

Republic of Latvia

**National report on the implementation of the
requirements of Council Directive
2009/71/EURATOM of 25 June 2009**

**establishing a Community framework for the
nuclear safety of nuclear installations**

Ministry of Environmental Protection and Regional Development
Radiation Safety Centre at the State Environmental Service

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Introduction

This report by the Republic of Latvia was drawn up pursuant to Article 9(1) Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations, as amended by Directive 2014/87/Euratom (hereinafter ‘Directive 2009/71’).

This report provides information on how Latvia has introduced and is implementing the requirements set out in Directive 2009/71/Euratom, whilst guaranteeing the requisite level of nuclear safety.

There is one ‘nuclear installation’ in Latvia as defined in Article 3(1)(a) of Directive 2009/71/Euratom – the Salaspils nuclear reactor, which has been shut down, is in safe maintenance and is currently being decommissioned . The Salaspils nuclear reactor is owned by the State limited liability company ‘the Latvian Environment, Geology and Meteorology Centre’ (hereinafter ‘LVGMC’). The LVGMC has been granted the licence referred to in Article 3(4) of Directive 2009/71/Euratom.

The Salaspils nuclear reactor started up in 1961. It was a light water (pool-type) research reactor with an initial nominal capacity of between 1 500 kW and 2 200 kW, though it was later upgraded to between 2 MW and 5 MW. The Salaspils nuclear reactor ceased operating in 1998 and is now being decommissioned. By Order No 958 of 30 November 2004 on the plan for the decommissioning and dismantling of the Salaspils nuclear reactor, the Cabinet approved the concept paper for decommissioning and dismantling the Salaspils Nuclear Reactor, envisaging partial decommissioning with the removal of radioactive waste from the reactor site. The fresh (unspent) nuclear fuel was returned to its country of origin, the Russian Federation, in 2005, and the used fuel in 2008. The decommissioning of the Salaspils nuclear reactor should be fully complete by 2028.

Latvia does not currently have a national nuclear programme, nor is one being planned.

Notification on implementation of the requirements of Directive 2009/71/Euratom

1. Legislative, regulatory and organisational framework (Article 4)

1.1. The allocation of responsibilities and coordination between relevant state bodies (Article 4(1)(a))

The Ministry of Environmental Protection and Regional Development (hereinafter 'VARAM') is the policy planner in the field of radiation safety and nuclear safety in Latvia. In 2000 the Saeima [Latvian parliament] adopted the VARAM-drafted Law on radiation safety and nuclear safety (hereinafter 'the Law'), which created the legislative and regulatory basis for radiation safety and nuclear safety. In accordance with the Law, in 2001 a regulatory institute was set up in the field of radiation safety and nuclear safety, the Radiation Safety Centre (as of 1 July 2009 the State Environmental Service's Radiation Safety Centre or VVD RDC), which carries out State supervision and controls in the field of radiation safety and nuclear safety in Latvia. The VVD RDC's functions and duties are set out in the Law and in the regulatory acts adopted on the basis of the Law. The duties of other competent authorities are regulated in the regulatory acts adopted on the basis of the Law and in other items of legislation.

Other bodies with a supervisory role in the field of radiation safety and nuclear safety are the State Revenue Service, the State Border Guard, the State Security Service, the State Fire and Rescue Service (hereinafter 'VUGD'), the Health Inspectorate, the Consumer Rights Protection Centre and the Food and Veterinary Service. The LVGMC, the State limited liability company 'Latvian Environment, Geology and Meteorology Centre', also has responsibilities.

The State Border Guard, in conjunction with the customs offices of the State Revenue Service, the Food and Veterinary Service, the VVD RDC and the State Security Service, carries out radiometric checks at the State border.

Monitoring the physical safety of sources of ionising radiation is done by the State Security Service and the VVD RDC.

The Food and Veterinary Service arranges checks on the radioactive contamination of food and animal feed.

The LVGMC organises and coordinates the monitoring of environmental radiation in accordance with the environmental monitoring programme and each

year sends the European Commission a report on the monitoring of environmental radiation and checks on the radioactive contamination of food.

The VVD RDC, VUGD, LVĢMC, NMPD [State Emergency Medical Service], the Food and Veterinary Service, the municipalities and other institutions are involved in responding to radiation emergencies in accordance with the State civil protection plan, the State emergency and disaster medicine plan and other protocols.

The State police, the VVD RDC, the VUGD and the LVĢMC are brought in where there is an object of unknown origin which may contain radioactive substances.

The movement of hazardous freight in road transport consignments is monitored by the State police, in rail transport consignments by the State Technical Inspectorate for Railways, aboard ships in port by the State limited liability company 'Latvian Maritime Administration', and in air consignments by the State-owned 'Civil Aviation Agency'.

The monitoring of State drinking water supply installations is the responsibility of the Health Inspectorate. The LVĢMC is responsible for monitoring radioactive substances in drinking water.

The Food and Veterinary Service, the Health Inspectorate, the State Revenue Service and the Consumer Rights Protection Centre are responsible for monitoring goods, initiating administrative infringement proceedings if need be.

1.2. National nuclear safety requirements, covering all stages of the lifecycle of nuclear installations (Article 4(1)(b))

Items of legislation (Cabinet Regulations) are issued pursuant to the Law, creating a general legislative and institutional system in the field of radiation and nuclear safety. Requirements relating to radiation safety and nuclear safety are also included in other general items of legislation regulating the functioning of government bodies, environmental protection and construction.

Latvia has also ratified or acceded to a number of international treaties, including the Vienna Convention on Civil Liability for Nuclear Damage, the Convention relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material, the Convention on the Physical Protection of Nuclear Material, the Convention on Early Notification of a Nuclear Accident, the Convention on

Assistance in the Case of a Nuclear Accident or Radiological Emergency, the Convention on Nuclear Safety and the Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

On accession to the European Union (hereinafter 'EU'), EU legislative requirements were transposed into national legislation and the system of existing legislation in the field of radiation and nuclear safety improved.

The competent authority in terms of drafting and introducing legislation in the field of radiation and nuclear safety is VARAM. Legislative acts in the field of radiation and nuclear safety are currently drawn up in accordance with EU requirements and international recommendations. The drafting of new items of legislation or amendments to existing legislation relates mainly to the implementation of international independent assessments, recommendations and proposals, and to the improvement of legislative acts based on practical experience and the resolution of issues at national level, the overall aim being to enhance protection against ionising radiation. When drawing up legislative acts, VARAM works alongside the VVD RDC, operators involved in specific fields of activity, professional organisations and other stakeholder institutions, for example, the Ministry of the Economy, the Ministry of the Interior, the Ministry of Transport and Communications, the Ministry of Health, the Ministry of Agriculture, the Food and Veterinary Service, VUGD and the State Border Guard. Working groups are set up with stakeholder bodies to examine draft items of legislation. A standing working group was approved by VARAM Order No 104 of 7 April 2015 setting up a standing working group in the field of radiation safety. This means that as draft laws are being drawn up, they are posted on the VARAM and State Chancellery website, where they are accessible to the public, so the public can make written suggestions.

The requirements set out in regulatory acts comprise all activities involving sources of ionising radiation and all sources of ionising radiation, including the Salaspils research reactor, which is at the decommissioning stage, as well as all types and flows of waste.

1.3. A system of licensing and prohibition of operation of nuclear installations without a licence (Article 4(1)(c))

The licensing system in Latvia was set up to take account of the requirements of EU legislation and of the recommendations of the International Atomic Energy Agency. The Law states that any activity involving sources of ionising radiation requires a licence before the activity can commence and for its

duration, subject to the operational restrictions set out in that licence. Latvian legislation sets out:

- 1) the criteria that must be complied with when applying for a licence to work with sources of ionising radiation;
- 2) the procedure for the issue of licences.

Licences for working with sources of ionising radiation are issued by the VVD RDC. In the licence, the VVD RDC sets out what activities are permitted, and what conditions the activities are subject to. A State fee is charged for the issue of a licence, which is paid into the basic State budget. The amount of the State fee and the payment procedure are regulated in Cabinet Regulations.

The system for the licensing of work with sources of ionising radiation is set out in Cabinet Regulation No 752 of 22 December 2015 on the procedure for licensing and registering work with sources of ionising radiation (hereinafter 'CR No 752'). A draft CR on the notification, registration and licensing of work with sources of ionising radiation is currently being drafted and is scheduled to replace CR No 752.

Procedure for licensing ionising radiation facilities of national significance:

For the purposes of the Law, nuclear installations are ionising radiation facilities of national significance.

The Law on environmental impact assessment stipulates which facilities are subject to environmental impact assessments. If an environmental impact assessment has been carried out to set up an ionising radiation facility of national significance, or to make fundamental changes to such a facility, pursuant to the Law on environmental impact assessments, the decision to approve the operations, based on the environmental assessment report, shall be granted by means of a one-off order issued by the Cabinet of Ministers.

In order to commence decommissioning of the Salaspils nuclear reactor, on 26 October 1999 the Cabinet approved the plan for decommissioning and dismantling the Salaspils nuclear reactor. This plan was updated in 2004. For the decommissioning of the Salaspils nuclear reactor, an environmental impact assessment was carried out. This was approved by Cabinet Regulation No 467 of 26 July 2007.

Cabinet Regulation No 661 of 24 November 2015 on building regulations for structures relating to radiation safety ('CR No 661') lays down the procedure

governing the building of structures relating to radiation safety or parts thereof (particularly ionising radiation facilities of national significance), the bodies involved in the construction process and other procedures relating to construction. A building permit (with design specifications) for an ionising radiation facility of national significance which complies with the criteria in question is issued and the building design is approved (provided it meets radiation safety requirements) by the State Environmental Service.

To obtain a licence to set up an ionising radiation facility of national significance or make fundamental changes to such a facility, an application must be submitted to the VVD RDC. The VVD RDC consults with the Radiation Safety Council on the expediency of setting up such a facility, analyses the potential impact of the planned changes on radiation and nuclear safety, and assesses whether the positive result that will be achieved will outweigh the overall negative impact.

The VVD RDC issues a licence to set up an ionising radiation facility of national significance, or make fundamental changes to such a facility, in accordance with the following procedure:

1. the issue of a design licence for setting up an ionising radiation facility or making fundamental changes to such a facility; If an environmental impact assessment is needed to set up an ionising radiation facility of national significance or make fundamental changes to such a facility, this is done prior to the submission of an application for the issue of a licence. In this case, the VVD RDC asks the local municipality on whose territory the ionising radiation facility of national significance is to be built for information on the compliance of the planned ionising radiation facility of national significance with the local municipality's regional planning documents;

2. the issue of a licence to build a new ionising radiation facility of national significance or make fundamental changes to such a facility after evaluating the project to build a new ionising radiation facility of national significance or make fundamental changes to such a facility;

3. the approval of a new ionising radiation facility of national significance or fundamental changes to such a facility and issue of a licence for the verification of operational parameters before the facility is brought into use;

4. the issue of a licence for the operation of a new ionising radiation facility of national significance or fundamental changes to such a facility (operating licence).

If the construction of an ionising radiation facility of national importance is subject to CR No 661, there is no need for a separate VVD RDC licence (as referred to in paragraphs 1 and 2 above), because the VVD RDC is a structural unit of the VVD and is involved in the issue of the building permit, laying down design specifications and approving the construction project. By the same token, the VVD will issue a licence for the decommissioning of the Salaspils nuclear reactor under CR 661, assessing the decommissioning plan amongst other things, and for the concrete decommissioning works a licence will be issued for work with sources of ionising radiation pursuant to CR No 752 (cf. Chapter 6).

The deadline for adopting a decision on the approval of a licence may not be longer than 60 days. The term of validity for a VVD RDC licence shall be up to four years for the design of an ionising radiation facility of national significance, and up to 10 years for the construction of an ionising radiation facility of national significance.

Within five working days, the VVD RDC informs people in the area of the fact that an application has been made for a licence to set up an ionising radiation facility of national significance, or to make fundamental changes to such a facility, posting on its website information on the name of the applicant, a description of the applicant's activities, the address, location and time at which the information included on the application may be inspected, and any additional material submitted.

After submitting the application and all the supporting documentation, the applicant posts the VVD RDC notification concerning the scheduled work in at least one municipal bulletin or other local publication. The applicant also sends a notification to the relevant municipality, and to persons owning or renting property which is adjacent to the place in which the planned or existing ionising radiation facility of national significance is located, or which is located in an area directly affected by it. In the notification of the planned activity, the applicant gives their name, name of the activity and address of the place it will be carried out, the place of the existing or planned operations with sources of ionising radiation, as well as the areas exposed to potential impact, the location where members of the public can examine the licence application and the supporting documents and the date by which the members of the public can submit written proposals to the VVD RDC. Within 30 days of publication of the above notification, members of the public may submit their proposals to the VVD RDC or their opinion on the issue of the licence or on its terms and conditions.

When requesting a licence for planning the establishment or substantial transformation of an ionising radiation facility of national significance, the applicant organises a public consultation, indicating the time and place of the public consultation in the notification. The applicant prepares the necessary visual materials and copies of the relevant documents for the public consultation, unless these contain classified information or information that is classified as a State Secret in accordance with legislation. At least seven working days prior to the public consultation, copies of the visual materials and documents to be examined at the public consultation must be displayed in the local government building, county town hall or town municipality of the territory in which the ionising radiation facility of national significance is to be built or where it is located. Moreover, the materials to be scrutinised during the public consultation must be sent electronically to the municipality for publication on the municipality's website.

The VVD RDC examines the proposals expressed during the public consultation and submitted in writing on the terms of issue of the licence and uses these to draw up the terms of issue. If the public proposes that a licence not be issued, the VVD RDC looks into the matter and issues the licence or adopts a substantiated decision to refuse to issue the licence only after the applicant has been given an opportunity to provide written feedback within at least 14 days.

Within five working days of a decision being taken to issue or refuse a licence, the VVD RDC sends written notification to the municipality of the territory in which the establishment or substantial transformation of the ionising radiation facility of national significance is planned and publishes the decision on the issue of the licence in the respective municipal bulletin or, if no such bulletin exists, in another local publication. The VVD RDC also sends the municipality information on the decision taken in electronic form, and the municipality posts this information on its website.

To have an existing operating licence extended, the operator sends the VVD RDC an application at least three months before the licence in question is due to expire. The licence is valid for 10 years.

1.4. A system of regulatory control of nuclear safety performed by the competent regulatory authority (Article 4(1)(d))

The system of regulatory control of nuclear safety set out in the items of legislation regulating radiation safety and nuclear safety, i.e. in the Law, which confers on the VVD RDC the function of the monitoring and control of radiation and nuclear safety, and in items of legislation derived from the Law.

The monitoring of nuclear safety is implemented:

(1) by issuing a building permit in accordance with CR 661 and a licence to set up, or make radical changes to, an ionising radiation facility of national significance pursuant to CR No 752;

(2) by carrying out inspection controls. VVD RDC inspectors carry out inspections at the Salaspils nuclear reactor at least once a year, analysing the maintenance and running of the nuclear reactor's systems (installations); the processing and packaging of radioactive waste; and the procedures for the maintenance of the tracking, surveillance, management and control systems.

(3) by scrutinising operators' annual reports. By 31 January each year the operator sends the VVD RDC information on changes relating to sources of ionising radiation and operations involving these, on staffing changes and other changes that had an impact on radiation safety and nuclear safety during the previous calendar year.

Pursuant to the Law, the VVD RDC has the right to immediately obtain information about any emergency or accident which may affect radiation and nuclear safety, and to request and obtain from government institutions, authorities and operators information on radiation and nuclear safety which the VVD RDC requires in order to fulfil its remit.

Pursuant to CR No 752 and other items of legislation in the field of radiation safety and nuclear safety, the VVD RDC monitors compliance with the operator's quality assurance programme and operations involving sources of ionising radiation.

Latvia ensures the maintenance of the nuclear safety surveillance system at State level and makes improvements to it based on operational experience.

1.5. Effective and proportionate enforcement actions, including, where appropriate, corrective action or suspension of operation and modification or revocation of a licence (Article 4(1)(e))

The Law authorises the VVD RDC to prohibit activities involving sources of ionising radiation if legal provisions relating to radiation safety and nuclear safety have been breached. The VVD RDC may cancel or suspend a licence in accordance with CR No 752 in the event of failure to comply with the requirements of the Law or other items of legislation concerning radiation safety and nuclear safety, or with the requirements set out in the licence.

After taking the relevant decision, the VVD RDC refuses to issue a licence to a person who has repeatedly breached the radiation and nuclear safety requirements set out in legal acts.

Liability for infringements of legislation regulating radiation and nuclear safety is sanctioned by a monetary fine as provided for in the Law. Previously, administrative liability was provided for in the Latvian Code of administrative infringements, but on 1 July 2020 amendments to the Law entered into force providing for the transposition into the Law of the relevant provisions of the Latvian Code of administrative infringements. These amendments relate to the reform of the Latvian system of administrative infringements and state that as of 1 July 2020, provisions in all fields relating to administrative liability shall be incorporated into legislation in the sectors concerned rather than into the Latvian Code of administrative infringements, which was repealed as of 1 July 2020. For more serious crimes in relation to activities involving radioactive substances (violation of safe circulation regulations, unauthorised storage, theft, robbery, misappropriation, unauthorised moving over the State border, violation of the regulations governing the storage, utilisation, tracking and transportation of radioactive and dangerous substances), the Criminal Law of Latvia makes provision for fines and prison sentences of up to 12 years.

If for safety, technological or economic reasons changes need to be made to activities involving the ionising radiation facilities of national significance, as a result of which the terms of the licence must be changed, then, until such time as amendments are made to the licence, the operator must:

1. prepare an assessment on how compliance will be ensured with the basic principles of radiation and nuclear safety and the legislation;

2. at least three months before the introduction of the planned changes, submit to the VVD RDC an application for changes to be made to the licensing terms, attaching to the application:

- 2.1. a full safety assessment;

- 2.2. a plan, agreed on with the local municipality, regarding contingency planning and the protocol to be followed in emergency situations which may occur as a result of such changes;

- 2.3 a description of the radiation and nuclear safety instructions and staff training programme, which provides assurance that the level of exposure will be reasonably low, radiation and nuclear safety measures being selected that are

commensurate with the planned changes in activities involving sources of ionising radiation;

2.4 a plan and description of the premises, buildings or areas where the activities involving sources of ionising radiation will take place, if these will be affected by the changes in question;

2.5 a detailed radiation safety and nuclear safety quality assurance programme;

2.6 an assessment regarding the potential changes with respect to the release of radioactive substances into the environment, updated ventilation and drainage system layouts, and a description of the monitoring system, if the respective changes affect them;

2.7 a description of the envisaged changes to activities with radioactive waste before it is transferred for disposal;

2.8 a detailed description of the physical protection system agreed on with the State Security Service.

2. Competent regulatory authority (Article 5)

2.1. Establishment and maintenance of a competent regulatory authority in the field of nuclear safety of nuclear installations (Article 5(1))

As mentioned previously, in Latvia, State supervision and control in the field of radiation and nuclear safety is done by the VVD RDC. The main functions and tasks of the VVD RDC are laid down in the Law. Other tasks, rights and obligations are set out in Cabinet Regulations issued on the basis of the Law.

The VVD RDC was set up on 9 July 2001 and up until 1 July 2009 was known as the Radiation Safety Centre, a national regulatory authority directly subordinate to the Ministry of Environmental Protection and Rural Development. Pursuant to the amendments of 12 June 2009 to the Law and to Order No 339 of 28 May 2009 on the reorganisation of the Radiation Safety Centre, on 1 July 2009 the VVD RDC was incorporated into the structure of the VVD.

Funding for the VVD RDC comes in the form of a grant from State budgetary resources.

2.2. Competent regulatory authority functionally independent from undue influence in its regulatory decision making (Article 5(2))

In accordance with Cabinet Regulation No 962 of 23 November 2004 laying down the statutes of the State Environmental Service, the VDD is a national regulatory authority directly subordinate to the Ministry of Environmental Protection and Rural Development. The VVD RDC is a structural unit of the VVD, and in terms of its administration by the State and decision-making, is a functionally independent institution.

The VVD RDC is free from the influence of operators and of any political and/or economic pressure, including pressure from other public institutions and organisations. Pursuant to the Law, the VVD RDC has the right to immediately obtain information about any emergencies or accidents which may affect radiation and nuclear safety, and to request and obtain free of charge from government institutions, authorities and operators information on radiation and nuclear safety which it requires in order to fulfil its remit. The Law also gives the VVD RDC the right to prohibit activities with sources of ionising radiation if radiation and nuclear safety standards are breached, and to halt activities which do not have the requisite licence or registration, where there are threats to human life and health.

The VVD is a State institution, and its funding arrangements are set out in its statutes. An appropriate allocation is made from the State budget to ensure the full funding of the VVD RDC based on justified expenditure estimates so that it can fulfil its statutory obligations under the laws and regulations.

The Ministry of Finance ensures that a draft medium-term budgetary framework law is drawn up each year for the following three financial years and submitted to the Cabinet for adoption in accordance with the timetable for the preparation of the budget.

Resources from the State budget are allocated to payrolling a sufficient number of staff members to ensure that the VVD RDC has the competence and capacity to perform, maintain and provide various services and to cover all requisite expenditure, thus ensuring that the VVD RDC remains financially independent.

The VVD RDC is independent in its decision-making. In the course of its activities the VVD RDC issues administrative acts in the field of radiation safety

and nuclear safety. Pursuant to the Law on radiation safety and nuclear safety, the administrative acts issued by the VVD RDC (other than decisions on issues of radiation safety control), along with its actual conduct, can be appealed against to the State Environmental Board. A decision by the State Environmental Board may be appealed against in court. Decisions issued by VVD RDC officials on matters regarding radiation safety control can be appealed against to the Director-General of the VVD. A decision by the Director-General of the VVD may be appealed against in court. Challenging or appealing against an administrative act issued by the VVD RDC or a decision issued by VVD RDC staff does not have the effect of suspending them. Administrative acts issued by the VVD RDC cannot therefore be challenged by VARAM, which means that the Minister for Environmental Protection and Regional Development cannot influence the decisions of the VVD RDC.

The human resources of the VVD RDC are sufficient, given that there is only one nuclear installation in Latvia which is in the process of being decommissioned, and existing human resources allow the VVD RDC to monitor and control radiation safety and nuclear safety in accordance with legislation. General and specific requirements for the qualifications and skills of staff members are set out in job descriptions. Job descriptions set out the obligations, duties and rights of staff members. In addition to this, in 2020 the VVDE RDC will be drawing up a human resources plan, including the terms and conditions for human resources planning and the skill sets required. On 30 November 2017 the VVD RDC approved its internal procedures for staff training. In accordance with these internal procedures on staff training, various training courses are planned for staff members, including courses at the International Atomic Energy Agency, training courses for radiation safety inspectors, training courses in the prevention of anti-corruption, general training in administrative procedures, and so on.

Within the scope of its remit, the VVD RDC provides any interested party with nuclear safety-related information which is independent of any other body, including the VVD and VARAM, on condition that the information provided does not compromise radiation or nuclear safety within the country.

As regards the prevention of conflicts of interest, administrative and regulatory measures for the prevention and resolution of potential conflicts of

interest in the decision-making process are set out in the Law on the prevention of conflicts of interest in the activities of public officials.

The VVD has also drawn up an anti-corruption action plan (approved on 18 December 2017 by Order No 10) which features a number of measures aimed at preventing situations of conflict, e.g. the same inspector may only inspect the same operator twice in a row.

The Law on the prevention of conflicts of interest in the activities of public officials lays down restrictions for newly recruited officials if they were formerly employed by an operator, along with restrictions that apply when officials leave the service of the VVD RDC.

Additionally, VVD RDC officials must follow Cabinet recommendations No 1 of 21 November 2018 on values and basic ethical principles of public administration, along with the VVD's Code of ethics (adopted in 31 October 2006). If a fundamental risk is identified in connection with the integrity of VVD RDC official, the Bureau for the prevention and combating of corruption must be notified.

2.3. Granting of legal powers to the Regulatory Authority (Article 5(3))

As mentioned previously, the basis for the VVD RDC's operations is the Law on radiation safety and nuclear safety, Cabinet Regulations and international conventions to which Latvia is signatory. The VVD RDC carries out State supervision and control in the field of radiation and nuclear safety. The VVD RDC also initiates amendments to legislation and helps draft them, agreeing on the items of draft legislation drawn up by VARAM.

In order to monitor compliance with the requirements of legislation in the field of radiation and nuclear safety, the VVD RDC has laid down the following rights of inspectors in the Law:

(1) to carry out checks on places where work is being done with sources of ionising radiation, and to take enough samples for supervision purposes;

(2) to make decisions and issue opinions on the situation with regard to radiation and nuclear safety;

(3) to issue administrative acts for works managers and operators whose work involves sources of ionising radiation, in order to pre-empt or prevent

breaches of radiation and nuclear safety requirements and increase the level of radiation safety;

(4) draw up statements (reports) on the results of checks;

(5) to review materials relating to breaches of legislation of radiation and nuclear safety and, if necessary, hold the guilty parties administratively liable or take other steps as defined by legislation.

In the event of breaches being identified, the VVD RDC issues administrative acts - decisions requiring the operator to remedy the violation identified. If need be, the VVD RDC may halt operators' activities, including suspending or revoking a licence.

3. Licence holders (Article 6)

The operator is responsible for radiation safety and nuclear safety in the zone controlled by the operator. The operator's liability for radiation safety and nuclear safety in the zone controlled by him/her is laid down in the Law and in the items of legislation deriving from it. Prior to the commencement of work involving sources of ionising radiation, a legal person shall appoint a head of works and instruct him/her to prepare and, in the manner provided for in the Law, apply for a licence. Upon receipt of a licence, the applicant is recognised as the operator and is responsible for radiation and nuclear safety in the zone he/she controls. In other words, liability for safety lies with the operator, who may not delegate it.

An operator who has infringed the requirements set out in legislation shall pay compensation to any person who has been harmed as a result of operations involving sources of ionising radiation damaging their health or property or the environment. The operator has the right of recourse against an individual who is liable for damages caused. If operations involving sources of ionising radiation have caused contamination of the environment, structures, equipment or vehicles, the operator, at his or her own expense, must clean up the environment, structures, equipment and vehicles so as to ensure that the contamination no longer endangers the environment, life, health or property of employees and members of the public, or the life and health of animals. The operator must cover all costs relating to the extraction and investigation of samples for this purpose.

The operator of a nuclear facility is solely liable for any nuclear damage caused by the facility. The operator must pay compensation for any damage

caused by an accident. Pursuant to legislation, the minimum amount of liability for a nuclear reactor under civil law is €327 260 520.

In accordance with legislation on protection against ionising radiation, to obtain a licence, the operator must draw up a radiation and nuclear safety quality assurance programme.

To ensure the deployment of protective measures, the operator, in conjunction with the head of works and a radiation safety expert or a radiation safety and nuclear safety expert, must draw up a radiation safety and nuclear safety quality assurance programme.

To fulfil the requirements set out in the quality assurance programme, the operator must provide the financial resources needed to implement protective measures and carry out a regular inventory and checks on material resources. The operator shall coordinate the quality assurance programme with the VVD RDC.

An operator engaging in operations involving ionising radiation facilities of national significance must agree with the local municipality a contingency plan for radiological emergencies and a protocol for radiation emergencies, and must agree with the State Security Service a plan of physical protection measures and a physical protection protocol.

Pursuant to Cabinet Regulation No 152 of 8 April 2003 on the requirements regarding contingency planning for a radiological emergency and the protocol to be followed in the event of ‘an accident of this type’, an operator draws up a contingency plan for radiation emergencies and the protocol to be followed in the event of a radiological emergency for the facility that might cause damage in the event of a radiological emergency. The action plan envisages protection measures in order to:

1. reduce the risk of a radiation emergency and minimise the emergency’s consequences by making provision for measures to protect members of the public who might be affected by a radiation emergency;

2. prevent or minimise immediate damage caused by a radiation emergency;

3. minimise the likelihood of delayed damage being caused by a radiation emergency (the likelihood of damage is proportional to the dose of ionising radiation received; the severity of damages does not depend on the dose of ionising radiation received).

The operator receives approval of the action plan from the VVD RDC, the local municipality and the VUGD if the consequences of the emergency may also affect the members of the public and the environment outside of the area controlled by the operator.

Ionising radiation facilities (sources) of national significance, which include the Salaspils nuclear reactor, are monitored more closely by VVD RDC inspectors than other facilities engaged in operations involving sources of ionising radiation.

Pursuant to the Law, operations involving sources of ionising radiation are permissible if the principles of radiation safety and nuclear safety are complied with, i.e.:

(1) people and the environment may only be exposed to a dose of ionising radiation that is within predefined dosage limits;

(2) the benefit achieved outweighs the negative impact or damage caused by operations involving sources of ionising radiation;

(3) preference is given to optimum radiation safety measures, which factor in socio-economic considerations and technical feasibility, economic and social factors, so that the level of exposure is reasonably low and does not exceed the dose limits specified;

(4) the operator has third-party liability insurance against damages that may be caused to the life and health of third persons and their property or to the environment as a result of the operator's action or inaction;

(5) operations involving sources of ionising radiation (nuclear facilities) are conducted after a licence has been obtained.

The operator's obligations to set up and deploy a management system prioritising nuclear safety are set out in the items of legislation deriving from the Law.

Under legislation, in order to fulfil the requirements set out in the quality assurance programme, the operator is responsible for providing for the necessary financial resources to carry out protective measures and for conducting regular inventories of and checks on material resources, and for ensuring that employees receive regular top-up training.

This legislation provides that in the operator-controlled zone where operations are underway involving an ionising radiation facility of national

significance, the operator must set up a radiation and nuclear safety unit which is responsible solely for work involving sources of ionising radiation. The radiation and nuclear safety structural unit comprises the head of works and the radiation safety expert or the radiation and nuclear safety expert.

In addition to the above, the draft item of legislation, which is designed to detail the legislation governing the procedure for licensing and registering work with sources of ionising radiation, will include requirements for the documentation of training completed by operators and the submission of conclusions to the VVD RDC.

4. Expertise and skills in nuclear safety (Article 7)

Requirements regarding expertise and skills in nuclear safety are set out in the Law and in the legislation deriving from it.

In accordance with the requirements of CR No 752, in order to obtain a licence, the applicant must ensure that the qualifications of the employees and of the head of works are commensurate with the obligations in question.

The VVD RDC, the operator of the nuclear plant and the head of works ensure that the regulatory requirements concerning training are complied with:

(1) the VVD RDC, pursuant to the Law, organises and coordinates the training of inspectors and works managers whose work is related to radiation safety, and supports the training of people performing such work, and informs persons in charge of works with sources of ionising radiation about legislation regulating radiation safety and about recommendations for increasing the level of radiation safety. The VVD RDC takes part in the training of radiation safety experts, radiation and nuclear safety experts and heads of works.

(2) the operator provides training for the head of works in matters of radiation safety in the form of a programme of courses devised by a training institute, at least once every five years, and arranges extra training and knowledge certification in the event of changes being made to work- or post-related duties, or in the event of new equipment or procedures being introduced for work with sources of ionising radiation.

The operator ensures that employees receive briefings on radiation safety issues at least once a year, as well as radiation safety training as part of an educational programme devised by an educational institution at least once every

five years, and arranges extra training and knowledge certification in the event of changes being made to work- or post-related duties, or in the event of new equipment or procedures being introduced for work with sources of ionising radiation.

(3) Pursuant to the Law, work with sources of ionising radiation is managed by a head of works who is authorised by the operator and who has the necessary knowledge to conduct physical, technical or radiochemical measurements, assess doses of ionising radiation, and effectively protect employees and local residents against ionising radiation through the proper use of the relevant protective equipment. The head of works ensures that persons who work with sources of ionising radiation are appropriately trained in the taking of protection measures, are familiar with circumstances and regulatory requirements, and are informed of the potential risk associated with such operations.

Radiation safety experts and specialists in the radiation safety and nuclear safety field acquire basic and additional training at one of the following three universities in Latvia: the University of Latvia (physics, chemistry), Riga Technical University (medical physics) and Riga Stradiņš University (medicine). Additional training in the field of radiation safety is also provided by the educational institutes referred to on the VVD's website ¹ in accordance with the provisions of CR No 752.

As regards VVD RDC employees, on 20 November 2017 the VVD RDC internal procedures for employee training were approved, and in April 2020 the VVD RDC long-term employee training plan was updated. Under this internal procedure for employee training, the plan is to provide employees with a variety of training courses. Training of VVD RDC staff involves participation in a number of projects run by the International Atomic Energy Agency. In the framework of the technical cooperation projects, the participation of Latvia's representatives is ensured through workshops and experience exchange projects relating to radiation and nuclear safety.

5. Transparency (Article 8)

The Law lays down requirements governing the policy transparency and the securing of information.

¹ <http://www.vvd.gov.lv/strukturvienibas/radiacijas-drosibas-centrs/apmacibu-kursi-radiacijas-drosiba/>

Pursuant to the Law, the VVD RDC must inform the public that a licence has been requested to set up an ionising radiation facility of national significance or make fundamental changes to such a facility, the relevant information being posted on the VVD's website.

The operator and works manager are responsible for ensuring that employees of the VVD RDC and other central and local government bodies whose remit includes questions of radiation and nuclear safety are informed about the radiation and nuclear measures being taken in the facility in question. In order to protect employees, apprentices and students against ionising radiation, and to prevent radiological emergencies, the operator must ensure that employees, apprentices and students are informed about the possible health risk of working with sources of ionising radiation, and further ensure that female employees are informed about the possible risk to their reproductive health and the impact of ionising radiation on pregnancy.

By 31 January each year the operator of a nuclear facility must inform the municipality in whose territory the plant is located of the changes made to the plant during the previous calendar year in so far as they relate to radiation and nuclear safety, and of the monitoring results and planned measures. The operator must also post this information on his/her own website.

Pursuant to laws and regulations on protection against ionising radiation, the VVD RDC helps educate the public about radiation and nuclear safety and disseminates information on the latest developments in research in the field of radiation safety and nuclear safety. Further, in line with the draft law amending the Law on radiation safety and nuclear safety, which has been coordinated with all stakeholder ministries and submitted to the Saeima [Latvian Parliament], the role of the VVD RDC is to promote the training of workers, radiation safety experts and medical physics experts, provide the relevant training for VVD RDC staff, educate the public about radiation safety and nuclear safety, and draw up guidelines for operators who work with sources of ionising radiation with a view to raising awareness of legislative requirements and the implementation of those requirements. The VVD RDC organises seminars and draws up information material to raise awareness amongst stakeholders.

Since 2016 the VVD RDC has had, and has posted on its website, a number of guidelines for operators working with sources of ionising radiation relating to the documents to be submitted for the licensing and registration procedure, and a set of guidelines on the use of radiation in medical contexts.

Further, in 2019 three information seminars were organised to keep operators abreast of recent developments in radiation safety, and forces were joined with a Latvian medical engineering and physics company to publish booklets on the role and duties of persons responsible for radiation safety and to produce posters in a number of medical fields to protect patients and operatives.

In conjunction with educational institutes which draw up and provide training courses in radiation safety for workers working with sources of ionising radiation, in 2017 guidelines were drawn up for training course programmes that took account of the information to be provided via training courses to individuals working in a number of fields. Since 2017, the VVD RDC has reviewed and streamlined updated training course programmes provided by several such educational institutions, thus ensuring that the level of worker training is improved.

As regards the accessibility of information on the results of environmental monitoring, in accordance with legislation on requirements governing environmental monitoring and the way it is to be performed, the setting up of a register of pollutants and the public disclosure of information, a government body is preparing and will post on its website an annual report on the results of State monitoring.

In accordance with CR No 152 of 8 April 2003 on requirements regarding contingency planning for a radiological emergency and the protocol to be followed in the event of an accident, the VUGD joins forces with the VVD RDC once every three years and uses the mass media to inform those sections of the population who may be at risk from a radiological emergency about health protection measures and the protocol to be followed in the event of an accident.

In the event of a radiological emergency, the VUGD notifies and warns the public via the mass media and the civil alert and notification system. At the VVD RDC's recommendation, the VUGD immediately provides the following information to the sections of the population affected by the radiation emergency: type, cause (if possible), scale and potential escalation of the radiation emergency that has taken place, protective measures which it is recommended the public take (depending on the type of radiation emergency) and additional protective measures for specific groups (where applicable).

The VVD has designated and made public a telephone number that provides information 24/7 on breaches of environmental protection requirements.

A VVD representative is on call 24 hours a day to ensure, inter alia, that notification is given of any radiation or nuclear accident. The VVD has a phone number to provide information about radiation safety issues and any radiological emergencies, and that is the contact number for compliance with international commitments in the event of radiological emergencies.

The VVD has various numbers that operate 24/7:

- (1) for VVD environmental protection questions;
- (2) The VVD's Radiation Safety Centre [RSC] number;
- (3) for VVD fishery control questions, the staff of which also check the VVD's RSC phone outside working hours, and the calls made to it.

20 automatic gamma radiation monitoring stations have been set up to continuously monitor the radiation situation in Latvia *on line*. These are located in Baldone (two stations), Balvi, Daugavpils (two stations), Silene, Medumi, Jūrmala, Jelgava, Liepāja, Madona, Rēzekne, Rucava, Salacgrīva, Salaspils, Talsi, Valmiera, Rīga and Ventspils, plus an online aerosol monitoring station (in Daugavpils), two water radiation monitoring stations (in Ķekava and Krāslava) and one autonomous, i.e. mobile, radiation monitoring station.

These stations ensure the measurement of gamma radiation dose capacity and spectra. Measures are taken at 10-minute intervals. The measurement data are collected and analysed in the Oracle database and the equivalent dose capacity (nSv/h (nanosievert per hour)) determined. Data on equivalent dose capacity are systematically and regularly input into the ECURIE/EURDEP database, where they are posted on a public website for unauthorised EURDEP users along with gamma monitoring data from other European countries: <http://eurdep.jrc.europa.eu>, see Public EURDEP Map.

In addition to the above, in accordance with its statutes the VVD informs the public about the work of the service and passes on to the public environmental information held by the service. Once a year the VVD drafts a report on the performance of the service's functions and on the use of the funds allocated to the service under the State budget, and posts this on the VVD website, so allowing the public to check how funds have been used.

6. Article 8a, 8b, 8c and 8d of Directive 2014/87/Euratom

Although the requirements of Article 8a, Article 8b, Article 8c and Article 8d of Directive 2014/86/Euratom do not apply to Latvia, pursuant to Article 10(1a) of the consolidated version of Directive 2009/71/Euratom, Latvia provides information on State requirements regarding the Salaspils research reactor, which

has been shut down and is currently being decommissioned. The Environmental Policy Guidelines for 2014–2020 (hereinafter ‘EPG2020’) and the radioactive waste management programme lay down conditions for the dismantling and decommissioning of the Salaspils nuclear reactor, which will take place between 2024 and 2028.

As mentioned previously, the reactor no longer contains highly radioactive materials, as all the fuel has been taken back to its country of origin, so there is no likelihood of a highly dangerous radioactive leak occurring.

Pursuant to the Law and CR No 752, the LVĢMC has been issued with a licence for the safe maintenance of the Salaspils reactor. Pursuant to CR No 152 on requirements regarding contingency planning for a radiological emergency and the protocol to be followed in the event of an accident, a reactor emergency action plan has been drawn up. This plan was signed off by the VVD RDC, the Salaspils municipality and the VUGD.

The Law states that the LVĢMC (the operator of the Salaspils reactor) must, by 31 January each year, send the VVD RDC information on changes relating to sources of ionising radiation and operations involving these, on staffing changes and other changes that had an impact on radiation safety and nuclear safety during the previous calendar year.

Pursuant to the Law:

(1) the operator (LVĢMC) and the works manager are responsible for ensuring that employees of the VVD RDC and other central and local government bodies whose remit includes questions of radiation safety and nuclear safety are informed about the radiation safety and nuclear measures in place in the facility in question;

(2) by 31 January each year the LVĢMC, which manages the Radons radioactive waste repository and operates the Salaspils reactor, informs the municipality in whose territory the plant is located (Salaspils and Baldone) of the changes made to the plant during the previous calendar year in so far as they relate to radiation and nuclear safety, and of the monitoring results and planned measures. The operator also publishes this information on its website.

Pursuant to legislation on protection from ionising radiation, the LVĢMC draws up the Salaspils reactor environmental radiation monitoring programme

and agrees on it with the VVD RDC, and at least once a year sends the VVD RDC and the local municipality a report on the results of environmental radiation monitoring, publishing the results on the LVGMC website.

To decommission the Salaspils reactor, a construction permit pursuant to CR No 661 will initially be issued. This CR must be complied with, as it lays down requirements not just for the construction of radiation facilities, but also for their dismantling and decommissioning. To date, these regulatory requirements have not been applied in practice, but in future they will be applied to the procedure for dismantling and decommissioning the Salaspils reactor. Instead of the construction board, the VVD will issue the construction permit and approve the construction project. In other cases (not relating to radiation facilities), construction permits are issued by the construction board of the municipality concerned. For radiation structures subject to the requirements of CR No 661, monitoring of construction, commissioning and decommissioning is all done by the State Construction Control Bureau pursuant to the Law on construction. The VVD RDC will be responsible for monitoring the dismantling and decommissioning of the reactor in accordance with the licence that will be issued pursuant to CR No 752.

The technical plan for dismantling and decommissioning work on the Salaspils reactor is currently being drawn up pursuant to CR No 661. After that, the LVGMC will have to obtain a licence to carry out the dismantling and decommissioning work pursuant to CR No 752. One of the documents that must be submitted along with the application for the licence is the closure, dismantling and decommissioning plan pursuant to CR No 752.

During the decommissioning of the Salaspils nuclear reactor, VVD RDC inspectors will carry out more frequent checks.

7. Peer reviews (Article 8e)

Starting in 2017, Latvia carried out an own assessment of the radiation and nuclear safety infrastructure in place, and in 2019, with the help of the International Atomic Energy Agency, it set up two teams of international experts which produced exhaustive assessments of radiation safety in Latvia, namely: the review by the Integrated Regulatory Review Service (IRRS)² of 21 – 30 October

² <https://www.iaea.org/services/review-missions/integrated-regulatory-review-service-irrs>

2019 and the assessment by the Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation ³ of 3 – 10 December 2019. Checks were carried out on operations involving sources of ionising radiation, the transport of radioactive materials, the dismantling and decommissioning of radiation facilities, the management of radioactive waste, the contingency plan and protocol for radiological emergencies, worker protection, protection of the general public and protection for patients subject to medical exposure. The reports which these assessments generated have been published on the IAEA website and the website of the VVD, and have been forwarded to the European Commission. As part of these assessments, a number of recommendations were made to Latvia for improving the radiation safety system, which Latvia undertook to introduce in the coming years. To implement these recommendations, an action plan has been drawn up, deadlines set and competent bodies appointed.

Summary

Latvia has one nuclear facility within the meaning of Directive 2009/71/Euratom, the Salaspils nuclear reactor, which is currently being decommissioned.

The requirements of Directive 2009/71/Euratom have been incorporated into Latvian legislation and are currently being implemented. Adequate radiation safety and nuclear safety is in place in Latvia and its regulation is being constantly improved. Measures are applied to ensure a higher level of radiation safety and nuclear safety, thus protecting workers and the general public from undesirable effects of ionising radiation from nuclear installations.

Latvia's most pressing challenge at present is to resolve the issue of the dismantling and decommissioning of the Salaspils nuclear reactor, which is scheduled to be completed by 2028.

³ <https://www.iaea.org/services/review-missions/integrated-review-service-for-radioactive-waste-and-spent-fuel-management-decommissioning-and-remediation-artemis>