Republic of Latvia National Report on the implementation of the obligations under the Convention on Nuclear Safety

for the 10th Review Meeting of the Contracting Parties

Radiation Safety Centre of the State Environmental Service

August 2025

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A. INTRODUCTION

The Republic of Latvia (hereinafter: Latvia) accessed the Convention on Nuclear Safety (hereinafter: the Convention or CNS) on 25 October 1996 (entry into force on 23 January 1997).

Latvia does not possess nuclear installations as defined in Article 2(i) of the Convention and there are no decisions made to build any nuclear installations in Latvia. There are no changes in national policy regarding nuclear activities in the energy sector.

Latvia owns only one research reactor at Salaspils, which is permanently closed down and currently is in the stage of decommissioning. The spent nuclear fuel has been returned to the country of origin in May 2008.

The National Report has been prepared by Latvia to meet the requirement of Article 5 of the Convention and demonstrates how Latvia meets the main objective of the Convention to achieve and maintain a high level of nuclear safety worldwide by enhancing national measures and international cooperation. It also shows how Latvia meets the obligations of the applicable articles established by the CNS and provides an update on the previous Review meeting of CNS.

The National Report is structured according to the "Guidelines regarding national reports under the Convention on Nuclear Safety" (INFCIRC/572/Rev.8). Based on these Guidelines only the Articles 7, 8 and 16 of CNS are applicable to Latvia. Additionally, the report includes information regarding the Articles 6, 9, 10 and 15 of CNS.

Taking into account the current nuclear framework in Latvia, the National Report is mostly oriented toward the issues related to radiation safety and emergency preparedness. Other aspects from CNS are also covered, but to a limited degree, because many of the requirements relevant to the nuclear power are not explicitly introduced by the legal framework, thus main principles and requirements for any practice with the sources of ionizing radiation are applied. Latvia's legal system will be further developed should any new nuclear facility be envisaged.

The main attention has been paid to reflect the changes which took place since the last Review Meeting, the questions which are identified as challenges and the lessons learned from 8th&9th Review Meeting. The National Report provides only some aspects regarding the decommissioning of Salaspils Research Reactor but more detailed reporting about the reactor will be included in the reports to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

Additionally, the National Report reflects the relevant principle for Latvia from the Vienna Declaration on Nuclear Safety (VDNS). Taking into account recommendations from a letter of President of the 8th Review Meeting (on 13 December 2018) this issue is reflected in report.

The structure of the National report is as follows:

Section 1 - Introduction - informs on national policy towards nuclear activities, provides statement on the commitment to the Convention and informs on main safety issues addressed in National Report as well as explains preparation, structure and main features of National Report.

Section 2 - Summary - addresses safety issues, which have been identified in the previous National Report and responds to the recommendations adopted at the plenary

sessions of previous Review Meeting; includes the main developments since Review Meeting and future plans.

Section 3 - Reporting article by Article

Section 4 - Annex legal framework and national reports

The National Report is prepared by the Regulatory Body - Radiation Safety Centre of State Environmental Service (hereinafter: RSC SES) in cooperation with the Ministry of Climate and Energy and State limited liability company „Latvian Environment, Geology and Meteorology Centre" (hereinafter: LEGMC).

This National Report and previous Convention reports are available online at www.vvd.gov.lv (*State Environmental Service website*).

B. SUMMARY

Since the previous National Report submission Latvia has continued to deal with issues of nuclear safety and radiation safety.

During this period, Cabinet of Ministers has approved the Environmental Policy Strategy for 2021-2027, which also includes the Radiation Safety Programme (approved by Cabinet of Ministers Order No.583, 31.08.2022). The Radiation Safety Programme also contains the Radioactive Waste Management Programme and questions about capacity building in radiation emergency situations and the decommissioning of Salaspils Research Reactor.

In July 2024 the Ministry of Environmental Protection and Regional Development was reorganized and functions related to environmental protection, including radiation safety and nuclear safety issues have been transferred to the Ministry of Climate and Energy.

In 2021 the "Radiological characterization of Salaspils Research Reactor, development of building design for decommissioning and dismantling of Salaspils Research Reactor and author supervision" was signed. Work on the development of a building design for decommissioning and dismantling (also decommissioning plan) is continuing.

Amendments to the Law on Radiation Safety and Nuclear Safety were approved by the Parliament in May 2024 to include all 10 safety fundamental principles, taking into account the recommendations received during the Integrated Regulatory Review Service (IRRS) mission in 2019. In order to improve physical protection requirements, in accordance with International Atomic Energy Agency (IAEA) documents, Cabinet Regulation No.615 "Requirements for Physical protection of Ionising Radiation Sources" was adopted on 24.09.2024.

During this period, attention was also paid to several issues:

1) Improvement of emergency preparedness and response

In the field of emergency preparedness and response, several measures have been taken to improve preparedness and response to radiation accidents by governmental institutions.

New regulations on emergency preparedness and response were drafted in 2022-2023 and submitted to the Ministry of Climate and Energy to be further coordinated with the relevant ministries and submitted to the Cabinet of Ministers for approval.

Attention was also paid to the training and exercising of staff in involved in emergency preparedness and response (including medical staff). Institutional, national and international level exercises are conducted and taken part in. In 2022 and 2025, national level civil protection exercises "RADEX 2021" and "RADEX 2025" were organized. As part of the exercises, the capabilities of institutions in various types of CBRN scenarios were tested, including a nuclear accident scenario at a nuclear power plant in another country. Practical local level exercises with the involvement of regulatory authority, responsible institutions and the radioactive waste management organisation were carried out in 2023 this in the territory of a hospital in city Daugavpils and in 2024 in the territory of airport in Riga.

2) Capacity building

In recent years, RSC SES has paid increased attention to improving the capacity of RSC SES employees, also to the education of employees of other institutions (already mentioned in Point 1), as well as operators and public. To assess the baseline for measuring the level of knowledge and availability of information about radiation safety, in 2021 RSC SES carried out a public survey for three groups of respondents – operators, the public and the responsible institutions involved in radiation safety. The survey for operators and employees of responsible state institutions was repeated in 2024 in order to compare results. Results of survey are available on SES website https://www.vvd.gov.lv/lv/informativie-materiali#valsts-vides-dienesta-2021gada-sabiedriskas-domas-aptauja-par-zinasanam-un-informacijas-pieejamibu-radiacijas-drosibas-joma.

With regard to informing and educating public, several efforts have been made in Latvia - public awareness campaign about historical consumer products in 2022, educational material for high school physics teachers and students in 2024, as well as participation in several seminars to inform public about emergency preparedness and response.

Since 2016 significant work has been done to improve the management system at the regulatory body (RSC SES). RSC SES developed a Quality Management System Manual and internal guidelines for key processes (authorization, inspections, enforcement, procedures for local emergencies, etc.). In 2021 RSC SES developed the Human resources plan 2021-2025 and Long-term Training Plan for 2021-2025. As a result, the RSC SES has established an internal training system. In 2024 RSC SES updated management system procedures for authorization and inspection processes, and updated Quality Management System Manual also to include procedure for exchange of information and lessons learned (including receiving and disseminating lessons learned from both regulatory experience and operational experience). RSC SES updated Human Resources Plan in 2023 to include Programme for Promotion of Radiation Safety Culture and Leadership.

In order to inform operators about tipical issues in radiation safety, changes in regulations and new developed guidelines, RSC SES has been organizing an annual workshop for operators since 2019.

Strengthening of the institution (including the regulatory body) expertise and skills has been carried out by taking advantage of the IAEA technical cooperation programme, as well as opportunities offered by other foreign institutions and organisations. According to Country Programme Framework for Technical Cooperation between the Republic of Latvia and the IAEA for 2020-2025, in 2022-2023 RSC SES implements the national IAEA project LAT9016 “Strengthening the regulatory framework for radiological emergencies and radioactive waste management” for improving knowledge on radioactive waste management and emergency. In 2023 Latvia hosted IAEA expert mission on radioactive waste management and in 2022 expert mission on transport of radioactive material and emergency preparedness. Within the framework of these experts’ missions, the implementation of IRRS recommendations and issues of improving legislation were discussed with the international experts. In 2024-2025 RSC SES implements national IAEA project LAT9017 “Improving the Regulatory Infrastructure Through the Development of an Integrated Management System”, for example in 2025 RSC SES hosted workshop on requirements for integrated management

system and workshop for requirements on occupational radiation protection, in both workshops representatives of licensed facilities also participated.

Considering the issues of the energy crisis globally, the interest of potentially using nuclear energy, particularly Small Modular Reactor (SMR), in energy mix has emerged in Latvia. There are no changes in the national policy regarding nuclear activities in the energy sector and no decisions have been made by the government, however, several activities in the field of nuclear energy have begun since the start of 2022. Given that SMR is a new technology, Latvia wishes to explore its potential and possible use, including the evaluation of economic, environmental, and technological impacts.

The Ministry of Economics joined the Foundational Infrastructure for Responsible Use of Small Modular Reactor Technology (FIRST) program (coordinated by USA Department of State) for nuclear capacity building on 4 April 2022. On October 11th and 12th 2023, the next FIRST seminar titled "Workshop on Nuclear as Part of the Energy Mix, Workforce Development, and Stakeholder Engagement" was held in Riga. Ministry of Climate and Energy is also the lead national partner in the IAEA Interregional project INT2023 "Supporting Member States' Capacity Building on Small Modular Reactors and Micro-reactors Technology and Applications as contribution of Nuclear Power to the Mitigation of Climate Change".

Since May 2022 an annual international conference "Nuclear Energy for Latvia" has been organised every May. The aim of the conference is to raise awareness and understanding of the role of nuclear energy in achieving Latvia's climate goals and strengthening energy independence.

On May 6, 2025, the Cabinet of Ministers reviewed the information report "Opportunities for the Development of Nuclear Energy in Latvia" prepared by the Ministry of Climate and Energy. The information report assesses the possibilities for introducing nuclear energy in Latvia, taking into account the European Union's Green Deal requirements, the current situation regarding electricity generation capacity available in Latvia, the development of Small Modular Reactors, as well as the requirements of the Nuclear Power Program.

Based on the conclusions of the report, the Cabinet of Ministers instructed the Ministry of Climate and Energy to initiate negotiations with the Estonian Ministry of Climate, which is responsible for energy, in order to conduct a more in-depth evaluation of cooperation opportunities with Estonia in the development of a regulatory and supervisory framework for nuclear energy, as well as in the construction and operation of a nuclear power plant. The evaluation should consider the technical and economic benefits of such a cooperation project, potential costs and their funding sources.

Additionally, the Ministry of Climate and Energy was tasked with starting, by September 1, 2025 the preparation of the initial phase of a Nuclear Power Program. This includes a thorough assessment of the regulatory framework for nuclear energy development, nuclear safety and radiation protection, physical security, electricity grid and human resource (availability and preparedness) development, environmental protection, radioactive waste storage and disposal requirements and options, the stakeholder engagement framework, and other necessary measures for the development of the nuclear energy industry in Latvia.

3) Peer reviews

In 2019 Latvia hosted two international peer reviews to assess the radiation safety infrastructure (Integrated Regulatory Review Service (IRRS) and Integrated Review

Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation (ARTEMIS) Mission). Beforehand a comprehensive self-assessment was carried out to prepare a Preliminary National Action Plan. The final reports of the IRRS and ARTEMIS missions are published and available for public on the State Environmental Service website[1].

In 2024 Latvia hosted the IRRS follow-up mission to assess the progress and implementation of recommendations and suggestions. Expert team determined that majority of recommendations and suggestions have been addressed and were closed, only 8 findings remain from the 2019 mission and they are related to changes in regulations.

In order to assess Latvia's readiness and actions in radiation emergencies, RSC SES will host the Emergency Preparedness Review (EPREV) mission in October 2025.

Planned/ongoing activities

- Continue work to improve preparedness and response to radiation emergencies (develop documents for improvement of institutional cooperation, public information, training and exercises). In 2025, Latvia also plans to host the IAEA Emergency Preparedness Review (EPREV) mission. RSC SES will be the responsible authority for EPREV.

- The decommissioning of the Salaspils Research Reactor will also be further addressed.

- Modernization of radiation monitoring system of Latvia.

The system of radiation monitoring stations has been in operation since 2014. In 2024-2025, the modernization of 23 stations is carried out by replacing detectors, data recording device, data exchange modem and the power supply system as well as some other components and additional new monitoring station was installed. Modernization of the system is carried out using funding from European Union (EU).

Vienna Declaration on Nuclear Safety (VDNS)

Latvia does not have an existing nuclear power plant and is not planning to build a new nuclear power plant. Respectively, the first principle on new nuclear power plants and the second principle on existing nuclear power plants of the VDNS are not applicable for Latvia.

The third principle of the VDNS is:

"National requirements and regulations for addressing this objective throughout the lifetime of nuclear power plants are to take into account the relevant IAEA Safety Standards and, as appropriate, other good practices as identified *inter alia* in the Review Meetings of the CNS."

Taking into account this principle there is regulatory framework for cases of emergency in Latvia. In order to ensure preparedness and response in the event of a radiological emergency, Latvian authorities participate in and organize various types of training for the event of a radiological emergency.

[1] IRRS: https://www.vvd.gov.lv/sites/vvd/files/irrs20report201.pdf
ARTEMIS: https://www.vvd.gov.lv/sites/vvd/files/artemis20report1.pdf

Challenges form the 8th&9th Review Meeting

At the 8th&9th review meeting, Latvia received such challenges:

- **Challenge 1: Finalize the transposition and implementation of the European Council Directive 2013/59/Euratom (EU Basic Safety Standards).**

An active communication is still opened with stakeholders regarding the implementation of Directive 2013/59/Euratom in legislation.

- **Challenge 2: Develop the final decommissioning plan for the Salaspils Research Reactor.**

In 2021 the contract on "Radiological characterization of Salaspils Research Reactor, development of building design for decommissioning and dismantling of Salaspils Research Reactor and author supervision" was signed. On 26 June 2023 construction permit for decommissioning and dismantling of Salaspils Research Reactor was issued by RSC SES allowing to start drawing up the building design (also decommissioning plan). It was planned that the decommissioning plan would be developed by the end of 2025. At the same time, it should be noted that there could be delays due to problems with the implementation of the project.

- **Challenge 3: Finalize the actions to address the recommendations of the IRRS and ARTEMIS missions conducted in 2019**

In October 2024 Latvia hosted the IRRS follow-up mission to assess the progress and implementation of recommendations and suggestions. Expert team determined that majority of recommendations and suggestions have been addressed and were closed, only 8 findings remain from the 2019 mission and they are related to changes in regulations on safe transport of radioactive material, on safe radioactive waste management, on emergency preparedness and response, as well as basic safety standards regarding provisions for optimization of occupational protection.

Both IRRS and ARTEMIS missions emphasised that national policy has to define long term commitment to radiation safety. These recommendations were taken into account in the Environmental Policy Strategy for 2021-2027. Long term key performance indicators up until year 2070 have been developed, prognosis for radioactive waste streams and amount of waste up until year 2040 are included.

All recommendations regarding RSC SES integrated management system were assessed as implemented. Recommendations regarding radiation safety requirements for decommissioning and for graded approach in authorization were implemented in new Regulations No 65 "Regulations Regarding Notification, Registration, and Licensing of Activities with Sources of Ionising Radiation" (adopted on 28.01.2021). Recommendations regarding protection in medical exposure were closed based on confidence in progress as they were introduced in new draft regulation that is at the final steps of approval.

Regarding ARTEMIS mission recommendations have been implemented but self-assessment has not been carried out and is planned to be conducted before inviting the next ARTEMIS mission in 2029.

C. IMPLEMENTATION OF THE CONVENTION

Article 6: Existing nuclear installations

ARTICLE 6. EXISTING NUCLEAR INSTALLATIONS

Each Contracting Party shall take the appropriate steps to ensure that the safety of nuclear installations existing at the time the Convention enters into force for that Contracting Party is reviewed as soon as possible. When necessary in the context of this Convention, the Contracting Party shall ensure that all reasonably practicable improvements are made as a matter of urgency to upgrade the safety of the nuclear installation. If such upgrading cannot be achieved, plans should be implemented to shut down the nuclear installation as soon as practically possible. The timing of the shut down may take into account the whole energy context and possible alternatives as well as the social, environmental and economic impact.

According to the definition of the CNS, there are no nuclear installations in Latvia.

There is a Soviet designed pool type research reactor located in Salaspils, which had a maximum thermal power of 5000 kW utilising U-235 with 90% enrichment. The reactor was in operation from 1961 to 1998. It is permanently shut down and it is in stage of decommissioning. The spent fuel was sent back to the country of origin in 2008. The operator of the Salaspils Research Reactor and radioactive waste repository "Radons" at Baldone site is the LEGMC.

Recommendations from IAEA Nuclear safety standards regarding periodic safety reviews are incorporated in national legal system by means of re-licensing - regulations on licensing[2] provide requirements for reviews of all safety aspects of radiation facility, including on-site and off-site emergency planning, accident management and radiation safety. Regulations stipulate that re-licensing (application for new license and review by regulatory body) shall be done on a 10-year basis (licenses are valid for 10 years).

The initial concept for decommissioning was approved by the Government in 1998, then updated in 2004 and amended in 2007. Currently all steps of decommissioning prescribed in the concept remain the same – only the dates will be changed.

There was a small radioactive waste storage on the site of Salaspils Research Reactor (in operation 1980-2005) where some parts dismantled from the reactor core and internals were stored after reconstruction activities of the research reactor in 1980. All said waste after characterization and re-packing has been transferred to the radioactive waste repository „Radons" at Baldone.

The new Environmental Policy Strategy for 2021-2027 includes provisions and information about State budget financing for the decommissioning of the Salaspils Research Reactor and building of new radioactive vault and long-term storage facility at the radioactive waste repository "Radons".

Related to these activities:

1) The contract on "Development and author supervision of the building design of a new radioactive waste vault, interim storage facility and the final capping of the closed radioactive waste vaults in the radioactive waste repository "Radons"" was signed

[2] Cabinet Regulations No.65 „Regulations Regarding Notification, Registration, and Licensing of Activities with Sources of Ionising Radiation" (adopted 28 January 2021)

in 2021. Construction permit was issued by RSC SES on 13 January 2022. Building design and cost estimation for construction was delivered by the end of 2023. Building design was accepted by RSC SES on 14 November 2023.

Implementation of project for the construction of new facilities in the radioactive waste repository "Radons" will be continued after completion of Salaspils Research Reactor decommissioning plan.

2) In 2021 the contract on “Radiological characterization of Salaspils Research Reactor, development of building design for decommissioning and dismantling of Salaspils Research Reactor and author supervision” was signed. In 2021 a lot of work was done related to study of available operational and historical documentation and data of previous investigations. In 2022 finalized radiological survey programme, work programme for field radiological measurements and a radiological survey done according to programme, prepared report on radiological field measurements.

On 26 June 2023 construction permit for decommissioning and dismantling of Salaspils Research Reactor was issued by RSC SES allowing to start drawing up a building design. It was planned that the decommissioning plan would be developed by the end of 2025. There are currently problems with the completion of the building design, and the implementation of the work is being delayed.

Afterwards it is planned to submit the necessary documentation with justification to the Government and the Parliament in order to obtain the resources required for the decommissioning and construction activities. Provisional procurement for decommissioning of Salaspils Research Reactor announcement time - within three years from the completion of the building design; and the decommissioning of Salaspils Research Reactor could be completed within five years from the date of conclusion of the contracts.

Once the necessary funding is ensured, the Salaspils Research Reactor will be decommissioned and the waste generated in the process will be disposed of in the radioactive waste repository “Radons”, and after the closure of the radioactive waste repository “Radons” facility, it is planned that it’s management and supervision will be ensured by the State.

LEGMC follows the conditions of security systems for Salaspils Research Reactor and performs updates if when necessary. Physical and electronic security is ensured at the facility.

At the same time, attention was paid to improving knowledge on issues related to the decommissioning of facilities. Both LEGMC and the RSC SES staff participated in seminars and training on decommissioning issues within regional projects of the IAEA Technical Cooperation Program.

Article 7: Legislative and regulatory framework

ARTICLE 7. LEGISLATIVE AND REGULATORY FRAMEWORK

1. Each Contracting Party shall establish and maintain a legislative and regulatory framework to govern the safety of nuclear installations.

2. The legislative and regulatory framework shall provide for:

(i) the establishment of applicable national safety requirements and regulations;

(ii) a system of licensing with regard to nuclear installations and the prohibition of the operation of a nuclear installation without a licence;

(iii) a system of regulatory inspection and assessment of nuclear installations to ascertain compliance with applicable regulations and the terms of licences;

(iv) the enforcement of applicable regulations and of the terms of licences, including suspension, modification or revocation.

Three sources for legal acts

There are three types of legal acts in Latvia, which are applicable for review under CNS: primary national legislation, secondary legislation (regulations) and EU legal acts.

The main act is the law "On Radiation Safety and Nuclear Safety". In parallel with this framework act, there is also a set of international agreements ratified or acceded by Latvia and several general legal acts, which have some provisions relevant to the NSC (e.g. legislation relevant to the state institutions in general, environmental protection legislation, building codes, administrative and criminal acts).

The secondary sources for Latvia's legal system are regulations and orders issued by the Government (Cabinet of Ministers). The majority of applicable regulations are issued on the basis of the law „On Radiation Safety and Nuclear Safety", but some - based on other primary legal acts (e.g. the Cabinet Regulations "Construction Regulations in Respect of Structures Related to Radiation Safety", No.661 (24.11.2015.) were issued based on Construction Law (09.07.2013.), and the Cabinet Regulations on State Environmental Service Statute, No.962 (23.11.2004) which cover Radiation Safety Centre authority were issued based on State Administration Structure Law).

The third source of law for Latvia, as for any other EU member state, is *Euratom* law. This system in general is based on the *Euratom* Treaty and secondary legal acts, which are regulations, directives, decisions, recommendations and opinions on the basis of the Treaty issued by the EU Institutions (Commission or the Council), including also the case law - interpretation of treaties and institutional acts carried out by the European Court of Justice and the Court of First Instance.

National legal acts

In 2000 the Parliament approved the law „On Radiation Safety and Nuclear Safety". Under this law, a number of radiation protection regulations have been issued. The regulations describe in more detail the authorization, worker protection, radioactive waste management, transportation, emergency preparedness, national BSS and other requirements.

Laws are issued by Parliament and Regulations are issued by Cabinet of Ministers; there are no regulatory issued specific regulations regarding nuclear safety.

The Environmental Policy Strategy for 2021-2027 is one of the most important political documents in environmental protection, including radiation safety and nuclear safety (also Radioactive Waste Management Programme). The goals of the Environmental Policy Strategy to ensure good environmental governance at all levels, as well as good environmental communication based on the most complete and balanced environmental information; to promote wide public involvement in environmental issues, and to ensure the sustainable use and protection of natural resources by promoting environmental risk reduction and management. The Environmental Policy Strategy states the key events and benefits, as well as the result indicators and the timeframe for reaching the results and also include a future action plan.

The national legal acts have been developed considering the requirements of EU legislation and IAEA documents as well as the experience of other countries.

EU legislation

Consequently, relevant to the NSC, and enforced for Latvia[3]:

1. **set of regulations** under the *Euratom* treaty, which are relevant to emergency preparedness, mainly concerning maximum permissible levels for contamination in food and feeding products - two groups of them:
   - post-Chernobyl,
   - future accidents.
2. **directives:**

The following European Council Directives: 2006/117/*Euratom*, 2009/71/*Euratom*, 2011/70/*Euratom* and 2013/59/*Euratom* - establishing a Community framework for the nuclear safety of nuclear installations were implemented to law „On Radiation Safety and Nuclear Safety", Cabinet Regulations No.65 «Regulations Regarding Notification, Registration, and Licensing of Activities with Sources of Ionising Radiation» (adopted on 28.01.2021) and other Cabinet Regulations regarding radiation safety. The Nuclear Safety Directive is intended to establish a Community framework to maintain and promote the continuous improvement of nuclear safety and its regulation, and to ensure the EU Member States provide appropriate national arrangements for high levels of safety to protect workers and the general public.

Directive 2013/59/*Euratom* (EU Basic Safety Standards) is mostly transposed into the national legislative acts and there is also active communication with stakeholders to implement all the provisions which arise from this Directive.

National draft legislation is submitted to the Commission under the terms of the procedure laid down in Article 33 of the *Euratom* Treaty. The Commission gives an opinion on the national draft legislation in order to make sure that it is in conformity with the terms of the directive.

System of licensing

According to Cabinet Regulations No.65 «Regulations Regarding Notification, Registration, and Licensing of Activities with Sources of Ionising Radiation» (adopted on 28.01.2021), the issuing authority is RSC SES and periods of validity of a license are:

[3] It is not a comprehensive list of all legal provisions under the Euratom Treaty, because such will be presented by the Commission of the European Communities and also some legal documents are only partly relevant to the NSC, thus they are not mentioned in Latvia's National Report

1. ten years;

2. up to three years - for international carriage of sources of ionising radiation containing a radioactive substance, radioactive waste, or spent fuel;

3. shorter than 10 years if the applicant indicates the necessary term of validity of the licence in the application for the receipt of the licence and:

3.1. plans to import a source of ionising radiation for demonstration, calibration, testing, or any other similar activities;

3.2. plans to transit a source of ionising radiation containing a radioactive substance;

3.3. plans to export or import a source of ionising radiation containing a radioactive substance.

Article 8: Regulatory body

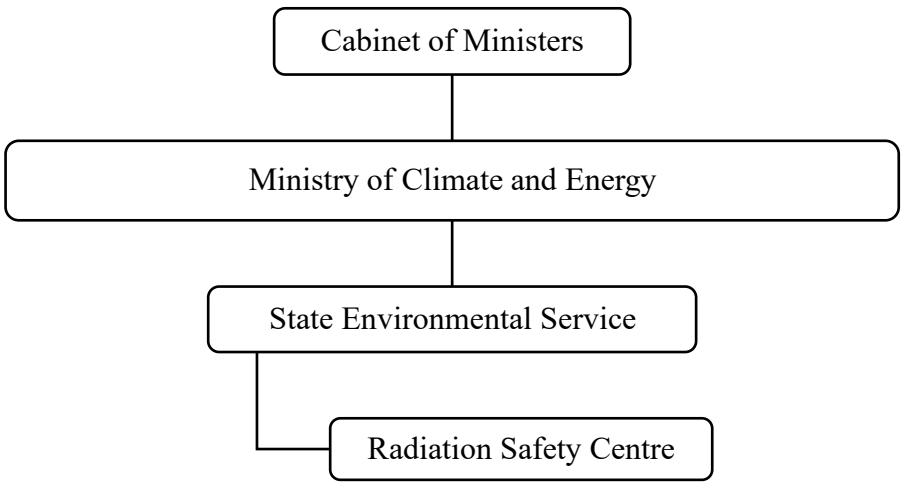
ARTICLE 8. REGULATORY BODY

1. Each Contracting Party shall establish or designate a regulatory body entrusted with the implementation of the legislative and regulatory framework referred to in Article 7, and provided with adequate authority, competence and financial and human resources to fulfil its assigned responsibilities.

2. Each Contracting Party shall take the appropriate steps to ensure an effective separation between the functions of the regulatory body and those of any other body or organization concerned with the promotion or utilization of nuclear energy.

RSC SES is the national regulatory body in the field of radiation safety and nuclear safety. RSC SES was established in July 2001 based on framework Law „On Radiation Safety and Nuclear Safety". According to the amendments in the framework law, adopted on June 12, 2009, RSC SES changed its status to a central structural unit of the State Environmental Service which is under the supervision of the Ministry of Climate and Energy.

Place of the regulatory body in the governmental structure:

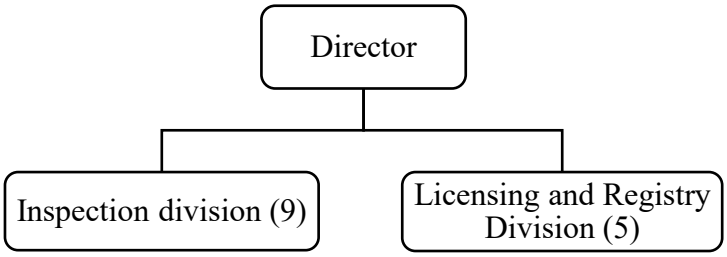


The law on state institutions prescribes system of supervision in details - in short, there is no right for the supervisor to directly affect decisions on the subject matters, only financial control and compliance with requirements from the Law on State civil servants. Thus, recommendations about independency are implemented.

The Parliament assigned the regulatory functions to RSC SES, which is the single regulatory body in field of radiation and nuclear safety in Latvia. Functions and duties are prescribed by the Law "On Radiation Safety and Nuclear Safety". More detailed duties, rights and working procedures are defined in regulations approved by the Cabinet of Ministers.

According to the Law "On Radiation Safety and Nuclear Safety" RSC SES has licensing, supervisory and control functions, it also maintains relevant databases and issues decisions on recognition of radiation protection experts and medical physics experts. RSC SES has legal rights and duties for enforcement of applicable regulations.

Organizational structure of the RSC SES:



Since 2016, significant work has been done to improve the quality system at RSC SES. The RSC SES internal guidelines were developed for key processes - licensing, inspections, enforcement, and preparedness and response for local emergencies. In 2018, a quality management system manual defining the principles of the quality management system at RSC SES was approved.

Following the recommendations from the IRRS mission, in 2020 RSC SES developed a human resources plan for 2021-2025, including an assessment of human resources and time necessary for fulfilling RSC SES functions, as well as an evaluation of existing knowledge of each staff member and required training in different areas. In 2020 RSC SES also updated the Long-term Training Plan 2021-2025 in which each employee has different areas defined where additional training is required and updated procedure «Training module in RSC» (2021) which set requirements how to organize training, how to store training materials. According to this training system RSC SES ensures regularly sharing experience and doing internal training sessions followed by self-assessment tests.

In 2024 RSC SES updated management system procedures for authorization and inspection processes, and updated Quality Management System Manual also to include procedure for exchange of information and lessons learned (including receiving and disseminating lessons learned from both regulatory experience and operational experience). RSC SES updated Human Resources Plan in 2023 to include Programme for Promotion of Radiation Safety Culture and Leadership. RSC SES has kept up to date the Long-term Training Plan 2021-2025, as well as recorded statistics of organised internal training sessions and self-assessment tests.

According to the internal training system RSC SES continued staff training to improve their qualifications and capacity building (internal training; participation in

IAEA training, seminars, workshops) in various areas of radiation protection, with additional attention to new technologies and research reactor decommissioning.

Additionally, RSC SES has implemented several upgrades of its technical capabilities (e.g. radiation measuring equipment; mobile spectrometric detection system MONA).

To facilitate application of legislative and regulatory requirements RSC SES has developed various guidelines for the operators regarding the authorization process, radiation protection programme, justification of categorizing workers into A or B category, safety assessment prepared by radiation protection expert, transportation of radioactive materials, industrial radiography etc. These guidelines are available on SES website. In addition, different inspection checklists have been developed in 2018 and regularly were updated and have been published on SES website. These processes provide clarification of the requirements of the regulatory body and the transparency of the regulative processes.

In order to inform operators about topical issues in radiation safety, changes in regulations and new developed guidelines, RSC SES has been organizing annual workshop for operators since 2019. In 2019 RSC SES provided a workshop for operators in the capital city Riga and two additional biggest cities, however, in the following years the workshops were carried out online. Since 2021 participants from medical facilities were provided with continuous education credits to use for recertification as medical professionals, therefore attendance of the online workshop was increased Seminars are recorded and published online. For example, in 2023 there were 400 participants, but afterwards the recording has been viewed additional 500 times.

To assess the baseline for measuring the level of knowledge and availability of information about radiation safety, in 2021 RSC SES carried out a public survey for three groups of respondents – operators, the public and the responsible institutions involved in radiation safety. The survey for operators and employees of responsible state institutions was repeated in 2024 in order to compare results. Results of survey are available on SES website https://www.vvd.gov.lv/lv/informativie-materiali#valsts-vides-dienesta-2021gada-sabiedriskas-domas-aptauja-par-zinasanam-un-informacijas-pieejamibu-radiacijas-drosibas-joma. Repeated survey of operators in 2024 confirmed that operators assess their level of knowledge as higher (in general about radiation protection requirements, about occupational protection and separately patient protection). At the same time some challenges were identified, for example, provision of more specific information for non-medical operators is required.

Substantial RSC SES human resources were invested in preparation for the IRRS mission and the ARTEMIS mission. The IRRS mission was conducted in October 2019 and the ARTEMIS mission in December 2019. The results of both missions also are available to other countries.[4] IRRS follow-up mission was conducted in October 2024. Expert team determined that majority of recommendations and suggestions have been addressed and were closed, only 8 findings remain from the 2019 mission and they are related to changes in regulations. Regarding CNS issues, the main recommendations from IRRS mission were related to:

- long term goals for safe management of all classes of existing and future radioactive waste streams (including intermediate level waste (ILW)). This

[4] IRRS: https://www.vvd.gov.lv/sites/vvd/files/irrs20report201.pdf
ARTEMIS: https://www.vvd.gov.lv/sites/vvd/files/artemis20report1.pdf

recommendation was taken into account in the Environmental Policy Strategy for 2021-2027. Long term key performance indicators up until year 2070 have been developed, prognosis for radioactive waste streams and amount of waste up until year 2040 are included;

- provisions for safe planning and conduct of decommissioning (identifying decommissioning strategy, periodical update of decommissioning plans). This recommendation was addressed in new Cabinet Regulations No.65 „Regulations Regarding Notification, Registration, and Licensing of Activities with Sources of Ionising Radiation" (adopted 28 January 2021);

- revision of the regulations for emergency preparedness and response in accordance with IAEA GSR Part 7 "Preparedness and Response for a Nuclear or Radiological Emergency" (for example, 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). The implementation of this recommendation is planned in 2023. New regulations on emergency preparedness and response were drafted in 2022-2023 and submitted to the Ministry of Climate and Energy to be further coordinated with the relevant ministries and submitted to the Cabinet of Ministers for approval. Considering that the public participation process has not been completed yet the IRRS follow-up mission in October 2024 concluded that this recommendation is still open.

In addition to other tasks, the RSC SES also invested resources in ensuring the completion of IAEA databases in various areas (e.g. Radiation Safety Information Management System (RASIMS2) till 2020; Emergency Preparedness and Response Information Management System (EPRIMS) was updated in 2025). From 2020 RSC SES together with LEGMC every year fill the information in IAEA Spent Fuel and Radioactive Waste Information System (SRIS).

Following all above, all assessments will provide comprehensive information on the situation in different fields of radiation safety as well as an assessment of the radiation safety infrastructure.

With regard to informing and educating public, several efforts have been made in Latvia - public awareness campaign about historical consumer products in 2022, educational material for high school physics teachers and students in 2024, as well as participation in several seminars to inform public about emergency preparedness and response.

In 2022 RSC SES together with LEGMC carried out a public awareness campaign about historical consumer products. It included a lot of different activities, informative materials, youtube video, press relises etc. 300 radioactive objects were collected including watches with radium, smoke detectors, but also five of collected objects were recognised as actual radioactive sources. Majority was different kind of military historical objects. Results of campaign are available State Environmental Service website https://www.vvd.gov.lv/lv/radioaktivo-prieksmetu-nodosanas-kampana.

In 2024 and educational material was developed and published, which is meant for high school physics teachers and students. It is available on State Environmental Service website together with some presentation and materials and questions and answers for students https://www.vvd.gov.lv/lv/informativie-materiali#radiacijas-drosiba-un-jonizejosa-starojuma-avoti-latvija-materials-skoleniem-un-skolotajiem. And RSC SES also participated in several schools with lectures in 2023-2025.

Article 9: Responsibility of the licence holder

ARTICLE 9. RESPONSIBILITY OF THE LICENSE HOLDER

Each Contracting Party shall ensure that prime responsibility for the safety of a nuclear installation rests with the holder of the relevant licence and shall take the appropriate steps to ensure that each such licence holder meets its responsibility.

According to the Law on Radiation Safety and Nuclear Safety a license holder is responsible for the violation of law. A license holder who has violated the requirements specified in regulatory enactments shall compensate any person injured for the losses caused to the health and property of the person, as well as the environment as a result of activities connected with sources of ionizing radiation. The license holder has the right to raise a subrogation action against a person who is guilty of causing losses. If, when performing activities with sources of ionizing radiation, the environment, buildings, equipment or vehicles have been polluted, a license holder shall ensure the decontamination of the environment, buildings, equipment and vehicles so that the pollution would no longer pose a threat to the environment, the life, health or property of employees and inhabitants, the life and health of animals, as well as shall cover all the expenditure necessary for sample-taking and research. Only the license holder of nuclear equipment shall be responsible for the nuclear damages caused by this equipment.

Civil liability regime, which was developed, based on legal provisions from Vienna Convention on Civil Liability for Nuclear Damage is applicable for facilities with radiation sources in Latvia. There is clear statement in the Law – only the operator is liable.

According to the Law on Radiation Safety and Nuclear Safety, the main person in any facility is the Work Manager (Radiation Protection Officer).

The operator shall demonstrate to RSC SES that this responsibility for safety has been met and will continue to be in compliance with all relevant requirements. RSC SES inspectors verify safety situation at all facilities and RSC SES has the power to request (usually these issues are included in inspector's findings) any relevant safety upgrades. Moreover, during the re-licensing activities, the operator must demonstrate by reports, programs for activities etc., that the facility is safe to continue operations.

To enable that RSC SES performs its functions, the operator shall provide necessary assistance and shall grant access to the facility and all relevant documentation. When required by RSC SES (there have been some cases where occupational exposures seem higher than dose constraints, also few cases with non-compliances), the operator shall undertake special analyses, tests and investigations to demonstrate that exposures are controlled or non-compliances are recognized and eliminated.

Article 10: Priority to safety

ARTICLE 10. PRIORITY TO SAFETY

Each Contracting Party shall take the appropriate steps to ensure that all organizations engaged in activities directly related to nuclear installations shall establish policies that give due priority to nuclear safety.

National BSS lays down the principle for radiation safety and nuclear safety - priority of protection measures in comparison with other measures.

In order to fulfil the requirements, set out in the radiation protection programme the operator shall allocate the financial resources required for the performance of protection measures and hold inventory on a regular basis and examine material resources.

For all large facilities there is a requirement to establish a radiation safety unit, which shall be independent from routine operations of the facility. Composition and number of staff for such radiation protection units is prescribed by regulations.

Plans for any activities that may directly affect the safety are submitted by the operator to RSC SES for approval, if so required, or, in a majority of cases, it is discussed with inspectors. In some cases, when activities are proposed, but they are not included in the normal procedures, special procedures can be written in accordance with the established administrative procedures by the operator and then approved by RSC SES. Verifications of these actions are performed by RSC SES during inspections and licensing.

In 2022 LEGMC prepared and/or updated the following documentation regarding radiation safety of Salaspils Research Reactor for receiving a new licence from RSC SES: a safety assessment (ongoing activities at reactor), an emergency response plan, radiation safety instructions and a quality assurance programme, an expert opinion on safety of Salaspils Research Reactor. The safety assessment of ongoing activities at Salaspils Research Reactor was carried out following the ARTEMIS mission's in 2019 recommendation.

Article 15: Radiation protection

ARTICLE 15. RADIATION PROTECTION

Each Contracting Party shall take the appropriate steps to ensure that in all operational states the radiation exposure to the workers and the public caused by a nuclear installation shall be kept as low as reasonably achievable and that no individual shall be exposed to radiation doses which exceed prescribed national dose limits.

1. Legal provisions

The Law „On Radiation Safety and Nuclear Safety" introduced basic principles of justification, limitation and optimization. Verification of compliance is a duty for RSC SES, which also maintains relevant database. These requirements are further elaborated

in National BSS. Amendments to the Law were approved by the Parliament in May 2024 to include all 10 safety fundamental principles.

2. Implementation measures

2.1. Radiation dose limits

Regarding dose limitation Law „On Radiation Safety and Nuclear Safety" and the National BSS, which were elaborated based on IAEA BSS and EU Basic Safety Standards Directive, set out dose limits for exposed workers, for apprentices and students and for members of the public. The limits are the same as in IAEA BSS and in EU Basic Safety Standards Directive.

2.2. Fulfilment of conditions for the release of radioactive materials

RSC SES has responsibility to review the plans for installations involving an exposure risk, and the proposed siting of such installations from the point of view of radiation protection. The data about assessment of the risks, including planned releases, shall be submitted by the applicant prior to receiving authorization. Facilities which may release radionuclides into the environment have to prepare plans for control of such releases and must provide regular reports to RSC SES.

There is very limited utilization for the controlled releases - only one hospital (Latvian Oncology Centre of Riga East University Hospital) is authorized to release short-lived isotopes (mainly I-131 after decay storage) together with the sewage water.

Another option for controlled releases is the clearance - regulations[5] provide possibilities for operators to discharge (mainly together with solid waste or as re-usable materials) some amount of radioactivity.

Verification of the radiation conditions around facilities which discharge radioactivity is under the National Environmental Monitoring Programme. The Environmental Policy Strategy for 2021-2027 also includes the National Environmental Monitoring Programme.

In addition, the Food and Veterinary Service organizes the control of radioactive contamination of food and animal feed. Laboratory and diagnostic investigations related to radiological monitoring of foodstuffs are performed by the Laboratory of Food and Environmental Investigations of Institute of Food Safety, Animal Health and Environment (BIOR).

Article 16: Emergency preparedness

ARTICLE 16. EMERGENCY PREPAREDNESS

…

3. Contracting Parties which do not have a nuclear installation on their territory, insofar as they are likely to be affected in the event of a radiological emergency at a nuclear installation in the vicinity, shall take the appropriate steps for the preparation and testing of emergency plans for their territory that cover the activities to be carried out in the event of such an emergency.

[5] Cabinet Regulations No.129 „Requirements for Operations with Radioactive Waste and Materials Related Thereto" (adopted 19 March 2002)

1. General provisions

Requirements for emergency preparedness (including training) are set in Cabinet Regulations No.152 "On Requirements for Preparedness for Radiological Emergency and Actions in the Event of Such Emergency" (adopted on 8 April 2003). For any nuclear and radiation facility, such plans shall be prepared and tested before it commences operation agreed by the regulatory body (RSC SES). Depending on the facility and activity, the plans shall be approved also by local municipalities and the State Fire and Rescue Service. These are preconditions for applicants and the relevant documents are assessed before RSC grants the license.

National BSS prescribes the main duties for operators and radiation protection officers regarding emergency preparedness.

On 5 May 2016 the Civil Protection and Disaster Management Law was adopted. The Cabinet of Ministers issued two regulations based on this Law, which prescribe requirements for emergency plans for any facility and introduce specific requirements for preparedness, based on groups of radiation facilities (grouping is done based on potential risks associated with the level of total radioactivity - ionizing radiation objects of national significance).

In 2020 the State Civil Protection Plan was developed (approved by Cabinet of Ministers Order No.476 26.08.2020). The State Civil Protection Plan provides basic principles for emergency preparedness according to radiation and nuclear safety legislation and has requirements for regular testing (including theoretical exercises, tabletop exercises and practical exercises).

In 2020 the State Disaster Medicine Plan was developed to ensure the readiness of the authorities to react and provide coordinated emergency medical assistance in emergency situations. The Plan was developed by the State Emergency Medical Service in cooperation with institutions which are involved in emergency case (incl. medical institutions) and is updated every year with approval from the Minister of Health.

Regulatory framework for emergency preparedness in Latvia considers EU legal acts and IAEA safety standards and guides.

Following the Russian Federation's military aggression against Ukraine and concerns over nuclear safety and the potential impact on populations across the region and the Fukushima Daiichi Accident, more attention is being paid in Latvia to preparedness and response in the event of radiation accidents.

Emphasis is also placed on cooperation with neighbouring countries.

2. Implementation measures

2.1. Bilateral agreements and arrangements

Latvia has bilateral governmental agreements with the Republic of Lithuania, Ukraine and the Republic of Belarus for early warning and exchange of information and co-operation in the field of nuclear safety and radiation protection. In 2020 the Environmental Board of Estonia and the State Environmental Service of Latvia signed a memorandum of understanding for cooperation and exchange of information on radiation and nuclear safety and regulatory matters.

There are also agreements for cooperation in case of natural and man-made accidents with several countries (Belarus, Hungary, Sweden, Ukraine, and Uzbekistan).

In 2017 the agreement between Latvia, the Republic of Estonia, and the Republic of Lithuania on Mutual Assistance and Cooperation in the Field of Disaster Prevention, Preparedness and Response was signed (November 23, 2017).

2.2. National emergency preparedness plan

According to the Civil Protection and Disaster Management Law, the Ministry of Environmental Protection and Regional Development (since July the 1st of 2024, Ministry of Climate of Energy) is the national coordinating authority in case of a radiological emergency. The main bodies in the case of an emergency are:

• RSC SES - national warning point for radiation emergencies, which is operational 24/7. In case of emergency RSC SES evaluates available information and provides recommendations for other involved organizations; takes part in decontamination. RSC SES has the equipment (measuring devices, personal protective equipment, different other tools, etc.) to ensure emergency preparedness and response.

• State Fire and Rescue Service - performs on-site actions assigned by the State Civil Protection Plan in case of radiological and nuclear events, informs state institutions and public, performs decontamination;

• LEGMC - coordinates and organizes environmental radiation monitoring and is responsible for radioactive waste management, performs decontamination, ensures emergency services with dosimeters.

The State Fire and Rescue Service shall notify and warn residents in the event of a radiological emergency by using mass media and the notification and alarm system. Upon recommendation from RSC SES, the State Fire and Rescue Service shall immediately provide information to the residents who have suffered in the radiological emergency.

Taking into account the character and scale of a possible radiological emergency, once per three years the State Fire and Rescue Service in co-operation with the RSC SES shall provide information regarding the possible impact of ionizing radiation on residents and the environment and radiation protection measures to managers and employees of such institutions and commercial companies that may be involved in the organization and performance of protection measures in the event of a radiological emergency.

In 2020 RSC SES established an inter-institutional emergency preparedness and response working group to improve cooperation between all the responsible institutions. There are representatives from 22 institutions. The working group has developed cooperation algorithms for local radiation emergency and national radiation emergency (updated in 2023) and developed the draft of new regulation on EPR in 2023.

Since 2020, RSC SES has annually, within the framework of the working group for ensuring inter-institutional cooperation in radiation emergencies, to collect from state institutions updated information on available and required resources for responding to radiation emergencies. In 2024, information was submitted by 21 institutions. In addition to compiling resource data, the summary also highlights existing challenges that need to be addressed to improve preparedness and response to radiation emergencies. It includes information on the progress made in resolving previously identified issues. Starting in 2024, the summary on existing and necessary resources, as well as related issues, will be compiled every three years. The next summary is scheduled for 2027.

The RSC SES also organized the institutional self-assessment survey on preparedness and response to radiation emergencies for the fifth time, which was

completed on 28 December 2024. A total of 12 institutions participated in the survey, with 123 respondents. From 2024 onwards, the survey will be conducted every three years, with the next one scheduled for 2026.

Various types of training are organized to test the preparedness of institutions and their ability to cooperate in radiological emergency. According to the annual work plan of the RSC SES, internal training is regularly organized, within the framework of which cooperation in accidents is improved, as well as knowledge about radiation measuring devices is improved. In addition, RSC SES personnel participate in international events where knowledge is improved on various issues (including EPR, new technologies, radioactive waste management).

In cooperation with IAEA Country Programme Framework of Republic of Latvia for 2020-2025 was approved in December 2019 outlining a six-year strategy in four priority areas of radiation safety and regulatory infrastructure; nuclear knowledge development and management; human health and waste management and environmental monitoring.

In 2022-2023, RSC SES realized the national IAEA project LAT9016 “Strengthening the regulatory framework for radiological emergencies and radioactive waste management” for improving knowledge on radioactive waste management and emergency. In this project RSC SES plans to organize expert missions and training, also for support to implement IRRS and ARTEMIS missions recommendations. In framework of this project, the RSC SES organized training courses for medical personnel and State Emergency Medical Service on first aid in radiation emergency (05.06.-08.06.2023) and national training courses for first responders in emergencies (26.06.-07.07.2023). The courses were attended by nine responsible institutions, who expanded their knowledge of responding to local emergencies.

In 2022 and 2025, national level civil protection exercises “RADEX 2021” and “RADEX 2025” were organized. As part of the exercises, the capabilities of institutions in various types of CBRN scenarios were tested, including a nuclear accident scenario at a nuclear power plant in another country.

Local-level exercises with various radiation accident scenarios are also organized. For example:

- October 12, 2022 RSC SES organized practical exercise in collaboration with State Fire and Rescue Service and LEGMC about transportation accident involving radioactive materials.
- September 14, 2023 - practical civil protection exercises on actions in local-level radiation emergencies together with State Fire and Rescue Service, State Police, State Emergency Medical Service, LEGMC, and Daugavpils Regional Hospital, which took place in the territory of Daugavpils Regional Hospital. The scenario simulated a situation where a vehicle transporting radioactive materials had an accident and there were injured persons.
- September 24, 2024 – practical exercise took place in the territory of Riga International Airport and was organized by the RSC SES in collaboration with Riga International Airport.
- October 22-23, 2024 – State Border Guard organized exercise in the field of radiometric control at the Vientuļi border crossing point.

The decision support system JRODOS is used by the employees of the RSC SES to predict the possible spread of radioactive contamination in the territory of the Republic of Latvia after a radiation or nuclear emergency. To improve RSC SES forecasting skills, on October 21, 2022, the RSC SES organized a joint exercise with the Radiation Protection Centre of Lithuania on predicting the spread of radioactive contamination from a nuclear accident using specialized software.

The RSC SES and other state institutions regularly participate in various types of training and seminars organized by USA institutions, including those aimed at improving knowledge of radiation measurement equipment.

RSC SES involves in international exercises that takes place together with other organizations from Latvia or other countries. In 2022 RSC SES participated in case study about implementation of nuclear and radiological emergency preparedness and response requirements in EU member states and neighbouring countries that was organized by European Commission. The aim of this exercise was to review and analyse the practical application of the emergency preparedness and response arrangements in a regional or international context to selected example emergency scenarios with cross-border consequences, where these consequences extend outside the national territory, or where a distant emergency affects European countries requiring coordinated action.

In addition, RSC SES participates in convention exercises organized by the IAEA IEC on a regular basis in order to ensure preparedness and response capabilities for emergencies (ConvEx exercises). RSC SES also participates in annual ECUREX exercise that is organized by European Commission in order to exercise common response procedures between EU member states.

RSC SES also tests communication channels on regular basis with other countries (Ukraine, Belarus).

In order to assess Latvia's readiness and actions in radiation emergencies, RSC SES will host the Emergency Preparedness Review (EPREV) mission in October 2025. Other institutions is also involved in the EPREV mission preparation stage and during the mission.

2.3. Information activities

Latvia also introduced requirements according to the Council Directive 2013/59*Euratom*, which deals with informing the general public about health protection measures to be applied and steps to be taken in the event of a radiological emergency. The Directive specifies two types of information that must be given to the members of the public:

- preventive information to be given to the population groups for which the Member States have drawn up intervention plans in the event of a radiological emergency;
- information in the event of a radiological emergency to be given to the population groups actually affected in the event of a radiological emergency and for which specific protection measures are taken.

To educate the public, help obtain reliable and verified information, and answer actual questions about action in case of radiation emergency, RSC SES has published informative materials on its website (https://www.vvd.gov.lv/lv/informativie-materiali, https://www.vvd.gov.lv/lv/riciba-radiacijas-avariju-gadijumos). They include common questions about radiation, information about nearest nuclear power plants, emergency

preparedness and response and about historically contaminated goods. During the events in Ukraine, RSC SES in cooperation with other institutions provided additional materials that included answers to most frequently asked questions, for example, about necessity of iodine prophylaxis. During this time, RSC SES provided information to the media and society by publishing additional official, verified information on social networks (Facebook, Twitter) and on the website.

In recent years a lot of resources have been invested in informing the public about preparedness for radiation accidents.

On March 10, 2022, the RSC SES and the State Fire and Rescue Service held a joint press conference on the situation in Ukraine. The Fire and Rescue Service addressed civil protection measures and public preparedness, while the RSC SES outlined its regulatory responsibilities, emergency duties, radiation monitoring activities, and information about nearby nuclear power plants, emergency planning zones, and relevant protection measures.

On the topic of emergency preparedness and civil protection, there were seminars organised for public, for example, the municipality of the capital city Riga organised seminar about radiation emergencies and that was broadcast online in 2022. In 2022, the RSC SES also participated in an informative seminar on radiation hazards for local municipalities, organized by the Latvian Association of Local and Regional Governments. The seminar, which was also broadcast online, covered topics such as institutional responsibilities and actions during radiological emergencies, as well as protective measures in the event of radiation hazards. In October 2024, as part of its "Rīga Civil Defence Plan – Know and Participate!" information campaign, the Rīga City Council hosted seminar, "Radiation and Chemistry". The RSC SES introduced the public to possible risks in radiation safety, what to do in case of radiation accidents, and what protective measures are in the event of transboundary radioactive contamination.

2.4. Early Warning

Latvia is a Contracting Party two conventions in the field of nuclear accident:

- Convention on Early notification of a Nuclear Accident;

- Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency.

RSC SES is the national point of contact and the national competent authority of these conventions and bilateral agreements on exchange of information in nuclear and radiation safety.

Since 2001 RSC SES participates in ***EURDEP (European Radiological Data Exchange Platform),*** which is both a standard data format and a network for the exchange of environmental radiation monitoring data between European countries in real-time. Participation of Latvia is based on the Recommendation 2000/473/*Euratom*. RSC SES has made the national radiological monitoring data available for Joint Research Centre (JRC) Ispra and has access to data from all other participating countries.

In 2014, improvements of the early warning radiation monitoring system were implemented. There were 24 operational stations - 20 stationary spectrometric monitoring stations, one portable spectrometric station, one aerosol monitoring station and two water monitoring stations throughout the territory of Latvia. Current modernization of the

radiation monitoring station system started on November of 2024th and includes the modernization of 23 stations - 20 air-based stationary stations (16 spectrometric monitoring stations and 5 dose rate monitoring stations), 2 water-based stations and 1 air-based spectrometric mobile station, as well as the installation of one new stationary spectrometric station. The modernization of the radiation monitoring station system is being implemented in three stages - in each stage, no less than 7 monitoring system stations are being modernized, and continuity of radiation monitoring is ensured in the territory of Latvia. It is planned that modernization process will be finished by end of 2025. Modernization of the system is carried out using funding from EU (European Regional Development Fund project No. 2.2.3.4/1/23/I/001 “Improvement of the Water and Atmospheric Air Monitoring Network”).

Alongside with EURDEP, RSC SES participates in the ECURIE (European Community Urgent Radiological Information Exchange) and IAEA USIE (Unified System for Information Exchange in Incidents and Emergencies) programs, which are 24h emergency notification and information exchange systems. ECURIE system notifies the competent authorities of the participating States and the Commission in case of a major nuclear accident or a radiological emergency. During an emergency the system provides an information exchange platform for the participating States in order to inform about the current and foreseeable status of the accident, meteorological conditions, national countermeasures taken, etc. The legal basis for participation in ECURIE by the EU Member States is the EU Council Decision 87/600/*Euratom*. The Commission is responsible for ECURIE management and development. The Commission maintains a 24h preparedness service in order to activate the system in the event of a nuclear or radiological emergency.

Article 17: Siting

Not applicable. There are no decisions made to build nuclear installations in Latvia.

Article 18: Design and construction

Not applicable. There are no decisions made to build nuclear installations in Latvia.

Article 19: Operation

Not applicable. There are no nuclear installations in Latvia.

D. ANNEX

REFERENCES TO LATVIAN LEGISLATION AND NATIONAL REPORTS

1. References to national laws and regulations:

• Law “On Radiation Safety and Nuclear Safety”, adopted 07.11.2000.

• Civil Protection and Disaster Management Law, adopted 05.05.2016.

• Construction Law, adopted 09.07.2013.

• Law on Environmental Impact Assessment, adopted 14.10.1998.

• The Cabinet Regulations on Notification, Registration, and Licensing of Activities with Sources of Ionising Radiation, No.65, adopted 28.01.2021.

• The Cabinet Regulations on Regulations on financial security for activities with high-activity sealed sources, No. 464, adopted on 6 July 2021.

• The Cabinet Regulations on Radiation Protection Experts and Medical Physics Experts, No.433, adopted 29.06.2021.

• The Cabinet Regulations on Protection against Ionising Radiation Transporting Radioactive Materials, No.307, adopted 03.07.2001.

• The Cabinet Regulations on the Procedure for Control and Accounting of Exposure of Workers, No.1284, adopted 12.11.2013.

• The Cabinet Regulations on Practices Involving Radioactive Waste and Related Materials, No.129, adopted 19.03.2002.

• The Cabinet Regulations on Protection against Ionising Radiation, No.149, adopted 09.04.2002.

• The Cabinet Regulations on the Procedure Governing Activities Involving Nuclear Materials, Related Materials and Equipment, No.398, adopted 22.04.2004.

• The Cabinet Regulations on Requirements for Physical protection of Ionising Radiation Sources, No.615, adopted 24.09.2024.

• The Cabinet Regulations on Preparedness and Response in Cases of Radiation Accidents, No.152, adopted 08.11.2003.

• The Cabinet Regulations on Construction Regulations in Respect of Structures Related to Radiation Safety, No.661, adopted 24.11.2015.

• Environmental Policy Strategy for 2021-2027 (including Annex 3 “Radiation safety Programme”), approved by Cabinet of Ministers Order No.583, 31.08.2022.

• State Civil Protection Plan was developed, approved by Cabinet of Ministers Order No.476 26.08.2020.

• State Disaster Medicine Plan, adopted by Ministry of Health Order No.225 22.12.2020.

2. References to official national reports related to Conventions:

2.1. Convention on Nuclear Safety:

- First report submitted by Latvia under the Convention on Nuclear Safety, 1998
- Second report submitted by Latvia under the Convention on Nuclear Safety, 2001
- Third report submitted by Latvia under Convention on Nuclear Safety, 2004
- Fourth report submitted by Latvia under the Convention on Nuclear Safety, 2007
- Fifth report submitted by Latvia under the Convention on Nuclear Safety, 2011
- Sixth report submitted by Latvia under the Convention on Nuclear Safety, 2013
- Seventh report submitted by Latvia under the Convention on Nuclear Safety, 2016
- Eighth report submitted by Latvia under the Convention on Nuclear Safety, 2019
- Eighth&Ninth report submitted by Latvia under the Convention on Nuclear Safety, 2022

2.2. Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management:

- First report submitted by Latvia under the Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, 2003
- Second report submitted by Latvia under the Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, 2005
- Third report submitted by Latvia under the Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, 2009
- Fourth report submitted by Latvia under the Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, 2011
- Fifth report submitted by Latvia under the Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, 2014
- Sixth report submitted by Latvia under the Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, 2017
- Seventh report submitted by Latvia under the Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, 2020
- Eighth report submitted by Latvia under the Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, 2024