Luxembourg

Member States Reports as required under Article 9.1 of Council Directive 2009/71/EURATOM of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations

July 2014

This report was produced by the Directorate of Health, Department of Radiation Protection (DRP) of the Ministry of Health on behalf of the Government of Luxembourg

List of Acronyms and Abbreviations

ASS Rescue Services Agency

AFCN Belgian Nuclear Safety Authority

CNS Convention on Nuclear Safety

CONVEX Convention Exercises (Emergency drills and exercises in the frame of the

Convention on Early Notification of a Nuclear Accident)

CORDIRPA French working group on the management of a post accidental phase

CSPN High Level Council of National Protection

DRP Department of Radiation Protection within the Directorate of Health

(Regulatory Body)

ENSREG European Nuclear Safety Regulators Group

EP&R Emergency Preparedness and Response

EPZ Emergency Planning Zone

EU European Union

EU-BSS EU Council directive laying down basic safety standards for protection

against the dangers arising from exposure to ionizing radiation

HCPN High Commission of National Protection

HERCA Heads of the European Radiological protection Competent Authorities

IAEA International Atomic Energy Agency

INEX International Nuclear Emergency Exercises

IRSN Institute for Radiation Protection and Nuclear Safety in France

JINEX Joined International Nuclear Emergency Exercises

NEA Nuclear Energy Agency

MFA Ministry of Foreign Affairs

NPP Nuclear Power Plant

OECD Organization for Economic Co-operation and Development

RPO Radiation Protection Officer

SELCA System of Exchanges and Liaison between Cattenom and the public

Authorities

SIP Public relations office of the government

WENRA Western European Nuclear Regulators Association

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A - Introduction

No nuclear power plant, no other fuel-cycle facility, no research reactor and no other nuclear facility is operated or planned in Luxembourg. In its immediate vicinity, at only 8.5 km south from the national border EDF operates the French NPP "Cattenom" comprising four 1300-MWe reactors. A second French site, Chooz with two times 1450 MWe output is located at around 70 km west from Luxembourg and the three reactors (3 x 930 MWe) at Tihange in Belgium have a distance of 65 km north-west from the closest border point. The closest German NPPs, Biblis (shutdown since March 2011 under the German phase-out policy) and Philipsburg, are situated at around 150 km east of Luxembourg. Other operating NPPs, like Doel (Belgium), Fessenheim and Nogent-sur-Seine (France), Borsele (Netherlands) and Neckarwestheim (Germany) are at distances between 150 and 250 km.

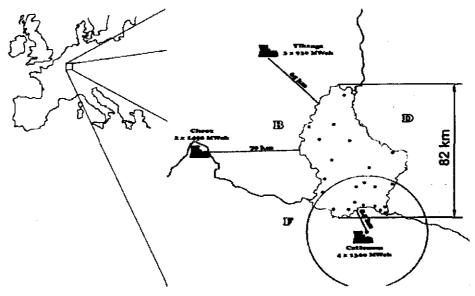


Figure 1: Situation of Luxembourg. The image indicates the location of the 3 closest NPP's in France and Belgium, respectively. The red dots on the map show locations where automatic radiation monitoring stations are installed.

Since the construction of the French NPP Cattenom late 70s, the public perception of nuclear power has only deteriorated and all succeeding governments have declared their critical attitude towards nuclear energy. The recent accident in Fukushima Dai-ichi in 2011 has initiated a more intensive debate at political level. Consequently, the House of Representatives has adopted unanimously several motions in April and May 2011 and in February and March 2012, requesting the government to take position against nuclear power in international meetings and to take concrete actions with regard to NPP's operated in the vicinity of Luxembourg. In particular, the government should intervene at the French and Belgian governments with the aim of a permanent shutdown of the NPP's in Cattenom and Tihange, respectively. The government has responded to those parliamentarian motions with various interventions at several occasions through diplomatic and political channels.

The DRP is responsible for the content of the present report. The report is a stand-alone document, structured in conformity with the ENSREG Guidelines (HLG_r(2011-16)_91).

B - Summary

Luxembourg is a non-nuclear country with essentially radiation protection and emergency preparedness issues. These national circumstances were taken into account for the development of the appropriate national framework. The department of radiation protection (DRP) within the Directorate of Health of the Ministry of Health is the acting regulatory body charged with the protection of the population against the hazards of ionizing and non-ionizing radiation, as well as with nuclear safety.

The main regulatory decree, covering most of the aspects relevant to nuclear safety was adopted on 14 December 2000 to implement the Council Directive 96/29/Euratom of 13 May 1996 laying down basic standards for the health protection of the general public and workers against the dangers of ionizing radiation. An amendment of that decree was done in the context of the transposition of the Council Directive 2009/71/EURATOM of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations, hereafter nuclear safety directive.

Following the nuclear accident in Fukushima, the interest of the public, NGO's, media and politicians on issues related to nuclear safety has dramatically increased. With the DRP as nearly only body with the necessary expertise¹, its agents have been highly solicited over an extended period. Additionally the Government has asked the DRP to increase efforts on nuclear safety and nuclear emergency preparedness, including the request to participate actively in the European stress test.

Already in March 2011, the Government decided to review the national nuclear and radiological emergency response plan and asked the high commissioner for national protection to coordinate the review of the existing plan. The new emergency response plan is presently in its adoption process.

Besides, the Executives of the Greater Region², meeting in Extraordinary Summit in Metz (France) on 20 April 2011, agreed to strengthen cooperation in the establishment and implementation of operational management plans relating to nuclear accidents. The result was a joint project entitled "Nuclear Exercices Project 3 in 1", which aimed to improve national and international cooperation in the Greater Region and, hence, the coordination of emergency measures in case of a nuclear accident at the NPP Cattenom. This series of exercises were held between June 2012 and June 2013.

In response to the accident in Fukushima Daiichi, the Ministry of Foreign Affairs (MFA) has asked the Rescue Services Agency (ASS) and the DRP to assist them in establishing an emergency kid for diplomatic missions. This kit has been finalized by end of March 2012 and was distributed to the concerned embassies.

On a larger international scale, the DRP is committed to enhance emergency preparedness and response measures through active international cooperation, e.g. via the HERCA association. In particular, a new approach for harmonizing protective actions along national

¹ Nuclear experts are neither in any administration in Luxembourg, nor has the University of Luxembourg any activities in the nuclear field, not even some basics within the faculty of physics.

² The Greater Region is composed of Luxembourg, Lorraine (France), Saarland, Rhineland-Palatinate (Germany), Wallonia (Belgium), and the German-speaking community of Belgium.

borders and a mechanism for better use of national expertise during an emergency is presently developed under the chairmanship of the DRP³.

Considering those additional activities, the DRP has officially requested in June 2011 for increasing permanently its staff in the order of 2 additional experts. One post was granted and a candidate with expertise in nuclear physics could be engaged as of 1st of January 2012.

³ HERCA working group "emergencies.

C - Reporting Article by Article

Article 4. Legislative, regulatory and organisational framework

Overview of the national legislative, regulatory and organisational framework for nuclear safety

In 1963, a framework law was enacted on the Protection of the Public Against the Hazards of Ionizing Radiation. This framework law was last amended in 1995. It is the legal basis for executive regulations concerning all types of uses of ionizing radiation emitting products. It sets out the basic principles regarding radiation protection and nuclear safety, it defines competences for ad-hoc decisions in a radiological or nuclear emergency situation and sets the frame for enforcement.

The law of 21 November 1980 concerning the organization of the Directorate of Health establishes the regulatory body by attributing the competences concerning the protection against hazards of ionizing and non-ionizing radiation, as well as nuclear safety to the department of radiation protection (DRP).

Luxembourg, as a non-nuclear country, does not dispose of a very detailed set of regulations, decrees or ordinances on nuclear safety matters. In particular, aspects related to the operation or decommissioning of nuclear installations are not addressed. A list of all relevant acts and official agreements is given in the appendix. Those executive regulatory decrees are regularly amended in order to comply with the EU Council directives.

The main regulatory decree, covering most of the aspects relevant to nuclear safety was adopted on 14 December 2000 to implement the Council Directive 96/29/Euratom of 13 May 1996 laying down basic standards for the health protection of the general public and workers against the dangers of ionizing radiation. An amendment of that decree was done in the context of the transposition of the Council Directive 2009/71/EURATOM of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations, hereafter nuclear safety directive. The amendment entered into force on 24 July 2011.

On 30th July 2013 the latest amendment of the regulatory decree of 14 December 2000 was promulgated. The amendment served to transpose the 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.

Luxembourg further ratified all international conventions relevant to nuclear safety and concluded several bilateral agreements. Those ratifying laws are listed in the appendix. Though not directly linked, it is worth to mention that the conventions on nuclear liability were never ratified by Luxembourg.

Overview of the responsibilities of the adoption of national nuclear safety requirements

The initiative for any legislative act or its amendment lies either within the parliament or at the competent Minister. It is worth to mention that the parliament has used its right for initiative only in few cases. It never did so in the area of nuclear safety or radiation protection, where over the last 20 years, the incentive for changing the national framework came in all cases from a EU council directive with the obligation to be transposed into national law.

In practice, the DRP is at the technical level in charge with the preparation of draft text for those laws, regulations and decrees. These drafts are then submitted to the department of legal affairs of the Ministry of Health for the coordination of the legislative procedure. In case of regulatory decrees, the draft is as a first formal step submitted to different institutions, such as the Chamber of Commerce and other relevant Ministries for opinion. Taking those opinions into consideration, the text of the proposed regulatory decree goes through approbation by the Council of the Government and subsequently to the Council of State (Conseil d'Etat) for opinion. In case of a positive opinion, the responsible Ministers and the Grand Duke may adopt it by signature. It enters into force after publication or on a specific date specified within the regulation. The Ministers who signed the regulation are responsible, everyone within his field of competence, for execution.

In case of laws, the legislative project undergoes additionally a first and a second vote in the parliament. The competent Minister may directly adopt application decrees if foreseen by law.

The implementation of the framework concerning nuclear safety lies within the Ministry of Health. The only guides that have been issued by the DRP refer to the regulatory supervision in the non-nuclear sector.

Overview of the licensing system

The Grand Ducal Regulation of 14 December 2000 concerning the protection of the population against the dangers resulting from ionizing radiation defines a system of licensing for nuclear installations. Any project to build and/or operate a nuclear installation is subject to prior authorization by the Government in council, prohibiting thus the construction and operation of a nuclear installation without license. The application for a license has to be addressed to the Minister of Health, who is responsible for the formalities of the licensing procedure.

The Minister of Health transmits the administrative follow up to the DRP. All documentation relating to the enquiry is submitted for opinion to national, foreign and international specialized bodies. These bodies are not specified in the legislation and have to be chosen ad hoc in the specific case. The application and the written expert opinions are then submitted to a public enquiry organized by the mayors of the concerned municipalities. The enquiry consists of adequately announcing the license application to the public and depositing the complete documentation of the project at the mayor houses, where every interested person can consult it. All interested parties are heard and a written record of the proceedings at the enquiry is drawn up. The file is then transmitted to other involved Ministers, to the College of Medical Practitioners and to the Commission of the European Communities, according to article 37 of the EURATOM treaty. The competent authority (DRP) issues its opinion. The Ministry of Health collects all opinions. The Government in council lays down the conditions governing the granting of a license. If the license is refused, an explanatory statement must be given to the applicant.

The specific information to be supplied with the license application needs to comprise particular data of the applicant organization, the description of the installation, the site, the number of staff and their qualification levels, civil nuclear liability, plans of the installations and demographic, ecological, geological, seismological and meteorological details of the area within a radius of 25 km. The application must contain a safety report describing the most serious accidents that could occur in the installations, including an assessment of the probability and foreseeable consequences of each potential accident. The application must also contain full details of the expected radioactive effluents and on the management, purification and disposal of solid, liquid and gaseous radioactive waste.

Other licensing procedures are defined for the non-nuclear sector. Those are not part of this report.

Overview of the nuclear safety supervision

Inspectors of the DRP follow an inspection program for all facilities holding radioactive material or X-ray emitting devices. The questionnaires used during inspections are partially derived from the IAEA-TECDOC-1526, "Inspection of Radiation Sources and Regulatory Enforcement".

There are no technical support organizations in Luxembourg. In the frame of a licensing process (new or important changes) or during inspections, the DRP is entitled to request technical expertise from recognized expert bodies or TSO's from other Member States.

Overview of the enforcement actions

The inspectors of the DRP are entitled to impose appropriate measures in case of non-conformity. Some agents of the DRP are further attributed with the legal power of police officers. This enables them to enter day and night to any building with a suspicion of any illicit or dangerous activity involving radioactive material and report any incompliance directly to the prosecutor. The Minister of Health can do revocation of a license. Penalties are laid down in the framework law from 1963. The same law also enables the Minister of Health to issue application decrees in case of an emergency with the goal to avoid or reduce radiological risks for the population.

Overview of the measures to maintain and improve the national framework

In order to assure that the national framework for nuclear safety remains effective and is not negatively affected by changes, e.g. in the national government structure, the regular conduct of a self assessment and a peer review as part of the Convention on Nuclear Safety play an important role. The nuclear safety directive has strengthened this mechanism (see also IRRS mission under Article 9).

Above, Luxembourg has decided during the transposition of the directive on nuclear safety to enhance the mechanisms for regularly testing and reviewing the effectiveness of the national nuclear emergency plan. In particular an obligation has been introduced for the DRP to regularly assess the emergency plan, e.g. after exercises, and to propose enhancements, if needed. This provision responds partially to articles 1(a) and 4\sum_2, related to the continuous improvement. It was also felt that, introducing the obligation to publish the results of internal assessments, would be a way to stimulate political decision takers when needed and to allow for a small country without nuclear installation to transpose the spirit of the directive in this area.

Article 5. Competent regulatory authority

Establishment of the competent regulatory authority

The executive competence in the field of nuclear safety and radiation protection is attributed to the Minister of Health. The law of 21 November 1980 concerning the organization of the Directorate of Health defines a department of radiation protection (DRP) and allocates particular missions. Similarly to a number of other small countries, the DRP centralizes as a single department all competence of radiation and nuclear safety, both the regulatory and the technical expertise aspects. For instance the national laboratory for radiation physics is part of the DRP. The organization chart and missions of the DRP are summarized in figure 2.

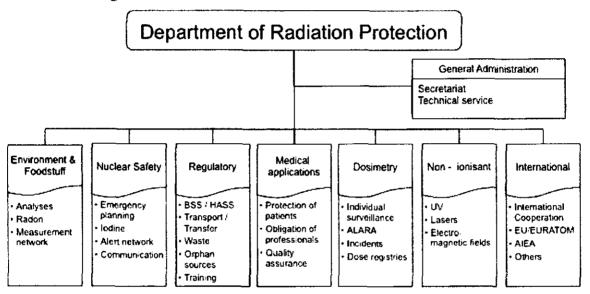


Figure 2: Organization chart and missions of the DRP

Functional Separation

The DRP is a department within the Directorate of Health. The DRP reports via the Director of Health to the Minister of Health. The Ministry of Health is not involved in any energy policy activities, which fall under the competence of the Directorate of Energy of the Minister of Economy. This builds an effective and functional separation between the functions of the DRP and those of any other body or organization concerned with the potential promotion or utilization of nuclear energy.

On the other hand, a competent regulatory authority placed within the structures of a Ministry is subjected to ministerial instructions that may potentially be of a purely political nature and not founded on sole objective and verifiable safety-related criteria; though it is important to point out that this has never happened so far in the context of the DRP's fulfilment of its regulatory tasks. It is also clear that the DRP has no real autonomy in the implementation of the allocated budget, neither any competence in the decisions for the appointment and dismissal of staff. Those elements may at least indirectly question the effective independence from undue influence in its regulatory decision making as prescribed by the nuclear safety directive. Luxembourg is however confidant that the existing structure is proportionate with the national circumstances taking into account the fact that Luxembourg does not have nuclear installations to regulate.

The DRP does produce annual reports on its activities. Those reports are addressed to the parliament. The DRP also prepares draft answers to parliamentarian questions in the area of nuclear safety and radiation protection.

Legal powers and Human resources

The law of 21 November 1980 concerning the organization of the Directorate of Health defines that experts in radiation protection and nuclear engineers of the DRP are responsible for ensuring compliance with laws and regulations relating to the protection of persons and property against the dangers arising from radiation. The same agents are attributed with the legal power of police officers. This enables them to enter day and night to any building with a suspicion of any illicit or dangerous activity involving radioactive material and report any incompliance directly to the prosecutor

The DRP is composed of 9 agents with master degree, including 4 with PhD, specialized in radiation protection (1), medical physics (2), nuclear physics and engineering (2), physics (1), geology (1), biology (1) and chemistry (1). The permanent staff of the DRP is further composed of one bachelor engineer, 2 technicians, I laboratory assistant and a secretary. This is an increase of one person, since a candidate with expertise in nuclear physics could be engaged as of 1st of January 2012. Following the nuclear accident in Fukushima, Government has indeed asked the DRP to increase efforts on nuclear safety and nuclear emergency preparedness. In order not to be forced to neglect its other "routine" missions, the DRP has then officially requested in June 2011 for increasing permanently staff, which in return was positively advised by the Government.

The financial and human resources of the DRP are not extensive, but they are felt to be adequate. It has always allowed the DRP to fulfil its obligations in an appropriate way. Relatively to the size of the country or the population, the staffing of the DRP seems comparable to other Member States. That assessment of the adequacy of human resources is not based on a systematic approach.

Article 6 - License holders

The sum of the regulatory requirements of grand-ducal regulation of 14 December 2000 attributes the full responsibility for the respect of all regulatory provision to the license holder. With the amendment of that regulatory decree in the context of the transposition of the waste directive, this principle was further strengthened by a more direct formulation, as follows: "The licensee is responsible for the safe management of radioactive sources".

The operational obligations of the licensee are in line with the provisions of the EU-BSS directive. All licensees are submitted to regular inspections by the DRP. No obligation exists for the license holder in the non-nuclear field to maintain communication with the public.

Article 7 - Expertise and skills in nuclear safety

The modified law of 16 April 1979 on civil service and its executive decrees define minimum education requirements for entering the different civil servant careers. Concerning the nuclear engineers and the expert of radiation protection of the DRP a master diploma in physics or nuclear engineering and a 2 years post-university specialisation in the fields of radiation protection or nuclear safety are requested.

In order to maintain and to further develop expertise, the DRP profits from the training offers provided by the national institute of public administration to all public administrations in Luxembourg. Their offer has well enhanced in recent years, both in quality and in the variety of topics offered. It further includes the possibility to follow competence cycles, such as project management. It is also possible to ask them to organize training on specific topics. The DRP has used this possibility for getting specific training of laboratory accreditation and the ISO Norm 17025. All agents of the DRP are encouraged to set up an own multiannual training program and to schedule 1 to 2 weeks of training per year. In particular technical areas a participation in training courses offered mostly in neighbouring countries is possible. This is however less frequent with around one or two training course per year for the whole DRP. Priority is given to those agents who start their career at DRP.

Another important factor of maintaining competence in the nuclear safety domain is the active involvement in international activities. The professional exchange in meetings, such as the CNS-review meetings, ENSREG or WENRA is highly beneficial for a small body like the DRP. This principle of active international cooperation as a means to maintain competence has also been confirmed by a new paragraph in the regulatory decree of 14 December 2000 during its amendment in the context of the transposition nuclear safety directive.

The present report does not include arrangements for training and education available to license holders in the non-nuclear sector.

Article 8 - Information of the public

A regulatory decree was promulgated on 11 August 1996 concerning the provision of information to the population on the applicable measures for the protection of public health and on the conduct to be adopted in the event of a radiological emergency. This regulation stipulates that the government has to inform the population in advance about the sanitary prevention measures and the optimized behaviour during a radiological emergency.

In the context of the transposition of the nuclear safety directive, through amending regulatory decreeof 14 December 2000, new obligations were introduced on the publication of the conclusions of the regular assessment the national nuclear emergency plan by the DRP and the results of the auto-evaluation and international peer review.

Information on nuclear safety

In April 2009, the Ministry of Health launched a new Internet Portal. www.radioprotection.lu gives a direct link to the DRP with relevant information on all aspects related to the missions of the DRP, such as legislation, explanations and guides for RPO's, specific reports, results of the environmental survey and information for the public on emergency preparedness. The homepage is up-dated and expanded at regular intervals by the DRP. So far only a French version exists, though some of the documents that can be downloaded, such as the national reports to the CNS, may be provided in other languages.

The general public and the media were strongly interested on the European reassessment of the safety and the safety margins of reactors (commonly called "stress-test"), in particular with regard to the NPP Cattenom. Together with the federal states Rhineland-Palatinate and Saarland (Germany) a common independent assessment has been performed on the basis of documents received from the ASN and through participation as observer at a dedicated inspection conducted by the ASN in August 2011 at the NPP Cattenom. On 31 October, the DRP and its German homologues have submitted a first opinion on the operator's report to ASN. ASN took that opinion into due consideration for its general deliberations (ASN opinion 2012–AV-0139 of 3 January 2012). This work was concluded by the publication of a common final report (in German and French) on 5th March 2012.

Information on Emergency Preparedness

The Government published a brochure to inform the population about the possible causes and effects of an accident that may occur in a NPP, about the various alarm signals and siren types, the prescribed protective measures and the appropriate behaviour to be adopted in case of alarm followed by the implementation of the special intervention plan. The brochure is distributed to all households. The most recent distribution of this brochure was in 2002. During the recent years update of such information was based on providing additional information through the website of the DRP (www.radioprotection.lu).

In order to increase the level of information on iodine thyroid blocking, the DRP issued in August 2010 an information flyer consisting of 8 languages and explanative pictures. Following the accident in Fukushima Dai-ichi, the public debate in Luxembourg and also the questions received from the professional sector (e.g. pharmacies, hospitals, practitioners) made it clear to the DRP that additional information on the governing principles of iodine thyroid blocking is needed. The DRP then worked on an additional leaflet with easy to understand information on how iodine thyroid blocking works, explanations concerning the justification of recommending the intake of stable iodine and the availability of iodine tablets

in Luxembourg. It has been issued in November 2012 in 3 languages (French, German and English). Both guides may be consulted under www.radioprotection.lu.

In conjunction with the elaboration of a new emergency response plan, the public relations office of the government (SIP) developed a new communication strategy including inter alia the establishment of a dedicated website for crisis related information. The strategy has been approved by the CSPN in January 2012 and will be implemented. It is in particular proposed to perform after the adoption of the new emergency response plan an information campaign on the nuclear accident emergency response plan, and the health protection measures, emergency measures provided in order to alert, protect and assist the population to behave in the event of a nuclear emergency, as well as the basics of radioactivity and their effect on humans

On the other hand, the DRP has not yet fulfilled its obligations with regard to publish its assessment concerning the review of emergency preparedness arrangements and the lessons learned form past exercises. This is partially due to the fact that this is still an on-going activity but also because those activities were done in close cooperation with other state bodies, who are not submitted to the same obligations with regard to transparency.

Article 9 - Peer Reviews

In the context of the transposition of the nuclear safety directive, through amending regulatory act of 14 December 2000, new obligations were introduced on:

- Obligation to organize every 10 years at least a self assessment in order verify
 whether the competent regulatory authority is given the legal powers and human
 and financial resources necessary to fulfill its obligations in connection with the
 national framework. The result of the auto-evaluation shall be published.
- Obligation to invite every 10 years at least an international peer review of the
 competent regulatory authority, the relevant segments of the national framework
 and national emergency preparedness arrangements. Outcomes of any peer review
 shall be reported to the Member States, the Commission and the public, when
 available.

Luxembourg has tentatively scheduled its first IRRS mission for 2018. Preparations have started and concern first meetings with the IAEA and participation of DRP experts at IRRS missions elsewhere.

Appendix - Laws, regulatory acts and degrees

Law of 25 March 1963 concerning the protection of the population against the dangers arising from ionizing radiation.

Law of 21 November 1980 concerning the organization of the Directorate of Health.

Law of 28 March 1984 concerning the approbation of the agreement between the government of the Grand Duchy of Luxembourg and the government of the French Republic concerning the information exchange in case of an incident or accident which might have radiological consequences, signed in Luxembourg on 11 April 1983.

Law of 11 april 1995 concerning the approbation of the Convention on the Physical Protection of Nuclear Material, opened for signature in Vienna and New York on 3 march 1980.

Law of 19 March 1997 concerning the approbation of the Convention on Nuclear Safety, adopted in Vienna on 20 September 1994.

Law of 28 July 2000 concerning the approbation of the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, adopted in Vienna on 26 September 1986.

Law of 28 July 2000 concerning the approbation of the Convention on Early Notification of a Nuclear Accident, adopted in Vienna on 26 September 1986.

Law of 20 June 2001 concerning the approbation of the Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management, adopted in Vienna on 5 September 1997

Law of 12 June 2006 concerning the creation of the rescue services agency.

Law of 27 April 2006 concerning the approbation of the agreement between the government of the Grand Duchy of Luxembourg and the government of the Kingdom of Belgium concerning the information exchange in case of an incident or accident which might have radiological consequences, signed in Eischen on 28 April 2004.

Law of 28 July, 2011, 1) approving the Amendment to the Convention on the Physical Protection of Nuclear Material, adopted at Vienna, July 8, 2005; 2) amending the amended law of 11 April 1985 approving the Convention on Physical Protection of Nuclear Material, opened for signature at Vienna and New York dated March 3, 1980.

Grand-ducal regulation of 27 November 1987 concerning the admissible levels of radioactivity in foodstuffs.

Grand-ducal regulation of 11 August 1996 concerning the provision of information to the population on the applicable measures for the protection of public health and on the conduct to be adopted in the event of a radiological emergency.

Grand-ducal regulation of 14 December 2000 concerning the protection of the population against the dangers arising from ionizing radiation.

Grand-ducal regulation of 3 march 2009 on the supervision and control of

shipments of radioactive waste and spent fuel (transposition Council Directive 2006/117/EURATOM of 20 November 2006).

Grand-ducal regulation of 6 May 2010, defining the specific missions, the composition, organization and operation of the department of civil protection of the rescue services agency.

National emergency response plan in case of an incident or accident in the nuclear power plant of Cattenom or in case of any other radiological or nuclear event. (adopted by the Government on 2 December 1994).

Agreement of 14 May 2013 between the Minister of Health, Luxembourg in the name of the Government of the Grand Duchy of Luxembourg and the Minister of Interior, Belgium in the name of the Government of the Kingdom of Belgium on the organization of the bilateral cooperation on nuclear safety matters and radiation protection.