

Convention on Nuclear Safety
 Questions Posted To Luxembourg in 2014

Q.No	Country	Article	Ref. in National Report
1	Ireland	General	General

Question/ Comment Ireland would like to commend Luxembourg on its frank and open national report.

Answer Thank you.

Q.No	Country	Article	Ref. in National Report
2	Ireland	General	Introduction, p 4

Question/ Comment It is noted in the report that the House of Representatives has requested the government to take position against nuclear power in international meetings. As a part of a government ministry, what is the role of the DRP in putting forward this position and how does it align with its role as the national regulator and expert advisor?

Answer This is an interesting question, touching an area where we feel that the international debate has not yet really taken place. We fully recognize legal principles laid down in the CNS and the EU nuclear safety directive to separate regulatory bodies from any nuclear energy promotion activities. Legally, this does not exclude regulatory bodies to oppose to the use of nuclear power. We do nevertheless agree that this may very well influence the role as the national regulator in its decision taking.

The DRP is therefor aiming strongly to keep its decisions and advises evidence based and factual. It has above to be noted that in Luxembourg, administrations such as the directorate of Health are generally not supposed to give any political advice, but to provide factual, technical or scientific advice in their field of expertise. It is up to the members of the government articulate this into political positions, e.g. during international meetings.

In the actual debate on positions against nuclear power, the government has indeed very often consulted the DRP over the past 3 years. The DRP has during that time provided elements for speeches, information notes and written opinions to several ministers of the Luxembourgish government in more than 30 cases. Each time care was taken to remain factual and to leave it up to the cabinets of the ministries to add the political touch.

Besides, the DRP also represents Luxembourg in several meetings, such as ENSREG or the EU Council Working Party on Atomic Questions. In these cases, DRP members are of course bound to transfer national positions following instructions from the government.

Q.No	Country	Article	Ref. in National Report
3	Ireland	General	Summary, p 7

Question/ Comment Luxembourg is planning to develop a national plan on post-accidental management based on the French CODIRPA-doctrine in the next reporting period. This ambition is to be commended. Given the large effort this will require and given the relatively small size of the DRP, how is it planned to organise and resource this programme?

Answer Firstly, we like to emphasis that with the publication of 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, EU member states are now obliged to establish a plan on post-accidental management during the coming 4 years.

For the time being, the resources necessary to organize this program are not yet determined. It has nevertheless to be noted that post-accidental management is not purely a radiation issue, but touches many other domains too, similarly to the emergency phase.

The DRP is therefor at this stage convinced that the systematic involvement of nearly all ministries and administrations in Luxembourg that has successfully allowed to review the emergency plan during the past review period will continue through the setting-up and exercising of the future emergency plan.

Also the DRP systematically cooperates with its homologue organizations in other EU countries. In that sense the use of "copy paste" from plans elaborated in neighbouring countries has two distinct advantages: 1) It is resource effective, and 2) It helps to align and harmonize procedures, which is essential in a cross border situation.

Q.No	Country	Article	Ref. in National Report
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4	United States of America	General	GENERAL
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Question/ Throughout the report, several ongoing activities were cited with planned completion dates in late 2013/early 2014. Please provide a brief update on the status of those activities. For example, provide an update on (1) the status of the approval of the new emergency response plan, (2) completion of the lessons learned from the third exercise in the _3 in 1_ project, (3) meeting of the Belgo-Luxembourgish Commission, and (4) the information campaign on the new emergency plan.

Answer (1) The new emergency response plan had been submitted to the former government for approval in spring 2013 at the moment where a political crisis led to the termination of the former coalition and the decision was taken to hold new elections. The new government took over in December 2013 under a new political constellation. The procedure to resubmit the new plan to the Council of Government is presently repeated. In the meantime works on the operational procedures have continued. Except for the part where the approval of the plan is necessary, those procedures are otherwise finalized.

(2) As presented in the report, a seminar was hold in September 2013 to exchange lessons learned between the different participants of the Greater Region. The seminar basically focused on shortcomings concerning the coordination between crisis centres. Some examples of the issues analysed relate to the language barriers and the loss of time due to translations. As a result, a mutual fast “SMS2 type information exchange in English shall be developed. Also common glossaries and fact sheet in the three languages shall be developed. A further proposal aims at strengthening the cooperation between decision takers before in crisis happens in order to increase mutual knowledge of the national arrangements and to enhance the trust between the actors. A working group has been established to further develop these issues and to plan future exercises.

(3) The first meeting of the Belgo-Luxembourgish Commission on Nuclear Safety and Radiation Protection was held on December 19, 2013 in Brussels. During this meeting, the delegations of the two countries exchanged on recent developments relating to the operation of the NPP Tihange : monitoring of stress tests, indications of defects detected in the reactor vessel 2 and exercises of the emergency plan. In this context, bilateral exchanges in case of an event in a nuclear plant will be strengthened. The discussion also focused on the transposition into national law of two European directives. In terms of radiation protection, both parties are granted inter alia to intensify bilateral cooperation in areas such as the Patient Protection and awareness to radon. In addition, it was decided to exchange data from the automatic monitoring of the radioactivity.

(4) The information campaign has not started, since the plan has not yet been approved. However preparations in terms of budgeting of the campaign and the development of related concepts are pursued.

Q.No	Country	Article	Ref. in National Report
5	Argentina	Article 7.1	Article 7; Section C.7 (1a); page 9

Question/ The Report informs that in 1963, a framework law was enacted on the protection of the public against the hazards of ionizing radiation which sets out the basic principles regarding radiation protection and nuclear safety (Article 7; Section C.7 (1a); page 9). Could you inform if the basic principles set up in the law are harmonized with IAEA safety recommendations? Is there any plan aimed at the amendment of that law?

Answer (1) The legal framework in Luxembourg is to be seen in the European Union context. It basically consists of the direct application of EU regulations and the transposition of EU directives. At EU level care is taken that the basic principles set up are harmonized with IAEA safety recommendations. So far, Luxembourg has not yet performed a systematic screening to verify compliance with IAEA standards. Only recently the EU-Commission has undertaken a study to verify compliance with EU and IAEA requirements in the area of emergency preparedness. Results of this study are not yet available. Since directive 2009/71/EURATOM on nuclear safety has introduced the obligation to members states to invite at least every 10 years an international peer review of relevant segments of their national framework, Luxembourg has tentatively scheduled to invite an IRRS mission for 2018. This will certainly be the occasion to systematically verify the compliance with the applicable IAEA safety recommendations.

(2) As stated in the report on page 11, the DRP assessed during the second half of 2014 the suitability of the 50 years old law and has drawn its conclusions. We should be able to present the conclusions and the position taken by the new government at the RM.

Q.No	Country	Article	Ref. in National Report
6	Sweden	Article 7.2.1	p.12

Question/ It is described how drafts prepared by DRP for laws regulations and decrees are submitted to department

Comment of legal Affairs to the Ministry of Health for coordination of the legal procedure. How is the general public given opportunity to comment and have views on drafts?

Answer There is no public consultation foreseen within the legislative procedure. Decrees (Grand Ducal Regulations) are only published after adoption. Draft laws are published at the moment they are deposited at the parliament.

Q.No	Country	Article	Ref. in National Report
7	Argentina	Article 8.1	Article 8; Section 8 (1i); page 15

Question/ Comment It was reported that _the laboratory of the DRP has established a quality management system in July 2010 (preparations started in 2007) within the laboratory of the DRP, with an accreditation according to ISO 17025_ (Article 8; Section 8 (1i); page 15). Could you inform if the Quality Management System is established for all the processes of DRP?

On the other hand, could you give information about the accredited techniques under ISO 17.025 Standard?

Answer This is indeed the first and only area within the DRP where a Quality Management System is established. As for the techniques the laboratory had started with gamma measurements on water samples. During the annual audits the laboratory aims at extending to other techniques. So far this was done successfully for gamma in other liquids and beta total on boiled down samples. As a next step it is foreseen to include alpha total.

Q.No	Country	Article	Ref. in National Report
8	Sweden	Article 8.1	p.15

Question/ Comment It is mentioned in the text that in June 2011 DRP officially requested for an increase of staff which was positively advised. Is this increase equivalent to the person engaged in January 2012? Under 8 (1h) it is stated that the DRP resources are not extensive , but they are felt to be adequate. Has any independent analysis of this been made?

Answer Yes indeed, the request led to the engagement of an additional person early 2012. The statement under 8 (1h) is made by the DRP itself and responds to the related guideline given in INFCIRC 572. This appreciation is thus not the result of an independent analysis. On the other hand, the national report was written and uploaded to the CNS website without any clearance outside the DRP. Neither the hierarchy within the Ministry of Health, nor the Government had any influence on that statement.

Q.No	Country	Article	Ref. in National Report
9	Sweden	Article 8.1	p.16

Question/ Comment It is reported that DRP has not fulfilled "its obligation that result from the transposition of the nuclear safety directive to publish its assessment concerning the review of the emergency preparedness arrangements and the lessons learned from past exercises". Could you please further explain what this refers to?

Answer Luxembourg followed the principle of proportionality and basically applied through the transposition the provisions contained in the directive on nuclear safety to its role in emergency preparedness and response (EP&R). In order to continuously improve EP&R, an additional provision was introduced that provides for the DRP to regularly assess the emergency plan, in particularly after exercises, and to propose enhancements, if needed. This provision responds to elements from articles 1(a) and 4§2, related to the continuous improvement.

Then, article 5§3 requests that Member States shall ensure that the competent regulatory authority is given the legal powers and human and financial resources necessary to fulfil its obligations. Obviously in the situation of a small department within a ministry charged with many other topics, the assurance of sufficient competence to the regulatory body is mainly subject to the good political will. It was thus 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. Above, the publication of such assessments responds to article 8 of the directive on transparency.

Q.No	Country	Article	Ref. in National Report
10	Sweden	Article 15	20

Question/ For members of the public and for apprentices and students below the age of 16 years, the maximum

Comment annual effective dose is fixed to 1 mSv. Are apprentices below the age of 16 years allowed in Luxembourg?.

Answer In the fourth year after primary school, pupils can choose professional orientations that combine school with work as apprentice in companies. Those pupils/apprentices can be younger than 16, namely 15 (which is the age when school obligation ends).

Q.No	Country	Article	Ref. in National Report
11	Ireland	Article 16.1	Article 16, p 21

Question/ Comment While Luxembourg is satisfied that its financial and human resources are adequate to carry out its regulatory functions (Article 8 (1h)), given the relatively small staff in the DRP how would the level of resource hold up to the need to mount a response to a nuclear emergency in a neighbouring nuclear power plant - particularly one involving contamination of the environment of Luxembourg and the need to perform additional environmental/food measurements?

Answer In a very small country like Luxembourg a nuclear emergency in a neighbouring nuclear power plant may fast affect a relatively large fraction of the country. A radius of 25 km around the French NPP concerns nearly 50% of the population of the country. It is very clear that a small authority like the DRP would relatively fast reach its limits in such a situation. On the other hand, a small country like Luxembourg needs to balance its needs for routine works against needs for emergency even more than larger countries. Relatively to the size of the country or the population, the staffing of the DRP is not that small. Additionally the reactivity or agility of agents within a small organisation is per se rather high. This is an advantage in emergencies, where positions or opinions need to be drafted fast.

The issue of human resources to properly manage a serious emergency is not trivial in a small country. Increasing the staff to a size needed for a potential accident is not very realistic and cannot be the only way to address the issue.

Therefor, thought was given to find other pragmatic possibilities to increase effectiveness during the response to a nuclear emergency within the existing constrains. Four principles have been agreed on and addressed during the preparation of the new emergency plan:

- The DRP is a key player concerning the radiological advice and needs to focus during an emergency on its key missions;
- Involvement of most other ministries and administrations in the response to an emergency with clear definition of roles and responsibilities. For example during an emergency, the department of food safety would coordinate all issues related to foodstuff including those falling in a routine situation under the responsibility of the DRP. The analyses will though continue to be done in the laboratory of the DRP.
- Strengthening of the bilateral exchanges. Examples are the systematic use of the radiological assessment done by the accident country, the alignment of recommendations for protective actions and the automatic sharing of measured data with Belgium and France.
- International assistance would most probably be needed rather early. A special focus with the definition of a dedicated crisis cell responsible for international assistance and host nation support has been created during the preparation of the new plan.

We finally want to stress out that the issue of sufficient staffing and the probable need for international assistance is in our case (and most probably for other small countries) also valid for other emergencies. The Luxembourg Civil Protection has therefor engaged in several projects in order to help strengthening these mechanisms. Some examples are the organization of an international drill involving 8 countries in 2007 (see 4th national report to the CNS – page 17) and the more recent development of the platform “www.emergency.lu” that provides special communication equipment to first responders in crisis areas. This material was very successfully deployed to multiple locations in the Philippines following Typhoon Haiyan. This largely contributed to insure the coordination of the international aid.

Q.No	Country	Article	Ref. in National Report
12	Sweden	Article 16.1	p.23

Question/ Comment It is stated that in the event of an imminent risk or the occurrence of a nuclear crisis potentially affecting the territory of Luxembourg the Prime Minister activates the crisis cell. Has there been any discussion on whether this state of the affairs is optimal in view of as quickly as possible, assembling the members of the crisis cell?

Answer The activation by the crisis cell through the Prime Minister is established for formal legal reasons. In

practise the alerting of the members of the crisis cell and its activation by the prime Minister is done in parallel, triggered by the High Commissioner for National Protection.

Q.No	Country	Article	Ref. in National Report
13	Sweden	Article 16.1	p.24

Question/ Comment Potassium iodide tablets (65 mg KI) are stored since 1986 in the municipalities situated at a distance up to 25 km from Cattenom. Has there been any discussions on pre-distributing the tablets together with information on their use? If an emergency would occur, how much time would it take to distribute ki-tablets and how is this done?

Answer Already since 2001, a systematic pre-distribution with information is done to all new-borns. This targets a better availability of KI tablets to the critical group for the whole country (not limited to the 25 km). It also has to be noted that Luxembourg is at a distance from 10 km from the NPP Cattenom. France has only recently increased its radius of pre-distribution to 10 km. Above that, France has centralized stockpiles whereas we have stockpiles close to the people. A distribution from these decentralized stockpiles within the municipalities would probably be faster. The idea is that Iodine blocking beyond the 10km radius would be only necessary in case of a low kinetics accident with sufficient time to distribute (although the necessary time has not been assessed for all municipalities). However, a discussion has started in the recent months related to possible changes within that Iodine programme as part of the development of the operational procedures for the distribution. The main arguments for changing are the binding of resources on distribution activities during an emergency and the operational difficulties to fast organize a distribution in the capital. Above a discussion at European level has started on how to take into account very severe accidents, with eventually no sufficient time to “classically “ implement protective actions. For the time being, no final decision with regard to this issue has been taken.

Q.No	Country	Article	Ref. in National Report
14	Germany	Article 16.2	Page 27

Question/ Comment It is stated that during the 1st half of 2014 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 will be performed.

Please provide some more details on this plan. Does this include redistributing an updated version of the information brochure that was last distributed to all households in 2002?

Answer The information campaign has not started, since the plan has not yet been approved. This activity is under the new plan coordinated by the public relations office of the government (SIP), who is also during the response responsible for crisis communication. More particularly on the information of the public before any emergency happens, the SIP has the intention to increase the use of modern information technologies. A brochure as last time circulated in 2002 would not be reissued. The new concept foresees a combination of different elements of information, including a dedicated Internet site on crisis information, a flyer to all households, media coverage (newspapers, radio stations and TV) and practical guidance documents with self-protection advices.

Q.No	Country	Article	Ref. in National Report
15	Ireland	Article 16.2	p 27

Question/ Comment Luxembourg has previously circulated a public information brochure to all households _ with the last circulation in 2002, and current updates now provided online. Are future circulations of brochures planned or is dissemination via the DRP website now considered sufficient?

Answer As stated in the report, it is proposed to perform during the 1st half of 2014 an information campaign on the nuclear accident emergency response plan, and the health protection measures, emergency measures provided by the new emergency plan. This activity is under the new plan coordinated by the public relations office of the government (SIP), who is also during the response responsible for crisis communication. More particularly on the information of the public before any emergency happens, the SIP has the intention to increase the use of modern information technologies. A brochure as last time circulated in 2002 would not be reissued. The new concept foresees a combination of different elements of information, including a dedicated Internet site on crisis information, a flyer to all households, media coverage

(newspapers, radio stations and TV) and practical guidance documents with self-protection advices.

Q.No	Country	Article	Ref. in National Report
16	Ireland	Article 16.3	p 27

Question/ Comment Luxembourg_s very active participation and contribution to international initiatives is noted and to be commended, particularly given the small staff in the DRP.

Answer Thank you. It is worth to emphasise that the increased international participation of the DRP is partially the result of the transposition of article 7 of the directive on nuclear safety on how to maintain and further develop expertise and skills in nuclear safety. Without having particular expertise in the country, we have introduced a new provision as amendment of our decree that provides for active involvement of the DRP with other nuclear safety authorities.