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INTEGRATED REGULATORY REVIEW SERVICE (IRRS)

FOLLOW-UP MISSION

TO

THE REPUBLIC OF LATVIA

Riga, Latvia

13-18 October 2024

DEPARTMENT OF NUCLEAR SAFETY AND SECURITY

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REPORT OF THE

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REPORT OF

THE INTEGRATED REGULATORY REVIEW SERVICE (IRRS) FOLLOW-UP MISSION TO

REPUBLIC OF LATVIA

Mission dates:	*13 to 18 October 2024*
Regulatory body visited:	*Radiation Safety Centre of State Environmental Service of Latvia*
Location:	*Riga, Latvia*
Regulated facilities, activities, and exposure situations in the mission scope:	*Radiation sources facilities and activities, waste management facilities, decommissioning, transport of radioactive material, medical exposure, occupational exposure, public and environmental exposure and emergency preparedness and response*
Organized by:	*IAEA*

IRRS TEAM	
DALE Paul	Team Leader (United Kingdom)
OSOJNIK Igor	Reviewer (Slovenia) (remotely)
SERENAITE-PECIULE Dovile	Reviewer (Lithuania)
KALATHAKI Maria	Reviewer (Greece)
MULLER Alan	Reviewer (South Africa)
BOSNJAK Jovica	IAEA Team Coordinator
BISHOP LASOVSKA Martina	IAEA Administrative Assistant

IAEA-2024

The number of recommendations, suggestions and good practices is in no way a measure of the status of the national infrastructure for nuclear and radiation safety. Comparisons of such numbers between IRRS reports from different countries should not be attempted.

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EXECUTIVE SUMMARY

At the request of the Government of Latvia, an international team of senior safety experts visited Riga in October 2024 where they met representatives from the Radiation Safety Centre of State Environmental Service (RSC SES) to conduct an Integrated Regulatory Review Service (IRRS) follow-up mission. The purpose of this mission was to review the progress made against the recommendations and suggestions identified in the full scope IRRS initial mission to Latvia, conducted in October 2019. The scope of the IRRS follow-up mission was the same as that of the initial mission in 2019. The IRRS team comprised of five senior safety experts from five IAEA Member States and two IAEA staff members.

The IRRS team reviewed the progress in implementing the recommendations and suggestions that were documented in the IRRS initial mission report in 2019. The review covered the IRRS core modules 1 to 10, i.e. the responsibilities and functions of the Government; the global safety regime; responsibilities and functions of the regulatory body; the management system of the regulatory body; the activities of the regulatory body including authorization, review and assessment, inspection and enforcement, regulations and guides, and emergency preparedness and response. Facilities, activities and exposure situations included: radiation source applications; radioactive waste management facilities; decommissioning; transport; occupational exposure; medical exposure and; public exposure.

The mission included interviews and discussions with RSC SES staff, and a representative from the Ministry of Climate and Energy. In preparation for the IRRS follow up mission, RSC SES conducted a self-assessment of the status of recommendations and suggestions detailed in the 2019 IRRS mission report. The results of the self-assessment and supporting documentation were provided to the IRRS team as Advance Reference Material (ARM) prior to the mission.

The IRRS team concluded that all the recommendations and suggestions detailed in the IRRS initial mission report have been given due consideration and have, or will, be addressed through the implementation of a comprehensive action plan. The IRRS team determined that as of October 2024, 17 out of 23 recommendations, and 10 out of 12 suggestions, identified in the 2019 mission report have already been adequately addressed and are therefore closed. This has resulted in clear improvements to the regulatory infrastructure in Latvia making it more efficient and effective.

Notable achievements since 2019 include the following:

- The legal and regulatory framework in Latvia has been revised, providing an improved safety framework for regulating all facilities and activities in Latvia.
- The national policy and strategy for radiation safety, along with policies and strategies for radioactive waste management, which are now addressed in the Environmental Policy Guidelines for 2021-2027.
- A comprehensive Human Resources Management Plan and Long-term Training Plan for RSC SES has been developed.
- Significant improvements have been made throughout the RSC SES integrated management system, including the development of a programme for the promotion of leadership and safety culture.
- RSC SES has strengthened the Emergency and Preparedness Response in Latvia by coordinating an interinstitutional cooperation, conducting training seminars and exercises involving other state organisations.

The RSC SES staff should be commended for the efforts they have made to address the findings from 2019 and their ongoing commitment to address the remaining recommendations and suggestions.

Latvia is encouraged to continue its efforts to complete its work programme on updating regulations to better align with IAEA Safety Standards. In particular further efforts should be made to address waste

management and emergency preparedness and response.

For the recommendations and suggestions that remain open, the Government and RSC SES have an action plan to address these in the next few years, but at present these commitments, although welcomed, do not allow the IRRS team to consider these findings to be closed. The IRRS team believes that it is important that the Government and RSC SES should continue with their plans for these remaining areas which will further demonstrate RSC SES' commitment to openness and continual improvement.

The IRRS team also identified one area of good performance, which was the Long-Term Training Plan developed by RSC SES to deliver training consistently and systematically for its staff. This allows RSC SES to both develop and maintain competency within the regulatory body and act as a repository of training for all future staff needs.

The RSC SES' preparation for the follow-up mission was very thorough, and the administrative and logistical support was excellent. The IRRS team was extended full cooperation by its Latvian counterparts during the technical discussions. The counterparts presented clear evidence of the actions they have taken, or are yet to take, to successfully address all the IRRS initial mission findings from 2019. Completing this work should lead to sustainable improvements to the radiation safety framework within Latvia.

At the end of the mission, an IAEA press release was issued.

I. INTRODUCTION

At the request of the Government of Latvia, an international team of senior safety experts met representatives of the Radiation Safety Centre of State Environmental Service of Latvia (RSC SES) from 14 to 18 October 2024 to conduct an Integrated Regulatory Review Service (IRRS) follow-up mission. The mission took place at RSC SES Headquarter in Riga. The purpose of this peer review was to review Latvia's progress against the recommendations and suggestions identified in the initial IRRS mission which was carried out from 21 to 30 October 2019.

The follow-up mission was formally requested by the Government of Latvia in January 2022. A preparatory mission was conducted from 4 to 5 April 2024 at RSC SES Headquarters in Riga to discuss the purpose, objectives, and detailed preparations of the follow-up review in connection with regulated facilities, activities and exposure situations in Latvia and their related safety aspects and to agree the scope of the IRRS follow-up mission.

The IRRS team consisted of five senior regulatory experts from five IAEA Member States and two IAEA staff members. The IRRS team carried out the review in the areas covered by the initial mission in October 2019.

In preparation for the IRRS follow-up mission, Latvia conducted a self-evaluation of the status of recommendations and suggestions set out in the initial IRRS mission report and prepared a self-assessment follow-up report. This report and supporting documentation were provided to the IRRS team as advance reference material (ARM) for the mission. During the mission, the IRRS team performed a systematic review of all topics by reviewing the advance reference material, additional information provided, and by conducting interviews with the management and staff of RSC SES.

Throughout the mission, the IRRS team received the full cooperation from RSC SES in regulatory and technical areas. In particular, the staff of RSC SES provided excellent assistance and demonstrated extensive openness and transparency.

II. OBJECTIVE AND SCOPE

The purpose of this Integrated Regulatory Review Service (IRRS) follow-up mission was to conduct a review of the 23 recommendations and 12 suggestions that were given to Latvia during the IRRS initial mission conducted from 21 to 30 October 2019.

The IRRS follow-up mission scope was the same as the scope of the initial mission covering the following areas: responsibilities and functions of the government; responsibilities and functions of the regulatory body; the management system of the regulatory body; the activities of the regulatory body related to regulation of radiation facilities and activities, including authorization, review and assessment, inspection, enforcement; the development and content of regulations and guides; emergency preparedness and response; occupational radiation protection; control of medical exposure; public and environmental exposure control; transport of radioactive material; radioactive waste management and decommissioning.

The review was carried out by comparison of existing arrangements against the IAEA safety standards.

It is expected that the IRRS follow-up mission will facilitate regulatory improvements in Latvia and other Member States from the knowledge gained and experiences shared between Latvian Counterparts and IRRS reviewers, and through the evaluation of the effectiveness of Latvia's regulatory infrastructure for nuclear and radiation safety.

III. BASIS FOR THE REVIEW

A) PREPARATORY WORK AND IRRS TEAM

At the request of the Government of Latvia, a preparatory meeting for the Integrated Regulatory Review Service (IRRS) follow-up mission was conducted from 4 to 5 April 2024. The preparatory meeting was carried out by the appointed Team Leader Mr Paul Dale, the IAEA Coordinator Mr Jovica Bosnjak and the RSC SES representatives.

The IRRS follow-up mission preparatory team had discussions regarding regulatory programmes with the senior management of the RSC SES represented by Ms Dace Satrovska, Director of RSC SES together with other senior management and staff. The discussions resulted in agreement that the scope of the review would be the same as the initial mission conducted in October 2019.

The RCS SES Liaison Officer for the IRRS follow-up mission was confirmed as Ms Agnese Aizpuriete.

Ms Agnese Aizpuriete made presentations on the national context and the result of the self-assessment of the status of recommendations and suggestions made in 2019.

The IAEA staff presented the IRRS principles, follow-up mission process and methodology. This was followed by a discussion on the tentative work plan for the implementation of the IRRS follow-up mission in Latvia in October 2024.

The proposed composition of the IRRS team was discussed and tentatively confirmed. Logistics of the mission, including meetings and workplaces, counterparts and Liaison Officer, lodging and transportation arrangements were also addressed.

Latvia provided the IAEA with the advance reference material (ARM) for review at the end of July 2024. In preparation for the mission, the IRRS team members reviewed the Latvian advance reference material and provided their initial impressions to the IAEA Team Coordinator prior to the commencement of the IRRS follow-up mission.

B) REFERENCES FOR THE REVIEW

The relevant IAEA safety standards and the Code of Conduct on the Safety and Security of Radioactive Sources were used as review criteria. The complete list of IAEA publications used as the references for this mission is provided in Appendix VII.

C) CONDUCT OF THE REVIEW

The initial IRRS team meeting took place on Sunday, 13 October in Riga, led by the IRRS team Leader and the IAEA Team Coordinator. Discussions encompassed a general overview, the scope and specific issues of the mission, clarification of the bases for the review and the background, context and objectives of the mission. The understanding of the methodology for review was reinforced. The agenda for the mission was presented to the team. As required by the IRRS Guidelines, the reviewers presented their initial impressions on the ARM and highlighted significant issues to be addressed during the mission.

The host Liaison Officer was present at the initial IRRS team meeting, in accordance with the IRRS Guidelines, and presented logistical arrangements planned for the mission.

The IRRS entrance meeting was held on Monday, 14 October 2024, with the participation of senior management and staff. Opening remarks were made by Mr Andris Kenins, Director General of State Environment Service of Latvia, Ms Dace Satrovska, Director of Radiation Safety Centre and Mr Paul Dale, IRRS team Leader. Mr Jovica Bosnjak, IAEA Coordinator briefed the participants on the IRRS follow-up

mission programme. Ms Agnese Aizpuriete gave an overview of the Latvian context, activities and the action plan prepared as a result of the pre-mission self-assessment.

During the IRRS follow-up mission, a review was conducted for all review areas within the agreed scope with the objective of reviewing governmental and RSC SES response to the recommendations and suggestions identified during the initial mission. An overview of the nuclear and radiation safety regulations in Latvia and the major changes since 2019 was presented. RSC SES also made a presentation on the conclusions from its follow-up self-assessment.

The review was conducted through meetings, interviews and discussions regarding the national legal, governmental and regulatory framework for safety. The IRRS team performed its review according to the mission programme given in Appendix IV.

The IRRS exit meeting was held on Friday, 18 October 2024. The opening remarks at the exit meeting were presented by Ms Dace Satrovska, Director of the Radiation Safety Centre and were followed by the presentation of the results of the mission by the IRRS team Leader Paul Dale. Ms Rudite Vesere, Deputy State Secretary of the Ministry of Climate and Energy welcomed the report's findings. Closing remarks were made by Ms Hildegarde Vandenhove, Director of the IAEA Division of Radiation, Transport and Waste Safety.

An IAEA press release was issued at the end of the mission.

1. RESPONSIBILITIES AND FUNCTIONS OF THE GOVERNMENT

1.1. NATIONAL POLICY AND STRATEGY FOR SAFETY

2019 MISSION RECOMMENDATIONS, SUGGESTIONS	
Observation: *The fundamental safety objectives are generally addressed in the Law, Regulations and Environmental Policy Guidelines (2014-2020), including the principles of dose limitation and justification. However, the Law does not explicitly address some of the fundamental principles, such as optimization. Further, a long term commitment for radiation protection and nuclear safety has yet to be established.*	
(1)	**BASIS: GSR Part 1 (Rev 1) Requirement 1,** *states that "The government shall establish a national policy and strategy for safety, the implementation of which shall be subject to a graded approach in accordance with national circumstances and with the radiation risks associated with facilities and activities, to achieve the fundamental safety objective and to apply the fundamental safety principles established in the Safety Fundamentals".*
(2)	**GSR Part 1 (Rev 1) para 2.3** *states that "National policy and strategy for safety shall express a long term commitment to safety.*
R1	**Recommendation: The Government should include all safety fundamentals in a national policy and strategy for safety that covers all facilities and activities that takes into account graded approach. This policy and strategy should express a long term commitment to safety.**

Changes since the initial IRRS mission

Recommendation 1: Latvia has updated the Law on Radiation Safety and Nuclear Safety (the Law), which entered into force on 28 May 2024. The amendments to the Law in "Section 3: Basic Principles of Radiation Safety and Nuclear Safety," introduced the 10 basic safety principles as defined in the Fundamental Safety Principles, IAEA Safety Standards Series No. SF-1, IAEA, Vienna (2006).

On 31 August 2022, the Cabinet of Ministers adopted the Environmental Policy Guidelines for 2021-2027 by Cabinet of Ministers Order No. 583. Environmental Policy Guidelines for 2021-2027 were developed by Ministry of Environmental Protection and Regional Development (MEPRD). These Guidelines replace the previous policy which covered the period from 2014 to 2020. The former Annex 5, "Radioactive Waste Management Programme," has been expanded and renamed "Radiation Protection Programme" in Annex 3 of the new policy. It includes the national policy and strategy for radiation safety, as well as the policy and strategies for radioactive waste management, detailing measures to achieve the defined objectives.

The Environmental Policy Guidelines (EPG) serve as a high-level national policy that incorporates the safety fundamentals together with the graded approach. The national policy and strategy outlined in the EPG reflect a long-term commitment to safety.

For radioactive waste management, key principles are also defined, such as control of radioactive waste generation, management interdependencies, protection of human health and the environment, minimizing burdens on future generations, long-term safety management, the polluter pays principle, and decision-making principles.

While the principle of a graded approach is not explicitly stated in the amended Law, it has been implemented to some extent in regulations and internal procedures, based on the radiation risks associated with facilities and activities. The graded approach is emphasized in the Environmental Policy Guidelines for 2021-2027.

The IRRS team was informed that as of 1 July 2024, the MEPRD has been reorganized, with its functions related to environmental protection, including radiation and nuclear safety matters, transferred to the Ministry of Climate and Energy.

Status of the initial mission finding

Recommendation 1 (R1) is closed as the Government has incorporated into its legal framework the fundamental safety objectives and fundamental safety principles of IAEA SF-1, including a graded approach and the long-term commitment to safety.

2019 MISSON RECOMMENDATIONS, SUGGESTIONS	
Observation: *A Quality Management System Manual was recently developed by RSC SES in 2018. The manual includes a section on safety culture that states that safety must be a top priority and safety culture is accordingly complied with by the RSC SES in the operations thereof, while fulfilling the functions and tasks thereof. However, a plan for the promotion of leadership and management for safety culture is not established.*	
(1)	**BASIS: GSR Part 1 (Rev 1) Requirement 1 states that** *"In the national policy and strategy, account shall be taken of the promotion of leadership and management for safety, including safety culture.*
(2)	**BASIS: GSR Part 2 Requirement 2 states that** *"Managers shall demonstrate leadership for safety and commitment to safety".*
(3)	**GSG-12 para 3.9:** *The regulatory body should establish and maintain a programme to develop, foster and evaluate its safety culture. Such a programme should include safety culture self-assessments, workshops and seminars for defining improvement programmes, as well as training and support.*
R2	**Recommendation: RSC SES should develop a programme for the promotion of leadership and management for safety culture.**

Changes since the initial IRRS mission

Recommendation 2: The Environmental Policy Guidelines for 2021-2027 (EPG) were adopted on 31 August 2022 by Cabinet of Ministers Order No. 583. Chapter 2.3 of Annex 3 of the EPG, titled "Radiation Protection Programme" includes provisions for promoting leadership and management for safety culture at the high managerial level. Specific activities for promoting safety culture are outlined in Goal No. 4, Action No. 47, Point 4.3, include developing informative materials and guidelines, organizing educational seminars and establishing regulatory requirements, with implementation commencing in 2021.

The Human Resources Plan (2021-2025) of the RSC SES was updated in 2023. This update includes a programme aimed at promoting leadership and management for safety culture within RSC SES. Chapter 5 of the programme outlines:

- Activities to improve understanding of safety culture and leadership;
- Activities for assessing necessary improvements;
- Staff training and;
- Assessment of safety culture and leadership.

Status of the initial mission finding

Recommendation 2 (R2) is closed as the revised Human Resources Plan (2021-2025) now includes a programme for the promotion of leadership and management for safety culture.

1.2. ESTABLISHMENT OF A FRAMEWORK FOR SAFETY

There were no findings in this area in the initial IRRS mission.

1.3. ESTABLISHMENT OF A REGULATORY BODY AND ITS INDEPENDENCE

There were no findings in this area in the initial IRRS mission.

1.4. RESPONSIBILITY FOR SAFETY AND COMPLIANCE WITH REGULATIONS

There were no findings in this area in the initial IRRS mission.

1.5. COORDINATION OF AUTHORITIES WITH RESPONSIBILITIES FOR SAFETY WITHIN THE REGULATORY FRAMEWORK

There were no findings in this area in the initial IRRS mission.

1.6 SYSTEM FOR PROTECTIVE ACTIONS TO REDUCE EXISTING OR UNREGULATED RADIATION RISKS

There were no findings in this area in the initial IRRS mission.

1.7. PROVISIONS FOR THE DECOMMISSIONING OF FACILITIES AND THE MANAGEMENT OF RADIOACTIVE WASTE AND OF SPENT FUEL

2019 MISSON RECOMMENDATIONS, SUGGESTIONS	
Observation: *Radioactive Waste Management Programme defines the major actions for radioactive waste management that are to be taken within the defined period. The Environmental Policy Guidelines (2014-2020) define long term management goals for low level waste however, do not define long term goals for safe management for all classes of existing and future radioactive waste streams.*	
(1)	**BASIS: GSR Part 1 (Rev.1) Requirement 1 states that** *"The government shall establish a national policy and strategy for safety, the implementation of which shall be subject to a graded approach in accordance with national circumstances and with the radiation risks associated with facilities and activities."*
(2)	**BASIS: GSR Part 5 Requirement 2 states that** *"To ensure the effective management and control of radioactive waste, the government shall ensure that a national policy and a strategy for radioactive waste management are established. The policy and strategy shall be appropriate for the nature and the amount of the radioactive waste in the State shall indicate the regulatory control required, and shall consider relevant societal factors. The policy and strategy shall be compatible with the fundamental safety principles and with international instruments, conventions and codes that have been ratified by the State. The national policy and strategy shall form the basis for decision making with respect to the management of radioactive waste. "*
(3)	**BASIS: SSR Part 5 Requirement 2 para 3.8 states that** "*General standards for the*

2019 MISSON RECOMMENDATIONS, SUGGESTIONS	
	protection of people and the environment are usually set out in national policy or in legislation…"
(4)	**BASIS: SF-1 para 3.29 states that "***Radioactive waste must be managed in such a way as to avoid imposing an undue burden on future generations; that is, the generations that produce the waste have to seek and apply safe, practicable and environmentally acceptable solutions for its long term management…"*
R3	**Recommendation: The government should develop national policy to define long term goals for safe management of all classes of existing and future radioactive waste streams.**

Changes since the initial IRRS mission

Recommendation 3: Environmental Policy Guidelines (EPG) for 2021-2027 were adopted on 31 August 2022 by Cabinet of Ministers Order No 583. Annex 3 "Radiation Protection Programme", Chapter 3 of the EPG analyses the existing situation in the field of radioactive waste management including analyses of existing facilities, existing quantities of radioactive waste and predictions for the future. Section 3.3.3 and Section 3.7 present future plans in radioactive waste management and long-term objectives for the management of all classes of existing and future radioactive waste streams.

EPG include measures for reducing the generation of radioactive waste, upgrading and expanding the existing facility for disposal and long-term storage of radioactive waste (intermediate level waste) that does not meet waste acceptance criteria for disposal in the existing disposal facility. In addition, there are plans for building of further capacity in the "Radons" disposal facility for decommissioning of waste from the Salaspils research reactor.

Although Latvia has yet to adopt the formal IAEA classification of LLW and ILW, it has both of these waste types within its current inventory. Historically, 35m^3 of ILW has been disposed in Latvia and a further 18m^3 is in storage. For intermediate level waste, the decision on final solutions is now planned in 2040 when an in-depth analysis of the possible management options for intermediate level waste will be carried out. Searching internationally for solutions in other countries is also to be considered. The long-term key performance indicators up until year 2070 have been developed and are set out in the Radiation Protection Programme of EPG (Table 5).

The IRRS team note that the decision regarding disposal solution for ILW has been planned in 2040, however, to aid the development of an informed decision Suggestion 9 should be addressed.

Status of the initial mission finding

Recommendation 3 (R3) is closed as long-term goals for radioactive waste management of all classes of existing and future radioactive waste streams are addressed in the Environmental Policy Guidelines.

2019 MISSON RECOMMENDATIONS, SUGGESTIONS	
Observation: *The requirement to develop initial decommissioning plan is established in regulations for selected licensees. There is no requirement for identifying decommissioning strategy, and the periodic review and update of the plan. This finding has been identified in the preliminary action plan. The regulations do not contain safety requirement for financial provision for decommissioning activity and safe conduct of decommissioning.*	
(1)	**BASIS: GSR Part 1 (Rev 1) Requirement 10, para. 2.28 states that** *"Decommissioning of facilities and the safe management and disposal of radioactive waste shall constitute*

2019 MISSON RECOMMENDATIONS, SUGGESTIONS	
	essential elements of governmental policy and the corresponding strategy over the lifetime of facilities and the duration of activities"…
(2)	**GSR Part.1 (Rev 1) Req.10, para 2.33 states that "***Appropriate financial provision shall be made for:* *Decommissioning of facilities;…"*
(3)	**GSR Part.3 Req.2, para. 2,24 says that** *"The government shall ensure that arrangements are in place for the safe decommissioning of facilities.."*
(4)	**Basis: GSR Part 6 Req. 8 Selecting a decommissioning strategy** *The licensee shall select a decommissioning strategy that will form the basis for the planning for decommissioning. The strategy shall be consistent with the national policy on the management of radioactive waste.* **Para. 5.2 states that** *"The selection of a decommissioning strategy shall be justified by the licensee.*
(5)	**BASIS: GSR part. 6 Req. 10 para.7.3 states that "***For a new facility, planning for decommissioning shall begin early in the design stage and shall continue through to termination of the authorization for decommissioning."*
(6)	**BASIS: GSR part. 6 para. 7.5 states that "***The decommissioning plan shall be updated by the licensee and shall be reviewed by the regulatory body periodically…"*
R4	**Recommendation: The Government should include in the national legal framework provisions for safe planning and conduct of decommissioning activity. This includes requirements for identifying decommissioning strategy, periodical update of decommissioning plans, and providing financial support for decommissioning activity.**

Changes since the initial IRRS mission

Recommendation 4: In 2021, Regulation No. 752 was replaced by Regulation No. 65 "Regulations on Notification, Registration and Licensing of Activities with Sources of Ionising Radiation", which was adopted on 28 January 2021. The new Regulation No. 65 sets out the requirements for decommissioning, where paragraphs 16.12 prescribe the requirements for preparation of a decommissioning plan, which must be prepared in accordance with Annex 3. Paragraph 24 prescribes the requirements for preparation of the initial decommissioning plan, and paragraph 25 prescribes the requirements for the final decommissioning plan. The initial decommissioning plan should be reviewed and updated as necessary, but at least every five years, to incorporate any new information. The requirements for preparation of documents to demonstrate achievement of the final decommissioning status are laid down in paragraph 26.

The IRRS team was informed that IAEA SRS-45 "Standard Format and Content for Safety Related Decommissioning Documents" and IAEA-TECDOC-1816 "Model Regulations for Decommissioning of Facilities" were used as the basis for developing regulation No. 65. Annex 3 of Regulation No. 65 prescribes the content of the decommissioning plan. According to Annex 3, a decommissioning strategy must be identified by the operator and in case of deferred dismantling the decision for the selected strategy has to be justified (Annex 3, paragraph 1.3). Safety assessment is part of the decommissioning plan in order to assess the safety of the planned decommissioning and dismantling activities (Annex 3, paragraph 1.9). The decommissioning plan must predict cost estimates and provision of financial resources for all planned decommissioning activities (Annex 3, paragraph 1.8).

The IRRS team was informed that since 2021decommissioned facilities have either been of a relatively low cost, or funding has been secured from National or International bodies.

Status of the initial mission finding

Recommendation 4 (R4) is closed as the Government updated the Regulations establishing regulatory requirements for safe planning and conduct of decommissioning activities, including the requirements for identifying a decommissioning strategy, periodical updates of decommissioning plans, and provision of financial support for decommissioning activities.

1.8. COMPETENCE FOR SAFETY

There were no findings in this area in the initial IRRS mission.

1.9. PROVISION OF TECHNICAL SERVICES

There were no findings in this area in the initial IRRS mission.

2. THE GLOBAL SAFETY REGIME

2.1. INTERNATIONAL OBLIGATIONS AND ARRANGEMENTS FOR INTERNATIONAL COOPERATION

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *Latvia has written a political commitment to endorse principles of the Code of Conduct on the Safety and Security of Radioactive Sources and Guidance on the Import and Export of Radioactive Sources. However, Latvia has not yet expressed political commitment to supplementary Guidance on the Management of Disused Radioactive Sources. This guidance was recently approved in the General Conference in September 2017.*	
(1)	**BASIS: GSR Part 1 (Rev1) Requirement 14, para. 3.2 (c) states that** *"The features of the global safety regime include: (c) Internationally agreed IAEA safety standards that promote the development and application of internationally harmonized safety requirements, guides and practices."*
S1	**Suggestion: The Government should consider a commitment to implement the supplementary guidance under the Code of Conduct entitled "Guidance on the Management of Disused Radioactive Sources".**

Changes since the initial IRRS mission

Suggestion 1: The Government of Latvia expressed its commitment to adopting the supplementary guidance under the Code of Conduct, titled "Guidance on the Management of Disused Radioactive Sources" by sending an official letter to the IAEA in May 2023. This commitment is visible on the IAEA website.

Status of the initial mission finding

Suggestion 1 (S1) is closed as the Government of Latvia expressed their commitment to implement the supplementary guidance under the Code of Conduct titled "Guidance on the Management of Disused Radioactive Sources".

2.2. SHARING OF OPERATING EXPERIENCE AND REGULATORY EXPERIENCE

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *Latvia has established criteria for reporting events, however, there is no systematic approach in place for analysis to identify lessons learned, operating experience or for dissemination of such information in the country or internationally.*	
(1)	**BASIS: GSR Part 1 (Rev.1), Requirement 15 states that** *"The regulatory body shall make arrangements for analysis to be carried out to identify lessons to be learned from operating experience and regulatory experience, including experience in other States, and for the dissemination of the lessons learned and for their use by authorized parties, the regulatory body and other relevant authorities"*
(2)	**BASIS: GSR Part 1. Req. 1 (Rev.1) para 3.4.** *The regulatory body shall establish and maintain a means for receiving information from other States, regulatory bodies of other States, international organizations and authorized parties, as well as a means for making available to others lessons learned from operating experience and regulatory experience. The regulatory body shall require appropriate corrective actions to be carried out to prevent the recurrence of safety significant events. This process involves acquisition of the necessary information and its analysis to facilitate the effective utilization of*

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
	international networks for learning from operating experience and regulatory experience
S2	**Suggestion: RSC SES should consider within its management system to establish procedures for analysing events, ensuring corrective actions, operating experience and disseminating the lessons learned within the country and internationally.**

Changes since the initial IRRS mission

Suggestion 2: In 2024, RSC SES updated the Quality Management System Manual (No. KV_Vis_Rokasgramata) by adding Appendix 5, titled "Procedures for the Exchange of Information and Lessons Learned". Appendix 5 includes a table on "Sharing Experiences and Lessons Learned in Various RSC Processes", which provides a detailed description of the input information to be analysed, as well as how it is analysed and shared with domestic and international stakeholders. These procedures ensure a systematic approach to identify and analyse lessons learned.

The IRRS team was informed about the practical implementation of the Procedures for the Exchange of Information and Lessons Learned. This implementation covers each RSC SES process, detailing how information is received, lessons learned are analysed, and disseminated both internally within RSC SES and externally.

RSC SES has recognised that as a small regulatory body it needs to capture and retain knowledge to allow training of both current and future staff. In order to do this, the RSC SES has developed a training system for its staff - RSC SES Training Module, and Long-Term Training Plan. This system records and contains lectures that have been developed by both RSC SES and guest lecturers. A consistent classification scheme is used for all lectures, which makes it easier to find training by topic.
RSC SES personnel participate in various international events. After each event, RSC SES staff is required to share their experiences with their colleagues. Lectures by RSC SES staff are recorded and archived in an accessible spreadsheet available to all staff. Information about participation in the event is also posted on the SES Teams common channel, where any SES employee can find out information about RSC's experience from the event.

The IRRS team was informed that in 2023 a total of 24 training events were hosted by RSC SES which were attended by more than 1500 participants.

In order to achieve and maintain competency within the regulatory body staff can use the training module to provide the necessary knowledge required of their duties. The total number of training events is now in excess of 170. This Long-Term Training Plan has been recognized by the IRRS team as a good performance.

Status of the initial mission finding

Suggestion 2 (S2) is closed as the updated the Quality Management System Manual includes procedures for analysing events, ensuring corrective actions, operating experience and disseminating the lessons learned within the country and internationally.

3. RESPONSIBILITIES AND FUNCTIONS OF THE REGULATORY BODY

3.1. ORGANIZATIONAL STRUCTURE OF THE REGULATORY BODY AND ALLOCATION OF RESOURCES

There were no findings in this area in the initial IRRS mission.

3.2. EFFECTIVE INDEPENDENCE IN THE PERFORMANCE OF REGULATORY FUNCTIONS

There were no findings in this area in the initial IRRS mission.

3.3. STAFFING AND COMPETENCE OF THE REGULATORY BODY

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *RSC SES has prepared a training plan (2018-2022) for each employee, however, a comprehensive human resources plan has not been established. This issue has been also recognised in the self-assessment.*	
(1)	**BASIS: GSR Part 1 (Rev.1) Requirement 18, para. 4.11 states that** *"The regulatory body has to have appropriately qualified and competent. A human resources plan shall be developed that states the number of staff necessary and the essential knowledge, skills and abilities for them to perform all the necessary regulatory functions."*
(2)	**BASIS: GSR Part 1 (Rev.1) Requirement 18, para. 4.13 states that** *"A process shall be established to develop and maintain the necessary competence and skill of staff of the regulatory body as an element of knowledge management. This process shall include the development of a specific training programme on the basis of an analysis of the necessary competence and skills."*
R5	**Recommendation: RSC SES should prepare assessment of the necessary number of staff including competence and skills to perform its functions and to discharge its responsibilities, and based on this analysis to develop and implement a comprehensive human resources plan including, specific training programme, which is based on assessment of the necessary staff.**

Changes since the initial IRRS mission

Recommendation 5: In 2020 RSC SES developed a five-year Human Resources Management Plan (HRMP) 2021-2025, which was revised in December 2023. In 2021 a Long-Term Training Plan (LTTP) 2021-2025 was developed and updated in 2022 due to staffing changes. The HRMP 2021-2025 and LTTP 2021-2025 are key documents within the integrated quality management system, and together with relevant procedures, these form a comprehensive human resources management framework.

The HRMP includes a detailed assessment of the staffing needs required to fulfil the regulatory functions of RSC SES, as outlined in the Law. The plan evaluates the competencies of existing RSC SES staff and identifies potential risks to the performance of regulatory functions. A Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis was performed for this purpose. As part of the HRMP, an assessment of the technical competencies of each RSC SES staff member was conducted across 21 topics. Three levels (1-3) of competencies are specified for each position. The assessment highlighted specific competencies that need further attention in training to ensure the full execution of RSC SES' regulatory duties.

The annexes to the plan provide an estimate of the time required to perform the duties of each post, together with the competence required to deliver those duties.

Status of the initial mission finding

Recommendation 5 (R5) is closed as RSC SES has prepared and adopted a comprehensive Human Resources Management Plan (2021-2025), including a specific short- and long-term training programme based on an assessment of the staff competencies required for each post.

3.4. LIAISON WITH ADVISORY BODIES AND SUPPORT ORGANIZATIONS

There were no findings in this area in the initial IRRS mission.

3.5. LIAISON BETWEEN THE REGULATORY BODY AND AUTHORIZED PARTIES

There were no findings in this area in the initial IRRS mission.

3.6. STABILITY AND CONSISTENCY OF REGULATORY CONTROL

There were no findings in this area in the initial IRRS mission.

3.7. SAFETY RELATED RECORDS

There were no findings in this area in the initial IRRS mission.

3.8. COMMUNICATION AND CONSULTATION WITH INTERESTED PARTIES

There were no findings in this area in the initial IRRS mission.

4. MANAGEMENT OF THE REGULATORY BODY

4.1. RESPONSIBILITY AND LEADERSHIP FOR SAFETY

There were no findings in this area in the initial IRRS mission.

4.2. RESPONSIBILITY FOR INTEGRATION OF SAFETY INTO THE MANAGEMENT SYSTEM

There were no findings in this area in the initial IRRS mission.

4.3. THE MANAGEMENT SYSTEM

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *The RSC SES does interact with its interested parties. However, there is no clear information in its management system on the strategy and means adopted by the RSC SES for interaction with interested parties, including the public and other external organisations.*	
(1)	**BASIS: GSR Part 1 (Rev. 1) Requirement 36 states that** *the regulatory body shall promote the establishment of appropriate means of informing and consulting interested parties and the public about the possible radiation risks associated with facilities and activities, and about the processes and decisions of the regulatory body."*
(2)	**BASIS: GSR Part 2 Requirement 5 states that** *"Senior management shall ensure that appropriate interaction with interested parties takes place."* ***Para 4.6.*** *Senior management shall identify interested parties for their organization and shall define an appropriate strategy for interaction with them.* ***Para 4.7****. Senior management shall ensure that the processes and plans resulting from the strategy for interaction with interested parties include:* *(a) Appropriate means of communicating routinely and effectively with and informing interested parties with regard to radiation risks associated with the operation of facilities and the conduct of activities;* *(b) Appropriate means of timely and effective communication with interested parties in circumstances that have changed or that were unanticipated;* *(c) Appropriate means of dissemination to interested parties of necessary information relevant to safety;* *(d) Appropriate means of considering in decision making processes*
S3	**Suggestion: The RSC SES should consider to document, in its management system, the strategy and means for interaction with interested parties.**

Changes since the initial IRRS mission

Suggestion 3: The communication strategy for 2024-2027 developed by SES, which also applies to RSC SES, includes specific communication goals and tasks, identifies the responsible SES units for communication, and defines communication channels and target audiences. It also designates the individuals responsible for communication and the spokespersons. The strategy outlines how communication efforts will be measured, evaluated and provides various examples to facilitate effective communication, such as templates for press releases.

Additionally, SES has established a unified Communication Standard that outlines protocols for both internal and external communication with clients, whether remote or face-to-face. It also specifies communication standards for inspectors.

In 2024, RSC SES updated the Quality Management System Manual (KV_Vis_Rokasgramata), adding a new section, 4.7, titled “Strategy for Cooperation with Stakeholders in Radiation Safety.” This strategy maps the key RSC SES stakeholders, their areas of interest, and the potential impact they may have on radiation safety issues. Additionally, Appendix 6 of the Manual provides a comprehensive list of various stakeholders, their need for and methods of interaction. The list includes State Institutions, Technical Support Organizations (TSOs), the Government (Cabinet of Ministers), Parliament (Saeima), training institutions, experts in radiation safety and medical physics, non-governmental organizations, municipalities, operators, and the general public.

Status of the initial mission finding

Suggestion 3 (S3) is closed as RSC SES has documented the strategy and means for interaction with interested parties, including the public and other interested parties.

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *The management system which has been developed and implemented by the RSC SES includes various elements to demonstrate how the organisation achieves its goals without compromising safety. However, no information is provided therein on the interface between safety and security, more specifically on the arrangements for the resolution of any conflict that may arise in decision making processes.*	
(1)	**BASIS: GSR Part 2, Requirement 6 Para 4.10 states that** *“Arrangements shall be made in the management system for the resolution of conflicts arising in decision making processes. Potential impacts of security measures on safety and potential impacts of safety measures on security shall be identified and shall be resolved without compromising safety or security.”*
R6	**Recommendation: The RSC SES should include in its management system details on the arrangements for the resolution of conflicts arising in decision making processes, most specifically those related to potential impacts of security measures on safety and potential impacts of safety measures on security.**

Changes since the initial IRRS mission

Recommendation 6: In response to this recommendation, RSC SES added Section 4.2.1, "Resolution of Possible Conflicts in the Implementation of Various Types of Requirements," during the 2024 update of the Management System Manual. It outlines that RSC SES's internal documents are designed to provide detailed descriptions of processes and decision-making steps to prevent conflicts that could have arisen when implementing different requirements.

The section also emphasizes the critical role of managers in identifying and determining measures to avoid potential conflicts, thereby minimising the potential of such conflicts occurring during the implementation of requirements. The SES Legal department may be involved as necessary.

The interface between safety and security is recognized as an area where conflicting requirements could potentially arise. There are few facilities in Latvia where such conflicts might occur and the existing legal framework and cooperation arrangements are considered sufficient to effectively prevent security measures from impacting safety, and vice versa. Facilities and radiation sources for which a security plan is required have been identified and cooperation with the State Security Service has been established.

Status of the initial mission finding

Recommendation 6 (R6) is closed as RSC SES revised its Management System Manual which now includes the arrangements for the resolution of conflicts arising in decision making processes, including the potential impacts of security measures on safety, and vice versa.

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *There is no information provided in the management system for the RSC SES to identify any changes, including organisational changes, that could have significant implications for safety and to ensure that they are appropriately analysed.*	
(1)	**BASIS: GSR Part 2, Requirement 6 Para 4.13 states that** *"Provision shall be made in the management system to identify any changes (including organizational changes and the cumulative effects of minor changes) that could have significant implications for safety and to ensure that they are appropriately analysed."*
R7	**Recommendation: The RSC SES should identify in its management system any changes, including organizational changes, that could have significant implications for safety and to ensure that they are appropriately analysed.**

Changes since the initial IRRS mission

Recommendation 7: The Management System Manual, which was updated in early 2024, provides for the assessment of changes that could have significant implications for safety in Section 4.2.2. This section not only identifies the changes that may significantly affect safety, but also analyses their potential effects and outlines measures to mitigate these impacts. The changes identified in the assessment include organizational and staff changes, reductions in funding, legislative updates, the construction of nuclear facilities in Latvia, the introduction of new technologies, including artificial intelligence, and the absence of technical support institutions, laboratories, and inspection bodies.

Status of the initial mission finding

Recommendation 7 (R7) is closed as RSC SES revised its Management System Manual which now addresses the management of changes that could have significant implications for safety.

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *There is no arrangement established in the management system for the RSC SES to carry out an independent review before decisions significant for safety are made.*	
(1)	**BASIS: GSR Part 2, Requirement 6 Para 4.14 states that** *"Arrangements shall be established in the management system for an independent review to be made before decisions significant for safety are made. The requirements on the independent nature of the review and on the necessary competences of the reviewers shall be specified in the management system."*
R8	**Recommendation: The RSC SES should establish in its management system the arrangements for independent review to be made before decisions significant for safety are made, and to specify the requirements on the independent nature of the review and on the necessary competences of the reviewers.**

Changes since the initial IRRS mission

Recommendation 8: The current Management System Manual includes in Section 4.2.3 the requirement for conducting an independent assessment before making decisions on significant radiation safety matters.

Appendix 2 of the Manual provides an analysis of areas where independent assessment is needed in the decision-making process. This analysis identifies key areas, supplemented by descriptions and requirements for independent assessment. These areas include granting licenses or registrations, construction, reconstruction, or decommissioning of facilities of national significance, long-term safety assessment of radioactive waste repositories, planning physical protection measures, and developing action and response plans for radiation emergencies.

Status of the initial mission finding

Recommendation 8 (R8) is closed as RSC SES revised its Management System Manual specifying the conditions for an independent review before decisions significant for safety are made.

4.4. MANAGEMENT OF RESOURCES

There were no findings in this area in the initial IRRS mission.

4.5. MANAGEMENT OF PROCESSES AND ACTIVITIES

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *Most of the processes established by the RSC SES to achieve its goals have been documented in its management system. It has been identified that few processes have not yet been developed and documented.*	
(1)	**BASIS: GSR Part 2 Requirement 8 states that** *"The management system shall be documented. The documentation of the management system shall be controlled, usable, readable, clearly identified and readily available at the point of use."*
(2)	**BASIS: GSR Part 2 Requirement 10 Para 4.28 states that** *"Each process shall be developed and shall be managed to ensure that requirements are met without compromising safety. Processes shall be documented and the necessary supporting documentation shall be maintained. It shall be ensured that process documentation is consistent with any existing documents of the organization. Records to demonstrate that the results of the respective process have been achieved shall be specified in the process documentation."*
S4	**Suggestion: The RSC SES should consider to identify, develop and document all its processes.**

Changes since the initial IRRS mission

Suggestion 4: The Management System Manual was updated in May 2024. The IRRS team concluded that the current version addresses all of the necessary processes including those identified during the IRRS mission in 2019, such as: interaction and communication with interested parties; nuclear material accounting; RAIS+ system management; individual dose passbook management and; development of guides.

Section 4.6.3 of the manual outlines the criteria for developing internal regulations of RCS SES, as well as development of guidance for interested parties, including operators.

Appendix 1 of the manual includes a process map for RSC SES, listing all processes categorized into Management, Core, and Supporting processes.

Status of the initial mission finding

Suggestion 4 (S4) is closed as RSC SES revised its Management System Manual which now includes all necessary processes.

4.6. CULTURE FOR SAFETY

There were no findings in this area in the initial IRRS mission.

4.7. MEASUREMENT, ASSESSMENT AND IMPROVEMENT

There were no findings in this area in the initial IRRS mission.

5. AUTHORIZATION

5.1. GENERIC ISSUES

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *There is no system for notification in place. Amendments to the law in order to implement the concept of notification have been drafted in 2018. This finding has been recognized in the self-assessment.*	
(1)	**BASIS: GSR Part 3 Requirement 7, para. 3.7 states that** *"Any person or organization intending to carry out any of the actions specified in para. 3.5 shall submit a notification to the regulatory body of such an intention. Notification alone is sufficient provided that the exposures expected to be associated with the practice or action are unlikely to exceed a small fraction, as specified by the regulatory body, of the relevant limits, and that the likelihood and magnitude of potential exposures and any other potential detrimental consequences are negligible."*
R9	**Recommendation: The government should include provisions in the legislation for notification.**

Changes since the initial IRRS mission

Recommendation 9: The Government has amended The Law (Article 11) in order to further extend the application of the graded approach in authorization by recognising activities that only require notification. The information about activities that have been notified and do not require registration or license by RSC SES are included in a database according to the Law (Chapter III).

Three types of activities (planning of the production of radiopharmaceuticals, new radiopharmaceuticals, use of an accelerator; storage of radiation generators longer than one month after its purchase and; use of fixed analytical X-ray equipment) that only require notification are set out in paragraph 6 of Regulations No. 65 "Regulations Regarding Notification, Registration, and Licensing of Activities with Sources of Ionising Radiation".

The IRRS team was informed, that until the end of 2023 approximately 80 notifications were received in online authorization system TULPE and recorded by RSC SES in RAIS+ database.

Status of the initial mission finding

Recommendation 9 (R9) is closed as provisions in the legislation for notification have been established.

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *RSC SES is providing different types of authorization for the different stages in the lifetime of a facility or the duration of an activity only for some facilities in the country (objects of national significance), however this concept is not used in authorizing other complex facilities (e.g. radiotherapy etc.)*	
(1)	**BASIS: GSR Part 1 Requirement 24, para. 4.29 states that** *"Different types of authorization shall be obtained for the different stages in the lifetime of a facility or the duration of an activity. The regulatory body shall be able to modify authorizations for safety related purposes. For a facility, the stages in the lifetime usually include: site evaluation, design, construction, commissioning, operation, shutdown and decommissioning (or closure). This includes, as appropriate, the management of radioactive waste and the*

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
	management of spent fuel, and the remediation of contaminated areas. For radioactive sources and radiation generators, the regulatory process shall continue over their entire lifetime."
(2)	**BASIS: GSG 13, para. 3.115 states that** *"… the regulatory body should carry out authorization in several steps for complex facilities or activities, with an application usually being required for each step (see Appendix II). For nuclear facilities, industrial irradiation installations and facilities for industrial radiography, nuclear medicine and radiotherapy, the regulatory body may require a multistep process of authorization (e.g. it might require the submission of an application to construct the facility before construction can begin). he regulatory body might also prohibit the procurement of nuclear material or radiation sources (including their import) until a particular stage of construction has been completed and the safe and secure storage of the nuclear material or radiation sources can be ensured.*
(3)	**BASIS: GSG 13, para. 3.115 states that "***The authorization process for a complex facility or activity should be considered to consist of a series of steps, each subject to the need for regulatory input to allow progress from one step to the next. These steps may depend on national legislation but are normally as follows:* *(a) Siting and site evaluation (which may include the environmental impact assessment);* *(b) Design;* *(c) Construction;* *(d) Commissioning;* *(e) Operation;* *(f) Decommissioning (or closure);* *(g) Release from regulatory control.*
S5	**Suggestion: RSC SES should consider applying the system for different types of authorization for all complex facilities, taking into account different stages in lifetime.**

Changes since the initial IRRS mission

Suggestion 5: In order to apply the system for different types of authorization for all complex facilities, taking into account different stages in lifetime, Regulation No. 65 "Regulations Regarding Notification, Registration, and Licensing of Activities with Sources of Ionising Radiation" Paragraph 6 and Paragraph 35 prescribe that the production of radiopharmaceuticals, use of new radionuclides in nuclear medicine and the use of accelerators have to be notified at least six months prior to the start of these activities. Additional information about implementation of the requirements for radiation safety and security for example, the description of the planned activities, procedures and description of the planned territory, buildings and rooms, has to be submitted (Regulation No. 65, Annex 4, Chapter I, paragraph 34.1).

This approach improves RSC SES' awareness about new facilities and activities and provides for earlier communication with licensees. The IRRS team was informed that in practice plans for intended use of new accelerators in radiotherapy, new radiopharmaceuticals in nuclear medicine have been notified to RSC SES.

Status of the initial mission finding

Suggestion 5 (S5) is closed as RSC SES has developed and implemented the system for different types of authorization for complex facilities, taking into account different stages in lifetime.

5.2. AUTHORIZATION OF RADIOACTIVE WASTE MANAGEMENT FACILITIES

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *The regulation only provides for conduct safety assessment using deterministic approach. This is in contradiction to another provisions in the same regulation to use the Agency's guide for using both the deterministic and the probabilistic approaches for safety assessment.*	
(1)	**GSR Part.5 Req.4 Responsibilities of the operator** *Operators shall be responsible for the safety of predisposal radioactive waste management facilities or activities. The operator shall carry out safety assessments and shall develop a safety case, and shall ensure that the necessary activities for siting, design, construction, commissioning, operation, shutdown and decommissioning are carried out in compliance with legal and regulatory requirements.* ***Para 3.11 states** "Depending on the complexity of the operations and the magnitude of the hazards associated with the facility or the activities concerned, the operator has to ensure an adequate level of protection and safety by various means, including:…* *—Derivation of operational limits, conditions and controls, including waste acceptance criteria, to assist with ensuring that the predisposal radioactive waste management facility is operated in accordance with the safety case"*
(2)	**GSR Part 4 Req.15 Deterministic and probabilistic approaches** *Both deterministic and probabilistic approaches shall be included in the safety analysis*
(3)	**SSR-5 Req. 13 Scope of the safety case and safety assessment** *The safety case for a disposal facility shall describe all safety relevant aspects of the site, the design of the facility and the managerial control measures and regulatory controls. The safety case and supporting safety assessment shall demonstrate the level of protection of people and the environment provided and shall provide assurance to the regulatory body and other interested parties that safety requirements will be met.*
(4)	**GSG-3 para 5.8 states that** *The safety assessment should be performed using an appropriate selection of approaches that, when used in a complementary manner, can increase confidence in the safety of the facility or activity. The different approaches that can be considered include: reasoned arguments, the use of simple conservative models, probabilistic and deterministic approaches, and the use of more complex and more realistic models.*
(5)	**SSG-23 para 3.10 states that** *" …The safety assessment has to include a safety analysis, which consists of a set of different quantitative analyses for evaluating and assessing challenges to safety in various operational states, anticipated operational occurrences and accident conditions, by means of deterministic and also probabilistic methods***."**
S6	**Suggestion: The Government should consider revising the regulation to enable the use of both deterministic and probabilistic approaches for safety assessment.**

Changes since the initial IRRS mission

On 29 June 2021, Regulation No. 433 "Regulations Regarding Radiation Safety Experts and Medical Physics Experts" were issued in accordance with Section 5 of the Law. This regulation introduced the need to consider as part of a safety assessment potential exposure events and the likelihood of their occurrence. Paragraph 37.5 requires that a radiation safety expert and a medical physics expert shall take into account "calculations regarding the expected dose that will be received by workers and public". Paragraph 38 states that "The expert assessment referred to in Paragraph 37 of this Regulation shall include: (38.1) information regarding the source of ionising radiation, its technical parameters or radioactivity of radioactive sources, as well as an assessment of potential cases of exposure and the possibility of their occurrence". Paragraph

38.2 requires that the expert assessment evaluates "errors that may occur in the use of the source and the possible consequences of such errors".

The IRRS team was shown an example of a safety assessment performed by radiation safety expert on behalf of the operator, which included a probabilistic safety assessment.

Status of the initial mission finding

Suggestion 6 (S6) is closed as the Regulation No. 433 introduced the requirement for probabilistic safety assessment.

5.3. AUTHORIZATION OF RADIATION SOURCES FACILITIES AND ACTIVITIES

There were no findings in this area in the initial IRRS mission.

5.4. AUTHORIZATION OF DECOMMISSIONING ACTIVITIES

There were no findings in this area in the initial IRRS mission.

5.5. AUTHORIZATION OF TRANSPORT

There were no findings in this area in the initial IRRS mission.

5.6. AUTHORIZATION ISSUES FOR OCCUPATIONAL EXPOSURE

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *There are no requirements for persons under the age of 18 years to be under supervision when accessing a controlled area. This finding is identified in the preliminary action plan.*	
(1)	**BASIS: GSR Part 3 Req. 28 para. 3.116 states that** *"Employers, registrants and licensees shall ensure that persons under the age of 18 years are allowed access to a controlled area only under supervision and only for the purpose of training for employment in which they are or could be subject to occupational exposure or for the purpose of studies in which sources are used.*
R10	**Recommendation: The government should review the regulation to include requirements for employers, registrants and licensees to make special arrangements for protection and safety for persons under 18 years of age who are undergoing training.**

Changes since the initial IRRS mission

Recommendation 10: The Government has amended The Law (Article 18) to include requirements for employers, registrants and licensees that persons under the age of 18 years may only be in the controlled area under the supervision of the radiation protection officer.

Status of the initial mission finding

Recommendation 10 (R10) is closed as the requirements for employers, registrants and licensees to make special arrangements for protection and safety for persons under 18 years of age who are undergoing training are included in The Law.

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *Regulation 149 has requirements on area classification, demarcation and marking. This covers classification in controlled and supervised area. However, there are no requirements concerning the display instructions at access points to and at appropriate locations within controlled areas. This finding is identified in the preliminary action plan.*	
(1)	**BASIS: GSR Part 3 Req. 24 para. 3.90 states that** *"Employers, registrants and licensees* *(f) Shall provide, as appropriate, at entrances to controlled areas:* *(i) Personal protective equipment;* *(ii) Equipment for individual monitoring and workplace monitoring;* *(iii) Suitable storage for personal clothing.* *(g) Shall provide, as appropriate, at exits from controlled areas:* *(i) Equipment for monitoring for contamination of skin and clothing;* *(ii) Equipment for monitoring for contamination of any objects or material being removed from the area;* *(iii) Washing or showering facilities and other personal decontamination facilities;* *(iv) Suitable storage for contaminated personal protective equipment*
R11	**Recommendation: The government should review the regulation to include requirements for employers, registrants and licensees to ensure protection and safety in controlled areas and provide for the following as appropriate:** **(1) at entrances to controlled areas:** **(i) Personal protective equipment;** **(ii) Equipment for individual monitoring and workplace monitoring;** **(iii) Suitable storage for personal clothing.** **(2) at exits from controlled areas:** **(i) Equipment for monitoring for contamination of skin and clothing;** **(ii) Equipment for monitoring for contamination of any objects or material being removed from the area;** **(iii) Washing or showering facilities and other personal decontamination facilities;** **(iv) Suitable storage for contaminated personal protective equipment**

Changes since the initial IRRS mission

Recommendation 11: Regulation No. 149 "Regulations for Protection against Ionising Radiation" has been updated with requirements related to occupational exposure such as dose limits for the lens of the eye. However, a further update is required to address several outstanding areas relating to occupational exposure such as: the display instructions at access points at appropriate locations within controlled areas.

The IRRS team was informed that draft amendments are expected to be finalised in 2025-2026 and will be submitted for approval.

Status of the initial mission finding

Recommendation 11 (R11) remains open as the requirements for the display of instructions at access points at appropriate locations within controlled areas are not addressed in Regulation No. 149 "Regulations for Protection against Ionising Radiation".

5.7. AUTHORIZATION ISSUES FOR MEDICAL EXPOSURE

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *The established diagnostic reference levels are based on published values and there is no evidence that they are appropriate for the local circumstances.*	
(1)	**BASIS: GSR Part 3 Requirement 34, para. 3.148 states that** *"The government shall ensure, as part of the responsibilities specified in para. 2.15, that as a result of consultation between the health authority, relevant professional bodies and the regulatory body, a set of diagnostic reference levels is established for medical exposures incurred in medical imaging, including image guided interventional procedures. In setting such diagnostic reference levels, account shall be taken of the need for adequate image quality, to enable the requirements of para. 3.169 to be fulfilled. Such diagnostic reference levels shall be based, as far as possible, on wide scale surveys or on published values that are appropriate for the local circumstances.*
R12	**Recommendation: The government should ensure that the establishment of diagnostic reference levels for medical exposures is based, as far as possible, on wide scale surveys or on published values that are appropriate for the local circumstances.**

Changes since the initial IRRS mission

Recommendation 12: RSC SES has drafted a new regulation on radiation protection in medical exposure that will replace Regulation No. 482. The IRRS team was informed that new regulation is being finalised by the Cabinet of Ministers following the comments received in the public participation process and it is expected to be approved by the Government in 2025.

According to the draft regulations, paragraph 8.3, RSC SES collects information from the operators on the evaluation of medical exposure doses applied for the purposes of diagnostic and interventional radiology, taking into account (where necessary) the age and gender distribution of the exposed persons and develops proposals for determination of Diagnostic Reference Levels (DRLs). In addition, national surveys have been carried out by RSC SES to collect data, analyse and establish appropriate DRLs for conventional radiographic examinations and CT in 2019; mammography and CBCT examinations in 2021. The IRRS team was informed that national surveys for collecting data and establishing DRLs for paediatric conventional radiographic examinations and CT and for Nuclear Medicine examinations (adults and paediatric) were completed in September 2024. The collection and establishment of DRLs based on these national surveys was conducted according to RSC SES Guideline No.6 "Diagnostic Reference Levels for Radiological Procedures" which was last updated to include the revised values of DRLs at the end of September 2024 (version No.5). The IRRS team was also informed that for fluoroscopic and interventional radiology procedures the DRLs could not be established using national survey because of limited data collection. RSC SES is planning to carry out national surveys in the future to update these DRL values.

National DRLs are included in Annex 1 of the new draft regulations. RSC SES, on 15 October 2024 submitted to the Ministry of Climate and Energy the updated Annex 1, including the latest updated DRL values.

Status of the initial mission finding

Recommendation 12 (R12) is closed on the basis of progress made and confidence in effective completion in due time as the new draft regulations on medical exposure are at the final stage of approval by the Government.

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *Dose constraint for volunteers participating in a programme of biomedical research is not set in the Regulations. Guidelines for the release of patients who have undergone therapeutic radiological procedures using unsealed sources have not been established. These findings have been identified in the preliminary action plan.*	
(1)	**BASIS: GSR Part 3 Requirement 34, para. 3.149 states that** *"The government shall ensure that, as a result of consultation between the health authority, relevant professional bodies and the regulatory body, the following are established:* *(a) Dose constraints, to enable the requirements of paras 3.173 and 3.174, respectively, to be fulfilled for:* *(i) Exposures of carers and comforters[40];* *(ii) Exposures due to diagnostic investigations of volunteers participating in a programme of biomedical research.* *(b) Criteria and guidelines for the release of patients who have undergone therapeutic radiological procedures using unsealed sources or patients who still retain implanted sealed sources.*
R13	**Recommendation: The government should ensure that dose constraint for volunteers participating in a programme of biomedical research and guidelines for the release of patients who have undergone therapeutic radiological procedures using unsealed sources are established.**

Changes since the initial IRRS mission

Recommendation 13: According to paragraph 32 of the draft regulations on medical exposure which are waiting for Government approval in 2025 (see R12), dose constraints will be established for: (i) a person participating in a study for whom no direct medical benefit from the exposure is expected (the dose constraint shall be set at 0.1 - 10mSv per study) and (ii) for patient who voluntarily agrees to subject himself/herself to an experimental medical practical activity and for whom a diagnostic therapeutic benefit is expected from this activity.

RSC SES has developed and published Guideline No.9 "Guidelines for the release of patients who have undergone nuclear medicine (diagnostic and therapeutic) procedures and recommendations regarding radiation protection" in 2020. The IRRS team was informed that the guidelines were uploaded on RSC SES website and letters were sent out to all relevant registrants and licensees to raise awareness of its publication.

Status of the initial mission finding

Recommendation 13 (R13) is closed on the basis of progress made and confidence in effective completion in due time as the new draft regulations on medical exposure are at the final stage of approval by the Government and the Guideline for the release of patients who have undergone therapeutic radiological procedures using unsealed sources are published and disseminated to the licensees.

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *There is no requirement for carers or comforters to indicate an understanding of the received instructions relating to information on radiation protection and on the radiation risks, prior to providing care and comfort to an individual undergoing a radiological procedure. This has been identified in the preliminary action plan.*	
(1)	**BASIS: GSR Part 3 Requirement 36, para. 3.153 states that** *"Registrants and licensees shall ensure that no individual incurs a medical exposure as a carer or comforter unless he or she has received, and has indicated an understanding of, relevant information on radiation protection and information on the radiation risks prior to providing care and comfort to an individual undergoing a radiological procedure. Registrants and licensees shall ensure that* *the requirements specified in para. 3.173 are fulfilled for the optimization of protection and safety for any radiological procedure in which an individual acts as a carer or comforter."*
R14	**Recommendation: The Government should establish and RSC SES should verify requirements to ensure that carers and comforters indicate an understanding of, relevant information on radiation protection and information on the radiation risks prior to providing care and comfort to an individual undergoing a radiological procedure.**

Changes since the initial IRRS mission

Recommendation 14: According to paragraph 35.8 of the draft regulations on medical exposure which are waiting for Government approval in 2025 (see R12), carers and comforters will be provided with information on radiation protection and radiation risks prior to providing care and comfort to an individual undergoing a radiological procedure. Carers and comforters will also be requested to give consent by signing that they have understood the information provided. The IRRS team was informed that RSC SES already verifies this requirement during review and assessment process. Receiving consent by carers and comforters is included in the RSC SES guidelines No.4 on Radiation Protection Programme of the licensees (updated on 10.11.2023) and also part of the internal procedure KV_Lic_4 (updated on 01.08.2023). RSC SES also addresses this issue during inspections. The IRRS team was provided with the relevant inspection checklist which includes a question about the provision of information on radiation protection and radiation risks to the carers and comforters. However, there is no question about consent before providing care and comfort to an individual undergoing a radiological procedure. Despite this absence, the IRRS team was informed that inspectors always ask the relevant personnel about this issue.

Status of the initial mission finding

Recommendation 14 (R14) is closed on the basis of progress made and confidence in effective completion in due time as the new draft regulations on medical exposure are at the final stage of approval by the Government and as RSC SES already verifies that carers and comforters indicate an understanding of relevant information.

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *There is no specific requirement in Regulation 482 for documentation of any delegation of responsibilities by the principal party. Moreover, registrants and licensees are not required to maintain records of any delegation of responsibilities by a principal party.*	
(1)	**BASIS: GSR Part 3 Requirement 36, para. 3.154 states that** *"Registrants and*

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
	licensees shall ensure that: *…(f) Any delegation of responsibilities by a principal party is documented."*
(2)	**BASIS: GSR Part 3 Requirement 42, para. 3.183 states that** *"Registrants and licensees shall maintain for a period as specified by the regulatory body and shall make available, as required, the following personnel records:* *(a) Records of any delegation of responsibilities by a principal party (as required in para. 3.154(f)); …"*
R15	**Recommendation: The Government should establish and RSC SES should verify requirements to ensure the documentation of any delegation of responsibilities by a principal party.**

Changes since the initial IRRS mission

Recommendation 15: According to paragraph 5.9 of the draft regulations on medical exposure that are waiting for Government approval in 2025 (see R12), registrants and licensees will maintain and make available to RSC SES documented information on the work organization and on delegation of duties to workers related to activities with sources of ionizing radiation.

The IRRS team was informed that documentation of any delegation of responsibilities is a required component of the Radiation Protection Programme of registrants and licensees as described in Guidelines No.4 (updated on 10.11.2023) and is reviewed by RSC SES according to the internal procedure KV_Lic_4 (updated on 01.08.2023). The IRRS team was also informed that questions regarding the delegation of responsibilities of radiation protection officer and workers are included in the inspection checklists and verified during inspections.

Status of the initial mission finding

Recommendation 15 (R15) is closed on the basis of progress made and confidence in effective completion in due time as the approval of new draft regulations on medical exposure are at the final stage of approval by the Government and as RSC SES already verifies the requirement to ensure documentation of any delegation of responsibilities.

5.8. AUTHORIZATION ISSUES FOR PUBLIC EXPOSURE

There were no findings in this area in the initial IRRS mission.

6. REVIEW AND ASSESSMENT

6.1. GENERIC ISSUES

6.1.1. MANAGEMENT OF REVIEW AND ASSESSMENT

There were no findings in this area in the initial IRRS mission.

6.1.2. ORGANIZATION AND TECHNICAL RESOURCES FOR REVIEW AND ASSESSMENT

There were no findings in this area in the initial IRRS mission.

6.1.3. BASES FOR REVIEW AND ASSESSMENT

There were no findings in this area in the initial IRRS mission.

6.1.4. PERFORMANCE OF REVIEW AND ASSESSMENT

There were no findings in this area in the initial IRRS mission.

6.2. REVIEW AND ASSESSMENT FOR WASTE MANAGEMENT FACILITIES

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *In 2012, an independent review and assessment of the safety case of the waste management facility was performed. However, there is no regulatory requirement for independent review of safety case.*	
(1)	**GSR Part 3 Req. 13, para 3.34 states that** *"Registrants and licensees shall ensure that the safety assessment is documented and, where appropriate, that it is independently reviewed under the relevant management system"*
(2)	**SSR-5 Req. 14 Documentation of the safety case and safety assessment** *The safety case and supporting safety assessment for a disposal facility shall be documented to a level of detail and quality sufficient to inform and support the decision to be made at each step and to allow for independent review of the safety case and supporting safety assessment*
(3)	**GSG-3 para. 4.97 states that "***Independent peer review should play an important role in building confidence in the safety case..*"*
R16	**Recommendation: The Government should establish requirements for the licensees to conduct independent review of safety case and supporting safety assessment for waste management facilities.**

Changes since the initial IRRS mission

Recommendation 16: The IRRS team was informed that forthcoming amendments to Regulation No. 129 of 2002 "Requirements for Operations with Radioactive Waste and Materials Related Thereto" will introduce the requirement for independent review. These amendments are planned to be drafted in 2025/26 before submission to the Ministry**.** The IRRS team was shown some independent assessment of the impact of a waste management facility, but such assessments did not form an independent review of the safety case made by the applicant.

Status of the initial mission finding

Recommendation 16 (R16) remains open, as the requirements for independent review are yet to be addressed in the legal framework.

6.3. REVIEW AND ASSESSMENT FOR RADIATION SOURCES FACILITIES AND ACTIVITIES

There were no findings in this area in the initial IRRS mission.

6.4. REVIEW AND ASSESSMENT FOR DECOMMISSIONING ACTIVITIES

There were no findings in this area in the initial IRRS mission.

6.5. REVIEW AND ASSESSMENT FOR TRANSPORT

There were no findings in this area in the initial IRRS mission.

6.6. REVIEW AND ASSESSMENT FOR OCCUPATIONAL EXPOSURE

There were no findings in this area in the initial IRRS mission.

6.7. REVIEW AND ASSESSMENT FOR MEDICAL EXPOSURE

There were no findings in this area in the initial IRRS mission.

6.8. REVIEW AND ASSESSMENT FOR PUBLIC EXPOSURE

There were no findings in this area in the initial IRRS mission.

7. INSPECTION

7.1. GENERIC ISSUES

There were no findings in this area in the initial IRRS mission.

7.2. INSPECTION OF WASTE MANAGEMENT FACILITIES

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation *The existing regulations contain requirements for the safe storage of radioactive waste, however there is no requirement to store waste in such a manner that it can be inspected and monitored.*	
(1)	**GSR part 5 Requirement 11states that** *"Waste shall be stored in such a manner that it can be inspected, monitored, retrieved and preserved in a condition suitable for its subsequent management. Due account shall be taken of the expected period of storage, and, to the extent possible, passive safety features shall be applied. For long term storage in particular, measures shall be taken to prevent degradation of the waste containment."*
S7	**Suggestion: The Government should consider establishing requirements for storing radioactive waste in such manner that the waste can be inspected and monitored.**

Changes since the initial IRRS mission

Suggestion 7: The IRRS team was informed that forthcoming amendments to Regulation No. 129 of 2002 "Requirements for Operations with Radioactive Waste and Materials Related Thereto" will introduce the requirement for storing waste in a manner that the waste can be inspected and monitored. These amendments are planned to be drafted in 2025/2026 before submission to the Ministry. The IRRS team was informed that at present these requirements are part of the inspection plan.

Status of the initial mission finding

Suggestion 7 (S7) remains open, as the requirements for storing radioactive waste are yet to be addressed in the legal framework such that the waste can be inspected and monitored.

7.3. INSPECTION OF RADIATION SOURCES FACILITIES AND ACTIVITIES

There were no findings in this area in the initial IRRS mission.

7.4. INSPECTION OF DECOMMISSIONING ACTIVITIES

There were no findings in this area in the initial IRRS mission.

7.5. INSPECTION OF TRANSPORT

There were no findings in this area in the initial IRRS mission.

7.6. INSPECTION OF OCCUPATIONAL EXPOSURE

There were no findings in this area in the initial IRRS mission.

7.7. INSPECTION OF MEDICAL EXPOSURE

There were no findings in this area in the initial IRRS mission.

7.8. INSPECTION OF PUBLIC EXPOSURE

There were no findings in this area in the initial IRRS mission.

8. ENFORCEMENT

8.1. ENFORCEMENT POLICY AND PROCESS

There were no findings in this area in the initial IRRS mission.

8.2. ENFORCEMENT IMPLEMENTATIONS

There were no findings in this area in the initial IRRS mission.

9. REGULATIONS AND GUIDES

9.1. GENERIC ISSUES

There were no findings in this area in the initial IRRS mission.

9.2. REGULATIONS AND GUIDES FOR WASTE MANAGEMENT FACILITIES

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *The existing regulations define clearance levels and clearance criteria, however these are not in line with IAEA clearance criteria. In addition, there is no guidance to define site release criteria to release the site from regulatory control.*	
(1)	**GSR Part 3 Req. 8 Exemption and clearance** *…" The regulatory body shall approve which sources, including materials and objects, within notified practices or authorized practices may be cleared from regulatory control"* **Para. 3.12 states that** "*The regulatory body shall approve which sources, including materials and objects, within notified or authorized practices may be cleared from regulatory control, using as the basis for such approval the criteria for clearance specified in Schedule I or any clearance levels specified by the regulatory body on the basis of these criteria."*
(2)	**GSR part 5 Req. 3 Responsibilities of the regulatory body** **Para.3.8 states that** *"To facilitate compliance with regulatory requirements, the regulatory body has to do the following:* *… - Establish criteria for the clearance of material from regulatory control, in accordance with national policy"*
(3)	**GSR Part 5 Req. 10 Processing of radioactive waste** *"Radioactive material for which no further use is foreseen, and with characteristics that make it unsuitable for authorized discharge, authorized use or clearance from regulatory control, shall be processed as radioactive waste"…*
(4)	**RS-G-1,7 para. 3.4 say that** *"The primary radiological basis for establishing values of activity concentration for the exemption of bulk amounts of material and for clearance is that the effective doses to individuals should be of the order of 10 μSv or less in a year."*
(5)	**WS-G-5.1, para 3.7 says *that*** *"The regulatory body should establish safety requirements and guidelines for the planning, approval and conduct of clean-up activities, for the management of contaminated material and the waste that arises from this process, and for the release of land, buildings and structures from regulatory control. The responsibilities of the regulatory body should also include:* **a.** *Establishing, promoting and adopting criteria and guidance for the cleanup and release of sites as a part of decommissioning activities*;"
R17	**Recommendation**: **The Government should establish clearance criteria in line with international safety standards.**
S8	**Suggestion: RSC SES should consider developing guidance for site release criteria from regulatory control.**

Changes since the initial IRRS mission

Recommendation 17: In paragraph 7.1 of Regulation No. 129 "Requirements for Operations with Radioactive Waste and Materials Related Thereto" it is stated "material related to radioactive waste which

is removed from State supervision and control in the field of radiation safety and nuclear safety because its specific radioactivity is less than the minimum significant specific radioactivity prescribed in Annex 1". In paragraph 27 and 28 of the same Regulation it states "Materials related to radioactive waste, which may be repeatedly utilised without additional treatment, shall be removed from State supervision taking into account the radioactive contamination thereof" and in 28 "In calculating the maximum permissible fixed and non-fixed radioactive contamination on a surface the values of ionising radiation doses prescribed in Annex 1 of these Regulations or Sub paragraph 7.1 of these Regulations shall be used as criteria. These criteria shall refer to the total fixed and non-fixed radioactive contamination".

Annex 1 of Regulation No. 129 provides radionuclide specific activity (Bq/g) or surface contamination Bq/cm2 values which could be considered exemption values or potentially inferred clearance values. Guideline No.11 for the "Release of facilities from regulatory control in the field of radiation safety" issued by the RSC SES in 2024, was developed using GSG-18 "Application of the Concept of Clearance" and has a clearance based on a criterion of 10 μSv/year (the effective dose expected for any person).

The IRRS team was informed that clarity will be provided to the clearance values through the forthcoming amendments to the Regulation No. 129 of 2002 "Requirements for Operations with Radioactive Waste and Materials Related Thereto". These amendments will provide specific clearance criteria consistent with the IAEA requirements. These amendments are planned to be drafted in 2025/2026 before submission to the Ministry.

Suggestion 8: In April 2024, the RSC SES published guideline No.11 detailing its approach to the release of facilities, where activities with sources of ionizing radiation have been carried out, from state supervision and control in the field of radiation safety and nuclear safety. This guideline provides general requirements for the release of facilities from regulatory control; development of criteria for the release of facilities from regulatory control and; practical application of the criteria for the release of facilities from regulatory control. The guidance notes that "it is not possible to site release from regulatory control if the dose limit for public of 1 mSv/year is exceeded".

Status of the initial mission finding

Recommendation 17 (R17) remains open, as the requirements for clearance are yet to be addressed in the legal framework.

Suggestion 8 (S8) is closed as RSC SES has considered and developed guidance for release criteria.

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *The radioactive waste classification established in the regulation is not in line with IAEA safety standards. However, in practice the IAEA waste classification is being used in Latvia.*	
(1)	**GSR Part 5 Req. 3, para. 3.8 states *that*** *"To facilitate compliance with regulatory requirements, the regulatory body has to do the following:* *…" - Establish an appropriate definition and/or classification of radioactive waste"*
(2)	**GSG-1, para 2.2 states that** *"In accordance with the approach outlined in the Appendix, six classes of waste are derived and used as the basis for the classification scheme …"*
S9	**Suggestion**: **The Government should consider updating existing regulation concerning classification of radioactive waste in accordance with IAEA Safety Standards.**

Changes since the initial IRRS mission

Suggestion 9: The IRRS team was informed that within the State, waste is being classified according to the IAEA classification as it is also prescribed in Environmental Policy Guidelines 2021-2027. However, there remains a formal requirement to amend the Regulation No. 129 "Requirements for Operations with Radioactive Waste and Materials Related Thereto". These amendments are planned to be drafted in 2025/2026 before submission to the Ministry.

Status of the initial mission finding

Suggestion 9 (S9) remains open, as the requirements for radioactive waste classification aligned with IAEA Safety Standards are yet to be addressed in the legal framework.

9.3. REGULATIONS AND GUIDES FOR RADIATION SOURCES FACILITIES AND ACTIVITIES

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *Existing regulations and guidelines describe the requirements for practices with ionising radiation. However, there are no specific guidelines for radiation safety in industrial radiography.*	
(1)	**BASIS: SSG 11 states that** *"This Safety Guide provides recommendations for ensuring radiation safety in industrial radiography used for purposes of non-destructive testing."*
S10	**Suggestion: RSC SES should consider establishing guidelines for industrial radiography taking into account IAEA Safety Standards SSG 11.**

Changes since the initial IRRS mission

Suggestion 10: The guidelines on radiation safety in industrial radiography were developed by RSC SES together with interested parties and operators and are available online. These guidelines are based on IAEA SSG 11 taking into account that in Latvia only X-ray generators are used in industrial radiography. The IRRS team was informed that the guidelines were disseminated to all users of industrial radiography and introduced during annual seminar for operators.

Status of the initial mission finding

Suggestion 10 (S10) is closed as guidelines for industrial radiography taking into account IAEA SSG 11 have been developed.

9.4. REGULATIONS AND GUIDES FOR DECOMMISSIONING ACTIVITIES

There were no findings in this area in the initial IRRS mission.

9.5. REGULATIONS AND GUIDES FOR TRANSPORT

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *Regulations No.307 is based on early versions of the IAEA Regulations for the Safe Transport of Radioactive Material (Safety Series No. 6 and ST-1). This has been identified in the preliminary action plan. Moreover it is inconsistent with other current requirements for the transport of radioactive material.*	
(1)	**BASIS: GSR Part 1 (Rev. 1) Requirement 33 states that** *"The Regulations and guides shall be reviewed and revised as necessary to keep them up to date, with due consideration*

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
	of relevant international safety standards and technical standards and of relevant experience gained."
(2)	**BASIS: SSR-6 (Rev. 1), para. 307 states that** *"The competent authority shall assure compliance with these Regulations."*
R18	**Recommendation: The Government should revise the current regulatory framework for the transport of radioactive materials to provide for an updated set of requirements which are fully consistent with the international regulatory framework.**

Changes since the initial IRRS mission

Recommendation 18: Following a review of the current Regulations No. 307 regarding protection against ionising radiation when transporting radioactive materials, RSC SES has decided to replace the existing regulations in order to be fully consistent with the international regulatory framework. In November 2022, an IAEA expert mission took place in Riga on transport of radioactive material. During this mission, RSC SES and IAEA experts discussed about the necessary changes and the content of the new regulations. RSC SES was provided with a document where requirements were assessed and compared to IAEA SSR-6. The new regulations are planned to be drafted in 2026-2027 and then submitted to the Government for approval. The IRRS team noted that RSC SES could consider in drafting the new regulations a way to ensure that the national regulations will remain consistent with the international transport regulatory framework.

Status of the initial mission finding

Recommendation 18 (R18) remains open as the current regulatory framework for the transport of radioactive material is not updated in order to be fully consistent with the international transport regulatory framework.

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *There is no specific guide prepared by RSC SES for the transport of radioactive material. This has been mentioned in the advanced summary report.*	
(1)	**BASIS: GSR Part 1 (Rev. 1) Requirement 32, para. 2.30 states that** *"The regulatory body shall establish or adopt regulations and guides to specify the principles, requirements and associated criteria for safety upon which its regulatory judgements, decisions and actions are based".*
R19	**Recommendation: RSC SES should establish a guide for the transport of radioactive material.**

Changes since the initial IRRS mission

Recommendation 19: In 2021, RSC SES with the support of Latvian Environmental Protection Fund, developed guidelines for the transport of radioactive materials. The guidelines provide a summary of ADR (2021) requirements which are also in line with the requirements of the IAEA's Regulations for the Safe Transport of Radioactive Material (IAEA SSR-6 (Rev.1)).

The IRRS team was informed that the content of the guidelines is not in conflict with the current regulation No.307, since inconsistencies of this regulation were identified in other areas than the ones covered by the

guidelines. The guidelines were disseminated to all facilities carrying out activities with radioactive materials and also introduced during annual seminar for operators.

The IRRS team was also informed that the checklists used for inspection of brachytherapy and nuclear medicine facilities have been updated in order to include questions about the receipt, replacement and transport of radioactive materials.

Status of the initial mission finding

Recommendation 19 (R19) is closed as RSC SES established guidelines for the transport of radioactive materials.

9.6. REGULATIONS AND GUIDES FOR OCCUPATIONAL EXPOSURE

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *There are no requirements for optimization of protection and safety for workers.*	
(1)	**BASIS: GSR Part 3 Requirement 11, para. 3.22 (a) states that** *"The government or the regulatory body shall establish and enforce requirements for the optimization of protection and safety."*
(2)	**BASIS: GSR Part 3 Requirement 11, para. 3.22 (b) states that** *"The government or the regulatory body shall require documentation addressing the optimization of protection and safety."*
(3)	**BASIS: GSR Part 3 Requirement 11, para. 3.22 (c) states that** *"The government or the regulatory body shall establish or approve constraints on dose and on risk, as appropriate, or shall establish or approve a process for establishing such constraints, to be used in the optimization of protection and safety."*
R20	**Recommendation: The Government should establish requirements for optimization of protection and safety for workers.**

Changes since the initial IRRS mission

Recommendation 20: Regulation No. 149 "Regulations for Protection against Ionising Radiation" has been updated with requirements related to occupational exposure such as dose limits for the lens of the eye. However, a further update is required to address outstanding areas relating to occupational exposure such as optimization of protection and safety for workers.

Regulations No. 433 "Regulation of radiation safety experts and medical physics experts" (approved on 29.06.2021) sets out the requirements for the content of the safety assessment that has to be prepared by radiation safety expert, including optimisation. This is further elaborated in RSC SES Guidelines No. 1 on safety assessment (version 2 approved on 08.12.2021), as well as RSC SES Guidelines No. 4 on radiation protection programmes (version 3 approved on 10.11.2023). Questions regarding optimisation of occupational exposure and dose constraints are included in inspection checklists.

The IRRS team was informed that draft amendments are expected to be finalised in 2025-2026 and will be submitted for approval.

Status of the initial mission finding

Recommendation 20 (R20) remains open as requirements for optimization of protection and safety for workers are not addressed in Regulation No. 149 "Regulations for Protection against Ionising Radiation".

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *The dose limits for the lens of the eye for workers within the Regulations No 149 does not comply with GSR Part 3. This finding has been identified in the preliminary action plan.*	
(1)	**BASIS: GSR Part 3 Requirement 12, para. 3.26 states that** *"The government or the regulatory body shall establish and the regulatory body shall enforce compliance with the dose limits specified in Schedule III for occupational exposures and public exposures in planned exposure situations."*
(2)	**BASIS: GSR Part 3 Requirement 19, para. 3.71 states that** *"The government or the regulatory body shall establish, and the regulatory body shall enforce compliance with, the dose limits specified in Schedule III for occupational exposure."*
(3)	**BASIS: GSR Part 3 Requirement 21, para. 3.76 (a) states that** *"Occupational exposure is controlled so that the relevant dose limits for occupational exposure specified in Schedule III are not exceeded."*
R21	**Recommendation: The Government should review its regulations concerning dose limits for the lens of the eye to be consistent with GSR Part 3 (Schedule III).**

Changes since the initial IRRS mission

Recommendation 21: Regulations No. 149 "Regulations for Protection against Ionising Radiation" were revised and the requirement regarding the dose limit for the lens of the eye was updated (paragraph 30).

Status of the initial mission finding

Recommendation 21 (R21) is closed as regulations concerning dose limits for the lens of the eye consistent with GSR Part 3 (Schedule III) have been adopted.

9.7. REGULATIONS AND GUIDES FOR MEDICAL EXPOSURE

There were no findings in this area in the initial IRRS mission.

9.8. REGULATIONS AND GUIDES FOR PUBLIC EXPOSURE

There were no findings in this area in the initial IRRS mission.

10. EMERGENCY PREPAREDNESS AND RESPONSE – REGULATORY ASPECTS

10.1 AUTHORITY AND RESPONSIBILITES FOR REGULATING ON-SITE EPR OF OPERATING ORGANIZATIONS

There were no findings in this area in the initial IRRS mission.

10.2 REGULATIONS AND GUIDES ON ON-SITE EPR OF OPERATING ORGANIZATIONS

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *The national radioactive waste management programme does not specify provisions for the management of radioactive waste generated in a nuclear or radiological emergency.*	
(1)	**BASIS: GSR Part 7 Req 5.84 states that "***The national policy and strategy for radioactive waste management [19] shall apply for radioactive waste generated in a nuclear or radiological emergency, with account taken of paras 5.85 to 5.88."*
S11	**Suggestion: The Government should consider to make provision in the national programme for the safe management of radioactive waste generated in a nuclear or radiological emergency.**

Changes since the initial IRRS mission

Suggestion 11: The Environmental Policy Guidelines (2021-2027) includes Appendix 3 "Radiation Protection Programme" where provision is made for the management of radioactive waste generated in a nuclear or radiological emergency. In terms of the Policy in Chapter 2.2.1 and 3.3.2 of Appendix 3, the State of Latvia is responsible for creating a system that ensures safe and effective preparedness and response in radiation emergency situations, including the management of radioactive waste generated as a result of the emergency. The State shall ensure that the radioactive waste resulting from possible radiation accidents is managed in a safe manner so that the population is protected in any emergency exposure situation. All radioactive waste including waste as a result of nuclear or radiological emergencies, would be disposed or stored for long-term in repository "Radons", the capacity of which is planned to be expanded in future.

Status of the initial mission finding

Suggestion 11 (S11) is closed as the Government has considered and incorporated in the Environmental Policy Guidelines provisions for the safe management of radioactive waste generated in a nuclear or radiological emergency.

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *Some of the existing requirements for emergency preparedness and response are not fully in compliance with the requirements of IAEA safety standards GSR Part 7, for example provision for the grouping of hazards in accordance with emergency preparedness categories, development and implementation of a protection strategy, termination of a nuclear or radiological emergency, and for operating organisations to analyse the emergency and the emergency response with the aim to identify actions to be taken to avoid other emergencies and to improve emergency arrangements.*	
(1)	**BASIS: GSR Part 1 (Rev. 1) Requirement 33 states that** "*The Regulations and guides shall be reviewed and revised as necessary to keep them up to date, with due consideration of relevant international safety standards and technical standards and of relevant*

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
	experience gained."
(2)	**BASIS: GSR Part 7 para. 4.19 states that** *"For the purposes of these safety requirements, assessed hazards are grouped in accordance with the emergency preparedness categories shown in Table 1. The five emergency preparedness categories (hereinafter referred to as 'categories') in Table 1 establish the basis for a graded approach to the application of these requirements and for developing generically justified and optimized arrangements for preparedness and response for a nuclear or radiological emergency."*
(3)	**BASIS: GSR Part 7 requirement 5 states that** *"The government shall ensure that protection strategies are developed, justified and optimized at the preparedness stage for taking protective actions and other response actions effectively in a nuclear or radiological emergency.*
(4)	**BASIS: GSR Part 7 requirement 18 states that** *"The government shall ensure that arrangements are in place and are implemented for the termination of a nuclear or radiological emergency, with account taken of the need for the resumption of social and economic activity.*
(5)	**BASIS: GSR Part 7 requirement 19 states that** *"the government shall ensure that the nuclear or radiological emergency and the emergency response are analysed in order to identify actions to be taken to avoid other emergencies and to improve emergency arrangements."*
R22	**Recommendation: The Government should revise the regulations for emergency preparedness and response in accordance with GSR Part 7 such as provisions for** • **the grouping of hazards in accordance with emergency preparedness categories;** • **development and implementation of a protection strategy;** • **termination of a nuclear or radiological emergency; and** • **operating organisations to analyse the emergency and the emergency response with the aim to identify actions to be taken to avoid other emergencies and to improve emergency arrangements.**

Changes since the initial IRRS mission

Recommendation 22: A new regulation on emergency preparedness and response was drafted by RSC SES to replace the Regulations No. 152 to better align with the IAEA requirements. The draft regulation was reviewed during an IAEA Expert Mission to Latvia which was conducted in 2022.

Paragraph 4 and Table III.1 of the draft regulation include requirements for the grouping of nuclear or radiological hazards in accordance with emergency preparedness categories stipulated in IAEA standards. Requirements for the justification and optimisation of protective measures are included in paragraph 107 of the draft regulation. Criteria for protective actions and other actions during a radiation emergency and transition to an existing exposure situation are included in various Annexes of the draft regulation. The draft regulation includes requirements for termination of a nuclear or radiological emergency in paragraphs 109 and 110. Operating organisations are required to analyse the emergency and the emergency response in accordance with paragraphs 16 and 109 of the draft regulation. RSC SES submitted the draft regulation to the Government at the end of 2023.

The IRRS team was informed that the draft regulation still needs public consultation and inter-ministerial review prior to final approval by Government, which is planned for 2025.

Status of the initial mission finding

Recommendation 22 (R22) remains open as the draft regulation for emergency preparedness and response has not yet reached the final stage of approval by the Government.

10.3 VERIFYING ADEQUACY ON-SITE EPR OF OPERATING ORGANIZATIONS

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *The RSC SES performs inspections of the operating organisations' arrangements for emergency preparedness and response, however for some inspections there is no liaison and coordination with other authorities.*	
(1)	**BASIS: GSR Part 1 (Rev 1) para. 4.53 states that** *"In conducting inspections, the regulatory body shall consider a number of aspects, including:* *-Structures, systems and components and materials important to safety;* *-Management systems;* *-Operational activities and procedures;* *-Records of operational activities and results of monitoring;* *-Liaison with contractors and other service providers;* *-Competence of staff;* *-Safety culture;* *-Liaison with the relevant organization for joint inspections, where necessary.*
S12	**Suggestion: RSC SCS should consider to liaise where necessary, with other organisations involved in the inspection of operating organisations' emergency preparedness and response arrangements to ensure compliance with the regulatory requirements.**

Changes since the initial IRRS mission

Suggestion 12: RSC SES formally approached the State Fire fighting and Rescue Service (SFRS) in 2022 to conduct joint inspections to assess the operators' preparedness and response for potential nuclear and radiological emergencies. One joint inspection with SFRS on radioactive waste repository "Radons" was conducted in 2023. Checklists were developed by both RSC SES and SFRS and engagements between inspectors and SFRS officials took place prior to and after the inspection.

The IRRS team was informed that another joint inspection with SFRS is planned for 2025. However, RSC SES has to wait for formal plan coordination. All those operators who are scheduled to be inspected in cooperation with the SFRS are included in the RSC SES annual plan every year, so they need to be merged with the annual plan of the SFRS.

Status of the initial mission finding

Suggestion 12 (S12) is closed as RSC SES has formally engaged and conducted joint inspections with other organisations involved in inspecting the operating organisations' emergency preparedness and response arrangements.

RECOMMENDATIONS, SUGGESTIONS AND GOOD PRACTICES	
Observation: *The RSC SES does not systematically evaluate the exercises conducted by operating organisations to ensure that all specified functions and interfaces can be performed effectively during a nuclear or radiological emergency.*	
(1)	**BASIS: GSR Part 7 para. 6.30 states that** *"Exercise programmes shall be developed and implemented to ensure that all specified functions required to be performed for emergency response, all organizational interfaces for facilities in category I, II or III, and the national level programmes for category IV or V are tested at suitable intervals. These programmes shall include the participation in some exercises of, as appropriate and feasible, all the organizations concerned, people who are potentially affected, and representatives of news media. The exercises shall be systematically evaluated (see para. 4.10(h)) and some exercises shall be evaluated by the regulatory body. Programmes shall be subject to review and revision in the light of experience gained (see paras 6.36 and 6.38).*
R23	**Recommendation: RSC SES should systematically evaluate the operator`s on-site exercises to ensure that response functions can be implemented effectively during a nuclear or radiological emergency.**

Changes since the initial IRRS mission

Recommendation 23: RSC SES has developed and updated inspection checklists addressing emergency preparedness and response requirements. The checklists include the verification of training for operators' staff in radiation emergency response and whether exercise programmes are being implemented where required. The updated checklists have been implemented by RSC SES since 2020.

The IRRS team was informed that during the inspections, operators are encouraged to conduct practical exercises, to invite RSC SES staff to these practical exercises and to provide exercise conclusions to the RSC SES inspectors. The IRRS team was informed that RSC SES inspectors have discussions with the operators about the exercises conducted and are planning to include the outcomes in their inspection reports.

RSC SES has arranged practical exercises involving operators and other response organizations annually since 2022. Following the exercises, RSC SES issues an exercise report which contains recommendations for continuous improvement of the operator as well as other response organisations preparedness and response. RSC SES has evaluated responses of some of the operators during such exercises, and the IRRS team was informed that RSC SES plan to participate in more exercises involving operators in 2025 and beyond where responses to nuclear or radiological emergency scenarios will be evaluated.

Status of the initial mission finding

Recommendation 23 (R23) is closed on the basis of progress made and confidence in effective completion as RSC SES has initiated steps as part of the inspection process to evaluate exercises conducted by the operator and arranges exercises with other response organizations where the responses of operators are tested.

10.4 ROLES OF THE RB IN A NUCLEAR OR RADIOLOGICAL EMERGENCY

There were no findings in this area in the initial IRRS mission.

APPENDIX I – RECOMMENDATIONS (R) AND SUGGESTIONS (S) FROM THE PREVIOUS IRRS MISSION THAT REMAIN OPEN

Module	Section	R/S	Recommendations/Suggestions
5	5.6	R11	The government should review the regulation to include requirements for employers, registrants and licensees to ensure protection and safety in controlled areas and provide for the following as appropriate: (1) at entrances to controlled areas: (i) Personal protective equipment; (ii) Equipment for individual monitoring and workplace monitoring; (iii) Suitable storage for personal clothing. (2) at exits from controlled areas: (i) Equipment for monitoring for contamination of skin and clothing; (ii) Equipment for monitoring for contamination of any objects or material being removed from the area; (iii) Washing or showering facilities and other personal decontamination facilities; (iv) Suitable storage for contaminated personal protective equipment
6	6.2	R16	The Government should establish requirements for the licensees to conduct independent review of safety case and supporting safety assessment for waste management facilities.
7	7.2	S7	The Government should consider establishing requirements for storing radioactive waste in such manner that the waste can be inspected and monitored.
9	9.2	R17	The Government should establish clearance criteria in line with international safety standards.
9	9.2	S9	The Government should consider updating existing regulation concerning classification of radioactive waste in accordance with IAEA Safety Standards.
9	9.5	R18	The Government should revise the current regulatory framework for the transport of radioactive materials to provide for an updated set of requirements which are fully consistent with the international regulatory framework.
9	9.6	R20	The Government should establish requirements for optimization of protection and safety for workers.

Module	Section	R/S	Recommendations/Suggestions
10	10.2	R22	The Government should revise the regulations for emergency preparedness and response in accordance with GSR Part 7 such as provisions for • the grouping of hazards in accordance with emergency preparedness categories; • development and implementation of a protection strategy; • termination of a nuclear or radiological emergency; and • operating organisations to analyse the emergency and the emergency response with the aim to identify actions to be taken to avoid other emergencies and to improve emergency arrangements.

APPENDIX II – LIST OF PARTICIPANTS

INTERNATIONAL EXPERTS:		
DALE Paul	Scottish Environment Protection Agency, UNITED KINGDOM	paul.dale@sepa.org.uk
OSOJNIK Igor (remotely)	Nuclear Safety Administration, SLOVENIA	Igor.Osojnik@gov.si
SERENAITE-PECIULE Dovile	Radiation Protection Centre, LITHUANIA	dovile.peciule@rsc.lt
KALTHAKI Maria	Greek Atomic Energy Commission, GREECE	maria.kalathaki@eeae.gr
MULLER Alan	National Nuclear Regulator, SOUTH AFRICA	AMuller@nnr.co.za
IAEA STAFF		
BOSNJAK Jovica	IAEA Team Coordinator	j.bosnjak@iaea.org
BISHOP LASOVSKA Martina	Administrative Assistant	m.bishop-lasovska@iaea.org
LIAISON OFFICER		
AIZPURIETE Agnese	Radiation Safety Centre of State Environment Service, LATVIA	agnese.aizpuriete@vvd.gov.lv

GROUP PHOTO

APPENDIX III – LIST OF COUNTERPARTS

	IRRS EXPERTS	Lead Counterpart
1.	**LEGISLATIVE AND GOVERNMENTAL RESPONSIBILITIES**	
	Igor Osojnik Jovica Bosnjak Paul Dale	Dace Satrovska
2.	**GLOBAL NUCLEAR SAFETY REGIME**	
	Igor Osojnik Jovica Bosnjak	Dace Satrovska
3.	**RESPONSIBILITIES AND FUNCTIONS OF THE REGULATORY BODY**	
	Igor Osojnik Jovica Bosnjak	Dace Satrovska
4.	**MANAGEMENT SYSTEM OF THE REGULATORY BODY**	
	Jovica Bosnjak	Dace Satrovska Andris Romans
5.	**AUTHORIZATION**	
	Dovile Serenaite-Peciule Paul Dale Maria Kalathaki	Agnese Aizpuriete Aija Lazdane Veronika Ozolina Marite Caikovska
6.	**REVIEW AND ASSESSMENT**	
	Dovile Serenaite-Peciule Paul Dale Maria Kalathaki	Agnese Aizpuriete Aija Lazdane Veronika Ozolina Marite Caikovska
7.	**INSPECTION**	
	Dovile Serenaite-Peciule Paul Dale Maria Kalathaki	Inese Martinsone Marite Caikovska
8.	**ENFORCEMENT**	
	Dovile Serenaite-Peciule Paul Dale Maria Kalathaki	Inese Martinsone Marite Caikovska
9.	**REGULATIONS AND GUIDES**	
	Dovile Serenaite-Peciule Paul Dale Maria Kalathaki	Inese Martinsone Marite Caikovska Agnese Aizpuriete

	IRRS EXPERTS	Lead Counterpart
10.	**EMERGENCY PREPAREDNESS AND RESPONSE**	
	Alan Muller	Linda Meistare Daina Zagata Jekabs Stankevics

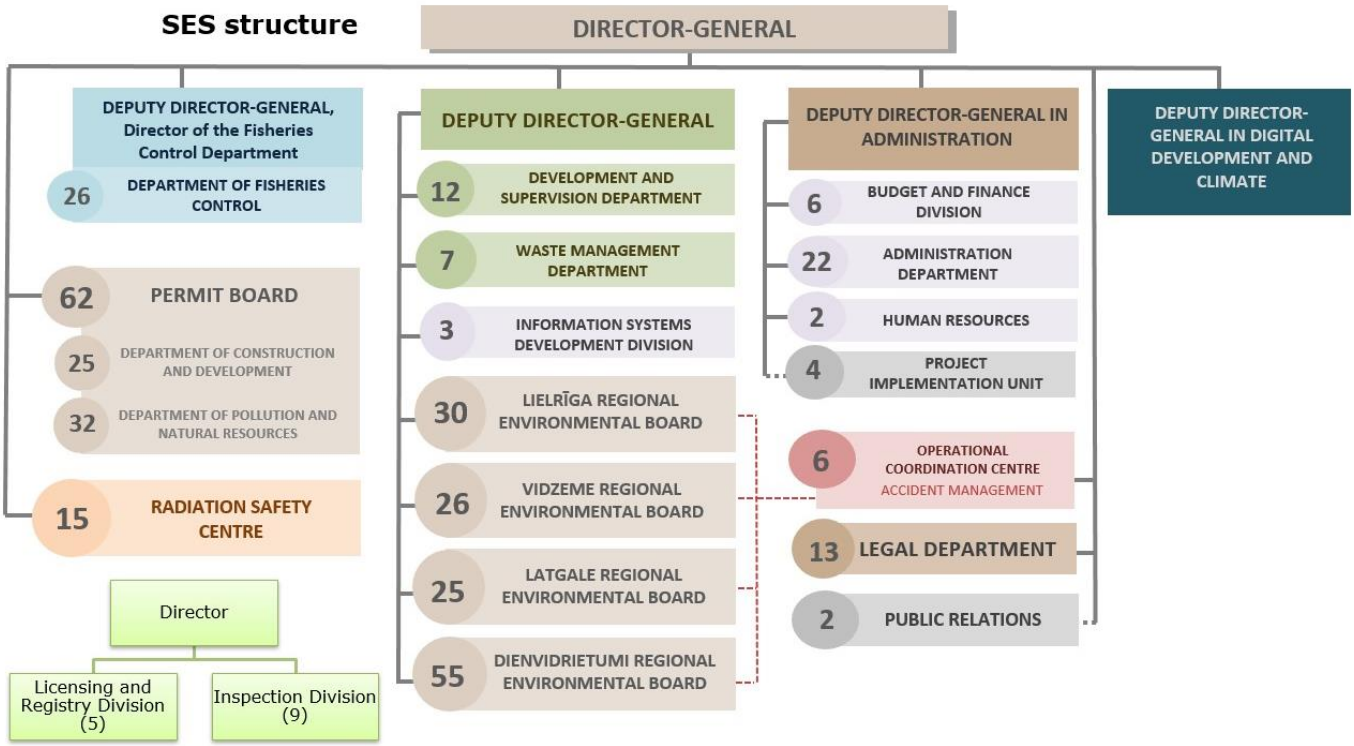
APPENDIX IV – MISSION PROGRAMME

Mission Programme		
Sunday, 13.10.2024		
IRRS Initial Team Meeting		
13:00 - 18:00	Opening remarks by the IRRS team Leader Introduction by IAEA Self-introduction of all attendees IRRS Process (IAEA) Report writing (IAEA) Schedule (TL, IAEA) First impression from IRRS team members arising from the ARM (all team members): presentations Administrative arrangements (Regulatory Body, host country Liaison Officer, IAEA): detailed mission programme Preparation for interviews	Venue Hestia Hotel Participants: IRRS Team + LO
18:00 - 20:00	IRRS team dinner	
Monday, 14.10.2024		
IRRS Entrance Meeting		
09:00 – 10:30	Arrival, registration, Welcoming Address – (*official from the host country*) IRRS Team Leader – Expectations for the Mission and introduction of the IRRS team IRRS team members' and Counterparts' self-presentation' Host Institution presentation – Regulatory Overview, SARIS results (strength, challenges, action plan) Questions	Venue: Office 1st floor (emergency center) Participants: High Level Government Official, RB Management and staff, Official from relevant organizations, IRRS team + LO
11:00 – 12:30	Interviews and Discussions with Counterparts	Counterparts and Offices: 4th floor
12:30 - 13:30	Lunch	

13:30 - 17:00	Interviews and Discussions with Counterparts (parallel discussions)	Counterparts and Offices: 4th floor
17:00 - 18:00	Daily IRRS team meeting	Venue: Hestia Hotel Participants: IRRS team + LO
Tuesday, 15.10.2024		
Daily Discussions / Interviews		
09:00 - 16:00	Interviews and discussions with counterparts (parallel discussions); Preparation of preliminary findings (recommendations, suggestions and good practices)	Counterparts and IRRS Team Offices: 4th floor, 1st floor
12:30 - 13:30	Lunch	
16:00 - 17:00	Preliminary findings delivery and compilation	IRRS Team
17:00 - 18:00	Daily IRRS team meeting	Venue: Hestia Hotel Participants: IRRS team + LO
Wednesday, 16.10.2024		
Daily Discussions / Interviews		
09:00 - 16:00	IRRS team members draft the report Draft report cross reading Finalization of the observations Preliminary Draft Report Ready	IRRS team Office 1st floor
12:30 - 13:30	Lunch	
17:00 - 18:00	Daily IRRS team meeting	Venue: Hestia Hotel Participants: IRRS team + LO
Thursday, 17.10.2024		
Finalisation of draft report		
09:00 - 11:00	Parallel individual review and discussions of the report sections with the counterparts. Report writing	Venue: 4th floor, 1st floor

		Participants: IRRS team, Counterparts
11:00 - 12:00	Finalize report text and submit to the Host Institution	
12:00 - 18:00	Host Institution organises the review of the draft by all national counterparts and submit written comments to the IRRS team	Host counterparts
12:00 - 17:30	IRRS Team Lead and IAEA Coordinators draft executive summary and prepare exit presentation	IRRS Team Lead
18:00 - 19:00	Briefing of the IAEA official Press release finalization	Venue: Office 1st floor (emergency center) IRRS Team Lead, IAEA Press-Officer
Friday, 18.10.2024		
Exit Meeting / Closing		
09:00 - 11:00	Plenary, Discussions with Hosts on findings	Venue: Office 1st floor Participants: IRRS team and Host counterparts
11:00 - 13:00	IRRS team reviews Host's comments and finalizes draft report. Handover the report to the Host Institution	Venue: Office 1st floor Participants: IRRS team
13:00 - 14:00	Lunch	
14:00 - 15:00	IRRS Exit meeting Main findings of the IRRS mission (Team Leader) Remarks by the Host Institution in response to the mission findings. IAEA Official: Closing	Venue Office 1st floor Participants: Government Officials, RB Management and staff, the IRRS team + LO

APPENDIX V – ORGANIZATIONAL CHART



APPENDIX VI – COUNTERPART'S REFERENCE MATERIAL USED FOR THE REVIEW

1. Environmental Policy Guidelines 2021-2027 Annex 3 Radiation Protection Programme
2. Law on Radiation Safety and Nuclear Safety, amendments 02.05.2024.
3. RSC SES Human Resources Plan (2021-2025)
4. RSC SES Quality Management System Manual No KV_Vis_Rokasgramata (version 2)
5. Regulations No 433 "Regulation of radiation protection experts and medical physics experts" (approved on 29.06.2021.) (excerpt)
6. Draft Regulation on radiation protection in medical exposure (excerpt)
7. Draft Regulation on EPR (excerpt)
8. RSC SES Guidelines No 9 "Guidelines for the release of patients who have undergone nuclear medicine (diagnostic and therapeutic) procedures and recommendations regarding radiation protection" (16.12.2020.)
9. RSC SES guidelines No 4 on radiation protection programmes (version 3 approved on 10.11.2023.)
10. RSC SES guidelines No 11 "Release of facilities from regulatory control in the field of radiation safety" (04.04.2024.)
11. Guidelines on radiation safety in industrial radiography (2021)
12. Guidelines for transport of radioactive materials (2021)

Links to all Regulations available: https://www.vvd.gov.lv/lv/tiesibu-akti-radiacijas-drosibas-un-kodoldrosibas-joma
Links to all Guidelines available: https://www.vvd.gov.lv/lv/vadlinijas-operatoriem-darbam-ar-jonizejosa-starojuma-avotiem-0
Links to all published Inspection checklists available: https://www.vvd.gov.lv/lv/paskontroles-riki-jonizejosa-starojuma-avotu-operatoriem

APPENDIX VII – IAEA REFERENCE MATERIAL USED FOR THE REVIEW

1. **INTERNATIONAL ATOMIC ENERGY AGENCY** - Fundamental Safety Principles, No SF-1, IAEA, Vienna (2006)
2. **INTERNATIONAL ATOMIC ENERGY AGENCY -** Governmental, Legal and Regulatory Framework for Safety, General Safety Requirements Part 1, No GSR Part 1 (Rev. 1), IAEA, Vienna (2016)
3. **INTERNATIONAL ATOMIC ENERGY AGENCY –** Leadership and Management for Safety, General Safety Requirements Part 2, No GSR Part 2, IAEA, Vienna (2016)
4. **INTERNATIONAL ATOMIC ENERGY AGENCY** - Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards, General Safety Requirements Part 3, No GSR Part 3, IAEA, Vienna (2014).
5. **INTERNATIONAL ATOMIC ENERGY AGENCY -** Safety assessment for facilities and activities, General Safety Requirements Part 4, No GSR Part 4 (Rev. 1), IAEA, Vienna (2016)
6. **INTERNATIONAL ATOMIC ENERGY AGENCY -** Predisposal Management of Radioactive Waste, General Safety Requirements Part 5, No GSR Part 5, IAEA, Vienna (2009)
7. **INTERNATIONAL ATOMIC ENERGY AGENCY -** Decommissioning of Facilities, General Safety Requirements No GSR Part 6, IAEA, Vienna (2014)
8. **INTERNATIONAL ATOMIC ENERGY AGENCY** - Preparedness and Response for Nuclear or Radiological Emergency, General Safety Requirements No GSR Part 7, IAEA, Vienna (2015)
9. **INTERNATIONAL ATOMIC ENERGY AGENCY -** Disposal of Radioactive Waste, Specific Safety Requirements No SSR-5, IAEA, Vienna (2011)
10. **INTERNATIONAL ATOMIC ENERGY AGENCY** - Regulations for the Safe Transport of Radioactive Material, 2018 Edition, Specific Safety Requirements No SSR-6 (Rev. 1), IAEA, Vienna (2018)
11. **INTERNATIONAL ATOMIC ENERGY AGENCY -** Classification of Radioactive Waste, General Safety Guide No GSG-1, IAEA, Vienna (2009)
12. **INTERNATIONAL ATOMIC ENERGY AGENCY** - Criteria for use in Preparedness and Response for a Nuclear or Radiological Emergency, General Safety Guide No GSG-2, IAEA, Vienna 2011)
13. **INTERNATIONAL ATOMIC ENERGY AGENCY** - Communication and Consultation with Interested Parties by the Regulatory Body, General Safety Guide No GSG-6, IAEA, Vienna (2017)
14. **INTERNATIONAL ATOMIC ENERGY AGENCY** - Occupational Radiation Protection, Safety Guide No GSG-7, IAEA, Vienna (2018)
15. **INTERNATIONAL ATOMIC ENERGY AGENCY** - Regulatory Control of Radioactive Discharges to the Environment, Safety Guide No GSG-9, IAEA, Vienna (2018)
16. **INTERNATIONAL ATOMIC ENERGY AGENCY** - Organization, Management and Staffing of the Regulatory Body for Safety, General Safety Guide No GSG-12, IAEA, Vienna (2018)
17. **INTERNATIONAL ATOMIC ENERGY AGENCY** - Functions and Processes of the Regulatory Body for Safety, General Safety Guide No GSG-13, IAEA, Vienna (2018)
18. **INTERNATIONAL ATOMIC ENERGY AGENCY** Leadership, Management and Culture for Safety in Radioactive Waste Management, Safety Guide No GSG-16, IAEA, Vienna (2022)

19. INTERNATIONAL ATOMIC ENERGY AGENCY - Arrangements for Preparedness for a Nuclear or Radiological Emergency, Safety Guide No GS-G-2.1, IAEA, Vienna (2007)
20. INTERNATIONAL ATOMIC ENERGY AGENCY - Environmental and Source Monitoring for Purposes of Radiation Protection, Safety Guide No RS-G-1.8, IAEA, Vienna (2005)
21. INTERNATIONAL ATOMIC ENERGY AGENCY - Borehole Disposal Facilities for Radioactive Waste, Safety Guide No SSG-1, IAEA, Vienna (2009)
22. INTERNATIONAL ATOMIC ENERGY AGENCY - Geological Disposal Facilities for Radioactive Waste Specific Safety Guide No SSG-14, IAEA, Vienna (2011)
23. INTERNATIONAL ATOMIC ENERGY AGENCY - Storage of Spent Nuclear Fuel, Safety Guide No SSG-15 (Rev. 1), IAEA, Vienna (2020)
24. INTERNATIONAL ATOMIC ENERGY AGENCY - Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material Specific Safety Guide (2018 Edition) No SSG-26 (Rev.1), IAEA, Vienna (2022)
25. INTERNATIONAL ATOMIC ENERGY AGENCY - Management of Waste from the Use of Radioactive Material in Medicine, Industry, Agriculture, Research and Education, Safety Guide No SSG-45, IAEA, Vienna (2019)
26. INTERNATIONAL ATOMIC ENERGY AGENCY - Radiation Protection and Safety in Medical Uses of Ionizing Radiation, Safety Guide No SSG-46, IAEA, Vienna (2018)
27. INTERNATIONAL ATOMIC ENERGY AGENCY – Ageing Management and Development of a Programme for Long Term Operation of Nuclear Power Plants, Safety Guide No SSG-48, IAEA, Vienna (2018)
28. INTERNATIONAL ATOMIC ENERGY AGENCY –Decommissioning of Medical, Industrial and Research Facilities, Safety Guide No SSG-49, IAEA, Vienna (2019)
29. INTERNATIONAL ATOMIC ENERGY AGENCY – Operating Experience Feedback for Nuclear Installations, Safety Guide No SSG-50, IAEA, Vienna (2018)
30. INTERNATIONAL ATOMIC ENERGY AGENCY - Accident Management Programmes for Nuclear Power Plants, Safety Guide No SSG-54, IAEA, Vienna (2019)
31. INTERNATIONAL ATOMIC ENERGY AGENCY - Preparedness and Response for a Nuclear or Radiological Emergency Involving the Transport of Radioactive Material, Safety Guide No SSG-65, IAEA, Vienna (2022)
32. INTERNATIONAL ATOMIC ENERGY AGENCY - Radiation Protection Programmes for the Transport of Radioactive Material, Safety Guide No TS-G-1.3, IAEA, Vienna, (2007)
33. INTERNATIONAL ATOMIC ENERGY AGENCY - The Management System for the Safe Transport of Radioactive Material Safety Guide No TS-G-1.4, IAEA, Vienna (2008)
34. INTERNATIONAL ATOMIC ENERGY AGENCY - Compliance Assurance for the Safe Transport of Radioactive Material, Safety Guide No TS-G-1.5, IAEA, Vienna (2009)
35. INTERNATIONAL ATOMIC ENERGY AGENCY - Schedules of Provisions of the IAEA Regulations for the Safe Transport of Radioactive Material (2018 Edition), Specific Safety Guide No SSG-33 (Rev.1) IAEA, Vienna (2021)
36. INTERNATIONAL ATOMIC ENERGY AGENCY - Storage of Radioactive Waste, Safety Guide No WS-G-6.1, IAEA, Vienna (2006)
37. INTERNATIONAL ATOMIC ENERGY AGENCY - Safety Assessment for the Decommissioning of Facilities Using Radioactive Material, Safety Guide NoWS-G-5.2, IAEA, Vienna (2009)
38. INTERNATIONAL ATOMIC ENERGY AGENCY - Storage of Radioactive Waste, Safety Guide No WS-G-6.1, IAEA, Vienna (2006)