Joint Convention
Questions Posted To Luxembourg in 2012

	Country	Article	Ref. in National Report
	Ireland	General	General
Question/ Comment	Ireland would like to thank Luxembourg for preparing a comprehensive national report on the implementation of its obligations under the Joint Convention.		
Answer	Thank you		

	Country	Article	Ref. in National Report
	Switzerland	Article 16	H, 18
Question/ Comment	DRP regularly asks the Belgian authorized inspection organization AV Controlatom for segregation and packing of the collected wastes, according to the acceptance criteria established by the Belgian Waste Management Agency. Could Luxembourg specify where this segregation occurs and how the interfaces between DRP, AV Controlatom and the Belgian competent authorities are regulated?		
Answer	In order that the Belgian waste management organization ONDRAF accepts waste, it has to be packed in drums or other transport containers according to their acceptance criteria. This work has to be done by one of several approved bodies in Belgium, one of these being AV Controlatom. The DRP normally entrusts the latter one with that job. The segregation and packing is done at the waste interim storage facility. The Belgian competent authority FANC only interferes in the context of authorizing the shipment according to the EURATOM directive on the supervision and control of shipments of radioactive waste and spent fuel.		

	Country	Article	Ref. in National Report
	Austria	Article 19	E
Question/ Comment	Facilities are ranged in four different categories. Do you see problems in such a small country like Luxemburg with different authorities responsible for the authorization of facilities belonging to different categories?		
Answer	The DRP is in each case charged with the licensing procedure. The procedure itself varies according to the different categories, representing a kind of a graded approach. The final signature under the respective licenses is done for each category on a different level. In essence, the DRP centralizes as a single department the specific competences with regard to each licensing procedure and thus assumes the role of unique regulatory body.		

	Country	Article	Ref. in National Report
	Bulgaria	Article 19	p.14
Question/ Comment	Could Luxemburg provide some more information on the plans for establishment of Airport Radiological Monitoring System?		
Answer	The operator of the Luxembourg airport foresees to install a semi-mobile Large Container and Vehicle inspection system. This unit is supposed to inspect close to 100% of the cargo shipped over Luxembourg using an Electron Linear Accelerator. The unit shall also permit the detection of radioactive materials. Although the project is well developed, including financing, a defined schedule for the start of operation is not yet fixed. Nothing is foreseen for radiological screening of passengers, neither their luggage.		

	Country	Article	Ref. in National Report
	Ireland	Article 19	p. 13
Question/ Comment	As part of regulatory transparency, Luxembourg states that it provides for public information and public participation in the licensing procedures. It would be greatly appreciated if Luxembourg would provide more details on how the public are involved in these procedures.		
Answer	The licensing procedure for category II facilities defines the obligation to send the file to the mayor house of the concerned municipality. The mayor house has to publish information on the licensing request at the mayor house during a period of 15 days. Any interested party may consult all documents of the application at the mayor house during that period. Any objections or comments of a member of the public are returned together with an opinion of the mayor house to the DRP. This opinion is however not binding.		

	Country	Article	Ref. in National Report
	United States of America	Article 19	E, 14

Question/ Comment: The report states that Luxembourg has participated in several international exercises and organized a workshop to develop tools for effective decontamination; has the Department of Radiation Protection considered an exchange program for emergency response staff to gain lessons learned from other countriesí experiences? If so, please elaborate.

Answer: Due to the very small number of professional staff available in a small country like Luxembourg, it is rather difficult to engage in an exchange program. Since on the other hand, on a 200-kilometer radius around Luxembourg, several professional nuclear and radiological emergency units exist, it is very well possible to engage in a very close cooperation with these units. For instance, tools for effective decontamination are developed in cooperation with French and Belgian Units. Also regularly, first responders from our unit (GPR) do training in France. Lessons learned from common exercises are systematically shared. Other relevant lessons learned, such as from real deployments, are regularly exchanged.

	Country	Article	Ref. in National Report
	Czech Republic	Article 20	E/14

Question/ Comment: How Is the effective independence of regulatory body assured when DRP at the same time operates and controls the national radioactive waste interim storage facility?

Answer: Since only very marginal amounts of radioactive waste are produced in Luxembourg, no waste management facility for all wastes, neither a waste management agency exists in Luxembourg. However, because some types of wastes arise, for which no license holder exists, the DRP has started many years ago to collect these items and store them under its own responsibility. This situation was discussed at the review meeting of 2006 and we were asked to consider declaring the interim storage operated by the DRP as waste management facility under article 11 of the Convention in order to demonstrate compliance with the spirit of the articles under section H. We thus declared this facility from 2009 on as waste management facility and reported on relevant operational issues. One also needs to take into account that such practice of the regulatory body, of taking control over orphan sources is widely applied. This practice does however not affect the independence of DRP vis-‡-vis the users of radioactive substances and the promoters of nuclear energy.

	Country	Article	Ref. in National Report
	Germany	Article 20	D, 14

Question/ Comment: The Department of Radiation Protection (DRP) is composed of 8 agents of higher education, specialized in radiation protection (1), medical physics (2), nuclear engineering (1), physics (1), geology (1), biology (1) and chemistry (1).
Following the nuclear accident in Fukushima, the Government has asked the DRP to increase efforts on nuclear safety and nuclear emergency preparedness. In order not to be forced to neglect its other missions, the DRP has officially requested for additional staff.
- Can you specify the qualification profile of this additional staff?
- Will this be a permanent increase of the staff?

Answer: The government responded positively to the request, and one additional and permanent position was created by November 2012. The profile of the candidates needed to respond to the criteria set for nuclear engineers (master in natural sciences or engineering plus a 2 year specialization in either nuclear safety or radiation protection). A candidate with PhD in nuclear physics was engaged as of the 1st January 2012.

	Country	Article	Ref. in National Report
	Italy	Article 20	Section E pag.14

Question/ Comment: Could Luxembourg update the situation of the DRP staff members?

Answer: An additional agent with PhD in nuclear physics was engaged as of the 1st January 2012 on a permanent position.

	Country	Article	Ref. in National Report
	Portugal	Article 20	E, 14-15

Question/ Comment: Despite the existence of the DRP laboratory could Luxembourg provide information on the possibility of DRP contracting private laboratories to perform its technical attributions?

Answer: The only other laboratory for radiation measurements in Luxembourg is at the University. The DRP laboratory had always collaborations with the University. In several cases the

development of measurement procedures and methods was done at the University laboratory and later implemented into the routine measurements of the DRP laboratory. Unfortunately, the University has decided to stop with all activities related to nuclear sciences and their laboratory will have to stop its operation in near future.
Besides the DRP laboratory regularly exchanges with laboratories in our 3 neighboring countries. This includes quality insurance issues and mutual visits. In case of need, it would be possible to ask these labs to perform measurements or to assist with expertise. A dedicated unlimited budgetary post exists to cover the associated costs.

	Country	Article	Ref. in National Report
	Switzerland	Article 25	F.5, 17

Question/ Comment: Why is there no bilateral agreement on early information on nuclear accidents with Germany (there are a lot of potential nuclear sources in Germany)?

Answer: The bilateral agreements with France and Belgium were prioritized because of the vicinity of their nuclear installations at 10 and 65 km respectively from the border of Luxembourg. The closest nuclear installations in Germany, the NPPís Biblis and Philipsburg, are situated at around 150 km east of Luxembourg, with predominant wind direction from west.

	Country	Article	Ref. in National Report
	Switzerland	Article 25	16-17

Question/ Comment: What are the countermeasures envisaged by the national emergency response plan and who has the authority to order their implementation?

Answer: Concerning emergency preparedness, the competence for executing emergency measures lies with the Minister of Interior and the Minister of Health. The roles and responsibilities of each Minister are defined by the special intervention plan. Basically, the Rescue Service Agency (ASS) under the Ministry of Interior coordinates all rescue and protection measures, whereas the DRP is in charge with the evaluation of the situation from a radiological point of view.
The special intervention considers three accidental situations, susceptible to occur at the NPP Cattenom, each of which corresponds to appropriate alert and counter-measures. Countermeasures comprise, Iodine prophylaxis, evacuation, sheltering, protection of food and feeding staff as main countermeasures. Other defined issues are shutting down ventilations, organization of the return of pupils from school to their homes, individual protection of respiration, use of protective clothes, individual precaution and hygiene measures, decontamination of people, access controls, restrictions on outside activities, decontamination of goods, restrictions on the use of contaminated materials, protocols on exchanging filters and defining areas for storage of contaminated items.

	Country	Article	Ref. in National Report
	Switzerland	Article 25	16-17

Question/ Comment: How is the information of the population achieved, by whom and by what means/medias?

Answer: A Grand Ducal regulation 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 behavior during a radiological emergency. This information is basically performed via brochures that were distributed to all households and via the homepage of the DRP.
During an emergency phase, the crisis cell under the responsibility the Minister of Interior and the Minister of Health comprises a communication cell, led by the press office of the government. Means of alerting are sirens and a dedicated SMS system. The information of the populations is basically done via media (press release and press conference) and Internet. Also a hotline is foreseen at the Rescue Service Agency.
As stated in the report, the emergency response plan is presently updated. Some of these issues may change in future.

	Country	Article	Ref. in National Report
	United States of America	Article 26	F, 17

Question/ Comment: As Luxembourg only has medical, industrial, and research/education facilities, please elaborate on the provisions for retention of records important to decommissioning.

Answer The DRP is obliged by regulation to hold a register of all sources, equipments and installations involving radioactive sources. This obligation includes all documents that have been submitted to the DRP over the period of exploitation. These have to be kept the DRP even after the release of the activity from regulatory control. The applicable regulation does however not impose any obligation of record keeping to the licensee.

	Country	Article	Ref. in National Report
	Korea, Republic of	Article 28	P.19 (J)

Question/ Comment Section J states that all disused sealed sources are returned to the supplier or manufacturer.

- How are the disused sealed sources managed until they are returned to the supplier or manufacturer?
- What is the long-term management plan for disused sealed sources?
- Which organization is responsible for the management of radioactive wastes except for wastes generated from nuclear utilization facilities?

Answer The regulation of 14 December 2000 states that disused sealed sources have to be returned to the supplier. The license holder is responsible for managing disused sealed sources until such return takes place. For the interim storage at the users premises the sources have to be kept in their original recipient with appropriate signalization. They need to be kept in a storage room exclusively used for this purpose and licensed by the regulatory body. Access to that storage room has to be restricted and appropriate physical protection and radiation protection measures have to be in place. These are annually verified by the DRP. All radiation sources in Luxembourg are either returned to the supplier, to any other supplier who accepts the sources or the Belgian waste management organization according to the bilateral agreement with Belgium. Thus, no disused sealed sources remain in Luxembourg on the long term. For other radioactive wastes, where no license holder exists, the DRP collects them for a short interim storage before shipping them to Belgium.

	Country	Article	Ref. in National Report
	United States of America	Article 28	J, 19

Question/ Comment The national report states that if a disused source is not able to be returned to the supplier (as in cases of bankruptcy) that the user should make arrangements to send it back to any supplier of radioactive sources or a foreign waste management facility. Describe any instances where Luxembourg has been able to send a source to a supplier other than the original.

Answer In one case, depleted uranium that was detected in metal scrap was send to a plant in Germany that recycles these materials. In few other cases, the holders of sealed sources of which the initial producer did not exist anymore, were able to send their sources to other producers. These were either follow-up organizations of the initial producer of producers of very similar sources.

	Country	Article	Ref. in National Report
	Austria	Article 32	B

Question/ Comment Belgium treats the radioactive waste arising in Luxemburg. Does Belgium just treat the waste and send it back for disposal or does Belgium dispose the waste, too?

Answer Itís true that Belgium accepts the small quantities of radioactive waste from Luxembourg. This arrangement includes also the disposal of the treated waste.

	Country	Article	Ref. in National Report
	Ireland	Article 32	p. 9

Question/ Comment Reference is made on page 9 of the national report to an incident in august 2011 involving a radiation alert on a slag sample from an electric arc furnace. It would be appreciated if Luxembourg would provide an update during its presentation of the national report on how this incident was managed and about any lessons learned.

Answer An update of information will be presented. Some information is already provided in an answer to the USA.

	Country	Article	Ref. in National Report
	Portugal	Article 32	B, 8

Question/ Comment Regarding the wastes from tritiated thymidine referred to as challenge from the last review meeting, could Luxembourg please provide more information on the licensing process as

well as the organization of the transfer to the incineration plant?

Answer The DRP had taken own samples to verify the indications of the licensee on the involved activity. These measurements were performed at the DRP laboratory. With this confirmation of the activities involved being below exemption levels, the transfer could be organized without specific obligations under the applicable regulations regarding transport and shipment. The activity however remained above the applicable clearance levels in Luxembourg. The DRP thus verified that the incineration plant in Germany is well informed about the presence of tritium and has the necessary permits from the German authorities to incinerate such type of material. On that basis the DRP authorized the transfer.

	Country	Article	Ref. in National Report
	Slovenia	Article 32	B, 10

Question/ Comment Could you explain and specify a bit more in detail the collection (by the Department of Radiation Protection/DRP) of consumer goods & products containing radioactive substances?

Answer Concerning lightening conductors, the DRP made an active campaign to initiate the dismantling of these items. This has resulted as described in the report of dismantling all known conductors. All have been collected by the DRP and, except of 8 remaining at the NISF, have been shipped to Belgium.
The few companies engaged in Luxembourg for installing or exchanging smoke detectors were informed about the acceptance of these detectors by the DRP and contact the latter one directly. These companies either bring them to the NISF or a member of the DRP collects them at the installation. The number of smoke detectors received by the DRP is constantly decreasing, over the last 2 years below 200 items per year.
Concerning other consumer goods which normally exist in private households, the DRP has some information on its webpage and cooperates to this extend with the national agency for waste management ìSuperdreckskeschtÆî. Private people, who often find these items on their attics (belongings of former generations), indeed first try to dispose them at the local recycling plants where someone from the DRP picks the item up. The DRP receives less than five such consumer items per year. The DRP accepts all these items free of charge except for smoke detectors above a certain quantity.

	Country	Article	Ref. in National Report
	Switzerland	Article 32	D, 10

Question/ Comment DRP systematically organizes transfers to Belgium for the management of radioactive waste. Could Luxembourg specify the frequency of such transfers and how much waste has been exported since the last review meeting?

Answer Since the last review meeting, there was only one transfer of radioactive waste. This transfer took place in 2010 and comprised the shipment of non-conditioned solid waste (lightening conductors, ionizing smoke detectors, Am-241 and Ra-226, total alpha activity: 2.1 MBq / per package: 421 kBq) from Luxembourg to Belgium for final disposal. This has been the third transfer in total organized by the DRP since 2000. Two transfers, involving disused sources, have also been organized by licensees, in 2002 and 2005 respectively.

	Country	Article	Ref. in National Report
	United States of America	Article 32	B, 7

Question/ Comment What liabilities accrue to waste generators in Luxembourg for waste disposed of in Belgium?

Answer At the moment of transfer, the waste generator in Luxembourg has to pay. The amount in defined and collected by the Belgian waste management organization (ONDRAF). All costs up to final disposal are comprised.

	Country	Article	Ref. in National Report
	United States of America	Article 32	B, 9

Question/ Comment Luxembourg reports a problem with radioactive slag at a steel plant. Please provide an update on the investigation referenced in the report.

Answer The DRP has taken additional samples. The results showed, that the distribution of the AM-241 contamination is highly heterogeneous. With that sampling, the initial estimation of a total activity of 300 MBq could neither be confirmed, nor contradicted. The DRP than charged the concerned plant to perform a study in order to determine if a release from

regulatory control could be feasible and to propose conditions for that release (conditioned clearance). Since the concerned interim damp is isolated for the moment and poses no direct risk, no deadline for presenting the study were set by the DRP.

	Country	Article	Ref. in National Report
	United States of America	Article 32	K, 19

Question/ Comment	Under Planned Activities to Improve Safety, the report mentions "establishment and implementation of a national program for the management of all types of radioactive waste under our jurisdiction from generation to disposal. It is foreseen to establish the national program in parallel with the transposition" of Council Directive 2011/70/EURATOM of 19 July 2011. What fundamental changes are expected?
Answer	We have not yet started to work on the mentioned action plan. We can thus not provide you with a final answer to that question. However we think at this moment, that due to the small amounts of wastes produced in Luxembourg and because our policies in place of the management of waste are rather comprehensive, including a bilateral agreement with Belgium, that no fundamental changes will be needed.