

INTERGOVERNMENTAL ORGANISATION ACTIVITY

European Atomic Energy Community

The Euratom Supply Agency Advisory Committee Report on Nuclear Fuel Availability at EU Level from a Security of Supply Perspective¹

The Working Group on Prices and Security of Supply, which represents utilities, suppliers and intermediaries in the European Union (EU), updated the Risk Analysis for Security of Supply in the Nuclear Fuel Cycle that was published in 2015. The new report identifies threats and restrictions that could potentially jeopardise the availability of nuclear fuel and the provision of electricity at affordable prices to all EU consumers. In order to provide a more accurate analysis of the different risks, this report offers a new methodology for evaluating risk that takes into account the duration of impact on supply.

The most common way for utilities to secure their supply of nuclear fuel is to have a diversified portfolio of suppliers at every step of the nuclear fuel cycle (natural uranium, conversion, enrichment and fabrication) and keep an appropriate level of strategic inventory of nuclear fuel material on site. However, situations of overcapacity in both the natural uranium market and the conversion market and low prices have led to the temporary closure of some of these facilities in order to bring production down to the level of demand.

The Working Group recommended that the Euratom Supply Agency, through its established market observatory role and in regular dialogue with the Advisory Committee, review the identified risks and include references in its annual report so that all parties concerned may be made aware in order to take appropriate action to mitigate relevant risks.

International Atomic Energy Agency

Nuclear safety

Convention on Nuclear Safety

Due to national and international measures taken to limit the spread of the virus causing COVID-19, the Eighth Review Meeting of the Convention on Nuclear Safety,² scheduled from 23 March to 3 April 2020, was postponed by a consensual decision of the contracting parties. The Review Meeting will now be held in Vienna, Austria, from 15 to 26 March 2021.

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1. Euratom Supply Agency Advisory Committee Working Group on Prices and Security of Supply (2020), *Analysis of Nuclear Fuel Availability at EU Level from a Security of Supply Perspective: Report*, Publications Office of the European Union, Luxembourg, available at: https://ec.europa.eu/euratom/docs/2020_Security_report_2.pdf.
 2. Convention on Nuclear Safety (1994), IAEA Doc. INFCIRC/449, 1963 UNTS 293, entered into force 24 Oct. 1996 (CNS).

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

Also, due to the international measures to curb the spread of the COVID-19 pandemic, contracting parties to the Joint Convention³ decided by consensus to postpone the Organisational Meeting of the Joint Convention to prepare for the Seventh Review Meeting of Contracting Parties to the Joint Convention, scheduled from 28 to 29 May 2020, and to hold it as a virtual meeting from 28 to 30 September and 2 October 2020.

At the Organisational Meeting, contracting parties *inter alia* elected Mr Hans Wanner (Switzerland) as President and Ms Mina Golshan (United Kingdom) and Mr Thiagan Pather (South Africa) as the two Vice-Presidents of the Seventh Review Meeting of the Joint Convention. Contracting parties also established eight country groups, agreed on a process to elect the country group officers proposed by the Presidency of the Sixth Review Meeting of the Joint Convention and elected them accordingly, decided to hold during the Seventh Review Meeting a topical session on stakeholder engagement relating to the management of radioactive wastes from decommissioning and legacy facilities and agreed on the draft provisional agenda and timetable for the Seventh Review Meeting.

Meeting of the Representatives of Competent Authorities identified under the Early Notification Convention and the Assistance Convention

The Agency held the Tenth Meeting of the Representatives of Competent Authorities Identified under the Early Notification Convention⁴ and the Assistance Convention⁵ in June 2020. For the first time in its 20-year history, this gathering of representatives of competent authorities also took place virtually.

The purpose of the meeting was to share information on national emergency preparedness and response (EPR) arrangements and challenges. At the meeting, participants also discussed the implementation of the Early Notification Convention, the Assistance Convention, the safety requirements dealing with notification and information exchange, the provision of international assistance, and communication with the public contained in the Agency's safety standards. In addition, participants became familiar with the latest EPR documents and tools and exchanged information on international EPR co-operation and learnt from past emergencies and exercises as well.

Nuclear security

Webinar on the Convention on the Physical Protection of Nuclear Material and its Amendment

On 30 July 2020, the IAEA hosted a webinar to promote adherence to and implementation of the CPPNM⁶ and its Amendment.⁷ The webinar was aimed at parties to the CPPNM that have not yet adhered to the Amendment and at member states who are not yet party to the CPPNM or its Amendment. Information was provided on the scope and obligations of,

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3. 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).
 4. 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).
 5. 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).
 6. Convention on the Physical Protection of Nuclear Material, (1980), IAEA Doc. INFCIRC/274 Rev. 1, 1456 UNTS 125, entered into force 8 Feb. 1987 (CPPNM).
 7. Amendment to the Convention on the Physical Protection of Nuclear Material (2005), IAEA Doc. INFCIRC/274/Rev.1/Mod.1, entered into force 8 May 2016 (Amendment).

as well as the benefits of joining, the CPPNM and its Amendment, and states were invited to exchange views and experiences with respect to adherence and implementation.

IAEA General Conference side event on the importance of a strong international legal framework for nuclear security

The IAEA organised a virtual side event during the 64th General Conference focused on emphasising, *inter alia*, the importance of universal adherence to and full implementation of the CPPNM and its Amendment.

Nuclear liability

During the reporting period, the IAEA continued to assist member states, upon request, in their efforts to adhere to the relevant nuclear liability instruments in the context of its overall legislative assistance programme.

In June 2020, the Director General sent letters to selected member states encouraging them to adhere to relevant nuclear liability treaties, notably to those states that already operate nuclear power plants, or are considering, or working towards, introducing nuclear power, but are currently not party to any nuclear liability convention. Letters were also sent to states that are party to either the Paris Convention on Third Party Liability in the Field of Nuclear Damage⁸ or the Vienna Convention on Civil Liability for Nuclear Damage,⁹ with a view to enhancing treaty relations among states party to different nuclear liability conventions, in line with the recommendations on how to achieve a global nuclear liability regime adopted in 2012 by the IAEA International Expert Group on Nuclear Liability (INLEX) under the IAEA Action Plan on Nuclear Safety (GOV/2011/59GC(55)/14).

The 20th regular meeting of INLEX, which was opened by the Director General, took place as a virtual meeting in June 2020 to hear about new developments and activities by the Secretariat in the field of civil liability for nuclear damage and to discuss future outreach activities.

IAEA events

64th session of the IAEA General Conference

The 64th regular session of the IAEA General Conference was held in a hybrid format in Vienna, Austria, from 21 to 25 September. This year, around 500 delegates registered to attend the General Conference from 141 of the IAEA's 172 member states and from international organisations, non-governmental organisations and the media. A total of 39 side-events took place online during the week, highlighting the innovative work underway at the IAEA and in member states using nuclear techniques.

Resolutions of the Conference

A number of resolutions were adopted by the Conference. As in previous years, resolution GC(63)/RES/9 on Nuclear and Radiation Safety, as well as resolution GC(63)/RES/10 on Nuclear Security, include sections that are of legal relevance. All resolutions adopted during the 64th regular session of the General Conference are available on the IAEA website at www.iaea.org/gc-archives/gc/gc/gc64.

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8. Convention on Third Party Liability in the Field of Nuclear Energy of 29th July 1960, as amended by the Additional Protocol of 28th January 1964 and by the Protocol of 16th November 1982 (1960), 1519 UNTS 329 (Paris Convention).
 9. Vienna Convention on Civil Liability for Nuclear Damage (1963), IAEA Doc. INFCIRC/500, 1063 UNTS 266, entered into force 12 Nov. 1977 (Vienna Convention).

Nuclear and Radiation Safety (GC(64)/RES/9)

Regarding the CNS, 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 the Joint Convention, the Conference likewise urged “all Member States that have not yet done so, particularly those managing radioactive waste or spent fuel, 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, the Conference requested “the Secretariat to provide full support for the CNS and Joint Convention Review Meetings, and to consider addressing their outcomes 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 organizations 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, 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 to the non-legally binding Code of Conduct on the Safety and Security of Radioactive Sources, and its Guidance on the Import and Export of Radioactive Sources, and its Guidance on the Management of Disused Radioactive Sources, and to implement these, as appropriate, in order to maintain effective safety and security of radioactive sources throughout their life cycle”. The Conference also requested “the Secretariat to continue supporting Member States in this regard”. Similarly, the Conference encouraged member states “to apply the guidance of the Code of Conduct on the Safety of Research Reactors at all stages in their life, including planning” and “to freely exchange their regulatory and operating information and experience with regard to research reactors”. In this context, the Conference requested the Secretariat “to continue to support Member States, upon request, in [the] application of the guidance of the Code of Conduct on the Safety of Research Reactors”.

With regard to civil liability for nuclear damage, the General Conference encouraged “Member States to give due consideration to the possibility of joining the international nuclear liability instruments, as appropriate, and to work towards establishing a global nuclear liability regime”. In this context, the Conference requested “the Secretariat, in coordination with the OECD/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, the Conference recognised “the valuable work of INLEX”, took note “of its recommendations and best practices on establishing a global nuclear liability regime, including through the identification of actions to address gaps in and enhance the existing nuclear liability regimes”, encouraged “the continuation of INLEX, especially for its support for the IAEA’s outreach activities to facilitate the achievement of a global nuclear liability regime” and requested “that INLEX, via the Secretariat informs Member States on a regular and transparent basis about the work of INLEX and its recommendations to the Director General”.

Nuclear Security (GC(63)/RES/10)

In the context of nuclear security, the Conference affirmed “the central role of the Agency in strengthening the nuclear security framework globally and in coordinating international activities in the field of nuclear security, while avoiding duplication and overlap”. The Conference called upon the Secretariat “to continue to organize [International Conference on Nuclear Security: Sustaining and Strengthening Efforts] ICONS every four years”. In addition, the Conference welcomed “the ongoing preparatory process for the 2021 Conference, which is being convened in accordance with article 16.1 of the CPPNM, as modified by its 2005 Amendment”, and encouraged “all States Parties and EURATOM to engage actively”.

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 Parties to the Convention to participate in relevant meetings” as well as reminded “all Parties to inform the depositary of their laws and regulations which give effect to the Convention”.

IAEA Treaty Event

The 10th Treaty Event took place during the 64th regular session of the Agency’s General Conference. It provided member states with a further opportunity to deposit their instruments of ratification, acceptance or approval of, or accession to, the treaties deposited with the Director General, including those related to nuclear safety, security and civil liability for nuclear damage. At the Treaty Event, Angola deposited an instrument of accession to the CNS and an instrument of accession to the CPPNM and of ratification of its 2005 Amendment. Côte d’Ivoire deposited instruments of ratification of the Early Notification and Assistance Conventions.

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. The COVID-19 pandemic put face-to-face meetings on hold resulting in the postponement of several workshops and missions focused on enabling officials in member states in gaining more broadly a better understanding of the relevant international legal instruments. In addition, the 10th session of the Nuclear Law Institute (NLI) was postponed to October 2021.

In response to the disruption caused by the pandemic and due to the postponement of face-to-face activities, several virtual legislative assistance missions were held, and others are scheduled and planned. The Agency also launched a Webinar Series on Nuclear Law comprising nine webinars and commencing on 5 October through to mid-December 2020. The webinar series, implemented within the framework of the Agency legislative assistance programme, is open to officials with a policy, legal, regulatory and/or technical background from all IAEA member states. In response to the interest received in the webinar series, the Agency will hold a Webinar on Nuclear Law open to the public on 15 December 2020. It will provide an opportunity for individuals and organisations, including from industry, law firms, non-governmental organisations, civil society and academia, to engage with Agency staff and international experts on the subject.

OECD Nuclear Energy Agency

International School of Nuclear Law: Hot topics, expert views

While the 2020 edition of the International School of Nuclear Law (ISNL) was cancelled due to the ongoing COVID-19 pandemic, the NEA hosted a virtual roundtable discussion on 1 October 2020 to celebrate what would have been the 20th anniversary of this unique course. The event brought together ISNL lecturers, representing the NEA, the International Atomic Energy Agency (IAEA), public and private sectors, and academia, who discussed recent developments in international nuclear law.

The roundtable addressed some of the hottest topics in international law and nuclear law today, including the current and emerging issues in the fundamental nuclear safety conventions and the standardisation and harmonisation of the licensing and regulation of SMRs and advanced reactors. The nature and role of environmental conventions in the licensing of nuclear energy-related activities – in particular lifetime extensions – were discussed. The speakers exchanged about the challenges of ensuring nuclear security and safeguards compliance during the COVID-19 pandemic. Discussions also touched on the new developments in the field of civil nuclear liability and insurance, as well as on the role of nuclear law experts in a clean and sustainable energy future.

A video recording of the expert roundtable is available here: <https://youtu.be/7W8sQQVWCVw>.

The role of nuclear energy during COVID-19 and beyond

The coronavirus (COVID-19) pandemic has had significant impacts on the global economy and energy sector. It has also underlined the importance of electricity reliability and resilience during major disruptions. With governments considering a broad range of options for economic recovery and job creation, it is becoming increasingly clear that stimulus packages have the opportunity to support energy systems that both fulfil these criteria while meeting long-term environmental goals and energy security.

The NEA is examining the regulatory and operational impacts of the crisis, and working closely with its members to enable exchanges of policy approaches and best practices around the world. As part of these efforts, the Agency issued four policy briefs and hosted a series of discussions around these policy briefs to explore the role that nuclear energy can play in the post-COVID-19 recovery, whilst also supporting the path towards a truly sustainable and environmentally responsible energy future. Video recordings of these discussions are available on the NEA's YouTube channel. More information, as well as the NEA's policy recommendations, are available at: oe.cd/nea-covid-19-3.

NEA publications of interest

Since the publication of *Nuclear Law Bulletin* No. 104, the NEA has issued a number of publications of interest. The NEA has released a new report with recommendations to unlock meaningful cost reductions for future nuclear new build construction projects. This NEA report, entitled *Unlocking Reductions in the Construction Costs of Nuclear: A Practical Guide for Stakeholders*, focuses on potential cost and project risk reduction opportunities for contemporary Generation III reactor designs but that are also applicable to small modular reactors (SMRs) and advanced reactor concepts for deployment in the longer term. The study identifies longer-term cost reduction opportunities associated with the harmonisation of codes and standards and licensing regimes. It also explores the risk allocation schemes and mitigation priorities at the outset of well-performing financing frameworks for new nuclear that require a concerted effort among government, industry and the society as a whole.

Radioactive waste results from many different activities in health care, industry, research and power production. All such waste must be managed safely, with the protection of human health and the environment as the highest priority. After decades of

research, the international scientific community is now confident that placing high-level radioactive waste in deep geological repositories (DGRs) is both safe and effective. The government of each country has the absolute right and responsibility to implement the energy and environmental policies it believes are best. In the case of the disposal of radioactive waste, it is paramount that these debates should be informed by objective facts. The NEA report *Management and Disposal of High-Level Radioactive Waste: Global Progress and Solutions* and policy brief provide factual information regarding the management of high-level radioactive waste in DGRs. These documents highlight that countries around the world have great confidence that the use of DGRs is a safe and effective method to protect people and the environment from long-lived radioactive waste materials.

The reports and policy brief are available for free online at: www.oecd-nea.org/jcms/rni_6629/news-and-resources.

