

Convention on Nuclear Safety 7th Review Meeting – 2017



International Atomic Energy Agency IAEA, Vienna

Country Review Report for Luxembourg

Drafted by Country Group 6

Republic of Korea, United Kingdom, Czech Republic, Bulgaria, Italy,
Indonesia, Luxembourg, Paraguay, Singapore, Albania, Chile

Rapporteur: Ginevra Delfini

Final version

DISCLAIMER: Per INFCIRC 571, Revision 7, Para. 16-19 and Annex IV, Contracting Parties were invited to comment on the implementation of the CNS reporting guidance. Contracting Parties were also encouraged to submit proposed Good Practices, Challenges, and Suggestions prior to the Review Meeting. The draft Country Review Report documents the preliminary observations identified by the Contracting Parties. The Country Review Report is the result of the CNS Review Process and was agreed by consensus by the Country Group.

Glossary

A **Challenge** is “a difficult issue for the Contracting Party and may be a demanding undertaking (beyond the day-to-day activities); or a weakness that needs to be remediated.”

A **Suggestion** is “an area for improvement. It is an action needed to improve the implementation of the obligations of the CNS.”

A **Good Practice** is “a new or revised practice, policy or programme that makes a significant contribution to nuclear safety. A Good Practice is one that has been tried and proven by at least one Contracting Party but has not been widely implemented by other Contracting Parties; and is applicable to other Contracting Parties with similar programmes.”

An **Area of Good Performance** is “a practice, policy or programme that is worthwhile to commend and has been undertaken and implemented effectively. An Area of Good Performance is a significant accomplishment for the particular CP although it may have been implemented by other CPs.”

Executive Summary

Luxembourg has **no nuclear power reactor** units and currently has no plans to become a nuclear energy country. There are many NPP's in neighbouring countries of Luxembourg:

- France: 8.5 kilometres south of Luxembourg – Cattenom NPP (4x1300 MWe)
- France: 70 km west from Luxembourg - Chooz NPP (2x1450 MWe)
- Belgium: 65 km north-west from Luxembourg – Tihange NPP (3x930 MWe)
- Further away (between 150 and 250 km) are also:
- Germany: Philipsburg, Neckarwestheim and Biblis (shut down in 2011);
- Belgium: Doel,
- France: Fessenheim and Nogent-sur-Seine
- The Netherlands: Borssele

Two out of three Challenges from the **6th Review Meeting** have been closed. No suggestions were issued for Luxembourg during the 6th CNS Review Meeting.

The Department of Radiation Protection (DRP) within the Directorate of Health of the Ministry of Health is the Regulatory Body. The DRP has a framework law on radiation protection from 1963. Main decree is the Ducal regulation of 2000 concerning the protection of the population against the dangers arising from ionizing radiation, frequently amended following EU Directives.

The Country Group highlights the following measures taken to improve safety in Luxembourg's national nuclear programme:

- Adoption of the new emergency intervention plan in the case of a nuclear accident by the Government in Council on 15 October 2014;
- Revision and update of public information campaign in 2014/2015 including a dedicated multilingual website www.infocrise.lu and a new brochure;
- With the amendment of 24 November 2015 of the law of 21 November 1980 concerning the organization of the Directorate of Health, the safety of radioactive waste management has been formally added to the competences of the DRP.
- On 16 December 2015 a regulatory act was adopted for transposition of directive 2013/51/EURATOM of 22 October 2013 laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption.

The Country Group notes that Luxembourg has not had any IAEA **review mission** yet and is planning to host an international peer review mission (IRRS) in 2018.

The Country Group identified the following Challenges for Luxembourg:

- **Challenge 1:** Finalizing the update of the legal framework in connection with EU Directives and replacing the Act from 1963.
- **Challenge 2:** Preparation for the first IRRS mission in June 2018.
- **Challenge 3:** Further development of arrangements for emergency (implementation of GSR part 7 and HWA) and post-accident situations.

In addition the country group identified no Suggestions, 2 Areas of Good Performance and no Good Practices.

- **Area of Good Performance 1:** The active role of Luxembourg for a better coordination of protective actions during a nuclear emergency is a significant milestone.
- **Area of Good Performance 2:** In spite of the fact that Luxembourg is a non-nuclear country,

Country Review Report for Luxembourg

it actively and positively contributes to international and bilateral activities to strengthen nuclear safety and radiation protection.

The Country Group concluded that Luxembourg:

- Submitted a National Report, and therefore complies with Article 5 and in time following Rule 39 of INFCIRC/573 Rev. 6.
- Attended the 7th CNS Review Meeting, and therefore complies with Article 24.1
- Held a national presentation and answered questions, and therefore complies with Article 20.3

1. Basic Information on Luxembourg's Nuclear Programme

Luxembourg has no nuclear power reactor units and currently has no plans to become a nuclear energy country. There are many NPP's in neighbouring countries of Luxembourg:

- France: 8.5 kilometres south of Luxembourg – Cattenom NPP (4x1300 MWe)
- France: 70 km west from Luxembourg - Chooz NPP (2x1450 MWe)
- Belgium: 65 km north-west from Luxembourg – Tihange NPP (3x930 MWe)
- Further away (between 150 and 250 km) are also:
- Germany: Philipsburg, Neckarwestheim and Biblis (shut down in 2011);
- Belgium: Doel,
- France: Fessenheim and Nogent-sur-Seine
- The Netherlands: Borssele

2. Follow-Up from previous CNS Review Meeting

2.1 Challenges

Luxembourg provided the following updates on Challenges identified during the 6th CNS Review Meeting:

Challenge 1: Update legal framework in connection with EU Directives and replacing the Act from 1963

Luxembourg addressed this Challenge. The DRP and the legal service of the Ministry of Health have intensively worked over the last 2 years on a project for a new law and executive decrees.

The project includes the transposition EU-BSS directive and the amended nuclear safety directive (EU-NSD). All existing provisions with regard to radiation protection, nuclear safety and radioactive waste management are revised. The adoption in the parliament is scheduled for the second half of 2017. The council of government has adopted the new draft law on 14th December 2016. Following that, a consultation process with relevant stakeholders has been launched on 16th January 2017. This consultation process will lead to a revised draft law to be submitted, probably early summer, to the parliament. Above a draft regulatory act is in preparation to complete the legal provisions.

Follow Up Status: Open (good progress, but finalization of law and regulatory act remains a challenge!!)

Challenge 2: Preparation for the first IAEA IRRS mission planned for 2018.

Follow Up Status: Open

Challenge 3: Maintaining the momentum of engagement in nuclear emergency issues by all actors involved including further development of arrangements for emergency and post-accident situations.

Luxembourg addressed the status of this Challenge by maintaining the momentum of engagement in clear emergency issues by all actors' involved remains a challenging issue. Especially authorities generally involved in crisis management got other priorities during the recent years, due to security issues. Concerning the safety aspects of emergency preparedness, Luxembourg has nevertheless started its project on post-accidental situations, though slower than initially foreseen. A meeting was set up early 2016 with the French ASN to discuss experiences and several aspects of the project. Under the lead of the HCPN a project for elaboration of a post-accidental plan has been elaborated, based on which the Government charged the HCPN in March 2016 Follow Up.

Follow Up Status: Closed

2.2 Suggestions

No suggestions were issued for Luxembourg during the 6th CNS Review Meeting.

3. Measures to improve safety

3.1 Changes to the regulatory framework and the national nuclear programme

- Adoption of the new emergency intervention plan in the case of a nuclear accident by the Government in Council on 15 October 2014;
- Revised and updated public information campaign in 2014/2015 including a dedicated multilingual website www.infocrise.lu and a new brochure;
- With the amendment of 24 November 2015 of the law of 21 November 1980 concerning the organization of the Directorate of Health, the safety of radioactive waste management has been formally added to the competences of the DRP.
- On 16 December 2015 a regulatory act was adopted for transposition of directive 2013/51/EURATOM of 22 October 2013 laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption.

3.2 Safety improvements for existing nuclear power plants

Luxembourg has no nuclear power reactor unit; therefore, this section is not applicable.

3.3 Response to international peer review missions

Luxembourg is planning to host an international peer review mission (IRRS) in 2018.

4. Implementation of the Vienna Declaration on Nuclear Safety (VDNS)

Luxembourg has no nuclear installations and no plan for their construction, and yet reported on the implementation of the VDNS.

The DRP has participated at the Technical meeting on the implementation of the Vienna Declaration on Nuclear Safety (VDNS) in Buenos Aires, from 16 to 17 November 2015. During that meeting, the DRP presented ideas for ensuring that the safety objectives of the Vienna Declaration form an integral part of considerations during future RM of CP's and that they will be used as a reference to help strengthening the peer review process of the CNS. Those ideas have been uploaded by Luxembourg on the restricted website of the CNS.

Luxembourg has increased its efforts in EP&R. A new emergency plan has been elaborated, exercises were held, bilateral arrangements were up-dated, harmonization of the EP&R arrangements has become a priority, equipment is being modernized and work on a post-accidental plan has started.

5. Results of the Review

5.1 General Quality of the National Report

Contracting Parties and officers were invited to provide general comments on the Luxembourg' implementation of the obligations of the CNS (e.g., report submitted on time), addressed all articles, addressed the Vienna Declaration on Nuclear Safety, and addressed all Challenges and Fukushima lessons learned, the general quality of its National Report, transparency issues, and the compliance with the CNS guidance documents and special peer review topics identified in the previous CNS Review Meeting or specified by the President of the CNS (use of the templates for articles 17 and 18 and reporting on the management of spent fuel on site and radioactive waste on site - especially for CPs not signatories of the Joint Convention).

With regards to the general quality of the National Report and transparency issues, the members of the Country Group made the following observations:

- The Report is qualified to be comprehensive and reader friendly.
- Luxembourg did not make voluntary use of the National Report template for Articles 17 and 18, since these articles are not applicable to Luxembourg.

With regards to the compliance with the requirements of the CNS and its Guidelines, the members of the Country Group made the following observations:

- The Report was submitted on time, before the deadline of 15 August 2016.
- The content and structure of Luxembourg's National Report complies with the CNS guidance.
- The directions of the Summary Report of 6th Review Meeting were taken into consideration.
- The directions given by the President of the 7th Review Meeting were followed.

5.2 Participation in the Review Process

With regards to Luxembourg's participation in the Review process, the members of the Country Group made the following observations. Luxembourg

- posted questions to Contracting Parties.
- delivered answers to the questions of Contracting Parties on time.
- delivered its national presentation.

5.3 Challenges

The Country Group identified the following Challenges for Luxembourg.

- **Challenge 1:** Finalizing the update of the legal framework in connection with EU Directives and replacing the Act from 1963.
- **Challenge 2:** Preparation for the first IRRS mission in June 2018.
- **Challenge 3:** Further development of arrangements for emergency (implementation of GSR part 7 and HWA) and post-accident situations.

5.4 Suggestions

The Country Group identified no Suggestions for Luxembourg.

5.5 Good Practices and Area of Good Performance

During the peer review of Luxembourg's National Report, the Contracting Parties were invited to recommend Good Practices and to highlight Area of Good Performance.

The Country Group identified no Good Practices.

The Country Group identified the following Areas of Good Performance:

- **Area of Good Performance 1:** The active role of Luxembourg for a better coordination of protective actions during a nuclear emergency is a significant milestone.
- **Area of Good Performance 2:** In spite of the fact that Luxembourg is a non nuclear country, it actively and positively contributes to international and bilateral activities to strengthen nuclear safety and radiation protection.

6 Fulfilment of CNS Review Requirements

The Country Group concluded that: Luxembourg

- Submitted a National Report, and therefore complies with Article 5 and in time following Rule 39 of INFCIRC/573 Rev. 6.
- Attended the 7th CNS Review Meeting, and therefore complies with Article 24.1
- Held a national presentation and answered questions, and therefore complies with Article 20.3