the eye are received in this process?	Question outside the scope of JC. Exposure of the lens of the eye is monitored by interventional cardiologists and the maximum doses received are 0,5 mSv per month or 3 mSv per year (answer by SÚJB/SRO).
UA-CZ-16	Article 24	Section 6.4.2.2	How frequently are the measurements of NPP discharges (releases) performed by the operator's laboratory verified by a state (independent) laboratory and what difference in the measurement results is acceptable?	Question outside the scope of JC. Independent monitoring takes place continuously throughout the year at both nuclear power plants. Every month, samples of discharges into watercourses (gamma radionuclides and tritium) and discharges into the air (aerosol filters from ventilation stacks) are independently measured. In addition, in the first week of the outage, samples of tritium, iodine, aerosol filters and noble gases are taken from the ventilation stacks. The results are statistically compared at a significance level of 95% (answer by SÚJB/SRO).

UA-CZ-17	Article 25	Section 6.5.2.2	What software tools does the Ministry of Nature use to calculate the development of meteorological situation and radionuclide release propagation in case of potential radiation accidents, and does the NPP operator perform such forecasts?	Question outside the scope of JC. The Czech Hydrometeorological Institute, which is administered by the Ministry of the Environment, uses its own calculation code to produce prognoses of radioactive substances propagation. The operator of both Czech NPPs also calculates the prognosis using the software JRodos. The codes used by The Czech Hydrometeorological Institute are: – MEDIA model calculation of the propagation (area of contamination) for radiological and large chemical releases - for medium distances – TRAJEK model calculation of the propagation (particle trajectory) for radiation and large chemical releases - for long distances (answer by SÚJB/SRO).
UA-CZ-18	Article 25	Section 6.5.2.5	What emergency planning zones are established for the Dukovany NPP and Temelín NPP, and what criteria are used to define them?	There is a 20 km diameter zone around Dukovany NPP and 13 km diameter zone around Temelín NPP, which are designated as emergency planning zones, in which protective measures would be applied to protect the population and the environment in accordance to their off-site emergency plans. The criteria for establishing the EPZ are primarily set out in Annex 2 to Decree No. 359/ 2016 Coll. on details of ensuring radiation extraordinary event management. In the case of the construction of a new nuclear installation, this decree will be followed, and an EPZ shall be established if the frequency of occurrence of a radiation accident exceeds 1 x 10^{-}7/year according to the analysis and assessment of the radiation accident prepared by the applicant during the construction period of the nuclear installation (answer by SÚJB/OMKŘ).
UA-CZ-19	Article 4	Section 7.2.1.2	What criteria are used to confirm the safety of spent fuel containers? What method and criteria are used to confirm the safety of spent fuel in containers? What assumption/instrumentation is used to confirm that there is no helium leakage beyond the containers?	Selected types of packages, which also include dual-purpose casks for SF, have to be licensed by the regulatory body and every single manufactured cask has to be certified to be in compliance with the licensed type. Each loaded cask in SF storage facility is continuously monitored, among others on its leak tightness (answer by SÚJB/ONRV).
UA-CZ-20	Article 5	Section 7.2	How are spent control rods managed?	Spent control rods are managed in the same way as spent fuel – after storage in reactor pools they are placed into dry transport and storage casks and once DGR available (after 2050) they will be disposed. At NPP Temelín (VVER-1000) spent control rods are loaded into spent fuel casks together with the spent fuel, as the rods are integrated within the spent fuel assemblies. In the NPP Dukovany (VVER-440) the reactors use a special design of control rods, consisting of an upper absorbing part and a lower fuel part. The absorbers can be reused for up to 20 cycles and are periodically inspected. When spent, they are stored in a dedicated extinction room within the reactor building. Their final management will be addressed during the plant's decommissioning phase. (answer by SÚJB/ONRV + ČEZ).
UA-CZ-21	Article 5	Section 7.2	Are dual-purpose containers used for long-term storage of leaky fuel assemblies? If so, how is the safety of leaky fuel assemblies monitored during long-term storage?	No, not yet, leaky SF is stored in reactor pools. Currently used SF casks are not approved for storage of leaky fuel. During the cask drying process, the air activity is monitored to meet the criterion (activity of ^{85}Kr isotope (answer by SÚJB/ONRV + ČEZ).

UA-CZ-22	Article 8	Section 7.5.1.1	Is the safety assessment of container management in the reactor pool during their loading with spent fuel included as part of the Dukovany SFSF Safety Analysis Report?	No, operations with the dual purpose cask in the reactor building are a part of NPP safety case (answer by SÚJB/ONRV).
UA-CZ-23	Article 8	Section 7.5.1.2	According to IAEA recommendations, the license for operation should be confirmed by a periodic safety review every 10 years. Is the periodic safety review of the Dukovany SFSF used for this purpose, or is the safety analysis report developed at the stage of commissioning into commercial operation used throughout the lifetime?	Commissioning safety case is periodically reviewed every 10 years for all SF storage facilities (answer by SÚJB/ONRV).
UA-CZ-24	Article 10	Section 7.7	What criteria were used to evaluate the advantage of spent nuclear fuel disposal and can the results be explained?	In the Czech Republic the disposal of SF is the only viable method how to manage SF in long-term. Therefore, there is no need to evaluate the advantages of this only method. While deep geological disposal is currently the only economically and politically acceptable solution, reprocessing may become an option in the future if circumstances change significantly (answer by SÚJB/ONRV + ČEZ).
UA-CZ-25	Article 12	Section 8.2.2.2	It is stated that immobilization in bitumen in a form suitable for disposal is used for processing of radioactive liquid radioactive waste concentrate. Does the final product of liquid waste processing comply with fire safety requirements? Were additional solutions applied to bring the final product into compliance with fire safety requirements?	Yes, it does. The compliance of the bituminised matrix with the fire safety requirements 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, if they occur. (answer by SÚJB/ONRV).
UA-CZ-26	Article 12	Section 8.2.3.1	How is the degradation of radioactive waste containers during their disposal and storage assessed?	Drums and other packages used for disposal of RAW do not have any safety function once they are placed into the disposal chambers or vaults. Therefore there is no need to assess their degradation from the point of view of their isolation functions. Storage packages have to be authorised by the Office and their integrity has to be guaranteed for at least 50 years (answer by SÚJB/ONRV).
UA-CZ-27	Article 25	Section 6.5	Regarding emergency action plans beyond the site, taking into account preparedness and response, as well as the proximity of neighbouring countries, is there established cooperation between countries under the Espoo Convention?	None of the EPZ in the Czech Republic extends beyond national borders. Within the framework of the emergency preparedness and response system, the SUJB has bilateral agreements with all neighbouring countries, which oblige the timely notification of a nuclear accident. In addition, the Czech Republic is a contracting state of the IAEA and adheres to binding EU directives. The Czech Republic has established cooperation with neighboring countries under the Espoo Convention on Environmental Impact Assessment in a Transboundary Context. This cooperation ensures that emergency action plans beyond the site, including preparedness and

				response, are aligned with international obligations and consider the proximity of neighboring countries. In practice, this means that the Czech Republic engages in consultations with neighboring countries regarding potential transboundary impacts of its nuclear facilities. The country also participates in regional agreements and initiatives to enhance nuclear safety and emergency response capabilities, ensuring compliance with both Espoo Convention obligations and Joint Convention principles (answer by SÚJB/OMKŘ, ONRV).
UA-CZ-28	Article 10	Section 7.7	The National Report of the Czech Republic states that the policy was updated in 2019, and work continued on identifying four of the nine candidate sites for creating a geological repository. What are the criteria for selecting suitable sites?	The site selection criteria for comparing DGR sites have been derived by SÚRAO and are publically available on SÚRAO web site (https://www.surao.cz/wp-content/uploads/2019/02/kriteria.pdf) in document MP.22 (Requirements, Suitability Indicators and Site Selection Criteria for DGR siting, Rev. 3, 2017). The site selection criteria are grouped into four groups – design criteria, safety crireria, environmental criteria and public acceptance criteria. This document is regularly updated during each phase of site selection process. However first criteria of the geological properties of the DGR host rock have already been proposed in 1993. (answer by SÚJB/ONRV and SÚRAO).
UA-CZ-29	Article 32.2.4	Section 4.2	How is the process of radioactive waste accounting organized in your country? What software is used in the field of radioactive waste accounting? Is it possible to review it?	SURAO, as the WMO responsible for the disposal of all RAW, operates the database software for RAW records. The system can maintain a complete record of the waste from its point of origin to the disposal waste package and its location in the facility. Only RAW that is disposed of or stored in operating LILW disposal facilities is registered in this system. Waste generators have interface access to this system. The system allows the control of WAC before the waste is received at the facility (answer by SÚRAO).

Botswana – CG8

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
RB-CZ-1	Article 28	Section J p. 141	In your report, you stated that “stable or portable detectors of ionizing radiation are used to monitor orphan sources at metallurgical plants, scrap collecting centres and at border crossings”. i) Can you explain your working relationship with Customs and Scrap metal dealers? ii) Can you state challenges encountered when working with Customs and Scrap metal dealers?	The relationship between the SÚJB and the customs authorities is regulated by the Atomic Act No. 263/2016 Coll., § 222. Interaction with customs authorities may occur when importing scrap metal into the Czech Republic for smelting and processing, or when returning it to the country of origin due to undeclared contamination of the consignment with radioactive substances. The customs authorities could intercept such an undeclared shipment (moving across the border of the Czech Republic) during their normal and random activities - then the intervention would take place in cooperation with the SÚJB. However, such a case has not yet occurred. Preventive measures to avoid the creation of orphan sources are taken primarily by the Fire Brigade and the Finance and Customs Administration of the Czech Republic. An updated list of all sites using radionuclide sources is periodically sent to the Fire Service. The Ministry of Finance and the Customs Administration carry out random

				checks, mainly on international transport. The administration is also regularly trained for this activity and also cooperates with SÚJB in this area (workshops, etc.) (answer by SÚJB/SRO).

Řecko (Greece) – CG8

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
GR-CZ-1	Article 22	Section 6.3.1.2 p. 65	Are there plans and/or processes for the knowledge management of the licensees?	ČEZ, a. s. is strongly aware that the knowledge management (KM) is essential to ensure the safe and effective operation of the company. KM is integrated into the corporate culture and is integrated into IMS on the level of processes. One of KM objectives is to gather, maintain and transfer professional knowledge and skills to younger generations. Strategy and methodology for knowledge management is determined and regularly updated. ČEZ, a. s. has a KM team and set of KM tools. The most often KM tools used by leaders to assure the knowledge transition to new generation are: succession plan and talent management, communities of practice, temporary training and mentoring positions, use of best practice, experience reports, knowledge duplication, debriefings, coaching and mentoring and others. If possible ČEZ, a. s. uses the overlap of leaving and future generation at one working position for 2 years. In addition, personnel in training is participating in projects, mentoring activities and works in professional-technical groups, inter-site exchange groups etc. Research centres, such as ÚJV and CV Řež, within the framework of their strategic plans also include a basic assessment of personnel requirements and a basic plan of the necessary recruitment to ensure personnel capacities. To minimize the risk of knowledge loss, specific positions filled by selected specialists are shaded in advance before reaching retirement age in order to implement joint projects for practical training in the field for junior workers. The area of RAW disposal (SÚRAO) is very limited in terms of available human resources. Only good knowledge management applied in the organization ensures that the internal knowledge transfers across the generations (employees of different generations work together at the same workplace thus they pass their knowledge to each other) (answer by ČEZ, ÚJV, CV Řež and SÚRAO).
GR -CZ-2	Article 19	page 42	Can you elaborate more the "specific exemptions from regulatory requirements" and the "application of the so-called graded approach" that are mentioned in the country's report in paragraph where "shorter and simpler licensing processes for new NPPs and SMRs" are described?	The institute for approving exemptions from regulatory requirements will be described in the new section 228b of the Atomic Act (in force since 1. 7. 2025) and is conceptually linked to other specific exemptions of this kind that are already included in the Atomic Act (e.g., the possibility of changing the category of a workplace or a source of ionizing radiation). Current global efforts to deploy new nuclear technologies require a highly flexible approach to setting legal requirements for these technologies and their use. Unfortunately, developments in this area are progressing rapidly, and at present, the exact parameters of the technologies being considered for use are unknown, as these technologies are still in development (design phase).

				It can be expected, that soon after the completion of their development, production and deployment will begin, and current estimates suggest that the construction and commissioning process should take only a few years. These will not be categorically different technologies, but they will introduce a number of technological innovations that the current legislation does not anticipate. Due to the rapid development, it is not possible to adjust legislative requirements at the same pace when such a need arises, nor is it possible to adequately prepare these requirements in advance, as the technology in question does not yet exist. In practice, this possible exemptions from regulatory requirements primarily concern (but not exclusively) small modular reactors (SMRs). The amendment therefore introduces the possibility of granting exemptions from regulatory requirements related to nuclear safety, radiation protection, technical safety, radiation monitoring, management of radiation emergencies, security, and nuclear non-proliferation. The exemption does not apply to procedural provisions, sanction mechanisms nor the definition of competencies and powers, but solely the material conditions for performing regulated activities. The exemption will be approved by the State Office for Nuclear Safety (SÚJB) as the competent central administrative authority, based on an application that must state relevant reasons and demonstrate compliance with the conditions set by law. The amendment also establishes very strict conditions for granting such an exemption, preventing its misuse or circumvention of the law in cases where it would be inappropriate. In addition to the usual legal boundaries for such exemptions, the applicant must primarily submit proof of ensuring safety and adherence to best practices, which include, among other things, the requirements of the International Atomic Energy Agency. Furthermore, a mechanism is being introduced for the possibility (but not the obligation) of revoking such an exemption by SÚJB, including the option of revocation upon request. In practice, situations may arise where technological advancements or practical changes in the operated activity render the granted exemption obsolete, reopening the possibility of proceeding in accordance with legislative requirements. In such cases, there is no reason to maintain the exemption in force, as, despite meeting the aforementioned conditions, it still represents a deviation from the standard. SÚJB may also revoke the exemption as a sui generis sanctioning tool if the exemption holder fails to fulfill its obligations set by atomic legislation, including obligations not directly related to the granted exemption. This is based on the principle of precaution, as violations of legal requirements may indicate a general lack of preparedness on the part of the exemption holder to fulfill its obligations. In such cases, the exemption may further exacerbate the situation. Regarding the application of the so-called graded approach, amendment to the Atomic Act contains new definition of the term graded approach –

				Section 5 (8). This definition is explicitly based on the risk associated with the performed activities and their nature. The amendment provisions clarify the principle of the so-called graded approach to align with the recommendations of IAEA and practical needs. Since regulatory requirements cannot always be established solely in a prescriptive manner, it is necessary to allow the subject of the regulation to determine an appropriate way to meet these requirements within the limits set by the legal framework. However, certain guidelines must still be established to ensure that safety is adequately maintained. In the IAEA's safety terminology, the graded approach is defined as a procedure or method in which the stringency of control measures and conditions to be applied corresponds, to a reasonable extent, to the likelihood and potential consequences of loss of control and the associated level of risk. The use of a graded approach ensures that the required levels of analysis, documentation, and measures correspond to the magnitude of potential radiological and non-radiological risks, the nature and specific characteristics of the facility, and the stage of its life cycle. Another factor that must be taken into account is the nature of activities, as they may have varying impacts on the associated risk. The new wording aims to facilitate the regulation of new nuclear facilities (new radiation sources, SMRs), whose detailed legal framework is not yet possible due to a lack of knowledge about the technology being used. The graded approach will allow their deployment without compromising the required level of protection against the risks they may pose (answer by SÚJB/PrO)
GR -CZ-3	Article 26	page 41	Have there been any considerations for the production of future waste following the plans of Czech Republic for SMRs and new nuclear facilities?	Yes, the updated Policy considers future production of RAW not only from operated NPP units, but also four APR-1000 units and up to six RR SMR units, each 500 MW_e (answer by SÚJB/ONRV).
GR -CZ-4	Article 22	Section 5.3.4	Based on the report the human resources for SUJB are sufficient to provide the basic functions imposed by Law. Has SUJB also taken into account the new nuclear facilities and the DGR that are planned in Czech Republic? And since this affects the TSOs and the licensees are there any specific plans for the capacity building and development in the country?	With all the new national development activities planned for the construction of new nuclear power units, the SÚJB is going to get 52 new professional positions between 2025 and 2027. There are currently 3 strategic documents related to the capacity building: 1) Post-Fukushima National Action Plan on Strengthening Nuclear Safety of Nuclear Facilities in the Czech Republic (NAP SNS) - specifically focused on safety including capacity building 2) National Action Plan for the Development of Nuclear Energy in the Czech Republic (NAP DNE) - generally focused on nuclear energy including education and nuclear safety in broader sense 3) National Energy Strategy - generally focused on energy security with emphasis on nuclear safety ensuring, including capacity building; the strategy is currently under review which should reflect nuclear safety topic in referred meaning Moreover, the government recently adopted several decisions setting particular tasks to implement capacity building, e.g. no. 74/2024 (answer by SÚJB/OS).

GR -CZ-5	Article 6	page 87	According to the report "The general public is involved in the decision-making process concerning management of RAW and SF during the assessment of environmental impacts of installations for SF and RAW…". Are there any specific plans for the DGR?	The involvement of the general public in the decision-making process concerning the development of DGR is provided in the Section 7.7 of the National Report (answer by SÚJB/ONRV).
GR -CZ-6	Article 28	Section 2.2	Are there any indicators monitoring the safe management of disused sources in the country?	Special obligations related to the management of a radionuclide (disused) source are set in Atomic Act No. 263/2016 Coll. § 90: 1) Licence holders holding a RS for which they have no further use shall immediately transfer this source to its supplier, a recognised storage facility, a holder of a licence for the management of radioactive waste, or another authorised user. 2) Holders of a licence for the management of a RS shall permanently generate funds for the safe discontinuation of this activity. 3) Licence holders holding a simple or significant radionuclide source which is expected to be not used for a period longer than 12 months shall transfer this source, at their own cost, to a recognised storage facility for storage. 4) Holders of a licence for the management of a RS who are subject to a bankruptcy decision shall, immediately after the bankruptcy decision becomes final, transfer, at their own cost, any radionuclide source for which they have no further use to a recognised storage facility for storage. The cost of storage of a radionuclide source and its disposal shall be part of asset management expenditure. The Czech Republic has created a system for disused sources. The principles are set out in the document: "National Strategy for Security of Radionuclide Sources and for Orphan Sources" that is publicly available on the website: https://www.sujb.cz/en/radiation-protection/national-strategy-for-security-of-radionuclide-sources-and-for-orphan-sources/ (answer by SÚJB/SRO).

Island (Iceland) – CG8

Q/C No.	JC Article No.	Sect./ page	Question/Comment	Answer
IS-CZ-1	Article 10	Section 7.7.	It is stated in the report that a multicriteria evaluation is completed regarding potential sites for a DGR. Can Czech Republic elaborate on the criteria and how they have been derived? In addition, are the criteria at this stage only safety related or do they include aspects such as e.g. public acceptance?	The site selection criteria for comparing DGR sites have been derived by SÚRAO and are publically available on SÚRAO web site (https://www.surao.cz/wp-content/uploads/2019/02/kriteria.pdf) in document MP.22 (Requirements, Suitability Indicators and Site Selection Criteria for DGR siting, Rev. 3, 2017). The site selection criteria are grouped into four groups – design criteria, safety crireria, environmental criteria and public acceptance criteria. This document is regularly updated during each phase of site selection process and currently in process of upgrade in purpose to select the final and backup sites. However, first criteria of the geological properties of the DGR host rock have already been proposed in 1991 and updated in 1997 and 2003. The whole process of selection of final DGR site is scientific driven, with final decision of government with statement of municipalities. (answer by SÚJB/ONRV + SÚRAO)

IS-CZ-2	Article 10	Section 7.7.	Is there a timeline associated with the existence of the second Advisory Panel of experts?	At the end of its work, the Expert Advisory Panel will make an expert recommendation to the Director of the SÚRAO and the higher authorities as a basis for the decision on the selection of the final and backup DGR site(2030) (answer by SÚJB/ONRV).
IS-CZ-3	Article 15	Section 8.5.3.3.	The effect of swelling of bitumenized waste packages on the structural integrity of the barrier system have been a concern in the post-closure safety assessment for similar facilities as Dukovany. Is this process considered in the WAC for the disposal facility?	No, the swelling effect of the bituminized waste is not considered in WAC for the disposal facility Dukovany. The application of this waste matrix has been tested in the past (answer by SÚRAO).
IS-CZ-4	Article 10	Section 7.7.	Can Czech Republic elaborate on the planned DGR concept in terms of e.g. technical barriers?	The DGR concept in the Czech Republic relies on a multibarrier system to ensure containment and isolation of radioactive waste. The barriers are designed to complement each other, with each playing a specific role in preventing the release of radionuclides. Key components include: 1. Waste Form o SF itself acts as the first barrier, as it is in a solid ceramic form (uranium dioxide) that is resistant to dissolution. Most radionuclides are immobilized within the fuel matrix. o RAW – RAW not complying with WAC for disposal in operated near-surface disposal facilities will be processed and conditioned in stable matrices and overpacks. 2. Disposal packages o The SF will be encapsulated in highly durable metallic casks, made from corrosion-resistant steel o These casks are designed to resist mechanical stresses, corrosion, and radiation damage for tens of thousands of years. 3. Buffer Materials - Ca-Mg bentonite buffer will surround the waste canisters, providing several protective functions: o Swelling properties to fill gaps and self-heal minor cracks. o Low permeability to prevent water movement. o Sorption capabilities to retard radionuclide migration. 4. Backfill by Ca-Mg bentonite provides structural support for the DGR tunnels and prevents them from collapsing over time due to geological pressure or seismic activity. It ensures long-term mechanical stability of the DGR environment. 5. Host Rock o The DGR is planned to be located in crystalline host rock in depth of 500 m,, which provide mechanical stability and chemical conditions that slow down corrosion and radionuclide migration. o The host rock has a long geological stability record, minimizing risks from future tectonic activity. (answer by SÚJB/ONRV – AI + SÚRAO).