

National legislative and regulatory activities

Australia

General legislation

Bill to amend the Australian Radiation Protection and Nuclear Safety Act 1998

A bill to amend the Australian Radiation Protection and Nuclear Safety Act 1998 (ARPANS Act) was passed by the Australian Parliament on 18 August 2015. After obtaining royal assent, the amendments passed into law on 8 October 2015.

Since 1999, the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) has been regulating Australian government entities undertaking activities involving radiation. The scheme administered by ARPANSA regulates a broad range of applications from baggage x-ray units in airports to the Open Pool Australian Lightwater (OPAL) research reactor at Lucas Heights in New South Wales.

The ARPANS Act has not been substantially updated since it was introduced in 1998. Since that time:

- there have been changes to international approaches to radiation and nuclear safety;
- there have been changes in practice that require an adjusted regulatory response;
- ARPANSA's experience administering the legislation has highlighted areas for improvement; and
- there have been a number of reviews of the ARPANSA regulatory scheme.

This has included reviews by the International Atomic Energy Agency and by the Australian National Audit Office. On the whole, the regulatory scheme was found to be appropriate; however, changes were suggested to clarify the reach of the legislation, to strengthen the monitoring and enforcement powers of the regulator and to continue to ensure the legislation aligns with evolving international approaches.

Drawing on the recommendations of the various reviews and the experience of ARPANSA, changes have been made to the legislation to provide greater clarity regarding its reach, improve risk management of radiation activities undertaken by Australian government entities and provide greater capacity for ARPANSA to act in the event of an emergency or non-compliance with the legislation. Specifically, amendments have been made in four main areas.

First, the amendments provide ARPANSA with greater powers to monitor compliance with the legislation and to take action in the event of non-compliance. For example, the amendments enable the chief executive officer (CEO) of ARPANSA to require a licence holder to produce information or documents, or to appear before the CEO to answer questions. Inspectors are also being empowered to issue improvement notices to require licence holders to address contraventions of the legislation, or likely contraventions, within certain time frames.

These changes ensure that ARPANSA can access the information it needs to assess compliance with the legislation and can adopt a graduated and proportionate response to non-compliance, should it be identified.

The amendments also enable the CEO of ARPANSA to issue directions to licence holders to minimise any risks to people and the environment in unforeseen circumstances, for example in the event of an emergency.

Second, the amendments clarify the application of the legislation to contractors and others working with the Australian government or operating from facilities owned or controlled by Australian government entities. This provides greater regulatory certainty and ensures there is no gap in regulatory coverage between entities regulated by ARPANSA and those regulated by Australian State and Territory Government authorities.

Third, the proposed amendments improve the licensing regime and make it more efficient by:

- enabling ARPANSA to issue time-limited licences in circumstances where time limits may be more appropriate;
- making some adjustments to the licensing regime to expressly enable ARPANSA to regulate remediation and other activities involving contaminated legacy sites; and
- clarifying that ARPANSA may issue single licences for multiple facilities to reduce regulatory burden and streamline arrangements where this supports end-to-end risk management.

Finally, a number of minor technical and administrative amendments, such as updates to definitions and removal of outdated provisions to improve the operation of the legislation, have been made.

France

General legislation

*Law No. 2015-992 of 17 August 2015 on the energy transition for green growth*¹

One year after its presentation to the French Council of Ministers, the bill on the energy transition for green growth was passed into law on 18 August 2015.

This law comprises 215 articles under eight sections: Objectives (section I); Renovating buildings (section II); Developing green transport (section III); Tackling waste and promoting the circular economy (section IV); Developing renewable energies (section V); Strengthening nuclear safety and public information (section VI); Simplifying and clarifying procedures (section VII); and Providing citizens, businesses and regions with the means to take action together (section VIII).

In particular, the energy transition is based on the following priorities, enshrined by law in the Energy Code:

- reduce greenhouse gas emissions by 40% between 1990 and 2030;
- reduce the final energy consumption of fossil fuels by 30% by 2030 in relation to the 2012 benchmark;

1. Loi n° 2015-992 du 17 août 2015 relative à la transition énergétique pour la croissance verte, Journal Officiel Lois et Décrets (Journal of Laws and Decrees) (J.O.L. et D.), 18 August 2015, p. 14263, Text No. 1.

- increase the proportion of renewable energies to 32% of gross final energy consumption and to 40% of electricity production by 2030;
- reduce final energy consumption by 50% by 2050 in relation to the 2012 benchmark;
- halve the amount of waste disposed of in landfill sites by 2050; and
- diversify electricity production and bring the proportion of nuclear energy used in electricity generation down to 50% by 2025.

Concerning nuclear matters, the objective of section VI of the law is to strengthen nuclear safety at, and public information on, basic nuclear installations (INBs or *installations nucléaires de base*) by supplementing the provisions of the *code de l'environnement* (French Environmental Code) governing nuclear activity and INBs.

There is a reinforced role for the Local Information Commissions (CLIs or *commissions locales d'information*) created for all sites with one or more INBs, and tasked with a general mission of follow-up, information and consultation in terms of nuclear safety, radiation protection and the impact of nuclear activities on people and the environment. Moreover, membership of CLIs is extended to residents of foreign states if the nuclear plant is situated in a border department.

The legal regime applicable to INBs, as provided for in Articles L. 593-1 *et seq.* of the French Environmental Code, has been amended, notably with regard to significant modifications of a basic nuclear installation during operation, safety reviews, and the closure, dismantling and decommissioning of sites.

In terms of third party liability in the field of nuclear energy, Article 130 of the law provides for an increase in the third party liability of the operator of a nuclear installation to EUR 700 million (EUR 70 million for low-risk installations and EUR 80 million for the transport of nuclear substances), in anticipation of the entry into force of the February 2004 Protocols to amend the Paris and Brussels Conventions.

It should also be noted that the government is authorised to make, within a 6-to-12 month timeframe, provisions by ordinance for many areas governed by the law, notably with regard to:

- improving the effectiveness of nuclear safety and radiation protection controls;
- adapting the responsibilities, duties and powers of the French Nuclear Safety Authority (ASN or *Autorité de sûreté nucléaire*);
- transposition of the following directives: Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste; Council Directive 2014/87/Euratom of 8 July 2014 amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations; Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation; Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions; Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances.

ASN Report on the state of nuclear safety and radiation protection in France in 2014²

In accordance with Article L. 592-31 of the French Environment Code, the ASN published its report on the state of nuclear safety and radiation protection in France in 2014, which was submitted to the Parliament, the Government and the President of the Republic.

In the report, the ASN states that the situation in terms of nuclear safety and radiation protection is, on the whole, relatively satisfactory. Nevertheless, it specifies that the scale of the challenges and the expectations of society mean that nuclear safety and radiation protection requirements must be gradually tightened in light of accident analysis, increasing scientific knowledge and technological developments.

At the international level, the ASN adds that 2014 was a significant year, as:

- the European directives on nuclear safety and radiation protection were significantly reinforced; and
- a co-ordinated approach to the management of emergency situations was proposed by all the European safety and radiation protection regulators.

The ASN also considers that 2015 will be marked by:

- the beginning of examination of the Flamanville EPR nuclear power plant commissioning file;
- continued work to limit the doses resulting from public exposure to radon; and
- continued work to ensure improved management of the exposure of patients and health care professionals, particularly in diagnostic radiology and during interventional procedures.

Germany**Radioactive waste management***First Ordinance to amend the 2005 Gorleben Development Freeze Ordinance (2015)*

The 2005 Gorleben Development Freeze Ordinance (2005 Ordinance)³ was amended by the First Ordinance of 7 July 2015 to amend the Gorleben Development Freeze Ordinance (2015 Ordinance).⁴ Based on Section 9g, paragraph 1, sentence 1 of the German Atomic Energy Act, the 2005 Ordinance was issued to secure the exploration of the area of the salt dome at Gorleben as a final repository for radioactive waste. Section 5 of the 2005 Ordinance stipulated it shall expire 10 years after its entry into force, i.e. at the end of 16 August 2015.

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2. The ASN's report is available (in English) at: www.asn.fr/annual_report/2014gb/.
 3. More information on the 2005 Ordinance can be found in NEA (2005), "Ordinance on Establishing a Prohibition to Alter the Conditions of the Subsoil Within the Gorleben Salt Formation (2005)", *Nuclear Law Bulletin*, No. 76, NEA, Paris, p. 76.
 4. *Erste Verordnung zur Änderung der Gorleben-Veränderungssperren-Verordnung* of 7 July 2015 (*Bundesanzeiger* AT 21.07.2015 V1). The text of the Ordinance is available (in German) at: www.bmub.bund.de/fileadmin/Daten_BMU/Download_PDF/Gesetze/gorleben_vsp_v_bundesanzeiger.pdf. A consolidated text of the 2005 Ordinance as amended by the 2015 Ordinance is available (in German) at: www.gesetze-im-internet.de/gorleben_vspv/BJNR515320005.html.

Meanwhile, however, the 2013 Repository Site Selection Act⁵ entered into force, which, in Section 29, contains a special provision regarding the Gorleben salt dome. Pursuant to this provision, the Gorleben salt dome shall be included in the site selection procedure under the Act in the same way, and subject to the same criteria and requirements, as all other potential sites for a final repository. Gorleben could only be excluded as the result of the procedure foreseen under the Repository Site Selection Act. As a consequence of this provision, securing the exploration of the Gorleben area needed to be continued.

The federal government introduced a draft regulation to Parliament to extend the validity of the 2005 Ordinance until 16 August 2025, at the latest.⁶ The draft regulation of the government did not receive the necessary approval by the Länder in Parliament (*Bundesrat*) and failed.⁷ Agreement could be achieved on the following text, which now forms Section 5, paragraph 1, sentence 1 of the 2015 Ordinance: “This Ordinance shall expire on the day at which the Gorleben salt dome, in accordance with Section 29 paragraph 1 sentence 5 of the Repository Site Selection Act, is excluded from the site selection procedure but at the latest at the end of 31 March 2017.”⁸

Justification for this new wording can be taken from a resolution adopted by the *Bundesrat*. In that resolution, the *Bundesrat* requests the federal government to work out statutory regulations that ensure early securing site regions or planning areas for potential final repositories without delay and, at the latest, by 31 March 2017 and in co-operation with the “Commission Storage Highly Radioactive Waste” established under the Repository Site Selection Act.⁹

Greece

Radioactive waste management

*Joint Ministerial Decision establishing the national policy on the management of spent fuel and radioactive waste*¹⁰

The act above empowers the Greek Atomic Energy Commission (EEAE) to develop the initial (first) “national programme” referred to in Articles 11 and 12 of the Radioactive Waste and Spent Fuel Management Directive.¹¹

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5. More information on the 2013 Act can be found in NEA (2013), “Repository Site Selection Act (2013)”, *Nuclear Law Bulletin*, No. 92, NEA, Paris, pp. 103-105.
 6. *Verordnung der Bundesregierung: Erste Verordnung zur Änderung der Gorleben-Veränderungssperren-Verordnung* 27 March 2015 (*Bundesrats-Drucksache* 136/15). The draft regulation is available (in German) at: www.umwelt-online.de/PDFBR/2015/0136_2D15.pdf.
 7. *Bundesrats-Drucksachen* 136/1/15, 136/2/15, 136/3/15.
 8. The German original reads: “Diese Verordnung tritt an dem Tag außer Kraft, an dem der Salzstock Gorleben nach § 29 Absatz 1 Satz 5 des Standortauswahlgesetzes aus dem Standortauswahlverfahren ausgeschlossen wird, spätestens mit Ablauf des 31. März 2017.”
 9. *Bundesrats-Drucksache* 136/15 (*Beschluss*), available (in German) at: www.umwelt-online.de/PDFBR/2015/0136_2D15B.pdf.
 10. Joint Ministerial Decision No. 131207/13/27.08.2015, Government Gazette Folio No. 1858/B/27.08.2015, “National policy on the management of spent fuel and radioactive waste”.
 11. Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste, *Official Journal of the European Union* (OJ) L 199 (2 August 2011).

The basic principles of the Greek national policy are:

- disposal of radioactive waste in the country is allowed only for radioactive waste generated within the Greek territory and takes place in an authorised disposal facility within the country. The import of radioactive waste within the country's borders for management, including disposal, is prohibited. Until the establishment of the disposal facility, the storage of radioactive waste generated within the Greek territory is carried out in authorised interim storage facilities or storage areas (centralised or at waste producers' facilities);
- research reactor spent fuel is returned permanently to the country where the research reactor's fuel was supplied or manufactured, based on an international agreement concluded compulsorily at the time of import of any nuclear fuel;
- for radioactive sources, repatriation is the preferred management option (back-end solution);
- for liquid very short-lived waste originating from nuclear medicine laboratories, decay and clearance options are applied;
- on a 10-year periodic basis, if necessary, withdrawal projects are carried out to collect and export radioactive sources and materials to foreign authorised recycling facilities;
- the storage of radioactive waste, sources and materials does not constitute a final management solution. The temporary storage period is specified in the licensing conditions/terms of the facility or practice. Maximum storage periods are defined; and
- Greece supports the idea of sharing common activities, practical solutions and research and development programmes in the context of agreements between the countries.

Lithuania

Nuclear safety and radiological protection

Revised requirements for modifications

On 1 November 2015, an amendment¹² to the “Rules of procedure for categories of nuclear facility modifications and implementation of modifications” will come into force. The current rules establish categories of modifications of nuclear installations and assign the licensee the responsibility to document the modification process, carry out safety assessments and, for those modifications important to safety, submit documents for the approval of State Nuclear Power Safety Inspectorate (VATESI). The amendment endeavours to streamline the modification procedure during construction and commissioning of nuclear facilities and refines upon the description for categorisation of modifications.

12. Order No. 22.3-57 (2015), “On the Amendment of Order No. 22.3-99 (2011), BSR-1.8.2-2011 ‘Rules of Procedure for categories of nuclear facility modifications and implementation of modifications’”, available (in Lithuanian) at: www.e-tar.lt/portal/lt/legalAct/38739f30d15e11e4bcd1a882e9a189f1.

Plan for enhancement of nuclear safety

On 24 March 2015, the Head of VATESI approved the Plan for Enhancement of Nuclear Safety Based on Evaluation of the Experience Gained after the Accident at the Japanese Fukushima Daiichi Nuclear Power Plant (Plan).¹³ The Plan establishes measures for improving overall nuclear safety in Lithuania, as well as in Lithuania's nuclear facilities in the areas of management of nuclear accidents, external hazards, loss of safety systems and emergency preparedness, among other areas. The Plan replaces a previous plan of a similar scope, approved in 2013.

New requirements for the commissioning of nuclear power plants

New requirements for nuclear safety were approved by the Head of VATESI in Order No. 22.3-141 of 16 July 2015 on "Commissioning of Nuclear Power Plant".¹⁴ The new order sets requirements for the commissioning of nuclear power plants with pressurised or boiling light water reactors and pressurised heavy water reactors. It includes requirements for the preparation, content, scope and implementation of the commissioning programme, as well as for the management of the commissioning process. The new requirements came into force on 1 November 2015.

Revised requirements regulating the provision of information on abnormal events

On 30 July 2015, an amendment to the nuclear safety requirements for abnormal event notifications was approved.¹⁵ The amendment specifies more detailed procedures for VATESI's analysis of licensees' reports on abnormal events. It also establishes the procedure for the independent investigation of nuclear and radiological accidents, to be carried out by VATESI, including the scope of the investigation and the rights and responsibilities of the investigation commission.

Radioactive waste management*Revised requirements for acceptance criteria for near surface repository*

New nuclear safety requirements were approved on 27 May 2015 that establish waste acceptance criteria for the near surface repository for low and intermediate level short-lived radioactive waste and requirements for radioactive waste package specifications of low and intermediate level short-lived radioactive waste to be disposed of in the near surface repository.¹⁶ The new requirements replace Order No. 22.3-40 of 27 April 2009 "On the approval of Regulation on general waste acceptance criteria for disposal in near surface disposal facility". The new requirements came into force on 1 November 2015.

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13. Order No. 22.3-62 (2015), "On the Approval of the Plan for Enhancement of Nuclear Safety Based on Evaluation of the Experience Gained after the Accident at the Japanese Fukushima Daiichi Nuclear Power Plant", available (in Lithuanian) at: www.e-tar.lt/portal/lt/legalAct/801a6e40d22b11e4bcd1a882e9a189f1.
 14. BSR-2.1.5-2015 (2015), "Commissioning of Nuclear Power Plant", available (in Lithuanian) at: www.e-tar.lt/portal/lt/legalAct/0d6fbed02baa11e5be2eca50406acf3c.
 15. Order No. 22.3-151 (2015), "On the Amendment of Order No. 22.3-60 (2010), BSR-1.8.1-2010 'Notification on Abnormal Events in Nuclear Power Plants'", available (in Lithuanian) at: www.e-tar.lt/portal/lt/legalAct/b514cb8036a911e5aee6f3ae4a9cfa2d.
 16. BSR-3.2.1-2015 (2015), "Radioactive Waste Acceptance Criteria For Near Surface Repository", available (in Lithuanian) at: www.e-tar.lt/portal/lt/legalAct/b91cfee0047811e588da8908dfa91cac.

Nuclear security

Revised requirements for physical protection

In July 2015, an amendment to the physical protection requirements was approved.¹⁷ Pursuant to IAEA recommendations in its Nuclear Security Series, the amendment establishes clear criteria for when the security areas to which the nuclear facility needs to be divided have to be reviewed/reconsidered. The amendment also strives to streamline the procedure for the preparation, review and renewal of the security plans by the applicants and licensees and the subsequent agreement to the security plans by the regulatory body. Finally, the amendment provides for a more detailed programme for the evaluation of the effectiveness of nuclear facility physical protection systems.

Romania

Licensing and regulatory infrastructure

Government Decision No. 600/2014 for approval of National Nuclear Safety and Security Strategy

In July 2014, a National Strategy for Nuclear Safety and Security (“the Strategy”) was adopted that aims to create a framework for addressing, in a uniform and consistent manner, the objective of improving the nuclear safety and security and the joint efforts of relevant authorities and institutions with responsibilities in the nuclear sector.

The Strategy takes into account the current state of development of the national nuclear field, the projects and activities underway or planned, the experience of authorities and institutions involved, the relevant responsibilities and international standards, and also the legal obligations derived from treaties, conventions and agreements to which Romania is a party.

International co-operation

Government Decision No. 525/2014 for approval of the Co-operation Agreement on the radioactive waste management between the French National Radioactive Waste Management Agency (ANDRA) and Nuclear Agency and Radioactive Waste (ANDR)

Strengthening international co-operation in the nuclear field is a key objective in Romania for implementing a safe and effective management of radioactive waste. As such, in July 2014, the Romanian Nuclear Agency and Radioactive Waste (ANDR) and the French National Radioactive Waste Management Agency (ANDRA or *Agence nationale pour la gestion des déchets radioactifs*) entered into an agreement that envisages establishing a favourable legal framework between the two parties in the field of radioactive waste management in accordance with the actions contained in the strategic partnership between France and Romania. The Romanian and French parties agreed to the following areas of co-operation:

- radioactive waste management;
- research and development in the field of radioactive waste management;
- public acceptance;

17. Order No. 22.3-147 (2015), “On the Amendment of Order No. 22.3-37 (2012), BSR-1.6.1-2012 ‘Physical protection of nuclear facilities, nuclear material and nuclear fuel cycle material’”, available at: www.e-tar.lt/portal/lt/legalAct/f1fe0411352011e5b1be8e104a145478.

- inventory of radioactive waste;
- characterisation, treatment and conditioning of radioactive waste for storage in deposits for radioactive waste with low and medium level of radioactivity;
- geological disposal of spent nuclear fuel and radioactive waste with high levels of radioactivity;
- audit on the activities related to radioactive waste management;
- recycling of spent nuclear fuel;
- back-end cycle solutions for spent nuclear fuel; and
- decommissioning of nuclear installation.

The co-operation may also involve the exchange of information and experience, as well as participation in joint projects and technical assistance.

Memorandum of Understanding for Co-operation and Exchange of Information in Nuclear Regulatory Matters between the National Commission for Nuclear Activities Control (CNCAN) of Romania and the President of National Atomic Energy Agency (PAA) of Poland

In September 2014, the National Commission for Nuclear Activities Control (CNCAN) of Romania and the National Atomic Energy Agency (PAA) of Poland, both authorities responsible for regulating nuclear activities within their areas of competence, entered into a memorandum of understanding (MOU) for technical co-operation and the exchange of information. Given that Romania and Poland are member states of the European Union, both parties agreed that it was in their mutual interest to conclude such an agreement. The MOU also addresses:

- the exchange of personnel between the participants;
- the training of personnel; and
- the provision of assistance in the field of nuclear regulations.

In accordance with their laws, regulations and political guidelines, the CNCAN and the PAA agreed to establish co-operation in the regulation and control of activities related to nuclear and radiological safety.

Government Decision No. 540/2015 for approval of the Agreement between the Government of Romania and the Government of the People's Republic of China regarding co-operation in the peaceful uses of nuclear energy, signed on 1 September 2014, in Beijing

Following governmental actions aimed at attracting potential new investors in the construction of units 3 and 4 of the Cernavodă nuclear power plant, the People's Republic of China has been identified as a partner with significant potential due to its power companies' extensive experience in the construction and operation of nuclear power plants, and also its funding capacity and interest in nuclear projects.

In this context, to establish a general framework for nuclear co-operation and promote specific common projects in this area, the two governments have agreed on the need to sign an agreement for co-operation on the peaceful uses of nuclear energy. The parties have also decided to encourage the conduct of joint actions aimed at completing projects, as well as to engage in other projects of common interest in the nuclear field.

Nuclear security*Order No. 181/2014 for approval of norms regarding the protection of nuclear installation against cyber threats*

In October 2014, norms were established regarding the general requirements for the protection of systems, components and equipment, including software for instrumentation and control systems and networks from nuclear facilities, against cyber threats. These norms represent an essential step in authorising the activities of commissioning, operation and decommissioning of nuclear installations.

Nuclear safety and radiological protection*Order No. 51/2015 for approval of the Nuclear Safety Guide regarding industrial codes and standards for nuclear power plants*

In April 2015, a Nuclear Safety Guide was established based on CNCAN recommendations for utilising nuclear industry codes and standards in the siting, construction, commissioning and operation of a nuclear power plant.

Order No. 199/2015 for approval of the norms regarding nuclear safety policy and technical operation conditions for nuclear installations.

In April 2015, norms were established regarding general nuclear safety requirements related to operating limits and technical conditions for nuclear installations. These norms apply to the following categories of nuclear facilities:

- nuclear power plants;
- research reactors, zero power reactors and subcritical assemblies; and
- demonstration reactors.

Order No. 177/2015 for approval of norms regarding nuclear safety policy and independent assessment of nuclear safety

In September 2015, norms were established regarding the general requirements for nuclear safety policy and the independent assessment of nuclear safety for nuclear installations. The provisions of these norms shall apply to holders of an authorisation and applicants for authorisation for the construction, commissioning and operation of a nuclear installation from the following categories:

- nuclear power plants;
- research reactors, zero power reactors and subcritical assemblies;
- demonstration reactors;
- nuclear fuel plants; and
- other nuclear installations that CNCAN considered necessary to apply these rules in the authorisation process.

Order No. 180/2015 for approval of the guide regarding independent verification of the nuclear safety analyses and evaluation for nuclear installations

In September 2015, a guide was established based on the CNCAN recommendations for the independent verification of analyses and evaluations of nuclear safety for nuclear installations. The provisions of this guide shall apply to holders of an authorisation and applicants for authorisation for the construction, commissioning and operation of a nuclear installation from the following categories:

- nuclear power plants;
- research reactors, zero power reactors and subcritical assemblies;

- demonstration reactors;
- nuclear fuel plants; and
- other nuclear installations that CNCAN considered necessary to apply these rules in the authorisation process.

Order No. 198/2015 for approval of the guide regarding the framework and content of the nuclear safety final report for nuclear power plants

In September 2015, norms were established regarding the framework and content of the nuclear safety final report for nuclear power plants. The provisions of these norms apply to holders of an authorisation for construction and applicants for authorisation for commissioning and operation of a nuclear power plant.

Slovak Republic

International co-operation

Details about international agreements concluded by the Slovak Republic

Since the last edition of the *Nuclear Law Bulletin* No. 95, as regards the international agreements in the field of nuclear energy and their status, the Slovak Republic renewed the arrangement between the Nuclear Regulatory Authority (NRA) of the Slovak Republic and the United States Nuclear Regulatory Commission for the Exchange of Technical Information and Cooperation in nuclear safety matters (signed in Vienna on 16 September 2015).

The Program of Cooperation in the field of Nuclear Safety Regulation between the Nuclear Regulatory Authority of the Slovak Republic and the Czech State Office for Nuclear Safety was prolonged for the third time since 1999.

Liability and compensation

*Regulation No. 170/2015 Establishing a List of Radioactive Materials, Their Quantities and Their Physical and Chemical Parameters Justifying the Low Risk of Nuclear Damage*¹⁸

Based on Article 5(6) of the new Act No. 54/2015 Coll. On Civil Liability for Nuclear Damage and its Financial Coverage,¹⁹ the NRA issued new regulation No. 170/2015 Coll. Establishing a List of Radioactive Materials, Their Quantities and Their Physical and Chemical Parameters Justifying the Low Risk of Nuclear Damage on 6 July 2015. The new regulation will enter into force on 1 January 2016, replacing regulation No. 47/2006 Coll. on Details of Maximum Limits on Amounts of Nuclear Materials and Radioactive Waste at which Nuclear Damage is not Envisaged.

Regulation No. 170/2015 lays down the list, the quantities and physical and chemical parameters of radioactive materials justifying the low risk of nuclear damage:

- during their transportation; and
- in the nuclear installation during the decommissioning phase, if there are nuclear materials or radioactive waste in certain quantities and with

18. Regulation No. 170/2015 is available (in English) at: [www.ujd.gov.sk/ujd/WebStore.nsf/viewKey/Regulation%20170%202015/\\$FILE/Regulation%20170%202015.pdf](http://www.ujd.gov.sk/ujd/WebStore.nsf/viewKey/Regulation%20170%202015/$FILE/Regulation%20170%202015.pdf).

19. Act No. 54/2015 Coll. is available (in English) at: [www.ujd.gov.sk/ujd/WebStore.nsf/viewKey/Act%20no.%2054_2015%20/\\$FILE/Act%2054_2015%20EN_na%20web.pdf](http://www.ujd.gov.sk/ujd/WebStore.nsf/viewKey/Act%20no.%2054_2015%20/$FILE/Act%2054_2015%20EN_na%20web.pdf).

certain physical and chemical parameters and if non-irradiated nuclear fuel or spent nuclear fuel is not present at the same time in such nuclear installation.

The risk of the nuclear damage occurrence is so low at those quantities and activities that they are excluded from the obligatory coverage for nuclear damage.

As the Slovak Republic is party to the 1963 Vienna Convention, the 2014 Resolution of the IAEA Board of Governors establishing maximum limits for the exclusion of small quantities of nuclear material from the application of the Vienna Convention (GOV/2014/63, 10 December 2014) formed the basis for the regulation. Similarly, so did the Nuclear Energy Agency Steering Committee decision and recommendation on the exclusion of nuclear installations in the process of being decommissioned from the application of the Paris Convention (NEA/SUM(2014)2).

General legislation

In October 2015, a number of amendments to existing NRA regulations were approved, and notifications were made to the European Commission. These amendments will enter into force as of 1 March 2016.

The amendments were introduced based on the recommendations and suggestions resulting from a 2012 IAEA Integrated Regulatory Review Service mission to the NRA and are as follows:

- Regulation amending Regulation No. 430/2011 Coll. on details on nuclear safety requirements;
- Regulation amending Regulation No. 431/2011 Coll. on a quality management system;
- Regulation amending Regulation No. 30/2012 Coll., laying down details of requirements for the management of nuclear materials, radioactive waste and spent nuclear fuel;
- Regulation amending Regulation No. 33/2012 Coll. on the regular, comprehensive and systematic evaluation of the nuclear safety of nuclear equipment;
- Regulation amending Regulation No. 57/2006 Coll. on detailed requirements for shipment of radioactive material; and
- Regulation amending Regulation No. 58/2006 Coll., laying down details on the scope, contents and manner of preparation of documentation for nuclear facilities needed for individual decisions.

Slovenia

General legislation

Amendments to the Ionising Radiation Protection and Nuclear Safety Act

A relatively long process of amending the Ionising Radiation Protection and Nuclear Safety Act (the Act) was finally concluded in September 2015. The process began in 2013, but was frozen in May 2014 due to the resignation of the government. The amendment process resumed after the formation of a new government that same year. At the beginning of November 2014, amendments to the Act were sent for inter-ministerial co-ordination to all Ministries, the Information Commissioner and the Government Office for Legislation. The government adopted the amendments to the Act in May 2015 while the Parliament enacted it in September 2015.

The Act simplifies certain administrative procedures by:

- merging into a single administrative procedure radiation protection assessments of exposed workers and the license to carry out a radiation practice;²⁰
- streamlining the issuance of licenses for the use of radioactive sources; and
- eliminating the need for a certificate of entry in the register of radiation sources as a special administrative decision and instead requiring only registration under the simplified procedure.

Several amendments have been introduced as a consequence of the lessons learned following the Fukushima Daiichi nuclear power plant accident and the European stress tests:

- a new article on the design basis of a nuclear facility and another article on the extended design basis of a nuclear facility;
- new provisions on safety culture management systems; and
- new provisions to prevent the incorporation of non-conforming, counterfeit, fraudulent and suspect items into nuclear and radiation facilities.

Other topical amendments include:

- a new provision related to the construction of a new nuclear facility allowing an investor to submit progressively and in parts the required documentation that accompany the application for consent to the construction;
- clear definitions regarding the obligations of the Agency for Radioactive Waste Management related to the provisions governing the implementation of various public utility services (management of radioactive waste, radioactive waste disposal, long-term monitoring and maintenance of mining disposals and tailings);
- provisions concerning the vetting of persons working in nuclear facilities; and
- more detailed determination of different types of operational monitoring (pre-operational, operational and post-operational).

The Act also includes minor, editorial corrections as well as the elimination of minor inconsistencies and deficiencies that have been identified during the application of the Act.

20. Previously, the Slovenian Radiation Protection Administration (SRPA), the regulatory body for activities involving radiation and the use of radioactive sources in medicine and veterinary medicine, was responsible for approving the radiation protection assessment of all exposed workers (not only those in medicine and veterinary medicine, but also for those working in other areas/radiation practices, such as industry, research, etc.). At the same time, the Slovenian Nuclear Safety Administration (SNSA) was responsible for issuing the license to carry out a radiation practice. From now on, the SRPA will approve the assessment of exposed workers as well as issue the license to carry out a radiation practice in medicine and veterinary medicine, while the SNSA will approve the assessment of exposed workers as well as issue the license to carry out a radiation practice in industry, research, etc.

These amendments to the Ionising Radiation Protection and Nuclear Safety Act, together with amendments to several implementing governmental decrees and ministerial rules, transpose the new nuclear safety directive,²¹ as well as 2014 updated Western European Nuclear Regulators Association reference levels. The new European Union basic safety standards²² will be transposed by the end of 2017.

The amendments to the Act entered into force on the 15th day following its publication in the Official Gazette of the Republic of Slovenia, on 17 October 2015. The adopted amendments together with the introductory explanations and clarifications, as well as clean copy of the Act, are available in Slovenian on the Slovenian Nuclear Safety Administration website.

Switzerland

Radioactive waste management

On 7 October 2015, the Federal Council decreed a second revision of the Ordinance on the Decommissioning Fund and the Waste Disposal Fund for Nuclear Installations. The financing of the decommissioning of nuclear facilities and the disposal of radioactive waste is regulated in the Nuclear Energy Act as well as in the mentioned Ordinance, which regulates the specific details.

While working on the first revision of the Ordinance on the Decommissioning and Waste Disposal Funds for Nuclear Installations, which came into effect on 1st January 2015,²³ the responsible Federal Department of the Environment, Transport, Energy and Communications (DETEC) identified the need of a further revision concerning several governance-related issues. An evaluation by the Swiss Federal Audit Office confirmed this observation. These issues are taken into account with this latest, second revision.

The most important issue covered is the reform of the permissible composition of the executive bodies of the Decommissioning Fund and the Waste Disposal Fund (“the Funds”). Employees of the DETEC, which is in charge of supervision on behalf of the Federal Council, and the Swiss Federal Nuclear Safety Inspectorate (ENSI), the national regulatory body with responsibility for the nuclear safety and security of Swiss nuclear facilities, are no longer eligible to be members of the Funds’ boards or its committees.

But, while individual employees of DETEC are no longer eligible to serve, to strengthen the supervision of the Funds, DETEC as an organisation is given more oversight responsibility. For example, the DETEC will set the guidelines for the quinquennial Cost Study, which is carried out by the nuclear power plant operators, and will also set the estimated costs on which the annual contributions by the operators into the Funds are calculated. Furthermore, in place of the Federal Council, DETEC is empowered to change the parameters for the calculation of contributions in accordance with the Federal Department of Finance and the Federal Department of Economic Affairs, Education and Research.

The revision will come into effect on 1 January 2016.

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21. Council Directive 2014/87/Euratom of 8 July 2014 amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations, OJ L 219 (25 July 2014).
 22. Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom, OJ L 13 (17 January 2014).
 23. More information can be found in NEA (2014), “Revision of Decommissioning and Waste Disposal Funds Ordinance”, *Nuclear Law Bulletin*, No. 94, NEA, Paris, pp. 129-130.

Liability and compensation

*Obligation of insurance, risks not covered by private insurers – Partial revision of the Ordinance on Nuclear Third Party Liability (Ordonnance sur la responsabilité civile en matière nucléaire) (ORCN)*²⁴

On 13 June 2008, the Parliament adopted a new Law on Nuclear Third Party Liability (*Loi sur la responsabilité civile en matière nucléaire*) (LRCN) and approved the revised corresponding international conventions (Paris Convention and Brussels Supplementary Convention). Switzerland subsequently ratified these two conventions in March 2009. The complete revision of the Ordinance on Nuclear Third Party Liability (ORCN) based on the new LRCN was adopted by the Federal Council on 25 March 2015.²⁵ The revised versions of the LRCN and ORCN cannot come into force before the revised Paris Convention enters into force (when it is ratified by at least two-thirds of its 16 contracting parties). This is not likely to take place before early 2017.

The partial revision of the ORCN relates to the existing LRCN,²⁶ which states that the operator of a nuclear power plant bears an unlimited liability for nuclear damage and has to take out an insurance coverage of CHF 1 billion. This coverage shall, as far as possible, be guaranteed by private insurance. The Confederation covers, on a subsidiary basis, nuclear damage that cannot be covered by private insurance and receives premiums for that purpose.

Private insurances can partially or totally exclude some nuclear damage (ORCN, article 4, paragraph 1). The list of non-contractual risks has been revised as international reinsurance pools are not able to provide the coverage required by the legislation on nuclear third party liability.

The revisions are as follows:²⁷

- Nuclear damage between CHF 500 million and CHF 1 billion, arising despite a permanent compliance with radiation exposure limits, are excluded from the scope of private insurance. The Confederation's insurance bears the coverage for that damage and receives premiums for that purpose. Consequently, the premiums paid by the operators of the Swiss nuclear power plants and the Interim Storage Facility Würenlingen SA to the Confederation are increasing from 2 to 3%. At the same time, premiums paid to private insurers are decreasing due to the reduction of the coverage. Hence, the partial revision of the ORCN has little effect on the total amount of premiums.
- The wording regarding risks related to terrorism, partially excluded from the scope of the private coverage, has been slightly modified (the restriction “against which protection at a bearable costs is impossible” has been deleted). Therefore, there is no need to adapt the premiums.

The partial revision of the ORCN entered into force on 15 February 2015.

24. Ordinance of 5 December 1983 on Nuclear Third Party Liability (ORCN), RS 732.441, available (in French) at the following address: www.admin.ch/gov/fr/accueil/droit-federal/recueil-systematique.html.

25. See NEA (2015), “The Swiss Federal Council adopts the revised Nuclear Energy Third Party Liability Ordinance”, *Nuclear Law Bulletin*, No. 95, NEA, Paris, pp. 81-82.

26. Law of 18 March 1983 on Nuclear Third Party Liability (LAR), RS 732.44.

27. For additional information, see the explanatory report regarding the modification of Article 4, al. 1 of the Ordinance of 5 December 1983 on Nuclear Third Party Liability, available (in French) at the following address: www.admin.ch/ch/f/gg/pc/ind2013.html (section DETEC).

United States

Licensing and regulatory infrastructure

Commission authorises issuance of combined licence for Fermi Nuclear Power Plant in Monroe County, Michigan

On 4 February 2015, the US Nuclear Regulatory Commission (NRC) held a mandatory public hearing to consider the NRC staff's review of DTE Electric Company's combined licence application for a new nuclear reactor at the Fermi Nuclear Power Plant site in Monroe County, Michigan. The Commission concluded that the staff's review was adequate to support NRC regulations for combined licences and public hearing proceedings.²⁸ The combined licence was therefore issued on 1 May 2015.²⁹

DTE filed an application for a combined licence on 18 September 2008 and sought to build a GE-Hitachi Economic Simplified Boiling Water Reactor (ESBWR) at the Fermi site.³⁰ DTE planned to build the ESBWR adjacent to the company's existing reactor. The ESBWR is a 1 600 megawatt electric reactor that includes passive safety systems to cool down the reactor after an accident without the need for AC power.³¹

The Commission reviewed the staff's Final Environmental Impact Statement (FEIS) and found that it had established all the requirements needed under the National Environmental Policy Act (NEPA). The Commission noted that the environmental review identified appropriate alternatives for DTE, including alternative sites, power sources and designs.³² The NRC staff concluded that none of the alternatives were environmentally preferable to the proposed action and the Commission agreed.

The Commission was also provided with an independent assessment of NRC requirements imposed relating to the Fukushima Daiichi nuclear power plant accident.³³ The NRC has taken regulatory actions in response to the Fukushima accident that include examination of seismic hazards, mitigating strategies for beyond-design-basis external events, spent fuel pool instrumentation and emergency preparedness.³⁴

Radioactive waste management

NRC conducts final public meetings on Yucca Mountain Environmental Report Supplement

The NRC is holding a series of public meetings to seek public comment on a supplement to the Department of Energy's (DOE) Environmental Impact Statement for the Yucca Mountain Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste. The final public meeting was held on 12 November 2015.³⁵

28. DTE Electric Company (Fermi Nuclear Power Plant, Unit 3), CLI-15-13, 81 NRC __ (30 April 2015), pp. 50-51.

29. 80 Federal Register 26,302, "DTE Electric Company; Fermi 3" (7 May 2015).

30. Fermi, *supra* note 28, p. 2.

31. *Ibid.*, p. 28

32. *Ibid.*, p. 47

33. *Ibid.*, p. 4

34. *Ibid.*, p. 28

35. 80 Federal Register 56,501, "Department of Energy; Yucca Mountain, Nye County, Nevada" (18 September 2015).

The NRC staff reviewed the Environmental Impact Statements submitted by the DOE in 2002 and 2008 and found that they did not adequately address groundwater effects. In February 2015, the Commission directed its staff to develop an Environmental Impact Statement supplement evaluating these impacts. A draft supplement was issued for public comment in August 2015.

The draft supplement concerns potential environmental impacts from the proposed repository on groundwater and from surface discharges of the groundwater. The analysis evaluates potential radiological and non-radiological environmental impacts at groundwater and surface discharge locations over a one-million year period following repository closure. The analysis also examines potential impacts on aquifer environment, soils, ecology, public health and the potential for disproportionate impacts on minority or low-income populations. Additionally, the draft supplement examines possible cumulative impacts that may be associated with other past, present or reasonably foreseeable future actions. The NRC staff concluded in the draft supplement that the impacts on the resources analysed would be small.