

Convention on Nuclear Safety 10th Review Meeting – 2026



Country Review Report for LUXEMBOURG

Drafted by Country Group 1

**Bosnia and Herzegovina, Croatia, Czech Republic, Egypt,
Finland, France, Iraq, Ireland, Japan, Latvia, Lebanon,
Luxembourg, Paraguay, Tunisia**

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DISCLAIMER: Pursuant to INFCIRC/571/Rev.9, 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.



1 EXECUTIVE SUMMARY

Luxembourg has no nuclear power reactor units and currently has no plans to become a nuclear energy country.

3 out of 4 Challenges from the previous Review Meeting(s) have been closed.

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

- Expansion of the DRP internal on-duty service to ensure continuous readiness in case of any radiological or nuclear emergency. Since 2023, the number of personnel assigned to the on-duty service has tripled and continuous training as well as regular exercises are performed.
- Strengthening collaboration between Civil protection (CGDIS) and radiation protection (DRP) for improved management of nuclear or radiological accidents.

The Country Group highlights the following results of international peer review missions of Luxembourg:

- Luxembourg hosted an IRRS mission in 2018. The implementation of the corresponding action plan is considered complete.
- Given the relatively limited changes in Luxembourg's legislative and regulatory framework as a non-nuclear CP, no follow-up IRRS mission was invited.
- Luxembourg plans to invite the next IRRS mission in 2028.

The Country Group identified the following Challenges for Luxembourg:

- Challenge 1: Investment in human resources, particularly the recruitment of experienced staff, considering upcoming retirements and ongoing long-term illnesses and continued investment in capacity building require future attention and sustained efforts.
- Challenge 2: Finalization of the update of the national nuclear emergency plan. This includes the strengthening of the collaboration among involved national administrations and the reorganization of the radiological evaluation centre. The new plan should incorporate key elements (i.e., frequency and types of sampling measurements) for the post accidental monitoring strategy.
- Challenge 3: Develop a strategy for the management of a post-accident situation (Open challenge from the Joint 8th and 9th Review Meeting)

In addition, the Country Group identified 0 Suggestions, 2 Areas of Good Performance and 0 Good Practices.

The Country Group concluded that Luxembourg:

- Submitted National Report for the 10th Review Meeting, and therefore complies with Article 5 and on time, following Rule 39 of INFCIRC/573/Rev.8.
- Attended the 10th Review Meeting and therefore complies with Article 24.1 of the CNS.
- Held a National Presentation and answered questions during the 10th Review Meeting and therefore complies with Article 20.3 of the CNS.



2 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.

3 FOLLOW-UP FROM PREVIOUS REVIEW MEETING(S)

3.1 Challenges

Luxembourg provided the following updates on Challenges identified during previous Review Meeting(s):

Challenge 1: Implement the IRRS action plan

Luxembourg addressed this Challenge by the following:

- All 24 recommendations and 7 suggestions have been addressed and were primarily incorporated in the law and its corresponding regulatory act of radiation protection adopted in 2019.
- In addition to the legislative and regulatory act, a few actions were addressed but remain in continuous progress:
 - ✓ the human resources plan is continuously under development.

In 2023, the regulatory body DRP strengthened its human resources with the addition of an administrative coordinator and a PhD to reinforce the unit responsible for EPR and nuclear safety. The latter position was granted in conjunction with the nomination of the head of division as head of Department Health Protection. However, the Head of Division subsequently left the DRP, and no replacement was granted at that time. Since September 2024, one of the medical physics experts has assumed the role of Head of Division. This change resulted in a minor internal reorganization of responsibilities, although the overall missions of the DRP remain unchanged. The human resource situation in the laboratory (SAR) remains challenging, primarily due to long-term illnesses. To address this, two positions have been requested to reinforce laboratory capacity.

The non-replacement of the former head of division, combined with the upcoming retirement of some of the most experienced staff, has highlighted the need for additional personnel to ensure the redundancy of critical regulatory functions. A request for additional staffing has been submitted. Furthermore, the issue of task redundancy within the DRP is currently under review in the context of national resilience planning, though no formal decision has been taken at this stage.

- ✓ the formalization of the exercise program will be addressed in the context of the ongoing revision of the national nuclear emergency plan. The most recent "Cattenom" exercise, held on 11 May 2022, revealed that the existing information exchange protocols needed revision. As a result, the bilateral protocol was updated to address identified shortcomings. A key outcome of the updated protocol is the agreement to conduct joint



exercises on an annual basis.

Follow-Up Status: Closed

Challenge 2: *Reorganize the radiological evaluation centre, who perform nuclear and radiological assessment for nuclear emergencies. As well as updating its missions, procedures and tools and ensuring regular training and drills.*

Luxembourg addressed this Challenge by the following:

- Luxembourg has concluded that this challenge remains ongoing. The revision of the national nuclear emergency plan was announced by the High Commission for National Protection (HCPN) at the end of 2024 and will include the update to missions, procedures and operational tools.
- Annual training with the French authorities is ensured through the updated bilateral protocol on information exchange in the event of a nuclear accident.

Follow-Up Status: Closed, moved and refined as a new Challenge

Challenge 3: *Update procedures for information exchange for cross-border cooperation on emergency response in line with HERCA-WENRA Approach*

Luxembourg addressed this Challenge by the following:

- Luxembourg has updated the protocol on information exchange in the event of a nuclear or radiological emergency with its neighboring country France.

This protocol has been under revision since the last Cattenom exercise in 2022, with the aim of streamlining the procedures for information exchange in the event of a nuclear emergency, as follows:

- ✓ Establishment of regular exchanges via videoconference, with the following objectives:
 - To gain a clear understanding of the technical situation at the accidented site, and
 - To be informed about proposed and implemented protective actions in order to coordinate cross- border actions;
- ✓ Annual testing of this arrangement. While the national exercise for the Cattenom NPP is conducted every three to five years, ASNR intends to use other national exercises to validate this information exchange arrangement annually.

France and Luxembourg conducted several bilateral exchanges. Both countries invited each other to their respective crisis centers, and Luxembourg was invited to observe a French national exercise. This opportunity proved highly valuable for understanding the operations of the French crisis center and strengthened the bilateral collaboration. Updated protocol on exchange of information between the competent authorities of FR and LU was signed in October 2025.

- At regional level, a dedicated communication system between the neighboring authorities has been established. Since 2023, the French prefecture of Moselle has been alerting the competent authorities in Germany and Luxembourg via the



same alert system used to inform the affected French municipalities. The system is based on predefined vocal messages. On Luxembourgish side, these alerts are received by the national warning point (CSU 112), as well as by the HCPN and the DRP. Satellite phone alerts were integrated into the alert system in 2025.

Follow-Up Status: Closed

Challenge 4: *Develop a strategy for the management of a post-accident situation*

Luxembourg addressed this Challenge by the following:

This remains a challenge for Luxembourg and will be addressed during the revision of the national nuclear emergency plan. Key issues to be covered include enhancing the plan's operability, fully implementing the requirements of GSR part 7 and updating the OILs.

Follow-Up Status: Open

3.2 Suggestions

The Country Group did not identify any Suggestion(s) for Luxembourg.

4 MEASURES TO IMPROVE SAFETY

4.1 Changes to the Regulatory Framework and the National Nuclear Programme

Since the Joint 8th and 9th Review Meeting, the Country Group took note of the following changes to the regulatory framework and the national nuclear programme of Luxembourg:

- In 2024, the regulatory body DRP has formally discontinued the operation of its own internal dosimetry laboratory.
- Implementation of the Cell Broadcast Alert System "LU-Alert" to enhance public warning capabilities in case of emergencies.
- Strengthened collaboration between the Civil Protection CGDIS and DRP for improved management of nuclear or radiological accidents.
- Expansion of the DRP internal on-duty service to ensure continuous readiness and Revision of the licensing conditions. One of DRPs missions is the on-duty service in case of any radiological or nuclear emergency. Since 2023, the number of personnel assigned to the on-duty service has tripled to lighten the burden of each on-duty officer. The enhancement of the on-duty service comprises continuous training and internal procedures followed by regular exercises of all personnel.
- The protocol on information exchange with France during a nuclear emergency has been under revision since 2022, with the aim of streamlining the procedures for information exchange in the event of a nuclear emergency, as described above (see Section 3.1, Challenge 3)
- The revision of the national nuclear emergency plan was announced by the High Commission for National Protection HCPN at the end of 2024 and will include an update to missions, procedures and operational tools. This revision aims to



streamline coordination with the relevant administrations, enhance post-accident strategies and update the operational intervention levels (OILs)

4.2 Safety Improvements for Existing Nuclear Power Plants

Luxembourg has no nuclear power plants and hence, this section is not applicable.

4.3 Response to International Peer Review Missions

The Country Group took note of the following implemented or planned measures in response to the results of international peer review missions:

- Luxembourg hosted its first IRRS mission in 2018. The review resulted in 24 recommendations, 7 suggestions and 3 Good Practices across various areas. The implementation of the corresponding action plan is considered complete. All recommendations and suggestions have been addressed, primarily through their incorporation into the Luxembourgish law on radiation protection and its corresponding regulatory act, both adopted in 2019. In addition, the following measures were taken:
 - ✓ The mechanism to ensure the effective independence of the DRP was strengthened by a national declaration issued in 2021;
 - ✓ Suggestions and recommendations related to EPR will be further addressed in the revision of the national nuclear emergency plan.

Given the relatively limited changes in Luxembourg's legislative and regulatory framework as a non-nuclear CP, no follow-up IRRS mission was invited. However, Luxembourg plans to invite the next IRRS mission in 2028, to ensure alignment with the NSD (Directive 2014/87/Euratom).

5 RESULTS OF THE REVIEW

5.1 Implementation of the Vienna Declaration on Nuclear Safety (VDNS)

Luxembourg has no nuclear installations and no plan for their construction, therefore it did not provide information on the implementation of the VDNS.

5.2 Challenges

The Country Group identified the following Challenge(s) for Luxembourg.

- Challenge 1: Investment in human resources, particularly the recruitment of experienced staff, considering upcoming retirements and ongoing long-term illnesses and continued investment in capacity building require future attention and sustained efforts.
- Challenge 2: Finalization of the update of the national nuclear emergency plan. This includes the strengthening of the collaboration among involved national administrations and the reorganization of the radiological evaluation centre. The new plan should incorporate key elements (i.e., frequency and types of sampling measurements) for the post accidental monitoring strategy.



5.3 Suggestions

The Country Group identified no Suggestion for Luxembourg.

5.4 Good Practices and Areas of Good Performance

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

The Country Group identified no Good Practice.

The following Areas of Good Performance of Luxembourg were commended by the Country Group:

- Area of Good Performance 1: Strengthened national, inter-administrative coordination:
 - Cooperation between CGDIS (Grand Ducal Fire and Rescue Corps of Luxembourg) and DRP (Radiation Protection Department) to improve the management of radiological accidents
 - Expanded DRP's on-call operations to ensure a continuous rapid response system
- Area of Good Performance 2: Enhanced cross border collaboration related to EPR:
 - Update of Information exchange protocol for cross-border collaboration in case of a nuclear emergency with France aiming for the harmonization of protective actions with the accident country.
 - Luxembourg has demonstrated very good cross border coordination through the participation in annual joint exercises with French authorities and improved information exchange with France including the invitation of Luxembourg's liaison officer to the prefecture.

6 COMPLIANCE WITH THE CNS AND ITS GUIDELINES

6.1 National Reports

Contracting Parties and Officers were invited to provide general comments on the Luxembourg's implementation of the obligations of the CNS (e.g. National Report submitted on time, addressed all CNS articles, addressed the VDNS, and addressed all Challenges), transparency issues, and compliance with the CNS guidance documents and Major Common Issues identified at the Joint 8th and 9th Review Meeting.

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

- Luxembourg submitted the National Report for the 10th CNS Review Meeting on time, before the deadline of 1 September 2025.
- The content and structure of Luxembourg's National Report for the 10th Review Meeting complies with the CNS guidance.



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- The directions of the Summary Report of the Joint 8th and 9th Review Meeting were taken into consideration in the Report for the 10th Review Meeting.
- Luxembourg reported on Major Common Issues identified during the Joint 8th and 9th Review Meeting.

6.2 Participation in the Review Process

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

In the 10th Review Cycle, Luxembourg

- posted 28 questions to other Contracting Parties;
- delivered 20 answers to the questions from other Contracting Parties on time;
- delivered its National Presentation during the 10th Review Meeting.



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ANNEX I. GLOSSARY

The Glossary lists the definitions of “Challenge”, “Suggestion”, “Good Practice”, “Area of Good Performance”, and “Major Common Issue” as found in Annex V of INFCIRC/571/Rev. 9.

Challenge

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.

Suggestion

A Suggestion is an area for improvement. It is an action needed to improve the implementation of the obligations of the Convention.

Area of Good Performance

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 Contracting Party although it may have been implemented by other Contracting Parties.

Good Practice

A Good Practice is a new or revised practice, policy or program 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 programs.

Major Common Issue

A Major Common Issue is an important safety-related issue shared by a significant number of Contracting Parties. Contracting Parties are encouraged to report, as appropriate, on their actions to address the Major Common Issues in their subsequent National Report.