

Intergovernmental organisation activities

European Atomic Energy Community

Institutional relations

*Notice to stakeholders: Withdrawal of the United Kingdom and the EURATOM acquis*¹

On 30 March 2019, the United Kingdom will leave the European Union (EU) (and the Euratom Community) and become a third country. Irrespective of the scenario envisaged, this will cause significant disruption for European citizens, businesses and administrations. The European Council has repeatedly underlined the need for preparedness action and on 29 June 2018 made a renewed call on member states, Union institutions and all stakeholders to step up their work on preparedness at all levels and for all outcomes.²

In areas in which member states or stakeholders need to take action, the EC started raising awareness at the end of 2017 through the publication of a large number of technical notices that set out the legal and practical implications of the withdrawal of the United Kingdom from the EU. On the 28 March 2018, a notice to stakeholders in the nuclear field concerning the withdrawal of the United Kingdom and the Euratom *acquis* was published on the Europa website, which reminds that preparing for the UK withdrawal is not just a matter for EU and national authorities but also for private parties. In view of the considerable uncertainties, in particular concerning the content of a possible withdrawal agreement and related repercussions, stakeholders in the nuclear field are reminded of certain legal effects that need to be considered when the United Kingdom becomes a third country. Not claiming to be exhaustive, the notice deals with some key issues in the context of the UK withdrawal: common supply policy, authorisations to dispose production outside the Community, consent of third parties and other special procedures, the Euratom Basic Safety Standards Directive³ and the Euratom Radioactive Waste Directive.⁴

1. European Commission (EC), Directorate-General Energy (2018), “Notice to stakeholders: Withdrawal of the United Kingdom and the EURATOM *acquis*”, available at: https://ec.europa.eu/energy/sites/ener/files/documents/notice_to_stakeholders_brexit_euratom_final.pdf.
2. For more information please see EC (2018), “Preparing for the withdrawal of the United Kingdom from the European Union on 30 March 2019”, https://ec.europa.eu/info/publications/preparing-withdrawal-united-kingdom-european-union-30-march-2019_en; Communication from the Commission COM(2018)556final/2, Preparing for the withdrawal of the United Kingdom from the European Union on 30 March 2019 (27 Aug. 2018).
3. 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, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom, *Official Journal of the European Union* (OJ) L 13 (17 Jan. 2014) (Euratom Basic Safety Standards).
4. 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, OJ L 199 (2 Aug. 2011) (Waste Directive).

Legislative and regulatory proposals

Budgetary support for nuclear safety and decommissioning

On 13 June 2018, the European Commission proposed to allocate EUR 1 178 million for nuclear safety and decommissioning in the next EU budget (2021-2027). This is part of the overall budget for security and defence (EUR 27.5 billion). Under the Commission proposals, EUR 552 million would be allocated to Lithuania (decommissioning of the Ignalina nuclear facility), EUR 118 million would be allocated to Bulgaria (decommissioning of units 1 to 4 of the Kozloduy nuclear power plant) and Slovakia (decommissioning of the Bohunice V1 nuclear power plant). Another EUR 348 million would be used for the decommissioning and radioactive waste management of the Commission's nuclear research facilities managed by the Joint Research Centre. Finally, EUR 160 million would be devoted to general nuclear safety and safeguards actions.⁵ The Council (with the participation of the European Parliament) has launched a special legislative procedure for the adoption of the proposed regulations.

Proposal for a Council Decision on ITER

In its proposal of 7 June 2018 for a Council Decision amending Decision 2007/198/Euratom establishing the European Joint Undertaking for ITER ("Fusion for Energy") and the Development of Fusion Energy and conferring advantages upon it,⁶ the European Commission has proposed to allocate EUR 6.07 billion to the ITER investment project in the next Multiannual Financial Framework (2021-2027). Investing in ITER is in line with the EU's long-term strategies of decarbonisation and having sustainable and secure energy, as well as with boosting Europe's growth and competitiveness. The Commission's proposal is addressed to the member states and aims at amending the previous Council decision establishing the European Joint Undertaking Fusion for Energy. The proposal needs to be adopted by the Council of the EU, after informing the European Parliament.

Protection of persons reporting on breaches of European Union and Euratom Community law (whistleblower protection)

The Commission "Proposal for a Directive of the European Parliament and of the Council on the protection of persons reporting on breaches of Union law"⁷ of 23 April 2018 explicitly covers nuclear safety. Recital No. 12 of the Proposal states that:

enhancing the protection of whistleblowers would favour preventing and deterring breaches of Euratom rules on nuclear safety, radiation protection and responsible and safe management of spent fuel and radioactive [waste] and would reinforce the enforcement of existing provisions of the revised Nuclear Safety Directive on the effective nuclear safety culture and, in

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5. See Commission Proposal of 13.6.2018 for a Council Regulation establishing the nuclear decommissioning assistance programme of the Ignalina nuclear power plant in Lithuania (Ignalina programme) and repealing Council Regulation (EU) No 1369/2013, COM(2018) 466 final; Commission Proposal of 13.6.2018 for a Council Regulation establishing a dedicated financial programme for decommissioning of nuclear facilities and management of radioactive waste, and repealing Council Regulation (Euratom) No 1368/2013, COM(2018) 467 final.
 6. Proposal for a Council Decision amending Decision 2007/198/Euratom establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it {SWD(2018) 325 final} – {SWD(2018) 326 final}, COM(2018) 445 final (7 June 2018).
 7. Proposal for a Directive of the European Parliament and of the Council on the protection of persons reporting on breaches of Union law {SWD(2018) 116 final} – {SWD(2018) 117 final}, COM(2018) 218 final (23 Apr. 2018).

particular, Article 8 b (2) (a), which requires, inter alia, that the competent regulatory authority establishes management systems which give due priority to nuclear safety and promote, at all levels of staff and management, the ability to question the effective delivery of relevant safety principles and practices and to report in a timely manner on safety issues.⁸

Article 1(a)(vi) of the Commission proposal states that the Directive lays down common minimum standards for the protection of persons reporting on unlawful activities or abuse of law characterised as breaches falling within the scope of Euratom Community acts in the area of nuclear safety. In that respect, the proposal is based on Article 31 of the Treaty establishing the European Atomic Energy Community (the Euratom Treaty).

Published reports

Euratom Supply Agency Annual Report

The Euratom Supply Agency (ESA) *Annual Report 2017* was published on 19 June 2018.⁹ According to the Report, in line with its statutory mission, the ESA continued during 2017 to assume responsibility for the EU nuclear common supply policy, in the interest of ensuring regular and equitable access to supply for EU users. Building further on close co-operation with its Advisory Committee, the ESA has promoted transparency and predictability in the field through the activities of the Nuclear Market Observatory.

*Euratom report on the implementation of the Joint Convention*¹⁰

The Euratom Community presented the latest developments on radioactive waste and spent fuel management in its “Report on the implementation of the obligations under the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management”. The Euratom Report was presented in the framework of the Sixth Review Meeting of Contracting Parties in Vienna in May 2018. The Euratom Report devotes particular attention to reporting on progress in the areas identified as challenges during the previous Review Meeting.

*Commission report on the evaluation and implementation of the EU nuclear decommissioning assistance programmes in Bulgaria, Slovakia and Lithuania*¹¹

The Commission report on the evaluation and implementation of the EU nuclear decommissioning assistance programmes in Bulgaria, Slovakia and Lithuania concludes that, in line with the expectations set for the current Multiannual Financial Framework for 2014-2020, Bulgaria, Lithuania and Slovakia have made effective and efficient progress in decommissioning their reactors. There have been challenges and setbacks due to the complexity of the programmes, although the management system has increasingly proven that it can cope with them. Roadblocks

8. *Ibid.* (footnotes omitted).

9. EU (2018), *EURATOM Supply Agency: Annual Report 2017*, available at: <http://ec.europa.eu/euratom/ar/last.pdf>.

10. European Atomic Energy Community (2018), “Report on the implementation of the obligations under the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management: Sixth Review Meeting of the Contracting Parties, Vienna, May 2018”, available at: https://ec.europa.eu/energy/sites/ener/files/documents/jc_euratom_report_2018.pdf.

11. Report from the Commission to the European Parliament and the Council on the evaluation and implementation of the EU nuclear decommissioning assistance programmes in Bulgaria, Slovakia and Lithuania {SWD(2018) 344 final}, COM(2018) 468 final (13 June 2018).

from the previous financial framework have been removed and delays carried over have been recovered as far as possible.

International Atomic Energy Agency

Nuclear safety

The Sixth Review Meeting of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

The Sixth Review Meeting of the Joint Convention¹² was held in Vienna from 21 May to 1 June 2018 with the participation of more than 850 delegates from 69 contracting parties¹³ and 4 observers: 2 signatory states of the Joint Convention, Lebanon and the Philippines, the Islamic Republic of Iran and the OECD Nuclear Energy Agency (NEA). The summary report is available on the Agency's website.¹⁴

The contracting parties reviewed national reports in country group sessions and identified that good progress was being made in many areas of spent fuel and radioactive waste safety. Open-Ended Working Group (OEWG) sessions were held to discuss proposals submitted by contracting parties. At the Plenary, the contracting parties adopted proposals to improve the effectiveness of the review process addressing the submission and the content of the national reports, the submission of proposals to be considered at review meetings, as well as videoconferencing. Finally, the contracting parties decided by consensus to hold an Extraordinary Meeting prior to the Organisational Meeting of the Seventh Review Meeting, with the view to discuss possible ways to improve procedural mechanisms of the Joint Convention.

During the second week of the Review Meeting, two sequential topical sessions were held. The first focussed on recent developments and challenges in the safe management of disused sealed radioactive sources. The second addressed general safety issues, challenges and public acceptance aspects associated with the storage and disposal of higher-level radioactive waste. In addition, a side event on Uranium Legacy Sites – The Environmental Remediation Programme in Central Asia was hosted by the European Union.

Guidance on the Management of Disused Radioactive Sources

In April 2018, the Agency published the *Guidance on the Management of Disused Radioactive Sources*,¹⁵ supplementary to the Code of Conduct on the Safety and Security of Radioactive Sources as approved by the Board of Governors and endorsed by the General Conference. The Guidance is based on the Agency's safety standards and nuclear security guidance, and it addresses safety and security in an integrated manner.

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12. Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (1997), IAEA Doc. INFCIRC/546, 2153 UNTS 357, entered into force 18 June 2001 (Joint Convention).
 13. The status of the Joint Convention is available on the IAEA's website at: www-legacy.iaea.org/Publications/Documents/Conventions/jointconv_status.pdf.
 14. IAEA (2018), "Final Summary Report", IAEA Doc. JC/RM6/04/Rev.2, available at: www-ns.iaea.org/conventions/results-meetings.asp?s=6&l=40.
 15. IAEA (2018), *Guidance on the Management of Disused Radioactive Sources*, IAEA/CODEOC/MGT-DRS/2018, IAEA, Vienna.

Open-ended Meeting of Legal and Technical Experts on the Implementation of the Guidance on the Import and Export of Radioactive Sources

The Agency held an Open-ended Meeting of Legal and Technical Experts on Implementation of the Guidance on the Import and Export of Radioactive Sources in Vienna, Austria, from 11 to 13 June 2018. The meeting provided an opportunity for exchange of information among member states and identified current needs to ensure safe and secure management of radioactive sources during import and export worldwide. The meeting concluded that there is currently no need to initiate the revision of the *Guidance on the Import and Export of Radioactive Sources*¹⁶ and efforts should be focussed on the full and systematic implementation of its current provisions.

Nuclear and radiological incident and emergency preparedness and response

The Agency continued to encourage member states' adherence to the Convention on Early Notification of a Nuclear Accident¹⁷ and to the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency.¹⁸ In April 2018, Georgia adhered to the Assistance Convention. In September, at the Treaty Event, Syria deposited instruments of ratification to both the Early Notification Convention and the Assistance Convention.

In June 2018, the Agency organised the Ninth Meeting of the Representatives of Competent Authorities under both Conventions in Vienna, Austria.

Nuclear liability

The Secretariat continued to assist member states, upon request, in their efforts to adhere to the relevant nuclear liability instruments.

Workshops on civil liability for nuclear damage

The Agency held the seventh Workshop on Civil Liability for Nuclear Damage in Vienna, Austria, on 14 May 2018. This workshop provided an overview of the international legal regime on civil liability for nuclear damage and was attended by diplomats from 21 member states.

The International Expert Group on Nuclear Liability (INLEX)

The International Expert Group on Nuclear Liability (INLEX) held its 18th regular meeting in Vienna, Austria, from 15 to 17 May 2018. Individual members reported on the most recent developments in the field of civil liability for nuclear damage. The Group discussed liability issues relating to disposal facilities. In this context, INLEX reaffirmed conclusions of its previous meeting that during the period where institutional controls remain active (the duration of which will differ from country to country and with different classes of waste), there will still be an operator and the waste can be regarded as being in storage. The nuclear liability conventions would therefore continue to apply to such disposal facilities. Following the cessation of institutional controls over the site, however, INLEX noted that, in the absence of an operator, the nuclear liability conventions cannot be applied; therefore, the state

16. IAEA (2012), *Guidance on the Import and Export of Radioactive Sources*, IAEA/CODEOC/IMO-EXP/2012, IAEA, Vienna.

17. Convention on Early Notification of a Nuclear Accident (1986), IAEA Doc. INFCIRC/335, 1439 UNTS 276, entered into force 27 Oct. 1986 (Early Notification Convention).

18. Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (1986), IAEA Doc. INFCIRC/336, 1457 UNTS 134, entered into force 26 Feb. 1987 (Assistance Convention).

that has agreed to the closure of the installation would implicitly be expected to assume responsibility in the event of any nuclear incident.

INLEX also addressed the liability issues concerning the exclusion of radioisotopes that have reached the final stage of fabrication from the definition of “radioactive products or waste” in the nuclear liability conventions and therefore from the scope of such conventions. In this context, INLEX concluded that “materials which have not reached the final stage of fabrication so as to be usable for any industrial, commercial, agricultural, medical, scientific or educational purpose, and facilities where such materials are transformed into their final form, are covered by the nuclear liability conventions”. INLEX also specifically considered the case of molybdenum-99 contained in “generators” sent to hospitals and medical clinics and noted that notwithstanding that the molybdenum-99 is not in itself “usable for any scientific, medical, agricultural, commercial or industrial purpose”, the fact that it decays naturally results in it having reached its final stage of fabrication so as to be usable for any medical purpose and that molybdenum-99 “generators” hence fall outside the scope of the nuclear liability conventions.

INLEX also continued to discuss the issue of the application of the nuclear liability conventions to transportable NPPs and reiterated its conclusions that a transportable NPP (TNPP) in a fixed position (that is, in the case of a floating reactor, anchored to the seabed or the shore, and attached to shore by power lines) would fall under the definition of a “nuclear installation” and therefore be covered by the nuclear liability regime. INLEX also noted that in case of transport of a factory-fuelled reactor, the TNPP would also be covered by the nuclear liability conventions just as any other transport of nuclear material. INLEX will, however, come back to the issue at its next meeting, in particular with regard to factory-fuelled reactors transported and deployed in a host state not party to the same convention as the sending state.

62nd session of the IAEA General Conference

The 62nd regular session of the IAEA General Conference was held in Vienna, Austria, from 17 to 21 September 2018. Nearly 2 600 participants attended the Conference, including delegates from 153 of the IAEA’s 170 member states. Throughout the week, delegates were able to also attend more than 77 side-events showcasing activities and special programmes by the IAEA Secretariat, as well as by several member states.

Resolutions of the Conference

A number of resolutions were adopted by the Conference. As in previous years, resolution GC(62)/RES/6 on “Measures to strengthen international cooperation in nuclear, radiation, transport and waste safety”, as well as resolution GC(62)/RES/7 on “Nuclear Security”, include sections that are of legal relevance. All resolutions adopted during the 62nd regular session of the General Conference are available on the IAEA website at www-legacy.iaea.org/About/Policy/GC/GC62/Resolutions/index.html

Measures to strengthen international cooperation in nuclear, radiation, transport and waste safety (GC(62)/RES/6)

Regarding the Convention on Nuclear Safety (CNS),¹⁹ the General Conference urged “all Member States that have not yet done so, especially those planning, constructing, commissioning or operating nuclear power plants, or considering a nuclear power programme, to become Contracting Parties to the CNS”. Concerning

19. Convention on Nuclear Safety (1994), IAEA Doc. INFCIRC/449, 1963 UNTS 293, entered into force 24 Oct. 1996 (CNS).

the Joint Convention, the Conference likewise urged “all Member States that have not yet done so, including those managing radioactive waste from the use of radioactive sources and nuclear energy, to become Contracting Parties to the Joint Convention”. The Conference stressed “the importance of CNS and Joint Convention Contracting Parties fulfilling their respective obligations stemming from these Conventions and reflecting these in their actions to strengthen nuclear safety and in particular when preparing National Reports, and actively participating in peer reviews for CNS and Joint Convention Review Meetings”.

In addition to that it requested “the Secretariat to provide full support for the dissemination of the outcomes of the 6th Joint Convention Review Meeting, and to consider addressing these in the Agency’s activities, as appropriate and in consultation with Member States”.

The Conference further urged “all Member States that have not yet done so to become Contracting Parties to the Early Notification Convention and the Assistance Convention”, and stressed “the importance of Contracting Parties fulfilling the obligations stemming from these Conventions, and actively participating in regular meetings of the Representatives of Competent Authorities”. In this context, the Conference requested “the Secretariat, in collaboration with regional and international organisations and Member States, to continue its activities to promote the importance of conventions concluded under the auspices of the IAEA, and to assist Member States, upon request, with adherence, participation and implementation as well as strengthening of their related technical and administrative procedures”.

With respect to the Code of Conduct on the Safety and Security of Radioactive Sources,²⁰ its *Guidance on the Import and Export of Radioactive Sources*, and its *Guidance on the Management of Disused Radioactive Sources*, the General Conference encouraged all member states to make “political commitments”, and to implement them, as appropriate, “in order to maintain effective safety and security of radioactive sources throughout their life cycle”. It also requested the Secretariat to continue supporting member states in this regard. Similarly, the Conference urged “Member States with research reactors to apply the guidance of the Code of Conduct on the Safety of Research Reactors” and encouraged them “to freely exchange their regulatory information and experience with regard to research reactors”.

Regarding civil liability for nuclear damage, the General Conference encouraged “Member States to work towards establishing a global nuclear liability regime and, as appropriate, to give due consideration to the possibility of joining the international nuclear liability instruments”. In this context, the Conference requested the Secretariat, in co-ordination with the NEA when appropriate “to assist Member States, upon request, in their efforts to adhere to any international nuclear liability instruments concluded under the auspices of the IAEA or the OECD/NEA, taking into account the recommendations of the INLEX in response to the IAEA Action Plan on Nuclear Safety”. In addition, it further stressed “the importance of having effective liability mechanisms to ensure prompt compensation for damage incurred during the transport of radioactive material, including maritime transport”, and in this context noted “the application of the principles of nuclear liability, including strict liability”.

Nuclear Security (GC(61)/RES/9)

In the context of nuclear security, the Conference reaffirmed “the central role of the Agency in strengthening the nuclear security framework globally and in

20. IAEA (2004), Code of Conduct on the Safety and Security of Radioactive Sources, IAEA Doc. IAEA/CODEOC/2004.

coordinating international activities in the field of nuclear security, while avoiding duplication and overlap". The Conference also reaffirmed "the importance of the Convention on the Physical Protection of Nuclear Material (CPPNM) and its 2005 Amendment extending its scope", welcomed "the entry into force of that Amendment", recognised "the importance of acceptance, approval or ratification by further States" and noted "the importance of its full implementation and universalization".

The Conference also encouraged "all Parties to the CPPNM and its 2005 Amendment to fully implement their obligations thereunder" and encouraged "States that have not yet done so to become party to this Convention and its Amendment". It further encouraged "the Agency to continue efforts to promote further adherence to the Amendment with the aim of its universalization". The Conference welcomed "the organization by the Secretariat of CPPNM meetings" and encouraged "all States Parties to the Convention to participate in relevant meetings".

IAEA Treaty Event

The yearly IAEA Treaty Event took place during the 62nd session of the IAEA General Conference. During the Event, Syria deposited instruments of ratification to the Early Notification Convention and to the Assistance Convention. Participants from several IAEA Member States were also briefed on the multilateral treaties relating to nuclear safety, security and civil liability for nuclear damage.

Legislative assistance

The Agency continued to provide legislative assistance to its member states to support the development of adequate national legal frameworks and to promote adherence to the relevant international legal instruments. Specific bilateral legislative assistance was provided to several member states through written comments and advice on drafting national nuclear legislation. Assistance in gaining more broadly a better understanding of the relevant international legal instruments was also provided to member states through awareness missions and workshops conducted in member states. In addition, the Agency continued to organise regional and training events in nuclear law, such as the Nuclear Law Institute (NLI) conducted annually since 2011.

OECD Nuclear Energy Agency

New member of the Generation IV International Forum Framework Agreement

The Generation IV International Forum (GIF) Framework Agreement for International Collaboration on Research and Development of Generation IV Nuclear Energy Systems has been ratified by the United Kingdom. The instrument of ratification to the Framework Agreement was signed by the UK Secretary of State for Foreign and Commonwealth Affairs and deposited to the NEA on 17 October 2018. The United Kingdom will start participating in GIF research and development activities in 2019. The GIF is a co-operative international endeavour that was established to carry out the research and development (R&D) needed to establish the feasibility and performance capabilities of the next generation of nuclear energy systems. More information on GIF is available at: www.gen-4.org.

Nuclear Law Committee meeting

The NEA Nuclear Law Committee (NLC) held its biannual meeting on 21-22 November 2018, bringing together 76 experts from member countries, the European Commission (EC) and the International Atomic Energy Agency (IAEA), as well as 5 non-member countries (Brazil, Bulgaria, China, Ukraine and the United Arab Emirates). Participants at the meeting discussed current activities conducted

under NLC auspices on nuclear liability for transport, the legal aspects of deep geological repositories and the legal aspects of nuclear safety, as well as recent developments relating to the international legal framework for public participation in nuclear decision making. In addition, two special sessions were held. The first session brought together three of the four previous heads of the Office of Legal Affairs and its successor offices to celebrate the 100th edition and 50th anniversary of the *Nuclear Law Bulletin*. The second session addressed the licensing process and nuclear third party liability regimes applicable to nuclear fusion projects in NEA member countries.

Two working group meetings took place on the margins of the NLC meeting. On 20 November 2018, the NEA Working Party on Nuclear Liability and Transport (WPNLT) held a meeting with 36 participants from 19 NEA member and non-member countries, the EC, the IAEA, the World Nuclear Transport Institute (WNTI) and the nuclear insurance pools. Participants reviewed and discussed the preliminary results from a WPNLT enquiry regarding national legislation and rules applicable to nuclear transport and transit and focused on potential deliverables to allow the public to access useful information regarding nuclear liability as applicable to transport. On 23 November 2018, the NEA Working Party on the Legal Aspects of Nuclear Safety (WPLANS) held a meeting, bringing together 31 representatives from 17 NEA member and non-member countries. In addition to adopting the working party's programme of work for 2019-2020, participants discussed in detail a draft report on the legal frameworks for long-term operation of nuclear power reactors.

Legal aspects of deep geological repositories

The NEA Working Party on Deep Geological Repositories and Nuclear Liability (WPDGR) held its first-ever meeting on 17-18 September 2018, bringing together experts representing member countries, the EC and the insurance industry. Participants discussed topics relating to the outcomes of the Workshop on Deep Geological Repositories and Nuclear Liability held in November 2016. These included the description of the deep geological repository life cycle, the definition of "operator" under the international nuclear liability conventions and nuclear liability coverage for deep geological repositories.

2018 International School of Nuclear Law (ISNL)

The 18th session of the International School of Nuclear Law (ISNL) was held from 27 August to 7 September 2018 in Montpellier, France, bringing together a diverse group of graduate students and professionals from across the world to learn more about the legal framework and major issues affecting the peaceful uses of nuclear energy. Organised by the NEA and the University of Montpellier, the ISNL is a unique educational programme that offers participants from the academic, private and governmental sectors an in-depth look at international nuclear law, focusing on areas such as nuclear safety, environmental law, security, safeguards and nuclear liability. This year's session was attended by 61 participants from 39 countries, including numerous non-NEA member countries, many of whom received support to attend the ISNL from the IAEA, which also provided several lecturers. The ISNL has attracted since 2001 more than 1 000 participants worldwide from an increasingly diverse range of countries, many of whom are now experts in the nuclear law field. A brochure commemorating this milestone and the nearly 20-year history of the ISNL was recently published that reflects on the school's programme, past lecturers and participants. In this new ISNL brochure, alumni and lecturers describe the spirit of Montpellier and the community atmosphere of the ISNL. The brochure also includes a yearbook of all previous class years.

First NEA International Radiological Protection School (IRPS)

For some time, NEA member country governmental and nuclear fuel cycle organisations have had difficulty recruiting sufficient numbers of appropriately qualified radiological protection professionals to replace those retiring. To address this, the NEA created the International Radiological Protection School (IRPS), in co-operation with the Swedish Radiation Safety Authority (SSM) and the Centre for Radiation Protection Research (CRPR) of Stockholm University. The first IRPS session took place from 20 to 24 August 2018 at Stockholm University. It was attended by 40 participants from 26 countries, selected on the basis of their education, experience and potential as future radiological protection leaders. The five-day training featured lectures and dialogues by renowned radiological protection experts on the history of the development and implementation of the international system of radiological protection, as promulgated by the International Commission on Radiological Protection (ICRP). The objective of the IRPS was to allow tomorrow's radiological protection leaders to appropriately apply the radiological protection system to address current and future radiological circumstances. Positive feedback from the participants of the first session suggests that the IRPS will be repeated.

NEA publications of interest

Since the publication of *Nuclear Law Bulletin* No. 100, the NEA has issued a number of publications of interest. The *Full Costs of Electricity Provision* draws on evidence from a large number of studies concerning the social costs of electricity and identifies proven instruments for internalising them so as to improve overall welfare. Research on the overall costs of electricity is an ongoing effort, as only certain costs of electricity provision are perceived directly by producers and consumers. Other costs, such as the health impacts of air pollution, damage from climate change or the effects on the electricity system of small-scale variable production are not reflected in market prices and thus diminish well-being in unaccounted for ways. Accounting for these social costs in order to establish the full costs of electricity provision is difficult, yet such costs are too important to be disregarded in the context of the energy transitions currently under way in OECD and NEA countries.

The Fifth International Nuclear Emergency Exercise (INEX-5) was developed in response to NEA member countries' desire to test and demonstrate the value of changes put in place following the Fukushima Daiichi nuclear power plant accident. INEX-5 was held during 2015 and 2016, and was followed by the INEX-5 Workshop in early 2017. Representatives from 22 member countries, the IAEA and the EC attended the workshop, where participants identified elements emerging from INEX-5 that would help improve international and national arrangements for notification, communication and interfaces related to catastrophic events involving radiation or radiological materials. The *Proceedings of the Fifth International Nuclear Emergency Exercise (INEX-5) Workshop* provide a summary of the proposals and recommendations for future work in emergency management. In addition to the Proceedings, a report on the *Experience from the Fifth International Nuclear Emergency Exercise (INEX-5)* was published that summarises the major evaluation outcomes of the national and regional exercises, policy level outcomes, recommendations and follow-up activities emerging from INEX-5 and the discussions at the INEX-5 International Workshop. A set of key needs were identified in areas such as real-time communication and information sharing among countries and international partners, improving cross-border and international co-ordination of protective measures and considering the mental health impacts on populations when implementing protective measures.

Finally, the report *Preparing for Decommissioning During Operation and After Final Shutdown* was published to inform regulatory bodies, policy makers and planners about the relevant aspects and activities that should begin during the last years of

operation and following the end of operation. The transition from an operating nuclear facility to the decommissioning phase is critical in the life cycle of every facility. A number of organisational and technical modifications are needed in order for the facility to meet new objectives and requirements, and a certain number of activities must be initiated to support the transition and preparation for the dismantling of the facility. Thorough preparation and planning is key for the success of global decommissioning and dismantling projects, both to minimise delays and undue costs and to ensure a safe and efficient decommissioning process. Compiling lessons learnt from experiences and good practices in NEA member countries, the report supports the further optimisation of transition strategies, activities and measures that will ensure adequate preparation for decommissioning and dismantling.

All four reports are available for free online at: www.oecd-nea.org/pub/.

Sixteenth Amendment to the Atomic Energy Act (16th Amendment) of 10 July 2018¹

The German Bundestag has adopted the following Act:

Article 1. Amendment to the Atomic Energy Act

The following Sections 7e to 7g shall be inserted after Section 7d Atomic Energy Act in the version promulgated on 15 July 1985 (Federal Law Gazette I p. 1565), as most recently amended by Article 2(2) of the Act of 20 July 2017 (Federal Law Gazette I p. 2808):

“Section 7e

Financial settlement for investments made

(1) Whoever, in his capacity as owner of an installation for the fission of nuclear fuel for the commercial generation of electricity or as holder of a licence to operate this type of installation, furnishes proof that they have made investments between 28 October 2010 and 16 March 2011 in reliance on the Eleventh Amendment to the Atomic Energy Act of 8 December 2010 (Federal Law Gazette I, p. 1814) to an extent necessary for the purpose of producing the additional electricity volumes allocated to the nuclear power plant in Annex 3 Column 4, shall be entitled to an appropriate financial settlement, to the extent that these investments have been rendered worthless solely as a result of the withdrawal of the additional electricity volumes under the Thirteenth Amendment to the Atomic Energy Act of 31 July 2011 (Federal Law Gazette I, p. 1704).

(2) Any pecuniary benefits that, on the balance of probabilities, have accrued to those entitled to financial settlement as a result of the withdrawal of the additional electricity volumes, shall be counted against the amount of financial settlements. Any pecuniary benefits that those entitled to financial settlement could have enjoyed had they applied an adequate degree of due diligence shall be treated in the same manner. Section 254 Civil Code applies *mutatis mutandis*.

(3) This financial settlement shall be counted against any other financial benefit for investments rendered worthless within the meaning of (1) which has been paid

1. to those entitled to financial settlement or a company that directly or indirectly holds at least half of the shares in the legally independent company that is entitled to financial settlement;
2. to a company that used to be directly or indirectly entitled to at least half of the shares in the legally independent company which is entitled to financial settlement, or to its legal successor;
3. to a company that used to be directly or indirectly entitled to at least half of the shares in the legally independent company which used to own or hold the licence to operate the nuclear power plant, or to its legal successor;
4. to a legally independent company that used to own the nuclear power plant or hold the licence to operate the nuclear power plant, or to its legal successor.

1. Federal Law Gazette 2018 Part I No. 25, published at Bonn on 13 July 2018.

Section 7f

Financial settlement for electricity volumes

(1) The holders of the licences for the Brunsbüttel, Krümmel and Mülheim-Kärlich nuclear power plants shall be entitled to appropriate financial settlement to the extent that the electricity volumes originally allocated to these nuclear power plants pursuant to Annex 3 Column 2 have not been produced and not been transferred to another nuclear power plant by the end of 31 December 2022. The amount of the financial settlement shall be limited in the case of the Brunsbüttel nuclear power plant to two thirds and in the case of the Krümmel nuclear power plant to half of the electricity volumes within the meaning of Sentence 1. The claim to financial settlement pursuant to Section 7(1b) shall be subject to proof being furnished by those entitled to financial settlement that they have made serious efforts to transfer the electricity volumes for which financial settlement is payable under reasonable terms, and that these efforts were made immediately after 4 July 2018 and until the end of 31 December 2022.

(2) The amount of the financial settlement shall be determined based on the average market price for electricity between 6 August 2011 and 31 December 2022, minus the cost of electricity generation, including overheads which can be expected to accrue for electricity generation. The cost shall be calculated taking adequate account of the operational risks, investment risks and sales risks that no longer exist. It shall be possible for relevant cost estimates which are in the public domain to be used to calculate the costs that are to be expected.

(3) The financial settlement shall be counted against any other financial benefit provided for electricity volumes pursuant to Annex 3 Column 2

1. to those entitled to financial settlement or a company that directly or indirectly holds at least half of the shares in the legally independent company that is entitled to financial settlement;
2. to a company that used to be directly or indirectly entitled to at least half of the shares in the legally independent company which is entitled to financial settlement, or to its legal successor;
3. to a company that used to be directly or indirectly entitled to at least half of the shares in the legally independent company which held the licence for the Brunsbüttel, Krümmel or Mülheim-Kärlich nuclear power plant, or to its legal successor;
4. to a legally independent company that used to hold the licence for the Brunsbüttel, Krümmel or Mülheim-Kärlich nuclear power plant, or to its legal successor.

Section 7g

Administrative procedure

(1) The application for financial settlement pursuant to Section 7e must be lodged in writing with the Federal Ministry in charge of nuclear safety and radiation protection within one year after 4 July 2018. Claims for which no application is made within this deadline shall lapse. Those entitled to financial settlement shall be required to furnish documentation proving any orders made, contracts concluded, terminated or cancelled, of payments and reimbursements thereof, and declarations on tax benefits obtained. The [amount of] financial settlement payable shall be set by the Federal Ministry in charge of nuclear safety and radiation protection, which shall issue written notification of this, in agreement with the Federal Ministry for Economic Affairs and Energy.

(2) The application for a financial settlement pursuant to Section 7f must be lodged in writing with the Federal Ministry in charge of nuclear safety and radiation protection within one year from 31 December 2022. Claims for which no application is made within this deadline shall lapse. The total sum of the electricity volumes for which financial settlement is being claimed must be stated in the application (in kilowatt hours). The [amount of] financial settlement payable shall be set by the Federal Ministry in charge of nuclear safety and radiation protection, which shall issue written notification of this, in agreement with the Federal Ministry for Economic Affairs and Energy.

(3) The Federal Ministry in charge of nuclear safety and radiation protection shall be entitled to request that and set a time limit for those entitled to a financial settlement to

1. state facts or name the means of proof available and
2. furnish official documents and other movable goods, and electronic documents

that are material for the purpose of assessing and calculating claims for appropriate financial settlement pursuant to Section 7e or Section 7f.

Article 2. Amendment of the Code of Administrative Court Procedure

Section 48(1) Sentence 1 Code of Administrative Court Procedure in the version promulgated on 19 March 1991 (Federal Law Gazette I p. 686), as most recently amended by Article 5(2) of the Act of 8 October 2017 (Federal Law Gazette I p. 3536), shall be amended by insertion of the following Number 1a after Number 1:

“1a. the merits and amount of financial settlement claims pursuant to Section 7e and Section 7f of the Atomic Energy Act,”

Article 3. Entry into force

This Act shall enter into force on the day when the European Commission gives its approval under State-aid law or makes a binding declaration to the effect that no such approval shall be required; the Federal Ministry in charge of nuclear safety and radiation protection shall announce the date of the entry into force and do this by means of the Federal Law Gazette.

The constitutional rights of the Bundesrat are safeguarded.

The foregoing law is hereby drawn up. It shall be published in the Federal Law Gazette.

Berlin, 10 July 2018

Federal President
Steinmeier

Federal Chancellor
Dr. Angela Merkel

Federal Minister for the Environment, Nature Conservation and Nuclear Safety
Svenja Schulze

[Footer information on website of Federal Law Gazette omitted]

