Intergovernmental organisation activity

European Atomic Energy Community

Institutional issues and regulatory proposals

Communication on a more efficient and democratic decision-making in EU energy and climate policy[1]

On 9 April 2019, the European Commission adopted a Communication to the European Parliament, the European Council and the Council of the European Union (EU) on "A more efficient and democratic decision-making in EU energy and climate policy". The Communication acknowledges that nuclear power is a reality in today's European energy mix and that half of the EU member states use nuclear energy for their power generation, representing 27% of the EU's electricity generation. Moreover, it recognises that the Euratom Treaty[2] provides the most advanced legal framework in the world in the areas of nuclear safety, waste management or radiological protection. The Communication further states that there is, however, a recognised concern that the Euratom Treaty needs to evolve in line with a more united, stronger and democratic EU.

In this context, a central aspect is the democratic accountability of Euratom and in particular the involvement of the European Parliament and national parliaments. While the Treaty of Lisbon[3] extended the ordinary legislative procedure to nearly all policy areas where the European Parliament previously only had a consultative role, under most provisions of the Treaty regarding the adoption of legal acts the European Parliament is only consulted. Therefore, it may be useful to explore how to enhance the role of the European Parliament to improve the democratic legitimacy of decision-making under Euratom.

An additional area where the Euratom Treaty does not reflect improvements in terms of transparency and democratisation achieved in the successive reforms of the EU Treaties is with regard to the role of national parliaments, whereby it may be useful to explore whether their role can be reinforced further.

The Commission should also take initiatives to increase the involvement of civil society in nuclear policy making and raise EU-wide interest in relevant fora. On some nuclear matters, the availability of information can be understandably limited, especially in the field of nuclear security. While this is a legitimate concern, issues such as nuclear safety, the management of radioactive waste and emergency planning deserve to continue to be debated as openly as possible in line with existing rules.

1. Communication to the European Parliament, the European Council and the Council of the EU on "A more efficient and democratic decision making in EU energy and climate policy", COM(2019) 177 final, 9 Apr. 2019, available at: http://ec.europa.eu/transparency/regdoc/rep/1/2019/EN/COM-2019-177-F1-EN-MAIN-PART-1.PDF.
2. Treaty Establishing the European Atomic Energy Community (1957), 298 UNTS 167, entered into force 1 Jan. 1958 (Euratom Treaty) (consolidated version *Official Journal of the European Union* (OJ) C 203 (7 June 2016)).
3. Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community, signed at Lisbon, 13 December 2007, OJ C 306 (17 Dec. 2007), entered into force 1 Dec. 2009.

These issues are central to citizens' concerns. The first step is rigorous implementation of recently agreed legislation. In the area of responsible and safe management of spent fuel and radioactive waste, it is of utmost importance that member states continue to develop comprehensive plans for the management of nuclear waste and implement these plans. When cross-border impact is at stake, cross-border consultations between member states should be promoted, as well as stronger involvement of the European Nuclear Safety Regulators Group (ENSREG). The collective ability of the EU and member states to respond to nuclear accidents should be reinforced, in particular to clarify financial responsibility and ensure adequate financing in this respect.

The Communication notes that a change of the Euratom Treaty to extend the use of the ordinary legislative procedure needs to be part of a broader process of treaty reform using the ordinary treaty revision procedure under Article 48 Treaty on European Union[4] and may be seen in the longer-term, post-2025 perspective. However, the Communication further states that in the months to come the European Commission will establish a high-level group of experts whose task will be to assess and report to the Commission on the state of play of the Euratom Treaty with a view to considering how, on the basis of the current Treaty, its democratic accountability could be improved.

Published studies

Study for the European Parliament PETI Committee: "Cross-border nuclear safety, liability and cooperation in the European Union"[5]

The study issued the following set of recommendations:

1. Consideration could be given to creating an independent EU agency with specific powers to regulate in the nuclear sector.
2. More precise EU rules should be designed concerning the siting, construction and operation of nuclear power plants. These should go beyond the currently applicable standards and be legally binding.
3. The EU should acquire powers to directly inspect and monitor compliance with nuclear safety rules by the nuclear power plants within each member state.
4. Specific rules concerning the risk-based inspections should be worked out, mandating how and when safety inspections at nuclear facilities should take place.
5. To the extent that no other interests are harmed by this (to be assessed by the independent EU agency) nuclear safety inspection reports should be made available to the public.
6. The EU should undertake a harmonisation initiative regarding nuclear liability and insurance for nuclear accidents, while providing for unlimited liability; a limitation of the duty to seek financial cover for an insurable amount; an additional state guarantee as a reinsurer of last resort.

4. Treaty on European Union, OJ C 191 (29 July 1992), entered into force 1 Nov. 1993 (consolidated version OJ C 202/13 (7 June 2016)).
5. Faur, M.G. and K. Kindju (2019), *Study for the PETI committee: Cross-border nuclear safety, liability and cooperation in the European Union*, European Union, Brussels, available at: www.europarl.europa.eu/RegData/etudes/STUD/2019/608860/IPOL_STU(2019)608860_EN.pdf.

7. The EU nuclear liability harmonisation initiative should either be autonomous or consist in the promotion of a fundamental revision of the international legal framework.
8. Further EU legally binding rules should be adopted concerning the siting, construction and operation of nuclear power plants at the EU level.
9. Judicial co-operation in civil matters with respect to nuclear liability should also be harmonised.
10. Measures should be taken to work out scenarios under which compensation to victims of a nuclear accident will be provided, whereby adequate compensation should be provided via a fast and low-cost procedure.

European Study on Medical, Industrial and Research Applications of Nuclear and Radiation Technology[6]

On 11 February 2019, the Euratom Commission's Directorate-General for Energy published a *European Study on Medical, Industrial and Research Applications of Nuclear and Radiation Technology*. According to the study, since their discovery over a century ago, ionising radiation (IR) technologies have become key tools to explore matter and biological building blocks. One of the most important discoveries of the 20th century, namely the structure of DNA, was the result of analysing its X-ray diffraction pattern. Over the years, health has become one of the most important non-energy applications to use IR, including imaging and therapy. IR is also used in many industrial domains, ranging from sterilisation and disinfection to security-control systems, and from non-destructive testing to environmental applications. Nanotechnologies, nanoelectronics, photonics, advanced materials, biotechnologies and advanced manufacturing also use IR tools. Not only do these technologies generate high revenues by themselves, they also generate highly skilled innovation-oriented jobs, confer added value to products and services in which they are embedded and prompt other technological developments. Europe hosts a substantial infrastructure of facilities dedicated to fundamental or applied IR research, a broad network of advanced universities and research centres, as well as world-class industrial corporations and innovative SMEs competing at the global level. Such assets should be sustained and developed, alongside its most promising applications, while ensuring the highest level of safety and radiological protection. This study provides up-to-date information on the non-power applications of nuclear and radiation technology in the EU with the view of identifying their key societal benefits and development perspectives. The study proposes a series of actions in this area aimed at contributing to European citizens' health and to the European economy, competitiveness, jobs and growth.

6. NucAdvisor/Technopolis Group (2018), *European Study on Medical, Industrial and Research Applications of Nuclear and Radiation Technology*, Final Report – EC-01-08-D-30/07/2018, available at: https://publications.europa.eu/en/publication-detail/-/publication/6ae3e9cd-2e7a-11e9-8d04-01aa75ed71a1/language-en?WT.mc_id=Searchresult&WT.ria_c=null&WT.ria_f=3608&WT.ria_ev=search.

International Atomic Energy Agency

Nuclear safety

Organizational Meeting for the Eighth Review Meeting of Contracting Parties to the Convention on Nuclear Safety

The Agency hosted the "Organizational Meeting for the Eighth Review Meeting of Contracting Parties to the Convention on Nuclear Safety"[7] at the IAEA's Headquarters in Vienna on 17 October 2018. At the meeting, a number of preparatory decisions related to the conduct of the upcoming review meeting were taken and agreed upon by consensus.

Contracting parties in particular, elected the officers for the Eighth Review Meeting, to be held from 23 March to 3 April 2020, and decided on the establishment and composition of seven country groups. The meeting, following up on the decision of the Seventh Review Meeting to continue to hold topical sessions during future review meetings, decided to recommend "ageing management" and "safety culture" for consideration as topics for these sessions. Contracting parties further agreed to invite the OECD Nuclear Energy Agency (NEA) and the World Association of Nuclear Operators (WANO) to attend as observers, the opening and final plenary sessions of the Eighth Review Meeting.

Officers' Turnover Meeting

The Officers' Turnover Meeting was held in Vienna on 19 March 2019 where the officers of the CNS Seventh Review Meeting shared with the officers elected for the CNS Eighth Review Meeting their experience and feedback on the preparation and conduct of the previous review meetings. At the meeting, incoming and outgoing officers discussed the review meeting process in detail, including key documents, in order to ensure the transfer of knowledge on the CNS, its processes and the role of the officers.

Nuclear security

Convention on the Physical Protection of Nuclear Material and its Amendment

The fourth "Technical Meeting of the Representatives of States Parties to the Convention on the Physical Protection of Nuclear Material (CPPNM)[8] and the CPPNM Amendment"[9] was held in December 2018 at the IAEA's Headquarters in Vienna and was attended by around 60 participants. The representatives discussed, *inter alia*, the role of the Points of Contacts designated under the CPPNM, as well as the communications pursuant to Article 14.1 of the CPPNM and its Amendment on the laws and regulations giving effect to these instruments.

An Informal Meeting of the Parties to the A/CPPNM was held on 10 and 11 December 2018 in Vienna. The purpose of the meeting was to discuss the preparations for the 2021 Conference of the Parties to the A/CPPNM to "review the implementation of the [amended] Convention and its adequacy as concerns the preamble, the whole of the operative part and the annexes in the light of the then prevailing situation", as foreseen in Article 16.1 of the A/CPPNM. Around 50 parties to the A/CPPNM as well as some parties to the CPPNM attended the meeting. The

7. Convention on Nuclear Safety (1994), IAEA Doc. INFCIRC/449, 1963 UNTS 293, entered into force 24 October 1996 (CNS).
8. Convention on the Physical Protection of Nuclear Material, (1980), IAEA Doc. INFCIRC/274 Rev. 1, 1456 UNTS 125, entered into force 8 February 1987 (CPPNM).
9. 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 (A/CPPNM).

participants also discussed and agreed on a "Provisional Roadmap Towards the 2021 Conference of the Parties to the Amendment to the CPPNM".

The IAEA continued to promote universal adherence to the Amendment to the CPPNM, including through three regional workshops held for Southeast Asia, for French-speaking Africa and for Russian-speaking states.

International Conference on the Security of Radioactive Material

The Agency organised the "International Conference on the Security of Radioactive Material: The Way Forward for Prevention and Detection", in Vienna in December 2018. The conference, attended by some 550 participants from over 100 member states and co-chaired by Italy and Senegal, featured 6 main panel sessions and 28 specialised technical sessions. Topics addressed included international co-operation, communication, sustainability of national nuclear security regimes, state experiences in prevention and detection, the roles and initiatives of international organisations, securing nuclear material during its full life cycle and the detection of radioactive material involved in criminal and unauthorised acts.

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

A Regional Workshop on Civil Liability for Nuclear Damage for European States hosted by the government of Romania was held in Bucharest, Romania, in April 2019 and was attended by 74 participants from 25 member states. The Secretariat also conducted a joint mission with the International Expert Group on Nuclear Liability (INLEX) to Sudan in November 2018.

International Expert Group on Nuclear Liability (INLEX)

At its 19th regular meeting held in Vienna, Austria, in May 2019, INLEX finalised its discussions on issues concerning transportable nuclear power plants (TNPPs) and reached conclusions on several other issues. As regards TNPPs, INLEX reiterated its conclusions from previous meetings that a TNPP in a fixed position (that is, in the case of a floating reactor, anchored to the seabed or the shore, and attached to the shore by power lines) would fall under the definition of "nuclear installation" and therefore be covered by the nuclear liability regime, and 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, however, noted that these conclusions could not apply in circumstances where the reactor was used for the propulsion of the vessel.

INLEX then discussed the issue of factory-fuelled reactors transported and deployed in a host state either not party to a nuclear liability convention or not party to the same convention as the sending state and where no unloading of fuel from the vessel occurs before the operation of the TNPP in the state of destination. It was noted in this respect that the language used in the nuclear liability conventions is ill-suited to cover this situation as, in fact, under the nuclear liability conventions, the sending operator is liable until the nuclear material has been unloaded from the means of transport by which it has arrived in the territory of a non-contracting state: if interpreted literally, this would entail that the sending operator would remain liable indefinitely, irrespective of whether the TNPP would thereafter be operated by another operator in the state of destination. INLEX therefore recommended that the Vienna Convention and the Convention on Supplementary Compensation for Nuclear Damage be interpreted to mean that in such a case the sending operator would cease to be liable when the TNPP is taken charge of by the authorised person in the state of destination.

INLEX added in this respect that, at some future point of time when the original sending operator took responsibility for the TNPP in order to return it to the sending state, that operator would again assume liability, and INLEX decided that the potential further complications that may arise if the TNPP were to be deployed in a third state prior to its return to the state of origin need not be discussed at this stage. With these additional conclusions, INLEX considered the issues concerning TNPPs as closed.

With respect to liability issues concerning cyber-attacks, INLEX concluded that, assuming the attack triggered a nuclear incident, there was no basis for treating a cyber-attack differently from other acts of terrorism. On this basis, INLEX reaffirmed that like other acts of terrorism, a cyber-attack would not exonerate the operator from nuclear liability, unless that cyber-attack amounted to "an act of armed conflict, hostilities, civil war or insurrection" and then only if the nuclear incident was "directly due" to such an act. It was noted in this context that the burden of proof would lie with the operator claiming such an exoneration before the competent court and that third-party liability insurance contracts generally do not contain an exoneration for cyber-attacks.

With respect to the issue of jurisdiction under the Joint Protocol, INLEX reaffirmed that in the case of a nuclear incident involving the transport of nuclear material between operators whose installations are situated in states party to different nuclear liability conventions but both party to the Joint Protocol, jurisdiction lies with the courts of the incident state (including, in the case of a party to the 1997 Vienna Convention or, in the future, to the Paris Convention as amended by the 2004 Protocol, where the incident occurs within the area of its exclusive economic zone).

Finally, INLEX discussed the differing amounts of compensation available under the various nuclear liability conventions and concluded that the higher liability amounts established by a state party to the 1997 Protocol to Amend the Vienna Convention is to be distributed without discrimination to victims in states party to the original 1963 Vienna Convention. INLEX also discussed issues that may arise if one or more states party to the Paris Convention and to the Brussels Supplementary Convention, as they will be revised by protocols adopted in 2004, decided to join the CSC, in particular as regards the definition of damage and the interaction between different supplementary compensation funds.

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 9th session of the Nuclear Law Institute (NLI), which was attended by 61 participants from member states, and the Regional Workshop on Nuclear Law conducted in Santiago, Chile, for member states of Latin America and the Caribbean.

OECD Nuclear Energy Agency

NEA Nuclear Education, Skills and Technology Framework (NEST) Agreement enters into force

Nuclear skills and education is an increasingly important challenge for NEA member countries, all of whom need to have a new generation of highly-qualified scientists

and engineers to ensure the continued safe and efficient use of nuclear technologies for a wide range of industrial, scientific and medical purposes. The NEA has therefore developed the NEA Nuclear Education, Skills and Technology (NEST) Framework, which officially entered into force on 15 February 2019. In partnership with 15 organisations from 10 member countries, NEST aims to nurture the next generation of nuclear experts who can provide the knowledge and leadership needed by the NEA membership in the years to come.

The first NEST Management Board meeting was held on 28 March 2019 with 29 participants from the 10 countries and 15 organisations that are signatories of the NEST Framework Agreement. During this meeting, the NEST Management Board elected Dr Andreas Pautz of Switzerland as its Chair and discussed and established guidelines for the implementation of the Framework and the first steps towards the development of four NEST projects and activities. These projects cover a wide range of nuclear technologies, from robotics in decommissioning proposed by Japan, small modular reactors proposed by Canada and the United States, hydrogen risk in safety assessment proposed by Switzerland and radioactive waste management with a focus on graphite proposed by Russia. The NEST Management Board wishes to enlarge the NEST Framework by welcoming additional project proposals, countries and organisations.

2019 International Nuclear Law Essentials (INLE)

The eighth session of the NEA International Nuclear Law Essentials (INLE) course was held on 18-22 February 2019 in Paris, France, bringing together a diverse group of 49 professionals from 22 NEA member and non-member countries. During the one-week programme, the participants learnt about the international nuclear law framework and major issues affecting the peaceful uses of nuclear energy. A total of 18 lecturers from the NEA, the International Atomic Energy Agency (IAEA), nuclear regulatory authorities and the private sector gave lectures on topics related to nuclear safety, security, non-proliferation and liability.