State Environmental Service Republic of Latvia



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

for the 8<sup>th</sup> and 9<sup>th</sup> Review Meeting of the Contracting Parties

**Radiation Safety Centre of the State Environmental Service** 

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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.6). 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 7<sup>th</sup> 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 8<sup>th</sup> 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 Environmental Protection and Regional Development and State limited liability company "Latvian Environment, Geology and Meteorology Centre" (hereinafter: LEGMC).

This National Report and previous Convention reports are available online at <a href="https://www.vvd.gov.lv">www.vvd.gov.lv</a> (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, one of the most important policy documents in the field of radioactive waste management was adopted – the Radioactive Waste Management Programme (approved by Cabinet of Ministers on 10 May 2017). The programme was included in the Environmental Policy Strategy for 2014-2020. The Ministry of Environmental Protection and Regional Development has developed the draft of the Environmental Policy Strategy for 2021-2027, which also includes the Radiation Safety Programme. 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 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. Currently it is planned to undertake a tender to estimate Salaspils Research Reactor decommissioning project costs. It is planned that the decommissioning of the reactor could be executed by 2030, depending on all linked activities.

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.

The new State Civil Protection Plan was issued in 2020 which also provides basic principles for emergency preparedness. In 2020 the new State Disaster Medicine Plan also was developed to ensure the readiness of the authorities to react and provide coordinated emergency medical assistance in emergency situations (including radiological emergencies).

In 2020 the State Environmental Service established an inter-institutional emergency preparedness and response working group for improving cooperation between all the responsible institutions. The working group has worked on improving cooperation between institutions and revising the requirements of regulations. Following the discussions of the working group, in 2021 the RSC SES organized several training seminars for the employees of the institutions. Also, the events in Ukraine in 2022 in relation to the radiation objects have contributed to the fact that additional training measures for the employees of the institutions have been organized.

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. Example: in 2022, Latvia took part in the international case study about implementation of nuclear and radiological emergency preparedness and response requirements in European Union member states and neighbouring countries, which was organized by the European Commission.

In 2018 Latvia and the Republic of Belarus signed the governmental agreement on early notification of nuclear accidents 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.

# 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 is planned to be repeated in a few years in order to compare results.

Several informative materials for the public were developed in 2021 (basic questions and answers about radiation, consumer products, protection measures in NPP emergency in neighbouring countries).

In 2016-2021 significant work has been done to improve the quality 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 addition, RSC SES has developed various guidelines for the operators (authorization process, radiation protection programme, justification of categorizing workers into A or B category, safety assessment prepared by a radiation protection expert, transportation of radioactive materials, industrial radiography etc.). These guidelines and RSC SES inspection checklists are published on SES website to ensure transparency.

In order to inform operators about topical issues in radiation safety, changes in regulations and new developed guidelines, RSC SES has been organizing an annual workshop for operators for last 3 years.

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. Country Programme Framework for Technical Cooperation between the Republic of Latvia and the IAEA for 2020-2025 was approved in December 2019 outlining priorities in capacity building in areas of emergency preparedness and response and radioactive waste management. According to the Country Programme Framework 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.

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 plans and manages the provision of measures related to prevention of energy crises and overlooks activities related to implementation of SMR in Latvia. They represent Latvia at the EU Energy Council and coordinate the relationship with other international institutions and nations to aid in better understanding of the impacts of SMR. Through this collaboration 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. The Ministry of Economics 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".

In May 2022, an international conference "Nuclear Energy for Latvia" was organised. The aim of the conference was to raise awareness and understanding of the role of nuclear energy in achieving Latvia's climate goals and strengthening energy independence.

# 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<sup>1</sup>.

#### Planned/ongoing activities

- Follow-up IRRS and ARTEMIS missions are planned for the second half of 2024.
- 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 issue of decommissioning the Salaspils Research Reactor will also be further addressed.

# **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:

ARTEMIS: https://www.vvd.gov.lv/sites/vvd/files/artemis20report1.pdf

<sup>&</sup>lt;sup>1</sup> IRRS: <a href="https://www.vvd.gov.lv/sites/vvd/files/irrs20report201.pdf">https://www.vvd.gov.lv/sites/vvd/files/irrs20report201.pdf</a>

"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.

# Challenges form the 7th Review Meeting

At the 7<sup>th</sup> review meeting, Latvia received such challenges:

• Challenge 1: Transposition and implementation of the European Council Directive 2013/59/Euratom (EU Basic Safety Standards).

Directive 2013/59/Euratom is mostly transposed into the national legal acts and there is also active communication with stakeholders to implement all the provisions, which arise from this Directive.

• Challenge 2: The preparation for a joint IRRS Mission and Integrated Review Service for radioactive waste (ARTEMIS) Mission – in 2019.

In 2017-2019 RSC SES actively worked to prepare for the IRRS mission and the ARTEMIS mission. The IRRS mission was on 20-30 October 2019 and the ARTEMIS mission on 3-10 December 2019.

• Challenge 3: Decommissioning of 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. Building design and final decommissioning plan will be developed in 2023. Under the contract one of the activities is to estimate Salaspils Research Reactor decommissioning project costs. Afterwards it is planned to submit the necessary documentation with justification to Government and Parliament in order to obtain the resources required for the decommissioning activities. Currently it is planned that the decommissioning of the reactor could be executed by 2030, depending on all linked activities.

# 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<sup>2</sup> 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

<sup>&</sup>lt;sup>2</sup> 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 in January 2022. Building design and cost estimation for construction will be developed by the end of 2022. International tender for construction is planned for 2024 (depending on the availability of funding).

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. Building design, final decommissioning plan and cost estimation for decommissioning will be developed in 2023.

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. Currently it is planned that the decommissioning of Salaspils Research Reactor could be executed by 2030, depending on all linked activities.

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.

In recent years, some improvements have been made to the Salaspils Research Reactor site. Eight new groundwater wells were established in the territory of the reactor. These wells are included in the reactor monitoring system, and results are reported in an annual monitoring report. Wells are established in different depths to cover all groundwater layers down to bedrock. Additionally, upgrades to security systems were established in the territory and buildings of the reactor.

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. Also, in December 2018, an expert mission "On Decommissioning Planning for the IRT Research Reactor and Other Small Facilities" from the IAEA regional project was organized in Latvia, which allowed more Latvian representatives to get knowledge about international requirements, experience of other countries and clarify decommissioning issues.

# 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 decisions 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 somebased 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. The whole body of EU law together is called the "*acquis communautaire*" and Latvia made all efforts to harmonize its national legislation with the legal provisions set in force within EU.

#### **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 new 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<sup>3</sup>:

- 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:

- 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;

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<sup>&</sup>lt;sup>3</sup> 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

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.

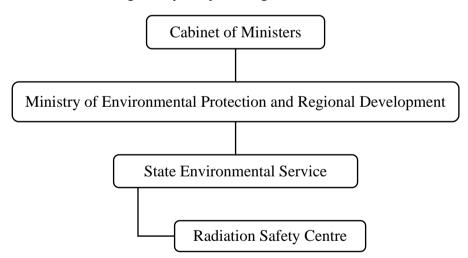
# **Article 8: Regulatory body**

#### 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 Environmental Protection and Regional Development.

Place of the regulatory body in the governmental structure:

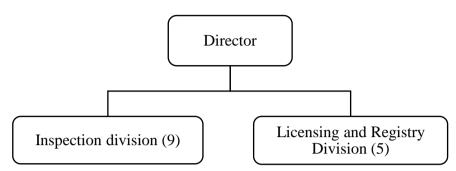


The law on state institutions prescribes system of supervision in details - in short, there is no right for the supervisor to directly affect decisions on the subject matters, only financial control and compliance with requirements from the Law on State civil servants. Thus, recommendations about independency 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. For example, in 2021 RSC SES organized 21 internal training sessions (including waste management, transportation of radioactive materials, emergency preparedness) and prepared 10 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, several inspection checklists have been developed in 2018 and updated in 2021 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 for last 3 years. In 2019 RSC SES provided a workshop for operators in the capital city Riga and two additional biggest cities, however, in 2020 and 2021 the workshops were carried out online. In 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 the highest since starting the annual workshops – 450 participants.

Substantial RSC SES human resources were invested in preparation for the IRRS mission and the ARTEMIS mission. The IRRS mission was conducted on 20-30 October 2019 and the ARTEMIS mission – on 3-10 December 2019. The results of both missions also are available to other countries.<sup>4</sup> Regarding CNS issues, the main recommendations IRRS missions are related to:

- long term goals for safe management of all classes of existing and future radioactive waste streams (including intermediate level waste (ILW)). This recommendation was taken into account in the new Environmental Policy Strategy for 2021-2027;
- 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.

In addition to other tasks, the RSC SES also invested resources in ensuring the completion of IAEA databases in various areas (e.g. Emergency Preparedness and Response Information Management System (EPRIMS) in 2019; Radiation Safety Information Management System (RASIMS2) till 2020. In 2020 and 2021 RSC SES together with LEGMC filled 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.

<sup>&</sup>lt;sup>4</sup> IRRS: <a href="https://www.vvd.gov.lv/sites/vvd/files/irrs20report201.pdf">https://www.vvd.gov.lv/sites/vvd/files/irrs20report201.pdf</a>
ARTEMIS: <a href="https://www.vvd.gov.lv/sites/vvd/files/artemis20report1.pdf">https://www.vvd.gov.lv/sites/vvd/files/artemis20report1.pdf</a>

#### 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 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 these basic principles of 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.

Regarding practices involving risk from ionizing radiation for the population, the Law requires to apply the fundamental principles governing operational protection of the population. In particular:

- 1. the public and the environment may not be exposed to a dose of ionizing radiation which exceeds the established dose limits;
- 2. the positive results achieved shall exceed the negative impact or loss caused by practices involving ionizing radiation sources;

3. optimum radiation safety measures are chosen, considering economic and social circumstances, as well as technical capabilities, so that the exposure level is reasonably low and does not exceed the established dose limits;

- 4. the operator's civil liability for damage that may be caused to a third party and its property or the environment;
- 5. practices involving ionizing radiation sources may only be conducted upon receipt of a license, except for circumstances prescribed by the Cabinet of Ministers regulations.

# 2. Implementation measures

#### 2.1. Radiation dose limits

Regarding dose limitation 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<sup>5</sup> 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 National Environmental Monitoring Programme was accepted by the Ministry of Environmental Protection and Regional Development on 16.02.2015 (Order No.67 "Environmental Monitoring Programme"). This programme determines the monitoring network, parameters, regularity and methods. The Ministry of Environmental Protection and Regional Development of Latvia has developed a draft of the Environmental Policy Strategy for 2021-2027, which 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

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<sup>&</sup>lt;sup>5</sup> Cabinet Regulations No.129 "Requirements for Operations with Radioactive Waste and Materials Related Thereto" (adopted 19 March 2002)

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.

# 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). 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 New 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 new 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. A new system of radiation

monitoring stations has been in operation since 2014. 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 new 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 (23 November, 2017).

# 2.2. National emergency preparedness plan

According to the Civil Protection and Disaster Management Law, the Ministry of Environmental Protection and Regional Development 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 17 institutions. The working group aims to identify available and required resources necessary to implement emergency measures across all responsible institutions, to assess their capacity and ultimately draft readily available plans and algorithms for joint action and cooperation between institutions in case of a nuclear and radiological emergency. The working group has developed cooperation algorithms for local-scale radiation accidents, work continues on the development of algorithms for national-level accidents, and the regulations on EPR are being revised. RSC SES organized a visit of international experts on May 17-19, 2021, within the framework of the IAEA national project, to evaluate the draft of the new regulations on EPR. During the visit, the recommendations on EPR from IRRS mission were also discussed with the international experts.

Every year, RSC SES organizes a survey for representatives of the interinstitutional emergency preparedness and response working group to conduct a selfassessment of preparedness and response to radiation accidents.

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 realizes 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.
- The RSC SES also educates representatives of institutions on radiation emergency issues. The inter-institutional emergency preparedness and response working group identified the need to train the staff of the institutions on various radiation safety issues. In 2021, the RSC organized 4 training seminars for 15 institutions, with a total of more than 500 representatives participating. The following topics were covered during the training: general information on radiation, information on radiation safety in Latvia (including the role of institutions, facilities, risks from NPPs); radioactive contamination of food, feed and drinking water; cooperation at border crossing points; cooperation between authorities in incidents and radiation measurements.

The events in Ukraine in 2022 drawn institutions and society attention to preparedness and response in case of radiation emergencies. 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.

On March 10, 2022 RSC SES in cooperation with the State Fire and Rescue Service organized press conference regarding the events in Ukraine. During the press conference State Fire and Rescue Service informed about the civil protection affairs,

including how society should prepare and act in emergency situations, and cooperate with the local governments and emergency services. RSC SES gave introduction on their responsibilities as regulator body in Latvia, duties in case of emergency and performed environmental radiation monitoring. RSC SES informed about the nuclear power plants near border of Latvia, emergency planning zones and distances and related protection actions in case of radiation emergency, about involved institutions and their responsibilities.

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. 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.

Additionally on March 24 2022, the RSC organized training for institutions on actions in the event of a nuclear accident (remote format). A total of 17 institutions participated, more than 90 participants. During the training, the developed action algorithms in radiation accidents were tested, as well as the necessary improvements were identified.

To ensure continuous acquisition and development of skills and knowledge of personnel, RSC SES regularly organizes internal exercises, that also include field exercises aimed to evaluate radiation safety situation of different territories (with mobile spectrometric detection system MONA, hand-held equipment). To ensure response in emergencies and exercises, RSC SES personnel are trained to use various equipment and software, for example from November 30 to December 2, 2020, JRODOS decision support system training was held. On June 14, 2022 in cooperation with the USA experts ORTEC hand-held equipment and HATS software training took place.

RSC SES also provide equipment training to other institutions. In 2022 staff of Health Inspection and State Emergency Medical Service was trained to use personal radiation detectors.

RSC SES performs communication exercises on regular basis with other countries (Ukraine, Belarus).

RSC SES involves in international exercises that takes place together with other organizations from Latvia or other countries. In 2017 Latvia took part in the international European Disaster Response Exercise (EDREX), which was organized by the European Commission. The goal of this exercise was to explore and assess the ability of ERCC (Emergency Response Coordination Center) and partners to respond to combined crises at national, European Union and international level. In 2022 RSC SES participated in case study about implementation of nuclear and radiological emergency preparedness and response requirements in European Union member states and neighbouring countries that was organized by European Commission. The aim of this exercise was to review and analyze 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). In 2017, the operator LTD "Riga East University Hospital" took part in the ConvEx exercise, testing their internal emergency procedures (*nuclear medicine*) and cooperation with RSC SES. The exercise helped to identify procedures which needed to be improved.

RSC SES also participates in annual EcurieEX exercise that is organized by European Commission in order to exercise common response procedures between European Union member states.

Representatives of Latvia also take part in exercises regarding the prevention of illegal transport of radioactive materials. Example: in 2019 the representatives from RSC SES and the State Border Guard took part in exercises at the Estonian border. In August 2019 the State Border Guard in close cooperation with the US Department of Energy National Nuclear Security Administration held inter-institutional field training exercise about radiometric control at a border crossing point. Six institutions involved in radiometric control and observers from Lithuania, Estonia and US participated in the training.

A peer-review which evaluated Latvian medical capacities in emergency cases according to International Health Regulations (2005) was done in 2017 (World Health Organization report «Joint External Evaluation of the International Health Regulations Core Capacities of Republic of Latvia», 2017)<sup>6</sup>. Taking into account the peer-review, a national training course "On Emergency Preparedness for Medical Doctors" was organized within the framework of the National Project of IAEA Technical Cooperation Programme in January 2019. 57 participants from 14 organizations improved theoretical and practical knowledge of preparedness and response to radiation emergencies.

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

# 2.4. Early Warning

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

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<sup>&</sup>lt;sup>6</sup> Report is available: <a href="https://www.who.int/publications/i/item/WHO-WHE-CPI-2017.27">https://www.who.int/publications/i/item/WHO-WHE-CPI-2017.27</a>

- 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. Currently 24 stations are operational throughout the territory of Latvia. There are 20 stationary spectrometric monitoring stations, one portable spectrometric station, one aerosol monitoring station and two water monitoring stations. The system is continuously operating with a daily data exchange routine (gamma dose rate) and there is a general consensus that participating in the system automatically means that the data transmissions will continue during an emergency in an elevated frequency.

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 Physical Protection of Ionising Radiation Sources, No.508, adopted 04.11.2002.
- 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 2014-2020 (including Annex 5 "Radioactive Waste Management Programme"), approved by Cabinet of Ministers Order No.233 10.05.2017.
- 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
- 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