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Between Shadow and Light: The Treaty on the Non-Proliferation of Nuclear Weapons Forty Years On

*by Abdelwahab Biad**

“Despite its flaws and weaknesses, the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) remains an invaluable instrument for international security... There is no alternative but to support and strengthen the NPT...”

Foreign Affairs, Defence and Armed Forces Committee of the French Senate¹

The NPT was negotiated during the Cold War period to prevent the emergence of new nuclear players by distinguishing between “nuclear-weapon states” (NWS) which had carried out nuclear testing before 1 January 1967, that is the United States, Russia, the United Kingdom, France and China, and “non-nuclear-weapon states” (NNWS). Under the NPT, the two groups of states commit to comply with a series of commitments formulated around “three pillars”:

- Non-proliferation: the NWSs undertake under Article I not to transfer nuclear weapons or control over such weapons and not in any way to assist, encourage or induce any NNWS to acquire them, while the NNWSs are bound under Article II to neither develop or acquire nuclear weapons or “other nuclear explosive devices” nor to receive any assistance in that connection.

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1. Foreign Affairs, Defence and Armed Forces Committee of the French Senate, *Désarmement, non-prolifération nucléaires et sécurité de la France*, Rapport d’information No. 332, Jean-Pierre Chevènement, 24 February 2010.

- Peaceful use of nuclear energy: Article IV guarantees the “inalienable right” to “develop research, production and use of nuclear energy for peaceful purposes without discrimination”.
- Nuclear disarmament: each state party to the treaty undertakes under Article VI “to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament”.

The treaty entered in force in March 1970 and has since become universal, with 189 states parties in May 2010. At five-year intervals, parties to the treaty convene review conferences in order to review the operation of the treaty, Article VIII(3). The 1975, 1985 and 2000 review conferences culminated in the adoption of a final declaration and the 1995 review conference decided to extend the treaty indefinitely. The preparatory committee (PrepCom) for the 2010 review conference, which met from April 2007 to May 2009, did not adopt any recommendations, in absence of a consensus on essential issues concerning the operation of the treaty.

Hence the importance of this 8th review conference of the parties held in New York from 3 to 28 May 2010 in a context marked by conflicting signs in terms of non-proliferation and disarmament, e.g. a new American administration more open to multilateralism and proliferation crises (A).

The nuclear non-proliferation regime of which the NPT is the touchstone is based on a complex balance between the right to use nuclear energy for peaceful purposes, non-proliferation control requirements and commitment to disarmament. However, major challenges are weakening that balance underpinning the “global nuclear order” (B).

A. An international context characterised by conflicting signs

Lack of progress towards nuclear disarmament is an issue which is repeatedly raised in the NPT review conferences. It focuses on the frustration and criticism of the NNWSs regarding the failure to apply Article VI, under which the NWSs undertake to negotiate “in good faith” on effective measures to ultimately eliminate their nuclear weapons.

Conflicting messages were sent out at the 2010 conference, notably with the proactive initiatives by the Obama administration in a context of the deadlock regarding the entry into force of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and with negotiation on the nuclear agenda at the Geneva Conference on Disarmament.

A number of President Obama’s initiatives have certainly helped ease the atmosphere in this respect: his speech in Prague, the signing of the new Strategic Arms Reduction (START) Treaty and the New Nuclear Posture (I). This American activism prior to the 2010 NPT review conference was seen by some as a diversion primarily intended to create a climate conducive to the success of the conference, despite limited progress on nuclear disarmament (II) and a context of exacerbation of the proliferation crises (III).

I. The Prague speech and the Obama effect

The Obama administration has adopted a proactive approach to the nuclear issue. In his speech in Prague on 5 April 2009, President Obama expressed his vision of a “world without nuclear weapons”

and his immediate willingness to reduce the role of nuclear weapons in his country's defence strategy.² This speech by Obama must be viewed from the standpoint of non-ratification of the CTBT by the United States, delay in the announced adoption of a new Russian-American nuclear disarmament treaty and the President's own statement that the goal of a world without nuclear weapons was far off (his exact words being "not in my lifetime"). This call was addressed to both the world public and to major powers, inviting them to abandon the central role of nuclear weapons in their national defence policy but it ignored the issue of the asymmetry of existing arsenals.

In April 2010, President Obama made public the so called Nuclear Posture Review (NPR) founded on two key principles: strengthening the commitment not to use nuclear weapons while maintaining a deterrence stance. The whole point of the nuclear arsenal is to deter a nuclear attack against America and its allies: "The United States will not use or threaten to use nuclear weapons against non-nuclear weapons states that are party to the Nuclear Non-Proliferation Treaty and in compliance with their nuclear non-proliferation obligations".³ This is an interesting shift towards the no-first-use doctrine and a clarification of commitments not to use nuclear weapons against NNWSs. However, it still does not go far enough for proponents of an agreement which would totally ban the use of, or threat to use, nuclear weapons against NNWSs.

The Obama effect caused a slight thrill at the Conference on Disarmament, which in 2009 succeeded – for the first time since 1998 – in adopting an agreement on the agenda. However, that optimism needs to be qualified. After the hopes raised by the Prague speech, conflicting signs were sent out by the Obama administration: requesting a 10% spending increase for the 2010/2011 tax year to modernise the nuclear weapons complex and stalling on the issue of ratifying the CTBT. The United States has still not ratified this treaty, nor have China, Israel, India, Pakistan and North Korea. A consensus on the nuclear disarmament issues, included on the agenda of the NPT Review Conference, was far from being reached.

II. Non-proliferation commitments versus nuclear disarmament requirement

Like at previous NPT conferences, at the 2010 conference the NNWSs again mobilised strongly on the issue of the link that ought to be established between non-proliferation and disarmament. Several states argued that the decision to extend the NPT indefinitely had been linked to progress towards nuclear disarmament.

While the initiatives of the Obama administration did help ease the atmosphere at the review conference, they proved to be totally out of step with the continued deadlock regarding the implementation of the 13 practical steps towards nuclear disarmament adopted by the 2000 NPT conference, e.g. entry into force of the CTBT, negotiation of a treaty banning the production of fissile material for military purposes, application of START II and conclusion of START III, etc. Ten years on, none of these objectives had been achieved.

The new bilateral START Treaty between the United States and the Russian Federation, signed on 8 April 2010, aims to reduce the American and Russian strategic arsenals to 1 550 deployed warheads and 700 strategic launchers for each party. This reduction is, however, modest compared with both parties' existing arsenals of several thousand nuclear warheads, amounting to nearly 90% of

2. See Cole Harvey's analysis of the speech, "Obama Calls for Nuclear Weapons-Free World", *Arms Control Today*, May 2009, www.armscontrol.org/act/2009_5/Obama.

3. See, in particular, Morton H. Halperin, "A New Nuclear Posture", *Arms Control Today*, May 2010 (www.armscontrol.org/act/2010_05/Halperin). See also the relevant website: US department of Defense, Nuclear Posture Review, www.defense.gov/npr/.

the world stock. Moreover, it does not concern non-strategic nuclear weapons, e.g. tactical weapons, of which there would be thousands, as well as non-deployed, deactivated and stored weapons.

The NWSs have underlined what had been achieved in unilateral nuclear disarmament. Since the end of the Cold War, four of the five NWSs had made significant reductions in their arsenals. Russia and America had withdrawn from operational status approximately two-thirds of the warheads that they possessed in the 1980s. France and the United Kingdom had reduced their nuclear weapons by approximately 50%.⁴ By contrast, China was continuing to develop its weaponry, as were India and Pakistan.

The situation is equally contrasted for the non-proliferation objective. Although the NPT has slowed down nuclear proliferation since it entered into force, it has not prevented it. Among the significant accessions to the NPT, mention must be made of Argentina and Brazil, who jointly renounced military programmes which were initiated under their military dictatorships. The case of South Africa is emblematic of a country that started the process of total unilateral nuclear disarmament since the end of the Apartheid regime and has acceded to the NPT. Algeria, Cuba and Chile are also interesting cases of countries with technological capabilities which have joined the treaty, thus reinforcing its status as a virtually universal international instrument.

Apart from the specific case of Israel, the headwinds are blowing from India, Pakistan and North Korea, who have all undertaken nuclear testing – in 1974, 1998 and 2006 respectively. Will Iran be next? The issue of the risk posed by the proliferation of players in possession of the bomb has reached special and worrying dimensions with the discovery of Pyongyang's military programme and Iran's undeclared enrichment activities.

III. Proliferation crises: the shadows cast by North Korea and Iran

The North Korean problem was brought up at the 2010 review conference during the discussions on the NPT withdrawal clause. This issue was raised in the PrepCom by the American delegation which argued that although withdrawal was a right under Article X of the NPT, abuses needed to be prevented, particularly situations where a state party might decide to withdraw after breaching its obligations.

North Korea, which announced its withdrawal from the NPT in 2003, conducted a nuclear test in 2006. Pyongyang's justification of its withdrawal was the threat from the United States constituting "extraordinary events" which had "jeopardised the supreme interests of its country". However, Washington considered that this withdrawal did not stop North Korea from remaining accountable for its previous actions. Failing agreement on the matter at the review conference, a presidential statement said that many states considered that a party to the NPT remained accountable for breaches of the treaty if it withdrew and that the nuclear suppliers were entitled to require the return of the materials and technologies supplied to it.

Iran was also placed on the blacklist because of the concerns raised by its uranium enrichment programme. The Western countries (particularly the United States, France and the United Kingdom) highlighted the risks that Teheran's undeclared nuclear activities posed to the non-proliferation regime. The Iranian Delegation employed delay tactics to try to block the consensus so as to avoid being placed on the blacklist at the 2010 review conference. The lack of agreement on the issue

4. According to the estimates in the Report by J-P. Chevènement to the French Senate, *Désarmement, non-prolifération nucléaires et sécurité de la France*, Foreign Affairs, Defence and Armed Forces Committee, Rapport d'information No. 332 (2009-2010), particularly pp. 23 and 30.

explains the silence of the PrepCom and review conference documents. The prevailing view of the participants was that the NPT conference should not be held to ransom by an issue that was being reviewed by other bodies (International Atomic Energy Agency and United Nations Security Council).

However, the Iranian issue did return indirectly to the conference agenda during the discussions on the issue of multilateralisation of the nuclear fuel cycle, one of the solutions proposed to prevent a repetition of the Iranian precedent. As stated in the French Senate's report, there was "tension between the considerations with regard to non-proliferation and those with regard to access to nuclear fuel".⁵ To remedy that situation, an expert group produced a report in February 2005 ("Pellaud report") proposing multilateral approaches to the fuel cycle (international supply guarantee mechanisms, fuel banks, internationalisation of enrichment and reprocessing activities).⁶

The United States, France and the United Kingdom take the stance that it is neither necessary, nor economically viable, for any state to develop its own enrichment and reprocessing capabilities. Hence the underlying idea calling for the possibilities of multilateral fuel supply mechanisms to be explored in order to guarantee access to irradiated fuel in a spirit of openness. However, the *Non-Aligned Movement* distrusted these proposals, seeing them as reflecting the desire on the part of the nuclear suppliers to preserve their monopoly and the interest of cartels.

The IAEA meetings, as well as the NPT review conferences, are the sounding boards for this argument on the principles and rules that should govern the responsible development of civilian nuclear power and on the responses to the challenges threatening the global nuclear order.

B. Challenges to the global nuclear order

The global nuclear order built up over several decades is based on a compromise between two concepts. The first is focused on access to international assistance and nuclear technology transfer as a development objective. The second is concerned with the risk of military diversion, which has to be curbed by strengthening controls (I). The sustainability of this global nuclear order also depends on the ability to respond to the other challenges it faces, such as insecurity and regional conflicts that drive proliferation (II), and the threat of nuclear terrorism (III).

I. The thwarted universality of the 1997 Protocol on strengthening safeguards

The issue of implementing Article IV of the NPT, and in particular promoting international co-operation in civilian uses of nuclear energy for the benefit of developing countries, was reviewed in conjunction with that of meeting non-proliferation goals. The "inalienable right" to peaceful uses of nuclear energy enshrined in this article is accompanied by the obligation to meet the non-proliferation goal laid down in Articles I, II and III of the treaty.

The differences emerge once new mechanisms and procedures have to be applied, aimed at strengthening controls over non-diversion of materials, facilities and technologies supplied for military

5. Foreign Affairs, Defence and Armed Forces Committee of the French Senate. *Désarmement, non-prolifération nucléaires et sécurité de la France*, *op. cit.* p. 102.

6. From the name of the Group's Swiss co-ordinator, Bruno Pellaud, see: *Multilateral Approaches to the Nuclear Fuel Cycle: Expert Group Report* submitted to the Director General of the International Atomic Energy Agency – Document IAEA INFCIRC/640, 22 February 2005.

uses. This is the thrust of the 1997 Model Additional Protocol on strengthened safeguards,⁷ making implementation of any nuclear supply agreement conditional upon acceptance by the recipient state of controls by the IAEA throughout its fuel cycle (“full scope safeguards”).

The universality of the 1997 Model Additional Protocol is an issue repeatedly raised in the NPT review conferences and at IAEA meetings. The NPT review conference encouraged states parties to implement this protocol, reminding them that Security Council Resolution 1887(2009) had called for them to do the same. However, several NNWS, including Brazil, opposed the proposal to make the protocol the standard and universal model for IAEA inspections.

The differences regarding the strengthening of nuclear safeguards are generally between the NWS and the NNWS members of the *Non-Aligned Movement*. The former emphasise the effectiveness of the strengthened safeguards in order to discourage any “cheating”. Thus, the Guidelines of the Nuclear Suppliers Group (NSG) recommend a policy of restraint on the transfer of equipment and technologies involved in enrichment and reprocessing activities. These initiatives are criticised by many NNWS who take the opposite stance and favour greater access to nuclear technologies for civilian purposes, viewing the strengthening of inspections as obstacles to nuclear trade.

In May 2010, the 1997 Model Additional Protocol entered into force in 90 states. The main absentees include Iran and North Korea, countries which had just been placed on the blacklist by the IAEA for not having met their non-proliferation obligations. In addition to Iran, other states of the Middle East remain outside the protocol on strengthened safeguards.

II. *Proliferation and regional conflicts: the explosive cocktail of the Middle East*

The 2010 NPT conference noted with satisfaction the entry into force in 2009 of the instruments introducing nuclear-weapon-free zones in Central Asia (Treaty of Semipalatinsk) and Africa (Pelindaba Treaty). This is a regional non-proliferation success to add to the zones that already exist in Latin America (Treaty of Tlatelolco), the South Pacific (Rarotonga Treaty) and South-East Asia (Treaty of Bangkok). However, the effectiveness of these instruments remains linked to compliance by the NWSs with their obligations not to introduce nuclear weapons in these zones.

Denuclearisation in the Middle East has remained problematic since the draft resolution presented to the United Nations in 1974. The question of the establishment of a weapons-of-mass-destruction-free zone in this region is making a comeback, fifteen years after the adoption of a resolution on the Middle East by the 1995 NPT conference, a resolution which never went beyond wishful thinking. Worse, the situation is further complicated by the blocking of the Israeli-Arab peace process and the Iranian nuclear question, with the prospect of a nuclear arms race in the region. To avoid such a catastrophic scenario, there would be grounds for creating a multinational enrichment or reprocessing facility in the Middle East to meet the need of a growing number of states in the region to have their own nuclear programmes. The report by the French Senate stated that “the best approach was a regional approach” because “it would ward off criticism of the monopoly of Western companies while encouraging a global approach to the issues associated with non-proliferation in certain zones where those issues had not been resolved”.⁸

7. IAEA INFCIRC/540 – Model Additional Protocol to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards. The Protocol is the result of an American initiative following the discovery in the 1990s of Iraqi nuclear activities outside the IAEA monitoring system.

8. Foreign Affairs, Defence and Armed Forces Committee of the French Senate. *Désarmement, non-prolifération nucléaires et sécurité de la France*, op. cit. p. 106.

This issue is particularly sensitive in that 2010 saw a repetition of the 1995 scenario, with Egypt leading the Arab countries in expressing their frustration about the lack of progress in the denuclearisation in the Middle East, pointing the finger at Israel's nuclear weaponry.⁹ Just as it had done in 1995, 2000 and 2005, the United States tried to object to the explicit indictment of Israel, highlighting the risk that Iran's nuclear ambitions pose to the region.¹⁰

The text adopted by the 2010 review conference is predicated on implementing the 1995 Resolution, inviting Israel to rejoin the NPT and place all its nuclear activities under the control of the IAEA and – a new initiative – proposing to convene an international conference on the issue in 2012, to be attended by all states in the region. Although the idea of a monitoring mechanism has gathered momentum, its implementation remains uncertain.¹¹

III. *The nuclear security and safety challenge: 4th pillar of the NPT?*

A Nuclear Security Summit bringing together the leaders of 47 nations was held in Washington in April 2010 to address the challenges to nuclear security. The underlying idea is that additional measures have to be taken to secure nuclear materials and installations to prevent any theft or diversion for criminal or terrorist purposes. A work plan was adopted to secure all vulnerable nuclear material in four years and will be reviewed at the next Nuclear Security Summit in 2012.

The International Conference on Access to Civil Nuclear Energy, held in Paris on 8 and 9 March 2010 at the initiative of France, recommended making nuclear safety and security a “collective priority”.¹² In this regard, the Security Council Resolution 1887 of 24 September 2009 underlined the need to adhere to “the highest international standards for safeguards, security, and safety”, within the context of efforts to ensure development of peaceful uses of nuclear energy.

The European Union proposed an action plan for the responsible development of peaceful uses of nuclear energy to the PrepCom in May 2009, “promoting the most stringent non-proliferation, nuclear safety and security standards and practices by assisting willing partners to set up the right regulatory, administrative and human environments”.¹³

This concern must therefore be seen within the context of international efforts to prevent and repress terrorism. These efforts are reflected in the adoption of the 2005 International Convention for the Suppression of Acts of Nuclear Terrorism, the amendment of the 1980 Convention on the Physical Protection of Nuclear Material and in United Nations Security Council Resolution 1540(2004). In his Prague speech, U.S. President Obama called nuclear terrorism “the most immediate and extreme threat to global security”, a threat made possible because “black market trade in nuclear secrets and nuclear

9. See in particular: *L'armement nucléaire israélien: un tabou*, published in the *Annuaire français des relations internationales 2005*, La Documentation française, pp. 712-725.

10. For an analytical approach, see Acronym Institute for Disarmament Diplomacy, 2010 and Beyond – Middle East Nuclear-Weapon-Free Zone: the need for practical regional and international approaches, series originally produced for the 2010 NPT Review Conference.

11. The Israeli Prime Minister announced in a press release on 28 May 2010 that his country would not take part in such an exercise.

12. See for this conference: www.diplomatie.gouv.fr/fr/IMG/pdf/LPS_n19_Nucleaire_civil.pdf.

13. Working paper on forward-looking proposals of the European Union on all three pillars of the Treaty on the Non-Proliferation of Nuclear Weapons to be part of an action plan adopted by the 2010 Review Conference – Document NPT/CONF.2010/PC.III/WP.26 (see full text of the document appended).

materials abound”. He proposed a plan to “secure all vulnerable nuclear material around the world within four years”.

Indeed this issue provides a point of linkage between nuclear “safety”, “security” and “safeguards”. It not only concerns parties to the NPT, but extends beyond that to all nations, particularly the defaulting states for which serious concerns may exist on the safety of their nuclear installations. In response to this concern, the United Kingdom has even proposed that nuclear security and safety be established as the fourth pillar of the NPT.

A “road map” to revive the NPT...

The final document of the 2010 NPT review conference contained a 64-step action plan designed to strengthen the three pillars of the treaty: non-proliferation, peaceful uses of nuclear energy and disarmament.¹⁴ Bernard Kouchner, the French Minister of Foreign and European Affairs (at that time), called this final document “an ambitious road map designed to revive the dynamic of this treaty”.

On disarmament, no practical action plan was adopted as the NWSs were not in favour. The final document did not therefore incorporate the concept of a timetable for implementing Article VI. This document falls short of the 2000 review conference document in which the NWSs undertook to implement thirteen steps towards nuclear disarmament. No agreement could be reached on the question of a moratorium – or a ban – on the production of fissile materials for military uses, or urging all the states concerned to ratify the CTBT “without delay and without conditions”.

On non-proliferation and peaceful uses of nuclear energy, the states parties reaffirmed their support for the IAEA in its dual mission of promoting nuclear co-operation and acting as the NPT verification mechanism. Strongly worded language was used on the Middle East, expressing the international community’s support for the goal of denuclearisation in the region, and a meeting was envisaged for 2012.

The success of the 2010 review conference does nevertheless demonstrate the possibilities for compromise between the coalitions of states with divergent interests: NNWSs *versus* NWSs; new agenda coalition¹⁵ *versus* NWS. The outcome does not satisfy all the states and especially solves none of the substantive problems affecting the three pillars of the NPT. It does not mean that the challenges to the global nuclear order have disappeared. The date for the diary is 2015.

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14. 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document, Conclusions and recommendations for follow-on actions, Volume I, NPT/CONF.2010/50 (Vol. I), 18 June 2010.
 15. This coalition transcends the regional groups, bringing together South Africa, Brazil, Egypt, Ireland, Mexico, New Zealand and Sweden.

Competition Law and the Nuclear Sector: An EU Outlook

*by Miguel Sousa Ferro**

Competition law essentially aims at preventing harmful distortions of competition in the market which may be caused by agreements between companies, by the abusive behaviour of dominant companies, by structural changes in the market due to mergers or by state aid.¹ However, often such practices and measures are actually necessary to render certain services viable, to obtain new or better products, to pursue other policies for the greater benefit of the collective, etc. Occasionally, this raises interesting issues in the nuclear sector.

This paper aims to provide European competition law practitioners with a summary of the leading legal issues and precedents in this domain, alerting them to relevant specifics. It also aims to introduce nuclear lawyers to the reality and potential of antitrust enforcement in this sector.

For the purposes of this paper, the “nuclear sector” shall be broadly defined so as to include any activity which, given its link to nuclear energy or to ionizing radiation, is (at least partially) subject to special regulation under nuclear law.

While many nuclear-related activities will not, in principle, require a special analysis beyond the usual parameters of competition law enforcement, others present distinct challenges to practitioners. Some of these challenges are specific to the European legal order and justify the restriction of the scope of this analysis to the European Union. That being said, the extensive harmonisation of the national competition law of member states, as well as the fact that national competition authorities are required to enforce EU competition law, makes it advisable to look simultaneously at European-wide and national antitrust enforcement.

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1. While beyond the scope of this paper, it should be noted that in some legal orders nuclear regulators may also be called upon to apply competition policy when issuing a licence or allowing the transfer of licences to operators. This was the case with the U.S. Nuclear Regulatory Commission for several years until 2000 – see, e.g. www.nrc.gov/reading-rm/doc-collections/news/2000/00-097.html.

The relationship between EU competition law and the nuclear sector remains somewhat shrouded in mystery – perhaps excessively so. The issue has been tackled to some extent in general works on competition law² and energy law.³ As one would expect, research developed in the framework of nuclear forums has been more detailed.⁴ Yet, 53 years after the entry into force of the Treaty establishing the European Atomic Energy Community (Euratom Treaty) and the Treaty establishing the European Economic Community (EEC Treaty), such basic issues as the extent of the applicability of competition law to the nuclear sector are still disputed. The attempt to understand the precise practical implications of the *lex specialis* nature of the Euratom Treaty has led to further controversies concerning, in particular, the reconciliation of opposing primary law objectives. These issues shall be tackled in Sections 2 and 3.

Section 4 shall provide an overview of previous market definitions by European competition authorities in the nuclear sector so as to assist legal practitioners in the complex procedure of applying economic principles and methods to determine the extent of a market. This also serves as a list of the types of activities that have already been subject to antitrust scrutiny.

Finally, Sections 5 to 8 shall distinguish the precedents that relate, respectively, to anti-competitive agreements, abuse of a dominant position, merger control and state aid. It should be stressed that the national precedents indicated are by no means exhaustive.

1. Applicability of competition law to the nuclear sector

Today, it is nearly beyond dispute that competition law applies to the nuclear sector. This is confirmed by a growing consensus among doctrine, the practice of the European Commission and several

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2. See Faull, J., Nikpay, A. (eds.), *The EC Law of Competition*, 2000, §10.152 to §10.161; Whish, R., *Competition Law*, 6th ed., Oxford University Press, 2009, p. 956; Van Bael, I., Bellis, J.-F., *Competition Law of the European Community*, 5th ed., Wolters Kluwer, 2010, §12.34.
 3. See Regibeau, P., “The global energy industry: is competition among suppliers ensured?”, 13(4) (2000) *International Journal of Global Energy Issues*, p. 378; Sjolín, C., “Is competition among suppliers ensured?: a comment on Pierre Regibeau’s paper”, 13(4) (2000) *International Journal of Global Energy Issues*, p. 406; Grunwald, J., *Das Energierecht des Europäischen Gemeinschaften*, De Gruyter, 2003, pp. 235-238; Zaleski, C. Pierre, Meritet, Sophie, “L’énergie nucléaire face à la déréglementation des marchés d’électricité”, p. 547 (2003) *Revue de l’énergie* 365; Cabau, E., Hancher, L., Jones, C., Kjølbye, L., Landes, V., Van Der Woude, M., *EU Energy Law – Vol. II: EU Competition Law and Energy Markets*, 2nd ed., Claeys & Casteels, 2007; Cameron, P., *Competition in energy markets: law and regulation in the European Union*, 2nd ed., Oxford University Press, 2007; Ahner, N., Glachant, J.-M., de Hauteclocque, A., “Legal feasibility of Schengen-like agreements in European energy policy: the cases of nuclear cooperation and gas security of supply”, 17 March 2010, available at: <http://ssrn.com/abstract=1573784>.
 4. See Varley, C., Paffenbarger, J., “Electricity Market Competition and Nuclear Power”, 1998, available at: www.world-nuclear.org/sym/1998/varley.htm; Macdonald, J., “Nuclear generation in a competitive market: the British energy experience”, in *NIJ 1999 – Proceedings (24-29 October 1999, Washington)*, p. 303; de Cormis, F., “Report by Working Group 3: Legal certainty in international nuclear trade”, in *NIJ 2001 – Proceedings (3-7 June 2001, Budapest)*, p. 277; Nuclear Energy Agency, *Market competition in the nuclear industry*, OECD, 2008; Garzaniti, L., “Competition law in the nuclear sector”, and Bouquet, A., “Which competition rules for nuclear energy in a (progressively) liberalised European market environment?”, both in *NIJ 2007 – Proceedings (1-4 October 2007, Brussels)*, Bruylant, Brussels, 2008, respectively on p. 1211 and p. 1165; Bouquet, A., “Competition aspects”, and Garzaniti, L., Renshaw, A., “Nuclear liability and state aid – impact of EU competition rules”, Presentations at the Workshop “Prospects of a civil nuclear liability regime in the framework of the European Union”, organised by the Brussels Nuclear Law Association and the European Commission, 17-18 June 2010.

national competition authorities, which have repeatedly applied antitrust rules to the sector. Generally, if something constitutes an economic activity, it is subject to competition rules. Unless the specific activity may be deemed a service of general economic interest, nuclear activities tend to be economic in nature and are, therefore, fully subject to competition law.

At the EU level, for some time it was argued that since nuclear activities are governed by the Euratom Treaty, which does not include competition provisions, it should not be possible to apply the competition rules of the EC Treaty, now Treaty on the Functioning of the European Union (TFEU), to this sector. Those defending this interpretation pointed to the apparent general condition of *lex specialis* given to the Euratom Treaty by Article 106a(3) of the Euratom Treaty [previously Article 305(2) of the EC Treaty], according to which “the provisions of the [Treaty on European Union] and of the [TFEU] shall not derogate from the provisions of this Treaty”. Such a phrasing, however, requires a case-by-case analysis: only in the presence of a contradiction between provisions of both treaties can there be a derogation.

It now seems fair to consider it settled that the Euratom Treaty constitutes a *lex specialis*, and that EU competition rules shall apply to the nuclear sector as long as they are not derogated from by the Euratom Treaty. The European Commission has repeatedly taken up this position, and it seems to be the logical conclusion in light of general EU case law.⁵

It should be noted that each legal order may choose to exclude economic sectors from the scope of competition law. However, no such exclusion for nuclear activities exists at the EU level. Furthermore, while member states are free to adopt such an exclusion, the primacy of EU law in this domain [see Article 3 of Regulation (EC) 1/2003], together with the ease with which case law finds an effect on trade between member states (triggering the mandatory enforcement of EU competition law), would, in practice, almost always limit the relevance of such a national exclusion to unilateral practices and national merger control.

The real question has become the precise extent of the applicability of competition law. When might the Euratom Treaty be considered to derogate from competition rules? The liberalisation of energy markets in the EU, with increased competition between member states and between different types of power generation, has made the issue of competitive restrictions or distortions within the nuclear sector all the more sensitive, bringing renewed attention to it. Public discourse has, for over a decade now, focused on the need to ensure a level playing field for the different energy sources. Some environmentalist groups, for example, seem to be exploring the possible use of competition law as a way of making nuclear energy economically unviable.

In order to tackle this issue, one should first identify the provisions of the Euratom Treaty which may potentially come into conflict with competition law:

- Chapter 6 of the Euratom Treaty regulates the supply of ores, source materials and special fissile materials, channelled through the Euratom Supply Agency. By establishing a common supply policy, subject to the principle of equal access, Article 52 of the Euratom Treaty effectively excludes such supplies from the normal scope of competition on the market, as far as demand is concerned, with a specific impact at the level of prices (see Section 4 of Chapter 6).⁶

5. See, e.g. the general principle highlighted in: Case T-458/93 etc., *ENU* (1995) ECR II-2459, at [70]. See also the principles developed around the relationship between the ECSC and the EC Treaty, e.g. in Case T-27/03 etc., *Reinforcing bars* (2007) ECR II-4331.

6. The possibility of fixing prices, foreseen in Article 69(§1), has never been used by the Council.

- “Joint undertakings” established by a Council decision under Chapter 5, may benefit from any or all of the advantages foreseen in Annex III to the Euratom Treaty (such as exemptions from certain taxes and duties).⁷
- Article 98 of the Euratom Treaty requires member states to “take all measures necessary to facilitate the conclusion of insurance contracts covering nuclear risks”.⁸

As can be seen from this summary, there is a rather limited number of cases where a practice coming under the scrutiny of EU competition law will (also) be regulated by potentially conflicting Euratom provisions. The potential for conflict between the two treaties is, in this author’s view, extremely limited. This makes the discussion of the precise extent of applicability of EU competition law to the nuclear sector a moot point in most situations.

However, potential conflicts abound at a different level, e.g. that of treaty objectives. While competition policy aims at enhancing consumer welfare and promoting the proper functioning of the internal market, the Euratom Treaty sets specific objectives which, as practice has shown, are not always favoured by antitrust rules. Article 1 of the Euratom Treaty entrusts the Community with “creating the conditions necessary for the speedy establishment and growth of nuclear industries”. Article 2 states that the Community shall:

- promote research and ensure the dissemination of technical information; (...)
- facilitate investment and ensure, particularly by encouraging ventures on the part of undertakings, the establishment of the basic installations necessary for the development of nuclear energy in the Community;
- ensure that all users in the Community receive a regular and equitable supply of ores and nuclear fuels (...).

It is clear that competition rules may result in the prohibition of practices and measures which would favour the development and growth of the nuclear industry. What is less clear is whether such conflicts of objectives are relevant at the stage of determining the applicability of EU competition law to the nuclear sector. Answering this question requires a more in-depth look at the principle of *lex specialis* as it exists in the EU legal order.

This analysis will also allow us to tackle the issue raised by André Bouquet, according to which it is still open for discussion whether the applicability of EU competition law is excluded only in the case of conflict with the *lex specialis* (Euratom Treaty) or also when a given matter has been exhaustively regulated by the *lex specialis*.⁹

7. Certain types of investment projects in the nuclear sector must be notified to the Commission (Chapter 4), but the procedure is limited to information and discussion, the EU having no binding powers to influence such projects. Thus, it does not seem appropriate to include these provisions in a list of rules which may come into conflict with competition law provisions. The same is true for the regulation of the nuclear common market, which may be aided by, but which can hardly come into conflict with, competition law.

8. It also empowers the Council to adopt a directive on this issue – a competence which has, so far, remained dormant.

9. Bouquet, *op. cit.*, 2010. The case law on exclusion of action by member states, due to exhaustive regulation by the EU, is not extendable to this analysis. While our discussion lies within a single legal order, that case law concerns the relationship between different legal orders, connected by transfers of sovereignty and the principle of conferral of powers.

It should be noted that the different founding treaties constitute a single, indivisible legal order,¹⁰ the reason for which general legal principles discussed while interpreting one treaty are also applicable to the interpretation of another.

It is established that “the [Euratom] Treaty constitutes (...) a *lex specialis* in derogation from the *lex generalis* represented by the EC Treaty”.¹¹ However, this does not mean that EC (TFEU) provisions are inapplicable to Euratom activities. Indeed, the Court of Justice of the European Union (ECJ) has stated that, since the Euratom Treaty contains no specific provisions on dumping practices, “nothing excludes *a priori* the application, to the nuclear energy sector, of the antidumping provisions laid down by the EC Treaty”.¹² This approach had already been followed in determining that EC (TFEU) rules on state aid and conclusion of external trade agreements are applicable to Euratom activities – a specific derogation would need to be identified to exclude their applicability.¹³

Referring to the relation between the (expired) Treaty establishing the European Coal and Steel Community (ECSC Treaty) and the EC Treaty, based on the same wording of Article 305 of the EC Treaty [now Article 106a(3) Euratom], the court equally stated that “the ECSC Treaty constituted a *lex specialis* derogating from the *lex generalis* of the EC Treaty”.¹⁴ That being said, “in so far as matters were not the subject of provisions in the ECSC Treaty or rules adopted under it, the EC Treaty and the provisions adopted for its implementation could (...) apply to products covered by the ECSC Treaty”.¹⁵ It is important to note that the court’s use of the expression “matters” referred not to encompassing the same facts, but to regulating the same legal issue (e.g. rules on anti-competitive agreements between companies or merger control).¹⁶

No example could be found of *lex specialis* analysis by the ECJ or by the General Court of the European Union focusing on general objectives, rather than specific provisions, whose content could run counter to that of *lex generalis* provisions.¹⁷ Unless there is a situation which “special legislation

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10. Case C-221/88, *Busseni* (1990) ECR I-495, at [16] and [21]; *Reinforcing bars*, at [108] and [115].
 11. Case T-122/04, *Outokumpu Oyj* (2009) ECR II-1135, at [55].
 12. *ENU*, at [70].
 13. Case 188/80 etc., *French Republic et al. v Commission* (1982) 2545, at [29] and [32] (in the same sense, see the Opinion of AG Reischl); Opinion 1/94 (1994) I-5267 at [24]. See also Case T-92/02, *Stadtwerke Schwäbisch Hall* (2006) ECR II-11.
 14. *Reinforcing bars*, at [111]. Case T-24/07, *ThyssenKrupp Stainless* (2009) ECR II-2309, at [75]; Case T-25/04, *González y Díez* (2007) ECR II-3121, at [71].
 15. *ThyssenKrupp Stainless*, at [78]. See also Case T-374/00, *Verband der freien Rohrwerke* (2003) ECR II-2275, at [68]; Case 328/85, *Deutsche Babcock Handel* (1987) 5119, at [10]; and Case C-74/00 P etc., *Falck & Acciaierie* (2002) I-7869, at [100].
 16. Article 30 of the 1969 Vienna Convention, on conflicts of laws, uses the expression “subject matter” in this same sense.
 17. Aside from other cases mentioned in this section, see also: Case T-288/06, *Regionalny Fundusz Gospodarczy* (2009) ECR II-2247, at [40] *et seq.*; Case T-237/06 etc., *ISD Polska* (2009) ECR II-2185, at [91] *et seq.*; Opinion AG Trstenjak’s in Case C-37/08, *RCI Europe* (2009) not yet reported, at [74] *et seq.*; Opinion AG Trstenjak in Case C-5/08, *Infopaq International* (2009) not yet reported, at [119]; Case C-443/07 P, *Mediavilla* (2008) ECR I-10945, at [96] *et seq.*; Opinion AG Kokott in Case C-317/07, *Lathi Energia Oy* (2008) ECR I-9051, at [46]; Case T-75/06, *Bayer CropScience* (2008) ECR II-2081, at [251]; Opinion AG Mazák in Case C-158/07, *Jacqueline Förster* (2008) ECR I-8507, at [118]; Case T-60/05, *UFEX* (2007) ECR II-3397, at [192]; Case C-325/05, *Ismail Derin* (2007) ECR I-6495, at [55]; Opinion AG Mazák in Case C-457/05, *Spirituosen-Industrie* (2007) ECR I-8075, at [32]-[33]; Opinion AG Poiares Maduro in Case C-129/05 etc., *Raverco* (2006) ECR I-9297, at [28] *et seq.*; Case T-146/04, *Atxalandabaso* (2005) ECR II-5989, at [95]; Case C-110/03, *Belgium v Commission* (2005) ECR I-2801, at [39]; Case C-27/02, *Petra Engler* (2005) ECR I-481, at [32]; Case C-272/03, *Hauptzollamt Neubrandenburg* (2004) ECR I-11941, at [15]-[16]; Case C-96/00, *Rudolf Gabriel* (2002) I-6367, at [36].

(...) specifically seeks to regulate”,¹⁸ even if in a merely implicit manner, there can be no discussion of a relation of *lex specialis*.¹⁹ This is implied in the principle that “any general rule (...) may be limited or excluded – according to the principle that a special rule derogates from the general rule (*lex specialis derogat legi generali*) – **where there are special rules governing specific matters**”.²⁰

Clearly, the identification of a special rule of the Euratom Treaty which may exclude the applicability of EU competition law in a given sector must take into account the “wording and the broad logic”²¹ or the “spirit and purpose of the rule”²² in question. Yet this is not to say that a general treaty objective (without being associated to a specific provision) may be used as grounds for inapplicability of EU competition law.

This interpretation is also the most consistent with the existence of the subsidiary competence clause (Article 203 of the Euratom Treaty), which allows the Euratom Community to adopt rules on an issue whenever it feels they are required for the pursuit of a treaty objective for which provision has not otherwise been made.

As for Bouquet’s reference to situations of “exhaustive regulation”, it is preferable to view the discussion in the following terms: provisions pursuing identical objectives and regulating the same matters, but presupposing different conditions in their scope (one of these sets of conditions being more specific), will necessarily be in a relation of *lex specialis / lex generalis*.²³ This was the case with the ECSC rules on competition and state aid, but it does not occur with the Euratom Treaty.²⁴ It is extremely unusual for a relation of *lex specialis* to exist between sets of rules that partially regulate the same sets of facts, but do not pursue the same objectives or regulate the same matter. An explicit or implicit contradiction must be found, such as to render it illogical to ever apply the general rules in question to those facts whenever they come under the scope of the special rules.

No general derogation (relation of *lex specialis*) exists if the different provisions can be found to be complementary, as pursuing different objectives without excluding or annulling each other.²⁵ In other words, when different matters are being regulated, in the absence of an abstract and necessary contradiction, independent of specific circumstances, the *lex specialis* principle is not called into play, and instead we are faced with a – fairly common – situation of two sets of rules pursuing different

18. Case C-444/00, *Mayer Parry Recycling* (2003) ECR I-6163, at [57].

19. See also Case T-36/04, *API* (2007) ECR II-3201, at [89]; Case C-252/05, *Thames Water Utilities* (2007) ECR I-3883, at [40]-[41]; Opinion AG Ruiz-Jarabo Coromer in Case C-421/07, *Frede Damgaard* (2009) ECR I-2629, at [62]. AG Kokott has stated that the existence of specific provisions will not always be sufficient to establish a relationship of hierarchy between different rules – Opinion in Case C-287/05, *DPW Hendrix* (2007) ECR I-6909, at [55].

20. Case T-371/03, *Vicenzo le Voci* (2005) ECR II-957, at [122] (emphasis added).

21. Case T-124/02 etc., *Sunrider Corp.* (2004) ECR II-1149, at [38].

22. Opinion AG Trstenjak in Case C-285/06, *Schneider* (2008) ECR I-1501, at [73]. See also Case C-439/01, *Libor Cipra* (2003) I-745, at [35]; and Case C-481/99, *Heininger* (2001) ECR I-9945, [37]-[40].

23. Case 91/78, *Hansen* (1979) 935, at [9].

24. See, e.g., Case T-405/06, *ArcelorMittal* (2009) ECR II-771, at [68]. For another example, see: Case C-374/05, *Gintec* (2007) I-9517, at [31].

25. Case C-390/98, *HJ Banks* (2001) ECR I-6117, at [83]; Case T-123/99, *JT’s Corporation* (2000) II-3269, at [50]; Case 2/56, *Ruhr coal* (1957) 9.

objectives in the same situation. The best known example of such a situation arising in the enforcement of EU competition law was the *Wouters* case which will be further discussed below.

Finally, while attempting to identify Euratom provisions which derogate from EU competition law, it is important to keep in mind that, to the extent that the Euratom Treaty would constitute “a *lex specialis* in derogation from the *lex generalis* represented by the EC Treaty (...) the terms used to delimit its scope must be given a strict interpretation”.²⁶

In light of the above, it would seem that, aside from practices effectively excluded from the scope of competition by Chapter 6 (which are not as numerous as it may appear), and of Annex III advantages granted to joint undertakings, no other Euratom provisions are such as to generally and necessarily run counter to the applicability of competition law. Other provisions (such as Article 98), as well as general objectives, may be relevant for the enforcement of competition law, as discussed in the following section, but do not affect its applicability in abstract terms.

2. Opposing policies

Occasionally, the enforcement of competition law in the nuclear sector may run counter to the pursuit of other EU objectives or policies, *maxime* facilitating the development and growth of the European nuclear sector and guaranteeing safety and security of nuclear fuel supplies.

Unlike U.S. antitrust law, with its less formal rule of reason approach, EU competition law does not easily allow for the consideration of advantages outside the sphere of competition policy.

In principle, an anti-competitive agreement is only allowed if it meets the requisites of Article 101(3) of the TFEU.²⁷ Article 102 of the TFEU, on abusive unilateral conducts, does not even contain an exemption clause, even though the possibility of “economic justification” has been raised. In merger control, the only criterion for authorisation or interdiction of an operation is whether it will significantly impede effective competition. State aid may only be allowed if it falls under one of the exceptions [Article 107(2) and (3) of the TFEU], including “facilitating the development of certain economic activities or of certain economic areas”.

Despite this general framework, some authors have suggested that the Commission’s approach in the nuclear sector essentially seems to exclude competition rules whenever they run counter to Euratom objectives, it being unclear if this is done as a consequence of the *lex specialis* principle or on other grounds. However, the Commission’s practice is interpreted differently here.

Of all Commission antitrust decisions in the nuclear sector, only two have discussed this issue, while the remaining make no mention of conflicting Euratom objectives.

The 2001 nuclear insurance pool cases are sometimes given as an example of primacy of Euratom objectives. However, the Commission’s authorisation of those pools was based on the

26. Case T-6/99, *ESF* (2001) II-1523, at [102]. See also Case T-92/98, *Interporc* (1999) II-3521, at [40].

27. Any agreement or category of agreements between undertakings, any decision or category of decisions by associations of undertakings, any concerted practice or category of concerted practices which contributes to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit, and which does not (a) impose on the undertakings concerned restrictions which are not indispensable to the attainment of these objectives; (b) afford such undertakings the possibility of eliminating competition in respect of a substantial part of the products in question.

conclusion that, without such co-operation, there would be no market. It was logically impossible for the insurance pools to restrict competition on a market that would otherwise not exist. The solution was thus found exclusively within the realm of antitrust, and the approach is by no means exclusive to the nuclear sector.

In 2003 and 2006, in UK state aid cases, the Commission affirmed that, whenever issues fall within the scope of both the Euratom Treaty and EU competition law, they must be “assessed accordingly. However, to the extent that they [the practices or measures in question] are not necessary for or go beyond the objectives of the Euratom Treaty **or** distort or threaten to distort competition in the internal market, they have to be assessed under the EC Treaty”.²⁸ The only conclusion that can be drawn from this statement is that the Commission realises that it may have to analyse certain measures or practices under the provisions of both treaties, and that there may be conflicts between their objectives.

In both cases, the envisaged measures would contribute to several Euratom objectives.²⁹ However, while the 2003 Decision also mentioned the conformity with Euratom objectives in its conclusion,³⁰ the Commission’s analysis followed the usual method of enforcement of state aid rules (including the applicable guidelines), independently from those objectives. It found that there were state aid measures and authorised them only because they could be exempted under Article 107(3)(c),³¹ subject to a range of conditions.

The 2006 case stands alone as the dubious example of enforcing a *Wouters* approach in this sector.³² The decision contains statements both indicating and excluding this approach. It seemingly affirmed the parallel and autonomous enforcement of Euratom and state aid rules (rather than subordination of the latter to Euratom): “Insofar as this aid is in line with the objectives of the Euratom Treaty and does not affect competition to an extent which is contrary to the common interest, the measure in question is compatible with the common market”.³³ However, the Commission also stated that it considered “that the distortion of competition resulting from the measure (...) is outweighed by the positive contribution of the measure on the achievement of the Euratom Treaty objectives”.³⁴ Incidentally, it would seem that alternative solutions, exclusively within the realm of antitrust were

28. *Aid in favour of British Energy PLC* (C 52/03), (2005) O.J. L142/54, at [239] (emphasis added); *UK Nuclear Decommissioning Authority* (C 39/2004), (2006) O.J. L268/44, at [78].

29. C 52/03, at [240]-[242]; C 39/2004, at [84].

30. C 52/03, at [489].

31. *Idem*, at [306] and [489].

32. In *Wouters* (Case C-309/99, *Wouters* (2002) ECR I-1577), the ECJ was asked whether EU competition law prevented the Dutch Bar Council from prohibiting Dutch lawyers from entering into partnerships with non-lawyers (e.g. accountants). The Court considered that such a prohibition was a decision of an association of undertakings which restricted competition. Typically, therefore, it would be caught by Article 101(1) of the TFEU, and could only be allowed if it met the requisites of Article 101(3). However, rather than applying those requisites, the Court found that the decision was not illegal, because it was necessary for the pursuit of overriding objectives (in this case, ensuring that the ultimate consumers of legal services and the sound administration of justice were provided with the necessary guarantees in relation to integrity and experience). In other words, the Court recognised that policy objectives outside the sphere of competition policy can occasionally justify exemptions from competition law.

33. C 39/2004, at [228].

34. C 39/2004, at [192], [206], [213], [217] and [223].

available.³⁵ The internal contradictions in the decision and the non-discussed expansion of the *Wouters* principle to the field of state aid cast doubts on the relevance of this precedent.

In short, only once has the Commission (seemingly) set aside competition law because its enforcement would run counter to Euratom objectives. More often, the Commission has devoted careful attention to finding competitive justifications for practices or measures which appeared anti-competitive, but were useful to pursue Euratom objectives.

It is well known that, under the *Wouters* case law, even if a measure or practice is forbidden by EU competition law, that interdiction may be lifted by its necessity in order to pursue an overriding objective, which ultimately brings greater benefits to consumers or citizens,³⁶ subject to proportionality (the *Wouters* principle). However, this seldom enforced principle has only been applied openly to restrictive practices by undertakings. It is unclear whether the court would accept its invocation in the context of merger control and, even more so, of state aid rules. Furthermore, the Commission's significant discretionary margin (even if larger under some provisions than others) renders the use of the *Wouters* exception superfluous. In other words, the Commission will always have a way of authorising restrictive practices without the need to invoke *Wouters*. Indeed, the *Wouters* principle surfaced and is primarily geared as a mechanism of defence for the addressees of Commission decisions.

3. Relevant market definitions

Defining the relevant market is absolutely crucial to the enforcement of competition law. Regardless of the practice in question, be it agreements, unilateral practices, mergers or state aid, the effects on competition and consumer welfare cannot be fully understood without defining the market. In addition, because the economic criteria underlying market definition are identical, a market definition in the framework of one type of practice may be a useful precedent in a case concerning another type.

Competition authorities often hesitate to give clear market definitions in individual decisions, so as not to limit their analysis in subsequent cases. Furthermore, previous market definitions do not constitute legally binding precedents, nor should they since the circumstances of a specific case rarely repeat themselves, and the mere passage of time may change the characteristics of a market. That being said, it is useful to have a clear idea of the way competition authorities have tackled market definitions in the nuclear sector so far.

The following relevant markets have been considered by the European Commission and national competition authorities, although not always with a precise definition or discussion (it should be noted that some of these market definitions overlap and contradict each other):

- production, supply and distribution of electricity (including nuclear power);³⁷
- operation of licensed nuclear sites;³⁸

35. C 39/2004, e.g. at [209]-[212], [216], [221]-[222].

36. Case C-309/99, *Wouters* (2002) ECR I-1577, at [97].

37. Scottish Nuclear (IV/33.473), (1991) O.J. L178/31; IVO/Stockholm Energi (M.1231), (1998) O.J. C288/4; EDF/British Energy (M.5224) (2008). Many other cases have apparently also dealt with companies active in this market, including nuclear power generation, but did not specifically address this sector. At the EU level see, e.g., cases M.1346, M.1659, M.1673, M.1720, M.2349, M.2414 and M.4110.

38. See *infra* the British *Nuclear Management Partners Limited* case.

- provision and management of fuel assemblies used in advanced gas cooled reactors/separate markets for manufacture and supply of nuclear fuel assemblies for boiling water reactor (BWR) and for pressurised water reactor (PWR) power plants (European Economic Area [EEA], with tendency to become worldwide);³⁹
- fuel route support services for individual advanced gas-cooled reactors (AGR);⁴⁰
- separate nuclear fuel procurement services: procurement of uranium (worldwide), conversion services, enrichment services and fuel assembly services for PWR power plants (EEA);⁴¹
- nuclear fuel supply (worldwide) and management of spent fuel;⁴²
- nuclear fuel supply, specifically enriched natural uranium, enriched depleted uranium and down blended Highly Enriched Uranium (HEU) with a 3-6 % content of U-235 (EU scope or wider; MOX as a separate product market);⁴³
- oxide fuels reprocessing services (Europe-wide, with a tendency for globalisation);⁴⁴
- nuclear decommissioning market (apparently national);⁴⁵
- sodium circulators for commercial reactors;⁴⁶
- engineering and field services for operating nuclear power plants (apparently worldwide);⁴⁷
- design and manufacture of products for the “nuclear island” (apparently worldwide);⁴⁸
- instrumentation and control systems for nuclear power plants (EEA-wide, with tendency to become worldwide);⁴⁹
- market for sites for nuclear new build (national or smaller);⁵⁰

39. Scottish Nuclear/British Nuclear Fuels (IV/E-3/35.876), (1996) O.J. C89/6; Framatome/Siemens/Cogéma/JV (M.1940), (2001) O.J. L289/8; Toshiba/Westinghouse (M.4153), (2007) O.J. C10/1.

40. See *infra* the British Babcock International/Strachan & Henshaw case.

41. EDF/British Energy.

42. Tractebel/Synatom (M.466), (1994) O.J. C185/0.

43. Areva/Urenco (M.3099), (2006) O.J. L61/11.

44. United Reprocessors GmbH (IV/26.940/a), (1976) O.J. L51/7; KEWA (IV/26.940/b), (1976) O.J. L 51/15.

45. See *infra* the British Babcock International / Strachan & Henshaw case.

46. GEC-Weir Sodium Circulators (IV/29.428), (1977) O.J. L327/26.

47. Westinghouse/Equipos Nucleares (M.773), (1997) O.J. C121/6.

48. Areva/Urenco.

49. Framatome/Siemens/Cogéma/JV; Areva/Urenco.

- production and marketing of radioactive products (for research, medical applications etc.);⁵¹
- production of radiopharmaceuticals;⁵²
- co-insurance for nuclear installations;⁵³
- uranium mining (worldwide);⁵⁴
- production of radiation measuring instruments (with possible further subdivisions; national scope);⁵⁵
- production of special leaded glass for nuclear industry and medical radiology (national scope);⁵⁶
- various services for nuclear submarines.⁵⁷

4. Anti-competitive agreements and their exemption

Until recently, the European Commission had never initiated a case under Article 101 of the TFEU in the nuclear sector. This changed with the ongoing investigation in the Areva/Siemens case.⁵⁸ Of particular concern to the Commission in the future, in the enforcement of Article 101 of the TFEU, may be the conclusion of long-term energy supply contracts to end-users.⁵⁹

On the other hand, the Commission has already dealt with agreements in the nuclear sector under the notification mechanism [to benefit from an exemption under Article 101(3) of the TFEU] that existed before Regulation (EC) 1/2003:

- United Reprocessors:⁶⁰ exemption granted subject to conditions;
- KEWA:⁶¹ exemption granted;
- GEC/Weir:⁶² exemption granted;

50. EDF/British Energy.

51. Amersham Buchler (IV/30.517), (1982) O.J. L314/34.

52. See *infra* the Spanish Radio pharmaceuticals and Grupo J. Uriach cases.

53. See *infra* the Hungarian Atom Pool case.

54. RTZ/CRA (M.660), (1996) O.J. C22/10.

55. Elsag Bailey/Hartmann & Braun AG (M.670), (1996) O.J. C24/7.

56. See *infra* the French Special leaded glass case.

57. See *infra* the British Babcock International/Devonport Management case.

58. Areva/Siemens (COMP/B-1/39736) (see Press Release IP/10/655).

59. §5.5 of the Explanatory Memorandum to Commission proposals COM(2007)528, COM(2007)530 and COM(2007)531.

60. United Reprocessors GmbH.

61. KEWA.

62. GEC-Weir Sodium Circulators.

- Amersham:⁶³ exemption granted;
- Scottish Nuclear:⁶⁴ exemption granted;
- Scottish Nuclear/British Nuclear Fuels:⁶⁵ closed with a “comfort letter”; and
- national nuclear insurance pools: closed with a “comfort letter” (no restriction).⁶⁶

There are also relevant national precedents:

- Hungarian Atom Pool case: exemption granted to a co-insurance agreement between the Hungarian insurers to cover the material damages of nuclear installations and the associated liability losses.⁶⁷
- French special leaded glass case:⁶⁸ infringement of Article 101 of the TFEU and national equivalent – the exclusive distribution agreement between PSG (manufacturer of special leaded glass for the nuclear industry and medical radiology) and *ADH Technologie* prohibited passive sales to foreign clients.
- Spanish radioactive materials case:⁶⁹ Spanish competition authorities and courts have handled at least one case concerning anti-competitive agreements between manufacturers of radiopharmaceuticals.

5. Abuse of a dominant position

So far, no case has ever been decided at the EU level on abuse of a dominant position in the nuclear sector. Nonetheless, the ongoing investigation in the Areva/Siemens case deals *inter alia* with alleged infringements of Article 102 of the TFEU.⁷⁰

63. Amersham Buchler.

64. Scottish Nuclear.

65. Scottish Nuclear/British Nuclear Fuels.

66. Svenska Atomförsäkringspoolen (COMP/37.363), Pool Italiano Rischio Atomici (COMP/34.985), and Aseguradores Riesgos Nucleares (COMP/34.558). See Competition Consultation Paper on the functioning of Regulation (EC) 358/2003, footnotes 32 and 37, available at: http://ec.europa.eu/competition/sectors/financial_services/consultation_paper_17042008.pdf, and XXXIInd Report on Competition Policy (2001), p. 212.

67. Annual Report on Competition Policy Developments in Hungary (July 1997-December 1998), available at: www.gvh.hu/domain2/files/modules/module25/pdf/GVH_OGy_beszamolo_1998_a.pdf, paras. 12-14.

68. Conseil de la Concurrence, Decision 98-D-24, of 24 March 1998.

69. Case 563/03 “*Radioactive Materials*” (“*Materiales Radioactivos*”) of the former competition authority – e.g. the Tribunal de Defensa de la Competencia – of 22 July 2004 which condemned Nucliber, S.A., Amersham Health, S.A., Tyco Healthcare Spain, S. L. and Schering España, S.A. for price fixing with a fine of EUR 250 000 each. Appeals before the Audiencia Nacional (Court of Appeal) all of which were dismissed: cases no. 454/2004 (*Schering España S.A.*), 466/2004 (*Tyco Healthcare Spain S.L.*), 467/2004 (*Amersham Health S.A.*) and 468/2004 (*Nucliber S.A.*); Appeals before the Tribunal Supremo (High Court), all of which were successful and led to the annulment of the TDC’s Decision 563/03: cases No. 3556/2007 (*Nucliber S.A.*) and 315/2008 (*Tyco Healthcare Spain S.L.*).

70. Areva/Siemens (COMP/B-1/39736) (see Press Release IP/10/655).

At the national level, this provision has already been invoked before the Swedish competition authority, in relation to an alleged abuse by Vattenfall. In 2007, the authority concluded that the legal requirements for an infringement were not met, but recommended a state imposed modification of the market's structure.

The Spanish radioactive materials case, referred to above, also dealt with infringements of the national equivalent of Article 102. However, in its decision, the *Tribunal de Defensa de la Competencia* (TDC) did not condemn the parties for an abuse of dominant position. Also in Spain, the radiopharmaceuticals case, before the *Comisión Nacional de Competencia*, of 16 January 2008,⁷¹ did not lead to a finding of abuse of a dominant position.

There has been at least one example of use of Article 102 in national litigation relating to the nuclear sector.⁷²

Aside from the issue of what may constitute an abuse, it may be difficult in many cases to conclude that there is a dominant position on the relevant market, considering some of the existing precedents of market definition. Nonetheless, in certain countries, and in certain segments of the nuclear sector, it certainly remains true that “markets are typically highly concentrated and with few market participants, [making] it ... highly likely that market power and dominance exist in the nuclear sector”.⁷³

6. Merger control

The following merger cases (quoted above) involving the nuclear sector have been decided at the EU level:

- Tractebel/Synacom: compatible;
- RTZ/CRA: compatible;
- Elsag Bailey/Hartmann & Braun AG: compatible;
- Westinghouse/Equipos Nucleares: compatible;
- IVO/Stockholm Energi: compatible;
- Framatome/Siemens/Cogéma/JV: compatible, as modified;
- Areva/Urenco: compatible, with commitments and obligations;
- Westinghouse/Toshiba: compatible, with commitments; and
- EDF/British Energy: compatible, with commitments.

71. Case No. 628/07.

72. Petition for referral of preliminary ruling to the ECJ, in a case before the Swedish Supreme Administrative Court (1999), which did not refer the case and concluded against an infringement of Article 102 of the TFEU (www.nea.fr/html/law/nlb/Nlb-64/caselaw.pdf).

73. Garzaniti, *op. cit.*, 2008, p. 1246.

Only in the UK was one able to identify precedents of national merger control specifically dealing with the nuclear sector. The first case mentioned is of particular interest due to its political relevance and the adaptation of usual competition law concepts to fit a specific nuclear regulatory reality:

- Nuclear Management Partners Limited case:⁷⁴ NMPL acquired all the share capital of Sellafield Limited (SL) so as to take over the management of the decommissioning of Sellafield. The Office of Fair Trading (OFT) considered this was not a merger, as SL was not an “undertaking”. This conclusion was based primarily on the idea that the purchase of SL did not involve the transfer of a particular turnover-generating business activity, nor the increased potential to explore additional activities. SL merely had to conclude its obligations under its contract with the Nuclear Decommissioning Authority. Yet it seems debatable whether the same conclusion would have been reached if the legal form of the transaction had not been chosen merely because of nuclear regulatory restrictions (instead of the management contract generally used for these purposes).
- Babcock International/Strachan & Henshaw case:⁷⁵ no substantial lessening of competition.
- Babcock International/Devonport Management case:⁷⁶ no substantial lessening of competition.
- Centrica/British Energy:⁷⁷ no substantial lessening of competition.

7. State aid

One author has summed up the Commission’s approach to state aid in the nuclear sector as follows: “in practice, (...) when a certain subsidy is necessary for the objectives of the Euratom Treaty, it will not be prohibited under the EC Treaty”.⁷⁸

The European Commission has looked at state aid in the nuclear sector in the following cases:

- UK re-organisation of electricity generation and distribution: state aid authorised;⁷⁹
- German reserves for nuclear power plant decommissioning: not state aid (justified by nature or general scheme of the German tax system);⁸⁰
- Aid in favour of British Energy I:⁸¹ no objections raised;

74. OFT, Decision ME/3858/08, of 22 October 2008.

75. OFT, Decision ME/3650/08, of 2 July 2008.

76. OFT, Decision of 20 August 2007.

77. OFT, Decision ME/4133/09, of 7 August 2009.

78. Bouquet 2008, p. 1203. The European Nuclear Energy Forum is expected to present shortly a recommendation for EU action on the clarification of specificities of EU state aid rules when applied to the nuclear sector.

79. See EU Press Release IP/90/267.

80. Case NN 137/01; upheld on appeal (*Stadtwerke Schwäbisch Hall*).

81. Case NN 101/2002.

- Aid in favour of British Energy II:⁸² aid authorised with conditions;
- UK Nuclear Decommissioning Authority:⁸³ aid authorised with conditions;
- Tax exemptions for Ignalina nuclear power plant:⁸⁴ no objections raised;
- Coface guarantee for the building of a Framatome nuclear power plant:⁸⁵ not state aid;

There has been at least one example of national litigation relating to the nuclear sector under reference to EC state aid rules, but which did not result in a decision by European institutions.⁸⁶

A specific concern in this domain that has recently been raised is whether certain national options concerning nuclear liability, especially state participation in compensation mechanisms, may come into conflict with EU state aid rules (particularly considering Article 98 Euratom).⁸⁷ Another complex area for the enforcement of state aid rules is the funding of decommissioning measures.⁸⁸

8. Conclusion

This paper has argued that EU competition law is fully applicable to activities within the nuclear sector, *lato sensu*. The large number of EU and national precedents of antitrust enforcement in this domain leaves little room for doubt.

Although the Euratom Treaty is a *lex specialis* in relation to the TFEU, specific derogations must be identified in order to exclude the applicability of TFEU provisions. Apart from practices effectively excluded from the scope of competition by Chapter 6, and of Annex III advantages granted to joint undertakings, no such derogations exist, in general and abstract terms, in the Euratom Treaty.

On the other hand, while it is theoretically possible to set aside competition rules when their enforcement runs counter to overriding objectives, under the *Wouters* case law, there has been only one example in Commission practice where this option was taken in the nuclear field. Interestingly, this occurred in state aid control, where the validity of a *Wouters* approach has not yet been tested before the court.

In the rare cases where a clash between antitrust and Euratom objectives may occur, it is preferable to see the Commission continue its well established approach of finding justifications for those practices or measures strictly within the realm of antitrust. Such an approach would avoid the legal uncertainty that would necessarily arise from the use of a *Wouters* style approach that has yet to consolidate or even be tested in some areas of competition law.

82. Case C 52/2003.

83. Case C 39/2004.

84. Case N 337/2005.

85. Case C 45/2006 (related Court cases: T-94/07 and T-40/08).

86. Petition for EC infringement proceedings, relating to the Judgment of the Swedish Supreme Administrative Court on the closing of Barsebäck 1 (1999) (www.nea.fr/html/law/nlb/Nlb-64/caselaw.pdf).

87. See Bouquet, *op. cit.*, 2010 and Garzaniti & Renshaw, *op. cit.*, 2010.

88. In this regard, see the Commission proposal for a Council Directive on the safe management of spent nuclear fuel and radioactive waste – COM(2004) 526 final. A revised proposal was presented in November 2010.

The Brussels I Regulation and Liability for Nuclear Damage

*by Jakub Handrlica**

Prior to 2004, the map of the European Union seemed to be basically identical to the map of the contracting parties to the Paris Convention on Third Party Liability in the Field of Nuclear Energy of 1960 (thereinafter “the Paris Convention”).¹ The 2004 and 2007 enlargements were mainly composed of the contracting parties to the Vienna Convention on Civil Liability for Nuclear Damage of 1963 (thereinafter “the Vienna Convention”).² In various discussions, the term “nuclear liability patchwork” is used to describe this existing situation.³ One of the problems arising from this “patchwork” is that, while a uniform legal framework was established for matters of jurisdiction and the enforcement of decisions under the authority given to the European Union (“EU”) by the Council Regulation on jurisdiction and the recognition and enforcement of judgements in civil and commercial matters (hereinafter “Brussels Regulation”),⁴ this overall framework does not apply to particular matters governed by the special conventions to which member states may be contracting parties, see Article 71 of the Brussels Regulation.

This paper aims to outline the “patchwork” of these rules that are applicable to nuclear third party liability cases in the EU and to point out the main consequences arising from this legal framework difficult to comprehend.⁵ Its scope, however, is limited to the legal issues arising from a nuclear incident occurring in a nuclear installation situated within the territory of the European Union.⁶

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1. The Convention on Third Party Liability in the Field of Nuclear Energy of 29 July, 1960, as amended by the Additional Protocol of 28 January 1964 and by the Protocol of 16 November, 1982. The 1960 Convention and the 1964 Protocol entered into force on 1 April 1968. The 1982 Protocol entered into force on 7 October, 1988.
2. The Vienna Convention on Civil Liability for Nuclear Damage of 21 May 1963, entered into on 12 November, 1977.
3. See Reyners, P., “Liability Problems Associated with the Current Patchwork Nuclear Liability Regime within the EU States”, in Pelzer, N. (ed.), *Europäisches Atomhaftungsrecht im Umbruch*, Nomos Verlag: Baden Baden 2010, p. 93.
4. Council Regulation (EC) No. 44/2001 of 22 December 2000 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters [2001] OJ L 12/1.
5. Concerning the existing literature on these problems, see Magnus, U., “Jurisdiction and Enforcement of Judgments under the Current Nuclear Liability Regimes within the EU Member States”, in: Pelzer, N.

A. Brussels Regulation as *lex generalis* in matters of nuclear liability

Based on the Community powers arising from Article 61(c) and Article 65 of the EC Treaty, the Regulation was adopted with the intent to “unify the rules of conflict of jurisdiction in civil and commercial matters and to simplify the formalities with a view to rapid and simple recognition and enforcement of judgments from member states”. Consequently, the Brussels Regulation contains very detailed rules on the international jurisdiction of courts and enforcement of decisions within the EU.⁷

I. General applicability of the Brussels Regulation on matters of nuclear liability

According to Article 1(1) of the regulation, it shall apply in “civil and commercial matters, whatever the nature of the court or tribunal. It shall not extend, in particular, to revenue, customs or administrative matters”. The regulation does not define expressly which relations fall within “civil and commercial matters”. There are several ways to interpret the scope of this term:

First, it is useful to compare it with the wording of other legal acts issued in the area of judicial co-operation on civil matters, e.g. the so called Rome II Regulation⁸ which expressly *excludes* those non-contractual obligations arising over nuclear damages from the scope of its application. In the absence of such an exclusion in the Brussels Regulation, it may be considered as generally applicable to matters of nuclear liability as long as they can be classified as “civil and commercial matters”.⁹

Secondly, the exact definition of the scope of application is a matter of interpretation by the Court of Justice of the European Union. Relating to the use of nuclear energy, the particular issue of classifying this industrial activity as falling under “acts of a public authority in the exercise of its

(ed.) Europäisches Atomhaftungsrecht im Umbruch, Nomos Verlag: Baden Baden 2010, pp. 105 *et seq.* See also, Galizzi, P., “Questions of Jurisdiction in the Event of a Nuclear Accident in a Member State of the European Union”, *Journal of Environmental Law*, 1996, pp. 71 *et seq.* and Sands, P. and Galizzi, P., “The 1968 Brussels Convention and Liability for Nuclear Damage”, *Nuclear Law Bulletin* No. 64 (1999/2), pp. 7 *et seq.* However, the two last mentioned articles reflect the legal framework existing before the 2004 and 2007 enlargements of the European Union.

6. Therefore, the following issues are not subject to this paper: 1) issues of nuclear liability arising from the transport of nuclear material within the territory of member states to nuclear installations situated within the territory of another member state or from such installations; 2) issues of nuclear liability arising from damages suffered in the territory of a member state as result of a nuclear incident occurring in the territory of a third country; 3) issues of state responsibility for nuclear damages and state immunity in this regard.
7. Currently, there is already quite extensive literature on the Brussels Regulation. For general aspects, see *inter alia* Magnus, U. and Mankowski, P. (eds.), “Brussels I Regulation”, Sellier (European Commentaries on Private International Law): München, 2007; Hess, B., Pfeiffer, T. and Schlosser, P., “The Brussels I Regulation: Application and Enforcement in the EU”, Hart Publishing: Oxford, 2008 and Pontier, J. and Burg, E., “EU Principles on Jurisdiction and Recognition and Enforcement of Judgments in Civil and Commercial Matters”, T.M.C. Asser Press: The Hague, 2004.
8. Regulation (EC) No. 864/2007 of the European Parliament and of the Council of 11 July 2007 on the applicable law for non-contractual obligations [2007] *OJL* 199/40.
9. *Accord* in Magnus, U., *op. cit.*, p. 108 and in Sands, P. and Galizzi, P., *op. cit.*, pp. 17 *et seq.* Sands and Galizzi refer to the *Jenard Report* to the original version of the 1968 Brussels Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters, which stress the draftsmen intentionally deciding to avoid detailed definition of the term. According to the Report, however, the term “civil and commercial matters” should be interpreted extensively and all matters civil and commercial, excluding only those expressly indicated in the provisions of the Convention. See *op. cit.* p. 17, note 50.

powers” (*acta iure imperii*)¹⁰ had been discussed in the past.¹¹ Given the fact that issues of nuclear liability have been covered since the 1960s by means of international civil liability conventions and taking into account the fact that industrial uses of nuclear energy are widely considered an activity of a commercial nature, there seems currently no doubt about the civil nature of nuclear liability matters. However, the nature of liability relationships arising from the operation of nuclear installations for military purposes, which are basically excluded from the scope of application of existing international nuclear liability conventions, has not yet been definitively clarified.¹²

Considering all of the above issues, it can be argued that the provisions of the Brussels Regulation are, if not expressly otherwise covered by the wording of the regulation, applicable directly to issues of nuclear liability.

II. *Jurisdiction and enforcement rules of the Brussels Regulation regarding cases of nuclear liability*

1. Rules of jurisdiction

Concerning rules of jurisdiction, Article 2(1) of the regulation provides that persons domiciled in a member state shall, whatever their nationality, be sued in the courts of that member state. Consequently, the basic principle of the common European framework currently reads: *actor sequitur forum rei*.¹³

Additionally, Article 5 of the regulation provides an alternative forum in matters relating to tort, delict or quasi-delict. In all those cases, a person domiciled in the member state may be sued in the courts of another member state as “the place where the harmful event occurred or may occur”. Matters of nuclear damage obviously fall under the scope of application of this provision.¹⁴ The “place where the harmful event occurred or may occur” is not defined expressly in the regulation. However, case law developed by the European Court of Justice after the 1970s confirmed that this place can be understood in two ways: on one hand, as the place where the harmful event giving rise to the damage occurred and on the other, as the place where the damage occurred.¹⁵ The choice between them is for the plaintiff to make.

10. See ECJ [1976] ECR 1541 (C-29/76 *Eurocontrol*); ECJ [1980] ECR 3807 (C-814/79 *Ruffer*) and ECJ [1993] ECR I-1963 (C-172/91 *Waidmann*). Consult also, Hess, B. “Europäisches Zivilprozessrecht”, Müller Verlag: Heidelberg, 2010, pp. 251 *et seq.*

11. See Sands, P. and Galizzi, P., *op. cit.*, pp. 18 *et seq.*, Magnus, U. “Probleme des internationalen Atomhaftungsrecht”, in Baetge, P., Von Hein, J. and Von Hinden, M. (eds.), *Die Richtige Ordnung*, Mohr Siebeck: Tübingen 2008, p. 604 and Magnus, U. *op. cit.*, p. 108.

12. Consequently, the direct application of the Brussels Regulation to liability relations caused by the military use of nuclear technologies (unless they are to be considered as “acts of a public authority in the exercise of its powers”) can also be a subject of discussion. See Magnus, U. *op. cit.* p. 109.

13. See Leible, S., Mankowski, P. and Staudinger, A., “Zuständigkeit, Anerkennung und Vollstreckung in Zivil- und Handelssachen”, in Rauscher, T. (ed.), *Europäisches Zivilprozeßrecht*, Sellier: München 2006, p. 73.

14. See Mankowski, P., Article 5, in Magnus, U. and Mankowski, P. (eds.), “Brussels I Regulation”, Sellier (European Commentaries on Private International Law): München, 2007, pp. 188 *et seq.* For detailed analyses of the existing case law, consult Sands, P. and Galizzi, P., *op. cit.*, pp. 21 *et seq.*

15. See ECJ [1976] ECR 1735 (C-21/76 *Mines de Potasse d’Alsace*); ECJ [1990] ECR I-49 (C-220/88 *Dumez France SA*); ECJ [1995] ECR I-415 (C-220/88 *Fiona Shevill*); ECJ [1995] ECR I-2719 (C-364/93 *Antonio Marinary*) and ECJ [1998] ECR I-6511 (C-51/97 *Réunion européenne*). Consult also Hess, B., *op. cit.*, pp. 283 *et seq.*

Provisions of the Brussels Regulation therefore allow “forum shopping”, which is considered to support the interests of the victims.

2. Applicable law

As the European Court of Justice pointed out, the sole object of the regulations in creating the common framework for jurisdiction and enforcement of judgements in the European Union is to “determine which court or courts have jurisdiction to hear the dispute, by reference to the place or places where an event considered harmful occurred”. It does not, however, specify the circumstances in which the event giving rise to the harm may be considered to be harmful to the victim, nor the evidence which the plaintiff must cite before the court seised with jurisdiction and enabled to rule on the merits of the case. On the contrary, “those questions must therefore be settled solely by the national court seised, applying the substantive law determined by its national conflict of laws rules, provided that the effectiveness of the Convention is not thereby impaired”.¹⁶ Consequently, the rules on the conflict of laws of the court established under the rules of jurisdiction outlined above will identify the law applicable on the nuclear liability matter.

3. Rules of enforcement

Article 33(1) of the Brussels Regulation provides that “a judgment given in a Member State shall be recognised in the other Member States without any special procedure being required”. The regulation facilitates the enforcement of judgements between the member states, on one hand, and stipulates that the foreign judgement may under no circumstance be reviewed as to its substance. Yet it still requires an application for declaration of enforceability, providing in Article 38 that a “judgment given in a Member State and enforceable in that State shall be enforced in another Member State when, on the application of any interested party, it has been declared enforceable there”.

However, the decision can be reversed only under circumstances set out explicitly in the regulation. Among them, the violation of the *ordre public* of the enforcement state plays a significant role.¹⁷ This aspect of the enforcement of judgements in nuclear matters will be discussed below, being of special importance under the nuclear liability “patchwork” currently existing in the European Union.

B. Nuclear liability conventions as *leges speciales* for jurisdiction and enforcement

Article 71(1) of the regulation contains an exclusion clause that grants priority to the special nuclear liability conventions. Pursuant to this provision, the Brussels Regulation “shall not affect any conventions to which the Member States are parties and which, in relation to particular matters, govern jurisdiction or the recognition or enforcement of judgments”. The purpose of the exception is to ensure compliance with the rules of jurisdiction laid down in such specialised conventions, “since when those rules were enacted, account was taken of the specific features of the matters to which they relate”.¹⁸

16. See ECJ [1995] ECR I-415 (C-220/88 *Fiona Shevill*) paras. 38 *et seq.*

17. See Leible, S., Mankowski, P. and Staudinger, A., *op. cit.*, pp. 351 *et seq.*

18. See ECJ [1994] ECR I – 5439 (C-406/92 *Tatry v Maciej Rataj*) ECR [1994], paragraph 46.

I. Rules on jurisdiction and enforcement laid down in the Paris and Vienna Conventions

1. Rules on jurisdiction

Concerning jurisdiction, Article 13 of the Paris Convention provides a general rule on jurisdiction in paragraph (a): “Except as otherwise provided in this Article, jurisdiction over actions under Articles 3, 4, 6(a) and 6(e) shall lie only with the courts of the Contracting Party in whose territory the nuclear incident occurred”. Similarly, Article XI of the Vienna Convention provides a general rule on jurisdiction in paragraph (1): “Except as otherwise provided in this Article, jurisdiction over actions under Article II shall lie only with the courts of the Contracting Party within whose territory the nuclear incident occurred”.

These provisions establish a principle of exclusive jurisdiction, which is considered to be one of the basic pillars of the international nuclear liability framework.¹⁹ This principle results in only the courts of the contracting party where the nuclear incident occurred having jurisdiction over actions brought for damage. The rules of exclusive jurisdiction strictly bind all courts of the contracting parties of both treaties. Consequently, in contrast to the rules laid down in the Brussels Regulation, plaintiffs may not sue at home, where they suffered the damage, but must approach the court in the state where the nuclear incident occurred. If a plaintiff approaches any other court, this court has to dismiss the action as being non-competent.²⁰ The ratio of such exclusivity is seen in the fact that “the concentration of procedures within one single court not only creates legal certainty, but also excludes the possibility that victims of nuclear incidents will seek to submit their claims in states in which their claims are more likely to receive favourable treatment. Such forum shopping is costly for operators and may result in the financial resources available for compensation being quickly exhausted, leaving other victims without compensation”.²¹

However, there have also been some very critical doubts about whether the principle of exclusive jurisdiction is really of advantage to the potential victims of a nuclear incident, proposing that this principle serves the interest of the operators exclusively. On one hand, there is an argument that the plaintiff should be able to claim in a court that will be neutral and not linked economically to the nuclear industry.²² On other hand, it has also been argued that the risk of forum shopping is solely the result of existing rules on the limitation of operator liability since the liability of the exclusively

19. See Stoiber, C., Baer, A., Pelzer, N. and Tonhauser, W., *Handbook on Nuclear Law*, IAEA: Vienna, 2003, pp. 115 *et seq.* The only exception was laid down in the 1962 Brussels Convention on the Liability of Operators of Nuclear Ships, which provided in Article X(1) for the possibility to claim either by the court of the licensing state or by the court of the contracting party on whose territory the nuclear damage was sustained. However, pursuant to Article X (3), the jurisdiction of the court of the licensing state is exclusively for claims in respect to a warship. Concerning the reception of this principle at the time the Convention was adopted, see Bauer, R., “Les projets de l’O.E.C.E. et de l’EURATOM relatifs à une convention sur la responsabilité civile dans le domaine de l’énergie atomique”, in *Aspects du droit de l’énergie atomique*, 1965, p. 87, Lagorce, M. “Etude comparative des conventions O.C.D.E. et A.I.E.A. sur la responsabilité civile dans le domaine de l’énergie nucléaire”, in *Aspects du droit de l’énergie atomique*, 1965, pp. 101 *et seq.* and Schmid, F. “Das Abkommen der Europäischen Kernenergieagentur (OECE) über die Haftpflicht auf dem Gebiet der Kernenergie”, Springer Verlag: Wien, 1961, pp. 58 *et seq.*

20. See Magnus, U., *op. cit.*, p. 111.

21. See Stoiber, C., Baer, A., Pelzer, N. and Tonhauser, W., *op. cit.*, pp. 115 *et seq.*

22. See Currie, D., “Liability for Nuclear Power Incidents: Limitations, Restrictions and Gaps in the Vienna and Paris Regimes”, in Stockinger, H. *et al.* (eds.), *Updating International Nuclear Law*, Intersentia: Vienna, 2007, pp. 87 *et seq.*

liable person is limited for each nuclear incident by the national legislation of the contracting party.²³ The issue remains that if there were no limit upon the operator's liability, essentially unlimited liability, the risk of forum shopping decreases considerably.²⁴

2. Rules on applicable law

Concerning the applicable law, Article 14 of the Paris Convention provides for rules in paragraph (b) as follows: “‘National law’ and ‘national legislation’ mean the national law or the national legislation of the court having jurisdiction under this Convention over claims arising out of a nuclear incident, and that law or legislation shall apply to all matters both substantive and procedural not specifically governed by this Convention”. Consequently, the rules applicable on nuclear liability matters are primarily laid down in the treaty, secondarily in the provisions of the national legislation in force.²⁵ Concerning the first group of rules, the basic principles governing international nuclear liability conventions hardly need to be explained after having been in force for many years. Matters are left to be regulated by national law in both Paris and Vienna regimes, if not explicitly and exclusively provided by the respective convention itself.²⁶

However, such a *renvoi* to the national legislation involves a risk that the provisions will be applied differently in the contracting parties. Therefore, Article 14(c) of the Paris Convention provides that national law “shall be applied without any discrimination based upon nationality, domicile, or residence”.²⁷ Similarly, Article XIII of the Vienna Convention provides that the convention and the national law applicable thereunder shall be applied without any discrimination based upon nationality, domicile or residence.

3. Rules on enforcement

Concerning the rules enforcing the judgements, Article 13 of the Paris Convention provides, in paragraph (d), that judgements entered by the competent court after trial, or by default, shall, when they have become enforceable under the law applied by that court, become enforceable in the territory of any of the other contracting parties as soon as the formalities required by the contracting party concerned have been complied with. The merits of the case shall not be the subject of further proceedings.²⁸

The regulation in the Vienna regime is identical and Article XII of the Vienna Convention provides in paragraph (1) that a final judgement rendered by a court having jurisdiction under the

23. Only the following member states have implemented unlimited liability: Germany, Austria, Sweden.

24. See Hinteregger, M. and Kissich, S., *Atomhaftungsgesetz 1999*, Manz Verlag: Vienna, 2004, p. 52.

25. Regarding the subjects expressly assigned to the discretion and decision of the national legislators by the Paris Convention, see Pelzer, N., “Conflict of Laws Issues under the International Nuclear Liability Conventions”, in Baur, J. *et al.* (eds.), *FS Gunther Kühne*, Frankfurt am Main: Verlag Recht und Wirtschaft, 2009, pp. 824 *et seq.*

26. See Kissich, S., *Internationales Atomhaftungsrecht*, Nomos Verlag: Baden Baden, 2004, pp. 87 *et seq.* and Pelzer, N., “Conflict of Laws Issues under the International Nuclear Liability Conventions”, pp. 824 *et seq.*

27. See Sands, P. and Galizzi, P., *op. cit.*, p. 11.

28. See Schmid, F., *op. cit.*, pp. 62 *et seq.*

convention shall be recognised within the territory of any other contracting party.²⁹ The merits of acclaim on which the judgement has been given shall not be subject to further proceedings. A final judgement that is recognised shall, upon being presented for enforcement in accordance with the formalities required by the law of the contracting party where enforcement is sought, be enforceable as if it were a judgement by a court of that state.

II. 1988 Joint Protocol relating to the Application of the Vienna Convention and Paris Convention

1. Rules on jurisdiction

The basic principle of the Joint Protocol is to create a link between the two existing nuclear liability conventions by abolishing the distinction between the contracting parties to each convention where they have become parties to the protocol. Consequently, the jurisdictional provisions laid down in the Paris Convention (Article 13) and the Vienna Convention (Article XI) apply between the contracting parties. For example, where a nuclear accident occurs for which an operator in a contracting party to the Paris Convention and to the Joint Protocol (e.g. Germany) is liable and damage is suffered by victims in the territory of a contracting state to the Vienna Convention and to the Joint Protocol (e.g. the Czech Republic), those victims must claim for damages by a competent court, as laid down in the provisions of the Paris Convention. *Vice versa*, the court exclusively competent under the Vienna Convention will have jurisdiction over all claims by the victims who suffered damages in the territory of a contracting state to the Paris Convention and the Joint Protocol (e.g. the Netherlands), as the result of a nuclear incident occurring in the territory of a contracting state of the Vienna Convention and to the Joint Protocol (e.g. Hungary).

2. Rules on applicable law

Concerning applicable law, the Joint Protocol stipulates in Article III that “either the Vienna Convention or the Paris Convention shall apply to a nuclear incident to the exclusion of the other”. In order to guarantee the application of this rule, paragraph 2 of that article provides that: “In the case of a nuclear incident occurring in a nuclear installation, the applicable Convention shall be that to which the State is a Party within whose territory that installation is situated”.

Consequently, in the first case outlined above, the Czech plaintiff will claim before the competent German court and the Paris Convention will be applicable, and in the second case the Dutch plaintiff will claim before the Hungarian court, while the provisions of the Vienna Convention will be applicable.

3. Rules on enforcement

Finally, provisions on the enforcement of judgements as laid down in the Paris³⁰ and Vienna³¹ Conventions shall apply in both cases outlined above, as the Joint Protocol so provides in Article IV.

29. Furthermore, Article XII provides for the following exceptions, when judgements will be not enforced by the national courts of the contracting parties, in paragraph (2): “1. when the judgment was obtained by fraud; 2. when the party against whom the judgment was pronounced was not given a fair opportunity to present his case; or 3. when the judgment is contrary to the public policy of the contracting party within the territory of which recognition is sought, or is not in accord with fundamental standards of justice”.

30. Article 13(d) Paris Convention.

31. Article XIII(1) Vienna Convention.

C. Direct and subsidiary application of the Brussels Regulation to cases of nuclear liability

Nevertheless, even with the existence of very detailed rules on jurisdiction and enforcement in the conventions, there is a significant area for application of the Brussels Regulation to cases of nuclear liability. Not all recent member states are contracting parties to existing nuclear liability treaties and for those which are not, the regulation will be applied directly in a case where nuclear damage arises. These are the cases of its direct application.

The rule laid down in Article 71(1) of the Brussels Regulation left several problems unanswered. In particular, questions arose concerning situations where a specialised convention only partially deals with issues that are, at the same time, governed by the Brussels Regulation.³² In this circumstance, the European Court of Justice stressed that “where a State is also a contracting party to another convention on a specific matter containing rules on jurisdiction, that specialized convention precludes the application of the provisions of the Brussels Convention only in cases governed by the specialized convention and not in those to which it does not apply”.³³ Consequently, for cases not covered by the international nuclear liability conventions in force, the provisions of the Brussels Regulation remain applicable on nuclear liability issues.³⁴

I. Direct application of the Brussels Regulation to issues of nuclear liability

1. Direct application in non-contracting states to any international nuclear liability treaty

Currently, there are five member states that are neither contracting party to the Paris Convention, nor to the Vienna Convention: Austria, Luxembourg, Ireland and the two Mediterranean islands of Cyprus and Malta. The fact remains that these non-contracting member states do not have operating nuclear installations in their territory. In the case of Austria, Luxembourg and Ireland, these are states that face existing or the further development of nuclear installations in neighbouring countries, themselves being contracting parties to existing nuclear liability conventions.³⁵ It has already been pointed out that non-contracting parties tend to evaluate the provisions of existing international nuclear liability treaties as essentially enhancing emerging nuclear industries, rather than accommodating the interests of victims: “For countries like Ireland – as well as Luxembourg and Austria – it would be difficult to identify many, if any, reasons why they should accede to these conventions”.³⁶ “Generally speaking, however, the conclusion finally arrived at is that the rules on jurisdiction laid down in the Paris and Vienna Convention are no longer appropriate to protect potential victims of a nuclear accident. They still reflect a bias in favour of the development of the nuclear industry, development of which was the dominant concern of the governments involved at the time they were drafted”.³⁷

32. See Geimer, R. and Schütze, R., “Europäisches Zivilverfahrensrecht”, C.H. Beck: München, 2010, pp. 891 *et seq.*, Leible, S., Mankowski, P. and Staudinger, A., *op. cit.*, p. 752 and Kropholler, J., *op. cit.*, p. 544 *et seq.*

33. See ECJ [1994] ECR I – 5439 (C-406/92 *Tatry v Maciej Rataj*) ECR [1994], paragraph 27.

34. *Accord* in Leible, S., Mankowski, P. and Staudinger, A., *op. cit.*, p. 752 and Kropholler, J., *op. cit.*, p. 544 *et seq.*

35. See also Carroll, S., “Trans-boundary Impacts of Nuclear Accidents: Are the Interests of Non-Nuclear States Adequately Addressed by International Nuclear Safety Instruments?”, *Review of European Community & International Environmental Law*, 1996, pp. 205 *et seq.*

36. See Sands, P. and Galizzi, P., *op. cit.*, p. 27.

37. See Galizzi, P., *op. cit.*, pp. 96 *et seq.*

The major concern of these member states in relation to the jurisdictional provisions of both major conventions is that the plaintiff under these treaties has no right to claim in his home country. Relating to the principle of exclusive jurisdiction, the non-contracting states expressed their concerns about difficulties in terms of language, cost and geographic distance.³⁸ Facing the legal framework of the Paris and Vienna Conventions, the non-convention states prefer the application of the Brussels Regulation to cases of nuclear liability, which “appear to provide adequate or superior protection”.³⁹ Therefore, if a nuclear incident occurs at a nuclear installation situated in France and causes damages in the territory of neighbouring Luxembourg, provisions of the Brussels Regulation as *lex generalis* will be applicable. The same is true in case a nuclear incident occurs in a nuclear installation located in the United Kingdom and such incident causes damage in the territory of Ireland; or in case a nuclear incident occurs in the Czech Republic causes damage in the territory of Austria.

Consequently, the Luxembourgian, Irish and Austrian plaintiffs respectively may choose between making use of the *actor sequitur forum rei* provision, which means claiming abroad before the French, British or Czech court, as provided in Article 2(2) of the Brussels Regulation, or making use of Article 5 of the regulation,⁴⁰ which enables him to claim against the operator in “the place where the harmful event occurred”, meaning a claim in his home country and according to his own law.⁴¹

Therefore, where the plaintiff makes use of the option of claiming at home against the operator, judgements are to be executed, as provided in the corresponding provisions of the Brussels Regulation, in the country in which the operator is domiciled. The enforcement of such judgements, which *via facti* torpedoes the principle of exclusive jurisdiction laid down in the international nuclear liability treaties, has been a matter of long lasting academic debate.⁴² In general, those opposing the option of enforcing judgements in nuclear liability matters issued by the courts of non-contracting states, point mainly to the following arguments:

- a) Article 34 of the Brussels Regulation provides in paragraph 1 that recognition of a judgement shall not be valid if such recognition is manifestly contrary to public policy in the member state in which recognition is sought. It is argued that the principle of exclusive jurisdiction, as laid down in the international nuclear liability treaties, which are binding for the member state in which the judgement is to be executed, is a part of the “procedural” *ordre public* of that state. Thus, the enforcement of such judgement should be denied by the court of the contracting party to the Paris or Vienna Convention, as having been issued by a court that is not competent to do so.

38. See Hinteregger, M., *op. cit.*, pp. 52 *et seq.*

39. See Sands, P. and Galizzi, P., *op. cit.*, p. 27.

40. See Leible, S., Mankowski, P. and Staudinger, A., *op. cit.*, pp. 126 *et seq.*

41. It is true that both the 1997 and 2004 Protocols provide for an enlarged geographical scope of application of both revised Vienna and Paris Conventions. Consequently, the plaintiffs from the non-contracting states would be entitled to claim before the court competent in the country where the nuclear incident occurred, under the same circumstances as the plaintiffs from the contracting parties to the treaty that is in force in that state. However, the option to claim at home, as the Brussels Regulation provides, will clearly remain.

42. See Hinteregger, M. and Kissich, S., *op. cit.*, p. 133 and Magnus, U., *op. cit.*, p. 117 *et seq.* See also Koch, I., “Diskussionsbericht zur Ersten Arbeitssitzung”, in Pelzer, N. (ed.), *Europäisches Atomhaftungsrecht im Umbruch*, Nomos Verlag, Baden Baden, 2010, pp. 142 *et seq.*

However, such an interpretation cannot be considered as being correct. As paragraph 3 of Article 35 provides, the test of public policy referred to in point 1 of Article 34 may not be applied to the rules relating to jurisdiction. Consequently, the competence of the court does not rank among the *ordre public*.⁴³ A further argument is that non-contracting member states may not be forced to observe the principles of those international conventions to which they are not parties. Only the provisions of EU law concerning nuclear liability are to be observed in those member countries.⁴⁴

- b) Furthermore, the court of a contracting state to the Paris or Vienna Convention could deny enforcement of a judgement issued by a court of a non-contracting state, due to reasons laid down in Article 35⁴⁵ of the Brussels Regulation. However, the enumeration in Article 35 of reasons to not recognise a judgement is exhaustive and any analogy and extension of the reasons for denial of any jurisdiction is considered unacceptable.⁴⁶
- c) Thus, the only reason courts of contracting parties to either the Paris or to the Vienna Convention can deny enforcement of judgements rendered in the non-contracting parties is the “material” *ordre public*, as provided in paragraph 1 of Article 34. This “material” *ordre public* contains two very characteristic features: on one hand, the protection of the interests of the state and on the other, it is considered a tool to guarantee justice.⁴⁷ Among the most salient examples as to why a court of a member state must deny enforcement of a

43. *Accord* in Hinteregger, M. and Kissich, S., *op. cit.*, pp. 134 *et seq.*, in Leible, S., Mankowski, P. and Staudinger, A. *op. cit.*, p. 375 and in Magnus, U. *op. cit.*, p. 119.

44. Most recently, Norbert Pelzer argued (in: *Europäisches Atomhaftungsrecht im Umbruch*, Nomos Verlag: Baden Baden, 2010, p. 142) that the Community required the contracting parties to the Paris Convention to ratify the Protocol amending the Paris Convention, or accede to it, in the interest of the European Community in the Council Decision of 8 March, 2004. Consequently, he argues that Article 13 of the Paris Convention is to be considered as being a source of European Law and that it prevails over the provisions of the Brussels Regulation as a *lex specialis* in relation to the *lex generalis*. Such argument has, however, several weak elements. First of all, it must be pointed out that such a legal construction, which would *via facti* mean integration of the international convention in the legal framework created under the Brussels Regulation, has already been refused in the literature, *inter alia* because of the fact it would enlarge the competence of the European Court of Justice, also imposing international conventions to which the Community is not party. Additionally, even if the argument presented would be accepted, it would have implications only in regard to the provisions of the 2004 Protocol, which is still not in force. Neither the Paris Convention in its current version, nor the Vienna Convention in either its version of 1963 or as amended by the 1997 Protocol, can be affected by such an interpretation. See also, Koch, I., *op. cit.*, pp. 142 *et seq.* and Leible, S., Mankowski, P. and Staudinger, A., *op. cit.*, p. 504 and Mankowski, P., “Spezialabkommen und EUGVÜ”, *Europäisches Wirtschafts- und Steuerrecht*, 1996, p. 303.

45. Article 35 provides as follows:

- “1. Moreover, a judgment shall not be recognised if it conflicts with Sections 3, 4 or 6 of Chapter II, or in a case provided for in Article 72,
- 2. In its examination of the grounds of jurisdiction referred to in the foregoing paragraph, the court or authority applied to shall be bound by the findings of fact on which the court of the Member State of origin based its jurisdiction,
- 3. Subject to paragraph 1, the jurisdiction of the court of the Member State of origin may not be reviewed. The test of public policy referred to in point 1 of Article 34 may not be applied to the rules relating to jurisdiction”.

46. See Magnus, U., *op. cit.*, p. 118.

47. See Geimer, R. and Schütze, R., *op. cit.*, p. 643.

judgement because of this reason are exorbitant compensation and grave deviation of the tort law of the judgement state from the legal principles of the state where the judgement has to be enforced. Consequently, for the assessment of individual cases, the Court of Justice of the European Union will have the final word.⁴⁸

At this stage, it is useful to point out that there have been several arguments presented in the contracting states in favour of the enforcement of judgements issued by the courts of non-contracting states to the conventions. According to these arguments, “it would contradict the essential aims of the Brussels Regulation if the ... judgment has to be recognized only in some EU states but not in others. It would impair the clear and reliable system of the Regulation if recognition and enforcement of each judgment could be attacked on the grounds that it did not comply with an exclusive jurisdiction provision valid only in the enforcement state”.⁴⁹ Consequently, in such situations, the Court of Justice of the European Union would be required to balance two different interests: those of the plaintiff from a non-contracting state, who claims according to the legal framework in his home country and awaits enforcement of the judgement as provided by EU law, and those of the operator, who must maintain mandatory insurance to cover its liability.

2. Direct application to trans-boundary nuclear liability cases in the non-contracting states to the Joint Protocol

Furthermore, taking the territorial scope of both the Paris and Vienna Conventions into account, and the fact that they are applicable only on liability matters where a nuclear incident occurs or causes damage in the territory of the contracting states to the same nuclear liability convention, there remain several cases for the application of the Brussels Regulation. For example, it is applicable to situations where nuclear damage occurs in the territory of a contracting state to one of the two conventions and causes damage in a contracting state to the other if that latter state is not bound by the Joint Protocol.⁵⁰

Thus, the legal framework created under the conventions will not be applied to cases where an incident occurs in the territory of a contracting party to the Paris Convention, but not to the Joint Protocol and damage occurs in the territory of a contracting party to the Vienna Convention. France, the United Kingdom and Belgium are currently not contracting parties to the Joint Protocol. Consequently, as a court with exclusive jurisdiction cannot be determined by *lex specialis* (the Paris or the Vienna Convention), *lex generalis* (Brussels Regulation) will be applied.

3. Direct application to liability cases arising from the operation of installations not covered by the Paris and Vienna Conventions

Not all installations of the nuclear fuel cycle fall under the definition of “nuclear installation” under the Paris and Vienna Conventions. Consequently, damages and liabilities arising from operation of these installations do not fall under the legal authority of existing international liability conventions.⁵¹

48. In my opinion, the fact that both revised Paris and Vienna Conventions allow claims for damages occurring in non-contracting states (calling for compensation of such damages) further supports the argument that refusing enforcement of judgements coming from non-contracting states based on the reason of “material” *ordre public* is not acceptable.

49. See Magnus, U., *op. cit.*, p. 119. *Accord* also in Hinteregger, M. and Kissich, S., *op. cit.*, p. 133.

50. See Magnus, U., *op. cit.*, pp. 113 *et seq.*

51. *Accord* in Kissich, S., *op. cit.*, p. 123.

a) Nuclear fusion facilities and reactors powering any type of transport

While expressly referring to nuclear fission, both the Paris and Vienna Conventions failed to cover nuclear fusion facilities that are left outside the scope of these conventions.⁵² Furthermore, reactors powering any type of transport are also excluded from the scope of application of both conventions.⁵³

However, the number of installations in this category is limited. Nuclear fusion is used exclusively for research purposes and its commercial use is not expected to become reality for many years. On the other hand, nuclear energy as a means of marine propulsion is a major scientific success, although it failed for commercial reasons.⁵⁴ The use of nuclear power in satellites still tends to be marginal.⁵⁵

b) Decommissioned nuclear installations and radioactive waste repositories

Regarding decommissioned nuclear installations, the interpretation of the OECD Nuclear Energy Agency's Steering Committee of 28 April 1987 provides that even nuclear installations in the process of decommissioning are considered nuclear installations within the meaning of the convention.⁵⁶

However, the Decision of the NEA Steering Committee of 20 April 1990 subsequently provided the right of contracting parties to remove nuclear installations being decommissioned from coverage of the convention.⁵⁷ As regards the Vienna Convention, this treaty is silent on the issue of decommissioning. According to ruling opinions, it remains applicable as long as nuclear substances remain present in the installation.⁵⁸

Further, the issue of applicability of both the Paris and Vienna Conventions to radioactive waste repositories remains open. While both conventions explicitly refer to installations for processing nuclear substances, neither refers to radioactive waste repositories. As regards the Paris Convention of

52. Concerning possible risk arising from nuclear fusion, see Derché, B., "Les nouvelles conventions sur la fusion nucléaire contrôlée", in AIDN/INLA (ed.): *Nuclear Inter Jura 1999*, Proceedings of the Biennial Congress of the International Nuclear Law Association, Washington, pp. 99 *et seq.* and Reye, S., "Extension of the Technical Scope of the Paris and Vienna Conventions: Fusion Reactors and Reactors in Means of Transport", in OECD/NEA (ed.): *Nuclear Accidents – Liabilities and Guarantees*, OECD: Paris, 1993, pp. 247 *et seq.*

53. However, there are only marginal differences between the wording of the Paris Convention of 1960, excluding "reactors comprised in any means of transport" and the Vienna Convention of 1963, which more narrowly excludes "reactors with which a means of sea or air transport is equipped for use as a source of power". As a result, reactors serving for land transport would, theoretically, fall under the scope of application of the Vienna Convention of 1963. See Kissich, S., *op. cit.*, p. 141.

54. This is not true for operating nuclear propelled submarines, which fall under the category of installations operated for military purposes.

55. See Courteix, S., "The Legal Regime of Nuclear Power Satellites: A Problem at the Cross-Roads of Nuclear Law and Space Law", *Nuclear Law Bulletin* No. 49 (1992/1), pp. 33 *et seq.*

56. See Virole, J., "Déclassement des installations nucléaires au sens de la convention de Paris sur la responsabilité civile dans le domaine de l'énergie nucléaire et problèmes de responsabilité et d'assurance", in OECD/NEA (ed.), *Nuclear Third Party Liability and Insurance*, OECD: Paris, 1985, pp. 302 *et seq.*

57. See Horbach, N. and Hanenburg, E., "Legal Aspects of the Decommissioning of Nuclear Facilities: A Comparative View", *Nuclear Law Bulletin* No. 58 (1996/2), pp. 39 *et seq.*

58. See Kissich, S., *op. cit.*, p. 143.

1960, the Decision of the NEA Steering Committee of 10 April 1984 provides that radioactive waste repositories in the pre-closure phase are considered nuclear installations within the meaning of the convention. However, “in its report to the Steering Committee, the Group of Experts (...) did not wish to prejudge the question of application to the post-closure phase, recommending the subject for further study”.⁵⁹

The 2004 Protocol expanded the definition of nuclear installations covered by Article 1(a)(ii) of the Paris Convention to those installations in the process of decommissioning, as well as installations intended for the disposal of nuclear substances. Concerning the Vienna Convention, the question of its applicability to both the pre- and post-closure phase still remains unanswered.

c) Nuclear installations operated for military purposes

Finally, there remains the very sensitive question of whether nuclear installations operated for military purposes (e.g. facilities for producing nuclear weapons or facilities that serve to refuel nuclear powered submarines) are covered by the existing legal frameworks of nuclear liability conventions. Interpretations differ concerning applicability of both the Paris and the Vienna Conventions to these installations.

The 1997 Protocol expressly states (in new Article I B) that it does not apply to nuclear installations used for military purposes. The prevailing opinion seems to be that nuclear installations operated for military purposes are not covered by either the Paris or the Vienna Convention. The applicability of the Brussels Regulation to liability issues arising from the operation of nuclear installations for military purposes has not yet been finally clarified. Thus it remains an issue whether such activity constitutes *acta iure imperii*.⁶⁰

4. Direct application to damages not covered by the Paris and Vienna Conventions

The definition of nuclear damage is somewhat restricted in both the Paris and the Vienna Conventions. The question arises whether damage not included in the Paris and Vienna Conventions can be claimed under the provisions of the Brussels Regulation. Some authors support such an interpretation, along with applying the regulation to claims in respect of environmental damage, economic loss resulting from that damage, costs of environmental reinstatement, etc.⁶¹ with the result that, if the national law of the court would allow such a claim, the plaintiff may initiate a suit therefor under the Brussels Regulation in his home country.

The issue of the application of the Brussels Regulation is quite similar to the issue of which nuclear installations are covered by international treaty. The scope of the term “nuclear damage” was extended by the 1997 Protocol,⁶² which is in force in only three member states. A further extension of

59. See OECD/NEA, “Application of the Paris Convention to installations for the disposal of nuclear substances”, *Nuclear Law Bulletin*, 1984, p. 26.

60. See Magnus, U., *op. cit.*, p. 109.

61. See Hinteregger, M. and Kissich, S., *op. cit.*, p. 133, Sands, P. and Galizzi, P., *op. cit.*, p. 27. See also Hüßtege, R., Artikel 71, in Thomas, H. and Putzo, H. (eds.), “Zivilprozessordnung mit dem Gerichtsverfassungsgesetz, den Einführungsgesetzen und europarechtlichen Vorschriften”, C. H. Beck: München 2008, pp. 1653 *et seq.*

62. See Lamm, V., *op. cit.*, pp. 11 *et seq.*

the heads of damage will apply in contracting parties to the Paris Convention once the 2004 Protocol comes into force.⁶³

II. *Subsidiary application of the Brussels Regulation to nuclear liability issues*

The guarantee of the rights of the defendant is considered a fundamental requirement of the Brussels Regulation and the need to respect them was anchored *inter alia* through the explicit *renvoi* to the rules laid down in Article 26 of the Brussels Regulation. This article provides a European minimal standard for the procedural rights of a defendant who faces claims before a court situated in a state other than his domicile.⁶⁴

Article 71(2)(a) of the Brussels Regulation explicitly provides for the application of Article 26 in circumstances where court competence arises from the provisions of a special international convention.⁶⁵ However, the use of such a provision in cases of nuclear liability arising from incidents occurring in land based installations seems to be rather restricted.

D. Towards a harmonised European legal framework in the area of jurisdiction and enforcement in nuclear liability matters

All the shortcomings and uncertainties presented above clearly show that instead of a harmonised legal framework with common and certain rules, there exists a “patchwork” of rules and major uncertainty in the relationship between the two major international conventions on the one hand and the Brussels Regulation on the other hand. With this in mind, the following section will deal with possible solutions for reaching a harmonised legal framework in the jurisdiction and enforcement of nuclear liability matters in the European Union.

I. *Accession of the member states to the new international nuclear liability conventions*

Article 71 of the Brussels Regulation contains no reference to any later international convention.⁶⁶ The European Union currently possesses exclusive competence as concerns acceding to international treaties which govern matters of jurisdiction and judicial co-operation.⁶⁷

Thus, there is a problem in relation to those international conventions that do not allow accession of an international organisation, which is the case with both international nuclear liability conventions. It would be difficult to re-open negotiations in order to introduce a clause permitting

63. See Blobel, F., “Das Protokoll von 2004 zum Pariser Übereinkommen – wesentliche Verbesserungen im internationalen Atomhaftungsrecht“, *Natur und Recht*, 2005, pp. 137 *et seq.*

64. See Geimer, R. and Schütze, R., *op. cit.*, p. 895, Kropholler, J., *op. cit.*, pp. 337 *et seq.* and Leible, S., Mankowski, P. and Staudinger, A., *op. cit.*, pp. 293 *et seq.*

65. See also Jayme, F. and Kohler, C., “Europäisches Kollisionsrecht 2005: Hegemonialgesten auf der Weg zu einer Gesamtvereinheitlichung”, *Praxis des Internationalen Privat- und Verfahrensrechts*, 2005, p. 489.

66. See Kennett, W., “The Brussels I Regulation”, *International & Comparative Law Quarterly*, 2001, p. 736.

67. See Eeckhoud, P., “External Relations of the European Union: Legal and Constitutional Foundations”, Oxford University Press: Oxford, 2004, pp. 135 *et seq.*

ratification by the European Atomic Energy Community. The way the Union copes with the situation is that it authorises member states to accede to an international convention by a special decision.⁶⁸

1. Relation to the 2004 Protocol to Amend the Paris Convention of 1960

First, it should be clarified that following the entry into force of the 2004 Protocol to amend the Paris Convention, Article 71 of the Brussels Regulation will remain applicable to nuclear liability issues in those member states that are party to the (revised) 1960 Paris Convention. It is arguable that the revision of a convention justifies its classification as a “new” convention, not falling under Article 71 of the Brussels Regulation. More clearly, this is confirmed by the Decision of 8 March 2004 authorising member states to “ratify or accede” to the 2004 Protocol.⁶⁹ Point 8 of this decision provides: “three of the Member States, namely Austria, Ireland and Luxembourg, are not Parties to the Paris Convention. Given that the Protocol amends the Paris Convention, that Regulation (EC) No. 44/2001 authorises Member States bound by that Convention to continue to apply the rules on jurisdiction provided for in it and that the Protocol does not substantially amend the rules on jurisdiction of the Convention, it is objectively justified that this Decision should be addressed only to those Member States that are Parties to the Paris Convention. Accordingly, Austria, Ireland and Luxembourg will continue to base themselves on the Community rules contained in Regulation (EC) No 44/2001 and to apply them in the area covered by the Paris Convention and by the Protocol amending that Convention”.

Considering this part of the decision, it is difficult to argue that after the 2004 Protocol’s entry into force, the Brussels Regulation would be directly applicable to all nuclear liability issues, including those previously governed by the Paris Convention. Article 1(1) of the decision expressly provides that ratification or accession to the 2004 Protocol shall be “without prejudice to the position of Austria, Ireland and Luxembourg”.⁷⁰ Such a declaration is in strict contrast to decisions in relation to other international conventions and which contained a reservation stating that member states will continue to apply the Brussels Regulation to the recognition and enforcement of judgements amongst themselves.⁷¹ On the contrary, the wording of the Decision of 8 March 2004 contains no such

68. See for the area of the international maritime liability, Ringbom, H., “EU Regulation 44/2001 and its Implications for the International Maritime Liability Conventions”, *Journal of Maritime Law & Commerce*, 2004, pp. 9 *et seq.*

69. Council Decision of 8 March, 2004 authorising Member States that are Contracting Parties to the Paris Convention of 29 July 1960 on Third Party Liability in the Field of Nuclear Energy to ratify, in the interest of the European Community, the Protocol amending that Convention, or to accede to it [2004] *OJ L 97/53*.

70. Until 1 July 2007, the decision did not bind Denmark, even though it is a party to the Paris Convention, because it enjoyed an opt-out of EC rules on jurisdiction, recognition and enforcement of judgments in civil and commercial matters. Since that time, two agreements were concluded between Denmark and the European Community, extending the provisions of the regulations on jurisdiction, recognition and enforcement of judgments in civil and commercial matters affecting Denmark. See Agreement between the European Community and the Kingdom of Denmark on jurisdiction, recognition and enforcement of judgments in civil and commercial matters [2005] *OJ L 299/61* and Agreement between the European Community and the Kingdom of Denmark on the service of judicial and extrajudicial documents in civil or commercial matters [2005] *OJ L 299/53*.

71. See e.g. Council Decision authorising Member States, in the interest of the Community, to sign, ratify or accede to the International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001 (the Bunkers Convention) (2002/762/EC). Article 2 of the Decision reads: “When signing, ratifying or acceding to the Bunkers Convention, Member States shall make the following declaration: ‘Judgments on matters covered by the Convention shall, when given by a court of (...), be recognized and enforced in (...) according to the relevant internal Community rules on the subject.’”

reservation. Consequently, the rule on exclusive jurisdiction as laid down in the revised Paris Convention will come into force for all contracting parties to this treaty at the same time.⁷²

2. Relation to the 1997 Protocol to Amend the Vienna Convention of 1963

The issue of the revision of both conventions becomes even more complicated if we take into consideration the 1997 Protocol to amend the 1963 Vienna Convention. In Latvia and Romania, the 1997 Protocol entered into force on 4 October 2003, before their accession to the European Union.⁷³

Further, there are several “new” member states which signed the 1997 Protocol before their accession to the Union, but have not yet ratified it (e.g. the Czech Republic and Hungary).⁷⁴ As the ratification of this protocol would clearly interfere with the existing exclusive competence of the European Union in the area of jurisdiction and enforcement, the 1997 Protocol signatories would be basically entitled to ratify this convention only after authorisation by competent EU authorities. The question arises whether the EU could authorise these member states to ratify the 1997 Protocol only if they declare reservations with respect to the application of the Brussels Regulation. However, such a solution would not be viable:

- a) First, it would not be applicable to those member states that were party to the revised Vienna Convention before their accession to the EU. That means that even if such a decision were taken, the plaintiff that suffered damages in the territory of Romania would still have to follow the rules laid down in that convention.
- b) Further, it would be difficult to argue that the provisions of the revised Paris Convention on exclusive jurisdiction have priority over provisions of the Brussels Regulation but that at the same time, the revised Vienna Convention will not benefit from such favourable treatment. Even if the EU took such a decision, it would be an inappropriate solution for addressing the existing “patchwork” situation. On the contrary, such a decision would make the whole situation more complicated.

In summary, the EU’s competence to authorise member states to accede to international conventions will not likely bring any progress towards the harmonisation of jurisdiction and enforcement rules. Other means must be found.

II. Harmonisation by means of “mutual recognition”

It is a fact that ratifying the Joint Protocol in all member states which are either contracting parties to the Paris or to the Vienna Convention will clearly be a step towards further harmonisation of jurisdictional rules in the EU.⁷⁵ The Legal Report published on 1 December 2009 on the “Accession of

72. *Accord in Magnus, U., op. cit.*, p. 118.

73. Consequently, in this respect, Article 105 of the Euratom Treaty must be kept in mind, in that it deals with pre-existing treaties of the member states. However, the Euratom Treaty lacks any provision concerning possible conflict regarding provisions arising from pre-Community agreements and commitments to EC primary law.

74. Poland ratified the 1997 Protocol to Amend the Vienna Convention of 1963 on 21 September 2010 and consequently, the protocol will enter into force in this state on 21 December 2010.

75. *Accord in Reyners, P., op. cit.*, p. 102.

Euratom to the Paris Convention on Third Party Liability in the Field of Nuclear Energy”⁷⁶ emphasised the role of the Joint Protocol as a “necessary link” between the Paris and Vienna Conventions. Given that none of the EU member states is a member of both the Paris and the Vienna Conventions, Lithuania views adherence to the Joint Protocol as a “must to solve the current lack of unity, which causes legal uncertainty and negatively interferes with the effective implementation of the conventions”.⁷⁷

There are clearly weak points to this solution to the “patchwork” situation: First, the EU has no competence to influence progress on accession to the Joint Protocol. Secondly, the Joint Protocol entails considerable uncertainties with respect to its application, mainly concerning transport cases.⁷⁸ Finally, ratification of the Joint Protocol in all current contracting parties does not address problems arising from member states that are not parties to any international third party liability convention.

III. *Harmonisation by a European regulation*

Finally, the option of harmonising the “patchwork” of rules by means of European law suggests creating a regional European legal framework in nuclear liability, in particular in the areas of jurisdiction and enforcement of judgement.⁷⁹

1. Jurisdiction and enforcement as a matter of Union competence

As pointed out above, jurisdictional arrangements related to nuclear third party liability issues fall, in principle, under exclusive EU competencies. Also, the decisions made in relation to the accession of member states to the 2004 Protocol were made “without prejudice to the Community’s powers”,⁸⁰ yet another statement supports that those competencies have not yet been foreclosed by the two decisions. The most recently published Legal Report, mentioned above, also points out the fact that the most appropriate legal alternatives for coping with the current challenges arising from the existing nuclear liability “patchwork” would be an instrument, under European law, enabling a high degree of harmonisation.⁸¹ Furthermore, the report explicitly provides that “no action would expose the (...) Community to possible claims based on a breach of the general Community law principle on non-discrimination, as referred to in Article 12 of the EC Treaty, given that there is no objective justification for different treatment of victims of nuclear accidents in the Paris Convention EU

76. This was not approved in any way by the European Commission and should not be relied upon as a statement of Commission views. See TREN/CC/01 – 2005.

77. TREN/CC/01 – 2005, p. 81.

78. See Pelzer, N., “Interpretation of the Point Protocol in Transport Cases – the German Position”, in *Indemnification of Damage in the Event of a Nuclear Accident*, OECD: Paris, 2006, pp. 105 *et seq.*

79. Most recently, such a step has also been supported in Magnus, U., *op. cit.*, p. 120 and in Pelzer, N., “Compensation for Large-scale and Catastrophic Nuclear Damage”, in Nótári, T. and Török, G. (ed.), *Unnepi tanulmányok: Lamm Vanda tiszteletére, Jogtudományi Intezete*: Budapest, 2010, pp. 344 *et seq.*

80. See Article 1(1) of the Council Decision of 8 March 2004 authorising Member States that are Contracting Parties to the Paris Convention of 29 July 1960 on Third Party Liability in the Field of Nuclear Energy, to ratify, in the interest of the European Community, the Protocol amending that Convention, or to accede to it [2004] *OJ L 97/53* and Article 1(1) of the Council Decision of 8 November 2007, authorising Slovenia to ratify, in the interest of the European Community, the Protocol of 12 February, 2004 amending the Paris Convention of 29 July 1960 on Third-Party Liability in the Field of Nuclear Energy [2007] *OJ L 294/23*.

81. TREN/CC/01 – 2005, p. 7.

Member States, the Vienna Convention EU Member States and the non-convention states under the current state of affairs”.⁸²

On other hand, the report also states the following as concerns the “patchwork” of jurisdictional rules: “Any harmonization oriented along the lines of the Paris Convention would, consequently, require additional Council decisions to allow the Vienna Convention and non-convention EU Member States to accede to the jurisdictional rules of the 2004 Paris Protocol. For completeness, we note that, given it already exercised its powers and accepted that jurisdiction and enforcement/recognition of nuclear third party liability matters be governed by the extraordinary rules of the 2004 Paris Protocol, the Community would be legally unable to revoke this Council decision and force the Paris Convention EU Member States (that are, in the meantime, internationally bound by the Protocol) to switch to Regulation (EC) 44/2001”.

2. Identifying the possible areas to be governed by a regulation

Without prejudice to the political viability of such an option, one can argue that, under Article 81(2) of the Treaty on the Functioning of the European Union, there is still competence to act in this field. Clearly there is a wide area of possible points to be governed by the European law under the current nuclear liability “patchwork”. To point out the most important, one can identify the following:

- a) Regulating the enforcement of judgements issued by the courts of non-contracting states in the state where the nuclear incident occurred. Obviously, this ranks among the most serious uncertainties arising from the current “patchwork” that may be overcome with an explicit legal regulation.
- b) If supporting the enforcement of judgements of non-contracting states in contracting states, explicit rules must be made on the co-operation of courts and appropriate distribution of the money available. Only such explicit regulation can create a balance between the interests of contracting member states and non-contracting member states, guaranteeing the same kind of balance in the interests of operators and of potential victims.
- c) Lastly, the conflict between rules on exclusive jurisdiction anchored in both major international nuclear liability conventions and the rules enabling *forum shopping*, as foreseen by the Brussels Regulation, can be addressed by means of European law.

However, the outcomes of the most recently published Legal Report showed that member states are sceptical about the viability of any EU initiative.

E. Conclusions

What are the messages of this short overview of the existing “patchwork” in the area of jurisdiction and enforcement of judgements in nuclear liability matters in the European Union? Analysing the current legal framework, one finds a number of legal shortcomings and uncertainties:

- a) Obviously, two contradictory principles regarding jurisdiction are currently in force within the European Union. On one hand, the conventions clearly follow the provisions of channelling the liability to the operator and concentrate all proceedings in one court. On other hand, the Brussels Regulation enables the plaintiff to choose between submitting his claims to the court in the country where the incident occurred and to the court in his home

82. *Ibid*, p. 61.

country. It is important to point out that the regulation generally allows such *forum shopping* for all cases of serious industrial disasters, as no explicit exemption has been made in such cases.

- b) The fact is that neither the intentions of the fathers of the nuclear liability treaties, nor the European legislation concerning a uniform legal framework have been realised. There are considerable differences concerning the rights of potential plaintiffs as victims of a nuclear incident.
- c) The application of the provisions of the Brussels Regulation allows the plaintiff to claim in his home country, basically in his own language, with application of the law of his nation. Those opposing such a system and supporting the regime of exclusive jurisdiction argue that “it is a utopian wish that courts in different countries could and would voluntarily coordinate their proceedings and could achieve a just and equal distribution of the assets of the person liable”.⁸³ However, such co-ordination is a serious challenge that needs to be addressed by European institutions as it is clear that the Brussels Regulation would be applicable on a number of (hypothetical) nuclear liability cases. Furthermore, co-ordination is also needed in cases of damage suffered as a result of a serious industrial disasters (e.g. incidents occurred in a chemical factory) and in cases of damage suffered as a result of nuclear incidents which are not covered by existing nuclear liability conventions.
- d) The situation is unsatisfactory for potential plaintiffs as well as for the operators. While the principle of exclusive jurisdiction, as laid down in both Paris and Vienna Conventions, serves *inter alia* to protect operators from the costs of extensive *forum shopping*, the possible ability to claim in non-contracting countries and enforce judgements under the Brussels Regulation in the contracting parties to international liability conventions makes such protections inefficient.

Consequently, harmonisation of rules creates very serious challenges. Obviously, there are two quite different ways to address such challenges:

- a) By means of international law: A certain stage of harmonisation can be reached by ratifying the Joint Protocol of 1988 by all current contracting parties to the Paris Convention. This would connect both the Paris system, existing in most of the “old” member states and the Vienna system, existing in the “new” member states. However, this development is unable to address challenges arising from the fact that there are currently 5 non-contracting member states, in which the provisions of the Brussels Regulation are also directly applicable on nuclear liability matters.
- b) By means of EU secondary law: There is competence within the EU to act in this field under Article 81 of the Treaty on the Functioning of the European Union. The fact that the Union authorised “old” member states to ratify the 2004 Protocol does not, *per se*, implicate that such competence ceased to exist. However, such a development would face not only a number of legal obstacles (e.g. collision of member states commitments arising from international treaties with the provisions of the EU secondary legislation), but will, most probably, also lack political support from a considerable number of member states.

83. See Magnus, U., *op. cit.*, p. 111.

Deliberations on Compensation and Remediation of Nuclear Damage to the Environment

by Norbert Pelzer*

At its meeting held on 17 and 18 November 2009,¹ the OECD NEA's Nuclear Law Committee (NLC) discussed the issue of obtaining financial security to cover liability for environmental damage. The experts from the insurance industry observed that the liability for environmental damage under the "2004 Paris Convention on Third Party Liability in the Field of Nuclear Energy" (2004 Paris Convention)² may differ from the liability established under the "Directive 2004/35/EC of

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1. OECD Doc. NEA/SEN/NLC(2010)1. The relevant paragraphs 24, 25 read as follows:

"24. On the issue of obtaining financial security to cover liability for environmental damage, the experts from the **nuclear insurance industry** observed that liability for environmental damage under the 2004 Protocol may be different from that under the 2004 EU Environmental Liability Directive. Except for damage to land, liability under the EU Directive requires an operator to bring the environment back to its baseline condition, meaning its state before damage has occurred ("primary remediation"). Should primary remediation not be possible, the operator must look for alternative reinstatement ("complementary remediation") such as, for example, replacing a contaminated forest by a new forest on a different site. Liability under the EU Directive may also require an operator to compensate for the loss of "service" of the environment ("compensatory remediation") until primary or secondary remediation has been accomplished such as, for example, providing accommodation for animals that have lost their natural habitat.

25. Insurers are concerned that the notion of compensatory remediation is too vague and unquantifiable. For example, how long does it take to grow trees as high as they were prior to damage? When do animals again start feeling at home in the forest? When do trees start purifying the air at the same level as they did prior to damage? The insurers' understanding is that a nuclear operator may not be held liable for the costs of compensatory remediation under the 2004 Protocol and the representative from **Germany** agreed to verify this issue. The insurers added that insurance capacity for various new heads of damage under the 2004 Protocols is slowly becoming available, except for environmental damage and extended prescription periods, with amounts varying according to the size of the insurance provider."

2. Unofficial consolidated text of the 1960 Paris Convention and the 2004 Protocol to Amend the Paris Convention reproduced at: www.nea.fr/law/Unofficial%20consolidated%20Paris%20Convention.pdf.

the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage” (hereinafter referred to as “directive”).³

This discussion put into focus the question whether the term “liability” of the operator under the 2004 Paris Convention and under the directive covers identical concepts of “compensation”. It is true that the directive, according to its Article 4(4), excludes nuclear risks or environmental damage or the imminent threat of such damage originating from defined nuclear activities from its scope of application. However, it reserves the right to amend that exclusion by 2014 [Article 18(2) and (3)(a)]. Irrespective of this legal situation, there exists an understandable interest of the insurance industry and of other stakeholders as well to get clarification on which type of obligation the operator has to meet under both instruments, or in other words: which liability and coverage consequences does damage to the environment entail for the operator?

1. The concept of damage under the 2004 Paris Convention

Under the 2004 Paris Convention, “the operator of a nuclear installation shall be liable, in accordance with this Convention, for nuclear damage” [Article 3(a)]. To cover this liability, the operator is required to have and to maintain insurance or other financial security [Article 10(a)]. The concept of compensable nuclear damage is defined in Article I(a)(vii) and reads as follows:

“vii) ‘Nuclear damage’ means,

1. loss of life or personal injury;
2. loss of or damage to property;

and each of the following to the extent determined by the law of the competent court,

3. economic loss arising from loss or damage referred to in sub-paragraph 1 or 2 above insofar as not included in those sub-paragraphs, if incurred by a person entitled to claim in respect of such loss or damage;
4. the costs of measures of reinstatement of impaired environment, unless such impairment is insignificant, if such measures are actually taken or to be taken, and insofar as not included in sub-paragraph 2 above;
5. loss of income deriving from a direct economic interest in any use or enjoyment of the environment, incurred as a result of a significant impairment of that environment, and insofar as not included in sub-paragraph 2 above;
6. the costs of preventive measures, and further loss or damage caused by such measures,

in the case of sub-paragraphs 1 to 5 above, to the extent that the loss or damage arises out of or results from ionising radiation emitted by any source of radiation inside a nuclear installation, or emitted from nuclear fuel or radioactive products or waste in, or of nuclear substances coming from, originating in, or sent to, a nuclear installation, whether so arising from the radioactive properties of such matter, or from a combination of radioactive properties with toxic, explosive or other hazardous properties of such matter.”

3. EU O.J. 2004 No. L 143 p. 56.

2. The concept of damage under the directive

According to its Article 3(1), the directive shall apply to “any environmental damage caused by any of the occupational activities listed in Annex III”, to “damage to protected species and natural habitats caused by any occupational activities other than those listed in Annex III” and to “any imminent threat of such damage.” The concepts of “environmental damage”, of “damage” and of “imminent threat” are defined in Article 2 Nos. 1, 2, 9. The directive requires the operator to take the necessary preventive measures if environmental damage has not yet occurred (Article 5), and if such damage has occurred, to take the necessary “remedial measures” (Articles 6, 7). The competent authority shall decide which remedial measures shall be implemented in accordance with Annex II (Article 7 paragraph 2). Member states shall take measures to encourage the development of financial security instruments with a view to enabling operators to use such financial security to cover their responsibilities under the directive [Article 14(1)].

Annex II defines remediation as follows:

“1. Remediation of damage to water or protected species or natural habitats

Remedying of environmental damage, in relation to water or protected species or natural habitats, is achieved through the restoration of the environment to its baseline condition by way of primary, complementary and compensatory remediation, where:

- (a) ‘Primary’ remediation is any remedial measure which returns the damaged natural resources and/or impaired services to, or towards, baseline condition;
- (b) ‘Complementary’ remediation is any remedial measure taken in relation to natural resources and/or services to compensate for the fact that primary remediation does not result in fully restoring the damaged natural resources and/or services;
- (c) ‘Compensatory’ remediation is any action taken to compensate for interim losses of natural resources and/or services that occur from the date of damage occurring until primary remediation has achieved its full effect;
- (d) ‘Interim losses’ means losses which result from the fact that the damaged natural resources and/or services are not able to perform their ecological functions or provide services to other natural resources or to the public until the primary or complementary measures have taken effect. It does not consist of financial compensation to members of the public.

Where primary remediation does not result in the restoration of the environment to its baseline condition, then complementary remediation will be undertaken. In addition, compensatory remediation will be undertaken to compensate for the interim losses.

Remedying of environmental damage, in terms of damage to water or protected species or natural habitats, also implies that any significant risk of human health being adversely affected be removed.

[...]

2. Remediation of land damage

The necessary measures shall be taken to ensure, as a minimum, that the relevant contaminants are removed, controlled, contained or diminished so that the contaminated land, taking account of its current use or approved future use at the time of the damage, no longer poses any significant risk of adversely affecting human health. The presence of such risks shall be assessed through risk assessment procedures taking into account the characteristic and function of the soil, the type and concentration of the harmful substances, preparations, organisms or micro-organisms, their risk and the possibility of their dispersion. Use shall be ascertained on the basis of the land use regulations, or other relevant regulations, in force, if any, when the damage occurred.

If the use of the land is changed, all necessary measures shall be taken to prevent any adverse effects on human health.

If land use regulations, or other relevant regulations, are lacking, the nature of the relevant area where the damage occurred, taking into account its expected development, shall determine the use of the specific area.

A natural recovery option, that is to say an option in which no direct human intervention in the recovery process would be taken, shall be considered.”

3. Objectives and elements of the 2004 Paris Convention and of the directive

The insurers are concerned that the concept of compensatory remediation, in particular as defined in Annex II No. 1(c) of the directive, is “too vague and unquantifiable” which would entail that such risk is difficult, if not impossible, to insure. The same difficulties would arise regarding environmental damage under the 2004 Paris Convention if both instruments aim at compensation of identical nature, form and extent.

The 2004 Paris Convention and the directive pursue different purposes and thus do not necessarily contain identical concepts and forms of damage to be recovered.

3.1. *The 2004 Paris Convention*

The 2004 Paris Convention aims at “ensuring adequate and equitable compensation for persons who suffer damage caused by a nuclear incident” (Recital 3 of the Preamble) and holds the operator liable to compensate nuclear damage suffered. The convention provides for a third party civil liability regime. It is part of private non-contractual liability law (tort law). That means the convention establishes and regulates the relationship between a tortfeasor and the victim who is a person who suffers damage through an act or omission of the tortfeasor. The latter has to compensate that damage. He is bound to pay a debt. Civil non-contractual liability law is, as a rule, determined by a bilateral relationship between two individual persons. Interests of the general public are, in principle, not involved.

3.2. *The directive*

The purpose of the directive is defined in its Article 1 as follows:

“The purpose of this Directive is to establish a framework of environmental liability based on the ‘polluter-pays’ principle, to prevent and remedy environmental damage.”

The use of the term “environmental liability” (*“responsabilité environnementale”*, *“Umwelthaftung”*, *“responsabilidad medio ambiental”*, *“milieuaansprakelijkheid”*, *“miljöansvar”*, *“responsabilità ambientale”*, *“miljøansvar”*) suggests overlap of and identity with the liability under the 2004 Paris Convention if nuclear damage were included in the scope of application of the directive. The express reference to the “polluter-pays” principle seems to support such interpretation. On the other hand, the directive’s liability is designed to “prevent and remedy” environmental damage. Prevention and remediation are equally ranked objectives of the directive. Pursuant to Article 6(1) of the directive, the operator has to take “the necessary remedial measures”. This purpose and its implementation do not exactly correspond with the concept of civil liability as outlined above. It is rather an argument in favour of qualifying the directive as an instrument designed to protect the environment in a comprehensive way beyond the mere compensation of individual environmental damage. There is no “debt” to be paid by the operator to a victim. Hence, the “liability” under the directive appears to be of a hybrid nature. It should more correctly be called “responsibility” (*“Verantwortlichkeit”*)⁴ of the operator to prevent damage to the environment and to reinstate damaged environment.

3.3. *Elements of the directive*

The operator’s liability/responsibility under the directive is marked by features other than those which define the operator’s liability under the 2004 Paris Convention.

Pursuant to the directive, the operator [definition: Article 2(6)] shall prevent and remedy environmental damage. Environmental damage is defined in Article 2(1) of the directive. It exclusively encompasses damage to assets which cannot be attributed to an individual physical or legal person. The environment as defined by the directive is in nobody’s property ownership but is common to all. The operator’s responsibility exists *vis-à-vis* the general public which is represented by the “competent authority” to be designated in accordance with Article 11 of the directive. The operator shall, in the case of an imminent threat of environmental damage, take preventive measures without delay. The authority has a right of information, it may require the operator to take preventive measures, and it may instruct him (Article 5). In case damage has occurred, the operator has to inform the authority (Article 6). The authority decides which remedial measures shall be implemented (Article 7). The operator has to bear the costs of preventive and remedial measures (Article 8). It follows from these provisions that the relationship between the polluter, i.e. the operator, and the person entitled to request preventive measures or remediation, i.e. the competent authority, is governed by the principle of subordination. In short, the directive imposes a public duty on the operator, and it is a public law rather than a private law instrument.

3.4. *Elements of the 2004 Paris Convention*

The 2004 Paris Convention is governed by another approach. As pointed out above, the convention establishes an obligation on the operator of a nuclear installation to compensate nuclear damage suffered by a person under the terms of private law. Claimant and defendant meet at the same level. Under private law there is no subordination.

4. In the French language there are no different words for the concepts: both liability and responsibility are covered by *“responsabilité”*. Other EU official languages may have a similar approach. Perhaps the directive was originally drafted in French, and the use of the term “liability” and its corresponding terms in other official languages is simply due to an error of translation. It has to be noted that the term “responsibilities” is used in the English version of Article 14(1).

Damage suffered and claims raised are related to individually attributed rights. It is not the environment as a common asset of the general public which shall be protected by the convention but the rights of individual victims. This will be evidenced by a closer look at the heads of damage listed in Article 1(a)(vii) of the 2004 Paris Convention.

Two of the heads of damage explicitly address environmental damage, namely Numbers 4 and 5. The compensable damage is, unlike that provided for in the directive, not damage to the environment as such. The actually incurred costs of measures of reinstatement of a considerably impaired environment shall be reimbursed to the person who undertook the reinstatement (Number 4). Loss of income of a person deriving from that person's direct economic interest in the use or enjoyment of the environment following a significant impairment of the environment shall be compensated (Number 5). However, both heads of damage only apply if such damage is not already covered by damage to property under Number 2 of the sub-paragraph. Furthermore, measures to prevent economic losses as a result of damage to the environment are covered (Number 6 of the sub-paragraph).

The proviso that the two heads of damage only apply if they are not covered as damage consequential to damage to property reduces the scope of application of these heads of damage most considerably. Since nearly all land areas including internal waters are in property ownership of either a state or of individual physical or legal persons, a major if not the greatest part of the environment is part of personal property, such as forests, fields and lakes. Nuclear damage occurring to these parts of the environment is quantifiable damage to property. Only if those parts of the environment which do not belong to a person and which are common to the general public are damaged, the heads of damage numbers 4 and 5 are applicable.

3.5. *Interim summary*

The regime of the 2004 Paris Convention compensates the individual consequences of damage to the environment by means of private liability law, while the directive protects against, and compensates, damage to the common asset environment by means of establishing public duties of the polluter.

4. **Extent and form of compensation**

Do these different approaches entail a different extent and different forms of compensation, too, or are the legal consequences of both regimes identical? More precisely, can prevention and remediation, in particular compensatory remediation, as required under the directive also be required under the 2004 Paris Convention?

The compensation of damage aims at the restoration of the condition which would have existed without the tortuous act (*restitutio in integrum*). This goal seems to be common to both the 2004 Paris Convention and the directive. In the directive it is reflected in terms like "restoration of the environment to its baseline condition" [Annex II(1), Article 2 No. 14]. Nevertheless, there is a major difference. As was pointed out above, the directive is designed to restore the environment in the interest of the general public "to its baseline condition" which is the baseline condition for the entire general public concerned, and consequently, requires comprehensive restoration of the damaged environment. The 2004 Paris Convention is meant, as also already explained above, to compensate the individual economic loss which a certain person suffers. The convention does not establish a claim or an obligation to remediate and restore the environment but to compensate and reimburse the costs of reinstatement, if any, and to compensate economic loss consequential to the impairment of the environment. In the event of a major nuclear incident with many victims, the differences between individual damage and damage to the general public will, of course, fade away.

In order to implement these objectives, the directive and the 2004 Paris Convention deploy different tools. The directive provides for an elaborate legal framework determining the public duties of the operator in great detail. The measures necessary to actually prevent damage or to actually restore damaged environment are listed and made binding upon the operator who acts under the supervision of the competent authority. The object of these preventive and compensatory measures is the general environment that is common to everyone. The competent authority decides which remedial measures shall be taken, and certain natural and legal persons have a right to request relevant action (Articles 7, 12). The costs of the measures shall be borne by the operator (Article 8).

The 2004 Paris Convention, as tort law regime, provides for direct compensation of the individual victim in terms of money. But most national laws also allow for the option of compensating in kind (*restitutio naturalis*). A well known example of the latter type of compensation is Section 249 of the German *Bürgerliches Gesetzbuch* – BGB (Civil Code).⁵ Compensation means reinstatement of the economic situation which existed prior to the nuclear incident. The economic *status quo ante* may, as the case may be, be reinstated better or less expensively through compensation in kind. If, for example, a hotel at the beach loses clients and suffers economic loss because of contamination of the sand at the beach, the operator may, instead of paying money to the owner of the hotel with a view to enabling him to replace the contaminated sand, replace the sand himself.

5. Further elements of defining the compensable damage under the convention

5.1. Loss of income under Article 1(a)(vii) No. 5 of the 2004 Paris Convention

The replacement of sand in the example of the hotel at the beach would indeed qualify for a “primary” or at least “compensatory remediation” if the directive were applicable. Yet here again the “individualisation” of the damage marks the decisive difference between the regimes of the 2004 Paris Convention and of the directive. Under the directive “environmental damage”, in the broad sense of the definition in Article 2(1), has to be restored. The “remediation” under the 2004 Paris Convention obliges the operator of a nuclear installation, for example, to compensate the victim for the economic loss of the hotel, which means only for replacing the sand at that part of the beach which the clients of the hotel use. There is no obligation *vis-à-vis* the hotel owner to reinstate the entire beach; however, such an obligation may, as a new obligation, exist *vis-à-vis* the owner of the beach.

The language of Article 1(a)(vii) No. 5 of the 2004 Paris Convention supports this interpretation: if there is no individual economic loss, there will be no compensation under the convention irrespective of the extent of damage to the environment. If a beach is contaminated and there is no hotel or any other person suffering an economic loss therefrom, there is no claim for compensation under the 2004 Paris Convention. Where there is no claimant, there is no judge. On the other hand, under the directive there will always be a duty to remedy environmental damage. The directive aims at remediation of the impaired environment independent of any individual economic loss originating from the impairment.

Hence, the extent of damage to be compensated under this head of damage will be determined by the economic loss suffered by an individual victim and thus is clearly quantifiable and calculable.

5. Unofficial translation of the provision: “Nature and extent of damages (1) A person liable must restore the state that would exist if the circumstance obliging him to pay damages had not occurred. (2) Where liability is established for the injury of a person or damage to property, the victim may demand the required monetary amount *in lieu* of restoration. In case of property damage, the monetary amount required under sentence 1 only includes value-added tax if and to the extent that it is actually incurred”.

5.2. *Costs of measures of reinstatement under Article 1(a)(vii) No. 4 of the 2004 Paris Convention*

The compensation of the actually incurred costs of measures of reinstatement of the environment, in principle, follows the same pattern. The person who actually takes measures of reinstatement shall be compensated for the costs of such measures. This damage is quantifiable too, provided the definition of “measures of reinstatement” gives guidance regarding the activity for which the operator has to compensate. Article 1(a)(viii) of the 2004 Paris Convention defines measures of reinstatement as follows:

“‘Measures of reinstatement’ means any reasonable measures which have been approved by the competent authorities of the State where the measures were taken, and which aim to reinstate or restore damaged or destroyed components of the environment, or to introduce, where reasonable, the equivalent of these components into the environment. The legislation of the State where the nuclear damage is suffered shall determine who is entitled to take such measures.”

This definition uses general language and thus embraces a far reaching concept of remediation. It needs interpretation and invites a comparative look at the definition of remediation in Annex II of the directive. Such comparison might very well suggest that the “measures of reinstatement” under the convention in substance mean the same as the remediation under the directive. The concern of the insurers that the risk to be covered, and in particular the notion of compensatory remediation, are too vague and unquantifiable, seems to be confirmed.

It is true that the broad definition of measures of reinstatement seems to approximate the liability instrument to the directive. The approach of individualised damage compensation appears to be replaced by the concept of comprehensive remediation of the impaired environment. Such a result, however, would not comply with the concept of civil third party liability as a bilateral relationship of the tortfeasor and the victim. It would transform liability into public responsibility. This was surely not the intent of the drafters of the 2004 Protocol to Amend the Paris Convention. A proper interpretation of the concept therefore has to take into consideration the entire context of the provision and especially the qualifiers of the elements of the definition. The convention contains further elements to support defining and reasonably restricting the notion of compensable nuclear damage to the environment.

Both the convention and the directive, of course, require a causal link between the damaging occurrence attributable to a certain operator and the damage caused to the environment. The onus of proof for the causal link lies with the person requesting compensation of the costs of reinstatement. These are basics for filing a claim. It likewise has to be taken into account that the heads of damage enumerated in Article 1(a)(vii) Nos. 3 to 6 of the 2004 Paris Convention are governed by a chapeau sentence which provides that each of the following heads of damage only apply “to the extent determined by the law of the competent court”. This provision grants discretion to the law of the court to further define the compensable damage. More specific is the requirement that reinstatement costs are only compensable if the impairment of the environment is not insignificant. The measures have to be “reasonable”. That qualifier is defined as follows [Article 1(a)(x) of the 2004 Paris Convention]:

“‘Reasonable measures’ means measures which are found under the law of the competent court to be appropriate and proportionate, having regard to all the circumstances, for example:

1. the nature and extent of the nuclear damage incurred or, in the case of preventive measures, the nature and extent of the risk of such damage;
2. the extent to which, at the time they are taken, such measures are likely to be effective; and
3. relevant scientific and technical expertise.”

The concept grants the judge broad discretion to decide whether, and to what extent, the measures of reinstatement taken are reasonable and their costs are to be compensated. The provision at the same time provides the judge with a yardstick for his decision. The qualifiers “appropriate and proportionate” play a decisive role. Appropriateness and proportionality of the measures of reinstatement have to be considered not only with respect to the aspects referred to in the definition but also with respect to all other relevant aspects including the aspect that compensation is claimed under a civil liability regime which is distinct from comprehensive remediation under an environmental protection regime. The judge will also have to take into account that in case of a major nuclear incident the means for compensation are limited and that his ruling needs to strike a balance between claims to compensate environmental damage and other claims filed. If these qualifying elements are properly applied, the legal approach of the convention restricts the claim for compensation of the consequences of environmental damage to a reasonably determinable and quantifiable claim.

6. Summary

The concerns of the insurers that environmental damage is difficult if not impossible to insure may, to a certain extent, be justified with regard to the comprehensive concept of environmental damage as defined in the directive. Yet the directive does not apply to nuclear incidents, and it may only be used for the purpose of comparison. Nuclear incidents are covered by the 2004 Paris Convention. Regarding this convention there is, however, less reason for such concern. The environmental damage to be compensated is of another nature than that of the directive. It is clearly restricted to the individual economic losses consequential to a significant impairment of the environment. Due to that restriction the risk is quantifiable and calculable. Its financial coverage should not involve greater difficulties for the insurers and other persons providing financial security than covering other heads of damage, particularly in relation to covering the broad range of damage to property including economic losses consequential to property damage. If property damage can be insured, environmental damage, as defined in the convention, ought to be insurable, too. However, it has to be admitted that the broad concept of measures of reinstatement may cause problems of coverage if the interpretation of that notion does not reasonably limit the extent of the measures. Thus, the insurers have to face a certain degree of uncertainty.

The result of this paper is, *mutatis mutandis*, also applicable to the 1997 Vienna Convention on Civil Liability for Nuclear Damage (1997 VC)⁶ and to the Convention on Supplementary Compensation for Nuclear Damage (CSC).⁷ Both conventions build the liability of the operator of a nuclear installation on concepts of nuclear damage which in relation to the heads of damage discussed here are identical to those of the 2004 Paris Convention [Article I(1)(k, m, o) of the 1997 VC, Article I(f)(g)(h) of the CSC].

6. IAEA Doc. INFCIRC/566 Annex.

7. IAEA Doc. INFCIRC/567.

International Court of Justice on Potential Transboundary Damage and its Consequences in Nuclear Law

by Marie Cletienne*

On 4 May 2006, Argentina filed in the International Court of Justice (hereinafter “ICJ”) an application instituting proceedings against Uruguay. Argentina claimed that Uruguay, by authorising the construction of a pulp mill (the “CMB mill”) and the construction and commissioning of another pulp mill (the “Orion mill”), breached its obligations under the 1975 Statute of the River Uruguay, a treaty between Argentina and Uruguay, notably the obligation to take all necessary measures for the optimum and rational utilisation of the River Uruguay.

On 20 April 2010,¹ the court rendered its decision settling this environmental dispute between Argentina and Uruguay. This paper will first summarise the judgement and then consider the main contribution of this decision to international environmental law, e.g. the recognition of an international customary rule to conduct an environmental impact assessment. Finally, the potential consequences of the decision in nuclear law will be addressed in the last part.

I. The environmental dispute between Argentina and Uruguay

This part will briefly introduce the legal framework governing the relations between Argentina and Uruguay relating to the River Uruguay, Argentina’s allegations and finally the decision rendered by the court.

Legal framework

The boundary between Argentina and Uruguay in the River Uruguay is defined by the 1961 bilateral treaty entered into for that purpose at Montevideo. According to Article 7 of that treaty, the parties have to establish a “regime for the use of the river” covering various subjects, including the prevention

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1. ICJ, Case concerning pulp mills on the River Uruguay, Argentina v Uruguay, 20 April 2010. The judgement is available at www.icj-cij.org/docket/files/135/15877.pdf.

of water pollution of the river. This “regime” was established through the 1975 Statute, a treaty signed by Argentina and Uruguay in 1975 which entered into force in 1976.

Article 1 of the 1975 Statute sets forth its object and purpose which is to “establish the joint machinery necessary for the optimum and rational utilization of the River Uruguay, in strict observance of the rights and obligations arising from treaties and other international agreements in force for each of the parties”. Article 7 establishes the Administrative Commission of the River Uruguay (“*Comisión Administradora del Río Uruguay*”, hereinafter referred to as the “CARU”), a joint mechanism for co-operation intended to facilitate respect for the object and purpose of the 1975 Statute.

Finally, Article 60 paragraph 1² of the 1975 Statute together with Article 36 paragraph 1³ of the ICJ Statute form the basis of the present jurisdiction.

Argentina’s allegations and the court’s decision

The dispute concerns the interpretation and application of the 1975 Statute. More precisely, on the one hand the question was whether Uruguay complied with its procedural obligations under the 1975 Statute when it issued the authorisations for the construction of the CMB mill as well as for the construction and the commissioning of the Orion mill. On the other hand, the ICJ had to decide whether or not Uruguay complied with its substantive obligations under the 1975 Statute since the commissioning of the Orion mill in November 2007.

First, the court found that Uruguay had breached its procedural obligations⁴ to co-operate with Argentina and the CARU during the development of plans for the two pulp mills in question. Indeed the court observed that Uruguay did not transmit to CARU the information required by the 1975 Statute before issuing the initial environmental authorisations for each of the mills. Uruguay was further under the obligation to transmit to Argentina the environmental impact assessments after having issued the initial environmental authorisations for the two mills which it neglected to do.

Having said that, the court decided that Uruguay did not breach its substantive obligations⁵ with respect to the protection of the environment, provided for by the 1975 Statute of the River Uruguay, by authorising the construction and commissioning of the Orion mill, noting that the evidence provided by Argentina was insufficient.

II. The recognition by the court of a customary obligation to conduct an environmental impact assessment

Beyond the above mentioned appraisal by the court of Uruguay’s procedural and substantive obligations, this decision can be qualified as a landmark decision regarding the ICJ’s analysis of a

2. Article 60 paragraph 1 of the 1975 Statute: “Any dispute concerning the interpretation or application of the Treaty and the Statute which cannot be settled by direct negotiations may be submitted by either party to the International Court of Justice.”

3. Article 36§1 of the I.C.J Statute: “The jurisdiction of the Court comprises all cases which the parties refer to it and all matters specially provided for in the Charter of the United Nations or in treaties and conventions in force.”

4. On the breach of procedural obligations, see paragraphs 67 to 158 of the judgement.

5. On the breach of substantive obligations, see paragraphs 159 to 266 of the judgement.

specific obligation contained in the 1975 Statute, namely the requirement to conduct an environmental impact assessment. The deliberations of the court on this obligation are likely to go beyond the scope of this case and will be applicable to other industrial projects.

The ICJ has an important role to play in the creation of standards of international law which will be briefly elaborated before examining the new standard of customary law established by the court in the present case.

The ICJ's role in creating international law

The international law standards are of various origin and nature.⁶ Article 38 of the ICJ Statute⁷ lists the sources of international law by making a distinction between, on the one hand, the main standards that are written (treaties) and unwritten norms (customary and general principles of law) and on the other hand subsidiary standards (judicial decisions and doctrine).⁸

The ICJ in the present decision identifies a new unwritten norm falling under the category “customary law”. This source of international law is defined in Article 38 of the ICJ Statute as “evidence of a general practice accepted as law”.

Before the emergence of the modern state, customary law was the only source of law. While under national legislation customary norms are more common in countries of common law tradition, it is interesting to note that under international law, many standards are currently still unwritten. Indeed, unlike written sources such as international treaties, these unwritten norms have the advantage of flexibility and adaptability,⁹ and they can be used to, for example, fill omissions in treaties.¹⁰

6. Dominique Carreau, *Droit international*, Paris, Pedone, 8^{ème} édition, 2004.

7. Article 38 of the ICJ Statute: “1. The Court, whose function is to decide in accordance with international law such disputes as are submitted to it, shall apply:

- a international conventions, whether general or particular, establishing rules expressly recognized by the contesting states;
- b. international custom, as evidence of a general practice accepted as law;
- c. the general principles of law recognized by civilized nations;
- d. subject to the provisions of Article 59, judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.”

8. According to Professor Carreau, this article is now obsolete, an opinion widely shared by the community of international lawyers. Indeed, norms of soft law are not listed in this section, which are important in many fields, including nuclear law, where they support the technological developments experienced in this field.

9. Dominique Carreau, *op. cit.*

10. The conclusion of a treaty and the amendment of such an instrument require compliance with a lengthy and complex process. While some elements of the law of treaties introduce some flexibility (e.g. the ability to make reservations), the principle of consensus often dilutes the provisions in a treaty, slows the amendment procedures and thereby the possibility of its adaptation to emerging needs. Thus, while the international society constantly evolves, some of these changes cannot be re-transcribed into treaties in force in a flexible fashion because of the cumbersome amendment procedures (see for example the Convention on the Physical Protection of Nuclear Material) nor can they lead to the adoption of new treaties (e.g. the difficulty of arriving at a binding instrument in environmental law since the Kyoto Protocol and the successive failures of the Copenhagen Conference in 2009 and Cancun in 2010).

It is however important to underline that custom and treaties have equal authority. Moreover, these two standards are often interacting: a custom may be born of a treaty and a treaty conversely may result from a custom.

Here, the focus will be on the treaty which leads to a custom. The ICJ recognised this possibility in the *North Sea Continental Shelf Cases*,¹¹ in which it required the fulfilment of certain conditions: the treaty must lead to a settled and uniform practice (timely and geographically repeated precedent) and states must believe that they are conforming to a legal obligation. In the aforementioned case, the court denied that the 1958 Geneva Continental Shelf Convention led to a custom. However, in the case at hand relating to the dispute between Argentina and Uruguay, and as we will see later, the ICJ affirmed that the before mentioned conditions are met and thus acknowledged the existence of a customary rule.

The custom, however, gives rise to difficulties with respect to the identification and limitation of its outline. In this regard, judges and referees respectively have a fundamental role to play: indeed, while recognising the existence of a custom they, on the same occasion, create the very rule.¹² This is why utmost attention should be paid to the decisions of international courts and tribunals. This is also how the court in The Hague contributed greatly to the development of international law in recognising the existence of customary rules that were thereby “officialised” by the highest international judicial body.¹³ Moreover, even if the decisions of the court are of a relative nature, and have to be appreciated in light of the parties involved and object of the dispute, the court in practice refers to its earlier decisions, which provides some judicial continuity.

In the following, the attention will be on the contribution of the present decision to international custom, namely the recognition by the court of a new customary rule in environmental law.

Recognition of a customary rule to conduct an environmental impact assessment

The landmark contribution of this decision lies in the analysis by the court of an obligation contained in Article 41 of the 1975 Statute, e.g. the obligation to conduct an environmental impact assessment.

The court first notes that, in order for the parties to properly comply with their obligations under Article 41(a) and (b) of the 1975 Statute, they must, for the purposes of protecting and preserving the aquatic environment with respect to activities which may be liable to cause transboundary harm, carry out an environmental impact assessment.

It then observes the existence of “a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource”, a requirement which is the result of practice, which in recent years has gained much acceptance among states.¹⁴

11. North Sea continental shelf cases (Federal Republic of Germany/Denmark; Federal Republic of Germany/Netherlands) Judgement of 20 February 1969.

12. Dominique Carreau, *op. cit.*

13. Dominique Carreau, *op. cit.* Examples include the contribution of the court on issues such as the role of individuals as subject of international law, the legal personality of international organisations, law of the sea or the international responsibility of states.

14. Paragraph 204 of the judgement.

The court thus states that the carrying out of an environmental impact assessment is no longer only an obligation under the Espoo Convention,¹⁵ but also an obligation under international customary law and hence incumbent upon any state planning an industrial activity that may have a significant adverse impact in a transboundary context because customary rules are binding upon every state.

First, it is important to recall that this is not the first time the court has allowed a conventional rule to become a customary rule;¹⁶ moreover the court uses the elements contained in Article 38 of the ICJ Statute defining international custom (“a general practice accepted as law”).

Secondly, it is interesting to note that this “requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource” is similar to the obligation under Article 2 paragraph 3 of the Espoo Convention which states that the “[p]arty of origin shall ensure that in accordance with the provisions of this Convention an environmental impact assessment is undertaken prior to a decision to authorise or undertake a proposed activity listed in Appendix I that is likely to cause a significant adverse transboundary impact”.

Yet whereas Appendix 1 of the Espoo Convention lists projects in a wide range of sectors including, *inter alia*, oil refining, electricity generation, iron and steel smelting, waste disposal, pulp and paper manufacturing and mining and all major nuclear facilities and activities (nuclear power stations and other nuclear reactors, installations solely designed for the production or enrichment of nuclear fuel, for the reprocessing of irradiated nuclear fuel or for the storage, disposal and processing of radioactive waste), the court does not restrict the obligation to a list of activities but refers to the “risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource”.

The court then specifies that, while Argentina and Uruguay are not parties to the Espoo Convention, “it is for each State to determine in its domestic legislation or in the authorization process for the project, the specific content of the environmental impact assessment required in each case, having regard to the nature and magnitude of the proposed development and its likely adverse impact on the environment as well as to the need to exercise due diligence in conducting such an assessment”.¹⁷ The court thus leaves some flexibility to states while giving some guidance, namely that states will have to take into account the nature and extent of the proposed project and its impact on the environment and that they have to exercise due diligence.

Finally, the court notes that such an assessment must be conducted prior to the implementation of a project and that once operations have started, continuous monitoring of its effects on the environment is to be undertaken where necessary, throughout the life of the project.

15. The 1991 Convention on Environmental Impact Assessment in a Transboundary Context of the United Nations Economic Commission for Europe, Espoo Convention, adopted in 1991 and entered into force on 10 September 1997.

16. North Sea Continental Shelf Cases §73 “With respect to the other elements usually regarded as necessary before a conventional rule can be considered to have become a general rule of international law, it might be that, even without the passage of any considerable period of time, a very widespread and representative participation in the convention might suffice of itself, provided it included that of States whose interests were specially affected.”

17. Paragraph 205 of the judgement.

This ICJ decision can be qualified as a precedent in environmental law, particularly regarding environmental impact assessments. It will inevitably have consequences for states planning activities liable to cause harm, a category under which the peaceful uses of nuclear energy clearly fall.

III. Potential consequences in nuclear law

This newly established custom in environmental law might lead to an interesting dispute resolution in the field of nuclear energy. International environmental law encompasses a plethora of international treaties, agreements, principles, etc., which have, over the years, impacted nuclear activities in that they included nuclear facilities and activities in their scope of application. In the following, this development will be briefly recalled and subsequently the possible consequences of the decision will be put into perspective.

Impact of environmental law on nuclear law

Nuclear law and environmental law have many similarities: both are relatively new, cross-cutting, evolving, based largely on the work of experts and dependent on science and technology which lead to the creation of original concepts and principles.

Environmental law applies to the nuclear field in a direct and an indirect way: it does so *directly* by making nuclear activities subject to international environmental law and *indirectly* by introducing environmental law principles and the concept of environmental protection into international nuclear law.¹⁸

The Espoo Convention¹⁹ is one of the primary international environmental law instruments applying directly to nuclear activities. It sets out the obligations of contracting parties to assess the environmental impact of certain activities at an early stage of planning. The process involves an analysis of the likely effects on the environment of a project, recording those effects in a report, undertaking a public consultation on the report, taking due account of the comments on the report when taking the final decision and informing the public about the decision afterwards. The convention especially lays down the general obligation of states to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries.

Potential impact of this decision in nuclear law

With the present ICJ decision, the obligation to conduct an environmental impact assessment, which was so far only binding upon contracting parties to the Espoo Convention or through bilateral agreements, will be binding upon any and every state envisaging nuclear activities that might have a significant adverse environmental impact on other states.

18. Emmerechts, Sam, "Environmental Protection under Nuclear Law: Still a Long Way to Go", in: *International Nuclear Law: History, Evolution and Outlook*, 10th Anniversary of the International School of Nuclear Law, available on line at www.oecd-nea.org/law/isnl/10th/isnl-10th-anniversary.pdf.

19. Other examples are the 1998 Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (in force since 30 October 2001) and the 2003 Kiev Protocol on Strategic Environmental Impact Assessment (in force since 11 July 2010).

Only 45 states are currently parties to the Espoo Convention.²⁰ Yet unlike treaties that apply only to contracting parties, international custom applies to all states without any system of reservation.²¹ Now that a growing number of states are considering the nuclear power option, the ICJ decision will have an impact irrespective of these states being contracting parties to the Espoo Convention.

The following principle can be deduced from such custom: if a country A, party or not to the Espoo Convention, considers constructing a nuclear power plant on its territory which could have a significant adverse impact on the environment of country B, A must, pursuant to customary international law, conduct an environmental impact assessment before the implementation of the project. A is free to determine the specific content of the environmental impact assessment, it must however take into account the nature and magnitude of the proposed development. Moreover, A will have to exercise due diligence²² in conducting such an assessment. Finally, once operations have started, A will have to set up a continuous monitoring of its effects on the environment.

The principles laid down under the Espoo Convention, even if not applicable directly, might provide guidance to states when applying this international custom.

Limits of the decision

Concluding, the impact of this decision has to be put in perspective. Indeed, contrary to domestic law, international law is an imperfect and incomplete legal system which does not have the means of an enforcement mechanism which domestic laws have at their disposal. There is no “international gendarme” at the service of international law to ensure, as a last resort, its respect. In fact, compliance with international law is primarily based on the moral strength and goodwill of its subjects.²³ Thus, in the example in hand, everything relies on the willingness of the country A to conduct an environmental impact assessment and to consult with its neighbour B if it decided to build a nuclear plant which may have a significant adverse impact in a transboundary context.

In addition, unlike domestic law, international law does not have a judicial system of general and compulsory jurisdiction, recourse to the judge or arbitrator remaining purely voluntary. Only states may appear before the ICJ, which excludes individuals and international organisations. Therefore, if B felt that its rights were not being respected, it could submit the dispute to the ICJ, for breach of A’s customary obligation to conduct an environmental impact assessment, however, only if A agrees to go to court, according to Article 36 paragraph 2 of the ICJ Statute.²⁴ Consequently, if

20. As of December 2010.

21. The court already stated in a previous case the universality of general customary rules in North Sea Continental Shelf Cases, 1969: “[...] it is a characteristic of purely conventional rules and obligations that, in regard to them, some faculty of making unilateral reservations may, within certain limits, be admitted; whereas this cannot be so in the case of general or customary law rules and obligations which, by their very nature, must have equal force for all members of the international community, and cannot therefore be the subject of any right of unilateral exclusion exercisable at will by any one of them in its own favour” (§63).

22. Obligation for a state to avoid negligence, mistake, omission or delay in performing its duties under international law towards foreigners (definition by Gérard Cornu, in le *Vocabulaire Juridique*, PUF).

23. Dominique Carreau, *op. cit.*

24. Article 36 paragraph 2 of the ICJ Statute: “The states parties to the present Statute may at any time declare that they recognize as compulsory *ipso facto* and without special agreement, in relation to any other state accepting the same obligation, the jurisdiction of the court in all legal disputes concerning:

individual members of the public in country A or B were not consulted, they will not be able to call upon the court at The Hague. In the case concerning Argentina and Uruguay, the court's jurisdiction was based on the 1975 Statute which contained a clause establishing the jurisdiction of the latter.

IV. Conclusion

Despite the shortcomings of the international legal system, this paper can be concluded on a positive note bearing in mind the standing and moral authority of the International Court of Justice and its decisions, which are highly respected and followed by regional and national courts.

In substance, this decision may constitute a milestone in the interpretation and further development of environmental law which by its nature cannot be effective if applied only within the political borders of states. Environmental protection laws and principles can only reach their goal if applied and respected globally by as many states as possible, irrespective of their political discretion to accede to international treaties in that field. In this regard, the ICJ identifies not only a custom in international law, but at the same time a principle in environmental justice, e.g. that major industrial activities have an impact on shared resources and should thus be discussed with those who might be significantly affected.

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- a. the interpretation of a treaty;
 - b. any question of international law;
 - c. the existence of any fact which, if established, would constitute a breach of an international obligation;
 - d. the nature or extent of the reparation to be made for the breach of an international obligation.”

Case Law

Canada

*Criminal Court decision respecting attempted export of nuclear-related dual use items to Iran: Her Majesty the Queen vs Yadegari (2010)*¹

This case concerns a recent, successful prosecution that was undertaken before the Ontario Court of Justice relating to violations of export control legislation in Canada, nuclear regulatory legislation, customs law, criminal law, as well as Canadian law implementing UN Security Council resolutions concerning Iran.

The convictions that have been registered in this case, notwithstanding the fact that the decision is currently under appeal,² demonstrate the importance of a functioning export control regime and effective counter-proliferation strategy. The case represents the first conviction for a regulatory offence under the *Nuclear Safety and Control Act*,³ in force since 2000, and Mr. Yadegari is the first Canadian to be convicted under the *United Nations Act*, Canada's legislation by which it implements UN resolutions.

Background

Mr. Mahmoud Yadegari, also known as David Yadegari, is a Canadian born in Iran who resided in, and ran his business N&N Express Inc. from his home in Toronto, Canada. As found by the court, between December 2008 and March 2009 he made significant efforts to obtain devices known as "pressure transducers" from two manufacturers, Setra Systems Inc. in the United States and Pfeiffer Vacuum Inc. in Germany.

Pressure transducers, also known as manometers, are devices that convert pressure measurements into an electrical signal that can be recorded and displayed on a computer. Pressure transducers are used in industry to measure the pressure inside gas centrifuges. As such, they can be used in the process of uranium enrichment involving gas centrifugation as the gas pressure inside the centrifuges must be kept below 13 kilopascals. Some of the parts in the Setra transducers are made of Inconel 600 and Inconel 718 which are respectively comprised of 72% and 50-55% nickel by weight. Pressure transducers that are used in a uranium enrichment process are normally consumed during this process.

The possession of this equipment in Canada does not in itself require a licence or permit. However, because of their potential for use in enrichment processes, pressure transducers are

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1. Ontario Court of Justice *per* Madam Justice Cathy Mocha, 6 July 2010, sentencing decision 29 July 2010. This summary is submitted by Jacques Lavoie and Lisa Thiele, Director and Deputy Director, respectively, of the Legal Services at the Canadian Nuclear Safety Commission (CNSC). Opinions expressed in this summary are those of the authors alone and do not purport to represent the views or the policies of the CNSC or of the Government of Canada.
 2. At the time of writing, a Notice of Appeal challenging both the convictions as well as the sentence imposed, has been filed before, but not heard by, the Ontario Court of Appeal.
 3. S.C. 1997, c. 9 (hereinafter, the NSCA).

considered nuclear-related dual-use items, and are thereby subject to regulatory control, for the purposes of import and export. Their export requires a permit under Canada's *Export Control List*⁴ as well as a licence issued by the Canadian Nuclear Safety Commission (CNSC) under the NSCA and its Nuclear Non-Proliferation Import and Export Control Regulations.⁵

Through his company, Mr. Yadegari purchased 10 Setra pressure transducers from the Canadian distributor Alpha Controls and Instrumentation on 18 December 2008. The order was sent on 23 February 2009 to Mr. Yadegari. Each of the 10 pressure transducers sold for CAD 1 109.

Mr. Yadegari also tried to obtain a number of transducers from Pfeiffer, a manufacturer based in Germany. Pfeiffer diligently required an "end-user certificate" that should preferably be signed by the customer in the country of destination. Mr. Yadegari, in turn, provided a declaration on his company's letterhead by fax stating: "this is to confirm that the products we are buying from Pfeiffer are going to be used in Denmark". On 4 March 2009, however, Pfeiffer advised Mr. Yadegari that the document was not acceptable. As a result, Mr. Yadegari subsequently provided Pfeiffer with a completed end-user certificate by e-mail, as well as a signed copy of a letter of assurance, as required by German law. The end user on the certificate was listed as Keft Pharma Co. in Dubai, United Arab Emirates, and the intended end use was stated as "pharmaceutical". On 19 March 2009, the order was cancelled by Pfeiffer due to "in-house export restrictions".

On 4 March 2009, Mr. Yadegari went to the office of DHL Express, an international freight forwarding company, and dropped off a package for international shipment containing two of the pressure transducers he had bought, with their labels removed. Keft Trading Company was indicated on the required forms as the receiver, with an address in Dubai. Other information on the forms signed by Mr. Yadegari was inaccurate in describing the items and their value. One week later, Mr. Yadegari received a notice from the Canada Customs Export Control Unit advising him that his shipment had been detained for "permit determination/verification". As such, the shipment did not leave Canada. He subsequently submitted an export declaration form, on which he described the goods as "pressure gauges".

On 16 April 2009, Mr. Yadegari was arrested at his home by members of the Royal Canadian Mounted Police (RCMP) who, with a search warrant, executed a search of his premises and found additional evidence, including the other Setra pressure transducers, as well as material on the hard drive of his computer related to correspondence with Pfeiffer and to emails between him and a Mr. Tabari in Iran. Mr. Yadegari was charged with five offences, under Canada's *Customs Act*, the *United Nations Act* and the *Export and Import Permits Act*. Subsequently, on 20 May 2009, the RCMP laid an additional five charges against Mr. Yadegari in relation to the same event, including failing to comply with regulations made under the NSCA and several *Criminal Code* offences relating to forgery.

The court decision

In addition to being accused of failing to comply with the regulatory requirements to obtain an export permit and to obtain an export licence under the NSCA, Mr. Yadegari was accused of seeking to sell products to someone in Iran, prohibited by Canadian law implementing UN Security Council Resolutions on Iran. Specifically, regulations made under Canada's *United Nations Act*⁶ prohibit

4. SOR/89-202.

5. SOR/2000-210.

6. R.S.C. 1985, ch. U-2. See also Regulations Implementing the UN Resolutions on Iran, SOR/2007-44, as amended.

Canadians from knowingly selling or supplying “to any person in Iran or for the benefit of Iran”, “all products that appear in Information Circular INFCIRC/254/Rev.7/Part2”, which is the current version of the Nuclear Suppliers’ Group Guidelines for Transfers of Nuclear-Related Dual-Use Equipment, Material and Related Technology. In order to not be subject to this prohibition, one would have to apply for a specific exemption from it under the same regulations.

Of note in this case is the technical nature of the specifications of the pressure transducers. Because of the detailed specifications of the items on the control list, it fell to the prosecution, the Public Prosecution Service of Canada, to first establish that the items that had been seized met the specifications of the items listed for control. Expert evidence was provided by a representative from Setra, which assisted the court in being satisfied beyond a reasonable doubt that the items at issue were so controlled under the Canadian export control regime. Expert evidence was also contributed by the Canadian Nuclear Safety Commission, which assisted the prosecution as well.

Respecting the intended destination of the items, and the intentions of Mr. Yadegari in that regard, the court noted the circumstantial nature of much of the evidence, as follows:

“The bulk of the evidence in this case is circumstantial. Although reasonable inferences can be drawn from circumstantial evidence, those references must be based on discernible proven facts, anything less is speculation and impermissible. The court must take care not to draw overreaching inferences from the facts, and when there are competing inferences, the court must be particularly mindful that at all times the onus is on the Crown to prove its case beyond a reasonable doubt”.

After canvassing the reasonable inferences to be drawn from the evidence before her, Madam Justice Mocha concluded that Mr. Yadegari intended for the transducers to be sold to Mr. Tabari in Iran and that he had attempted the export knowingly. While defence counsel had argued that Mr. Yadegari was not a sophisticated import/export dealer, the court noted that he had been reminded of his legal obligations numerous times, according to the evidence. Madam Justice Cathy Mocha also noted that he had removed the labels from the transducers. She concluded as follows:

“Based on the totality of the evidence presented, I am satisfied that the Crown has proven beyond a reasonable doubt that the defendant attempted to sell products prohibited by s. 3(e) of the Regulations implementing the UN Resolutions on Iran to a person in Iran, that he did so knowingly and that, as conceded in the agreed facts, he did not apply for or obtain a Certificate of Exemption pursuant to s. 20 of the Regulations implementing the UN Resolutions on Iran”.

Similarly, the court was satisfied that Mr. Yadegari had committed, in preparing and signing the customs documentation, “deliberate falsehoods” as to the material particulars of the goods, their description and value. These constituted offences under the Customs Act. The sole count on which the court was not satisfied beyond a reasonable doubt was a charge of criminal forgery in relation to the end-use certificate sent to Pfeiffer in Germany. While the court was satisfied that the certificate was indeed a forgery, Madam Justice Mocha was not satisfied that the Crown had adequately established that it had been Mr. Yadegari who had committed the forgery. On the other hand, a conviction was registered against him for an offence under the Criminal Code relating to the knowing use of a forged document in using the end-use certificate.

In her sentencing decision reached on 29 July 2010, Madame Justice Mocha concluded that Mr. Yadegari had been wilfully blind about the controlled nature of the pressure transducers and that his focus was mainly on profit. She concluded that he had been “blinded by greed” despite the fact that the attempt to export pressure transducers to Iran could have had “potentially devastating

consequences”. The conclusion that he was motivated by money leads to the conclusion that he was not ideologically driven, even though the court also added that the “potential for harm was to the global community”. She did note that Mr. Yadegari had lost his job, his business and his home, along with other assets, and that he had been incarcerated for the 15 months between his being charged and his conviction.

The Public Prosecution Service of Canada had requested a total sentence of 6.5 years, or 78 months in prison, which ended up being a request for a four-year sentence, taking into account the pre-trial custody. Defence counsel had asked for a sentence of time served plus one day. Of course, since this was the first such conviction under the United Nations Act, the court had no precise precedent to follow. The court imposed a sentence of 20 months’ imprisonment, which reflected a double credit for the time that Mr. Yadegari had already served.

Conclusions

Interestingly, and despite the fact that Mr. Yadegari is a Canadian who was being tried in Canada for domestic offences, in February 2010, Iranian President Ahmadinejad made a proposal for a swap of Iranians “held in U.S. prisons” for three American hikers who were being held in Tehran. The list of Iranians to which the proposal referred included the convict.

While this case represents the first time there has been a conviction under Canada’s imposition of UN resolutions on Iran, it is interesting to note that the only matter the court had to be satisfied of for this offence, was that Mr. Yadegari had knowingly sought to trade in the prohibited goods, to someone in Iran. None of the elements of the offences related to any particular end use to which the transducers would be put, and it was not required of the Crown to show that there was a link between Mr. Yadegari and a nuclear programme in Iran.

Rather, the evidence presented by the RCMP at trial showed that a Mr. Tabari repeatedly emailed Mr. Yadegari via a computer server in Iran. This was sufficient to make out the elements of the offences with which Mr. Yadegari was charged, and we do not learn more about Mr. Tabari. It would no doubt be useful for the international community to learn of the motivations and intentions of the absent Mr. Tabari, but the case was not of that nature, and did not advance this inquiry.

As a reflection of Canada’s export control regime and non-proliferation co-ordination, the case may be considered a success. It also shows the importance of communication and vigilance in order to prevent the kind of transfer that was prevented in this situation.

Czech Republic

*Supreme Administrative Court on the legal status of ČEZ (2010)*⁷

The Supreme Administrative Court in its decision of 6 October 2009⁸ ruled on whether ČEZ, a.s., which is the operator of nuclear installations at the Temelín and Dukovany sites in the Czech Republic, is governed by the Act on Free Access to Information.⁹

7. This summary is submitted by Jakub Handrlica, Assistant Professor at the Department of Administrative Law and Administrative Science, Faculty of Law, Charles University in Prague.

8. Decision of the Supreme Administrative Court of 6 October 2009, 2 Ans 4/2009-93.

The court stated that the rules laid down in the Act on Free Access to Information, also apply to ČEZ which is considered as a “public institution”. The following reasons led the court to this interpretation: first, ČEZ was established by decision of the state in the course of the privatisation process. Secondly, the company is effectively controlled by the state, which is still its majority owner and the profits of the company also compose a portion of state budget revenues. Finally, there is a public interest served in the function of the company.

Background

In July 2006, the civil association “in the Emergency Zone of the Temelín Nuclear Plant” (hereinafter “complainant”) requested from ČEZ (hereinafter “defendant”) access to several pieces of information. The complainant asked for complete technological documentation on the nuclear fuel used from the beginning of the nuclear power plant operation (“fuel passports”) and the documents analysing the applicability of the fuel “VVANTAGE – 6” provided by Westinghouse for the VVER 1000 reactor at the Temelín nuclear site. The defendant refused this request and the complainant then sought this information based on the Act on Free Access to Information at the Municipal Court in Prague.

The Municipal Court in Prague dismissed this request by its decision of 7 April 2009 and ruled that the defendant is neither a state enterprise nor a state authority, but a private entity (a stock company), established under the provisions of the Commercial Code. Therefore, according to the ruling by the Municipal Court, the defendant is not obliged to provide information as requested by the Act on Free Access to Information.

Furthermore, the Municipal Court stressed that a request based on provisions of the Act on Free Access to Information is not a suitable legal tool for the complainant. According to the Municipal Court, defendant is merely obliged to provide information pursuant to Article 17(1) of the Act on Peaceful Use of Atomic Energy (Atomic Act). This provision obliges operators to “provide the public with information on nuclear security, except of cases of classified information and business secrets”. The Municipal Court stressed that the State Office for Nuclear Safety¹⁰ has powers to ensure compliance with the Atomic Act and that inspectors of this authority have wide ranging competencies regarding possible controls on the nuclear site. Consequently, the Municipal Court stressed that the suitable tool to cope with this request should be a complainant initiative before the State Office for Nuclear Safety.

Consequently, complainant filed a cessation appeal against the ruling of the Municipal Court in the Supreme Administrative Court, which is the highest authority in the system of Czech administrative courts.

Act on Free Access to Information

The Act on Free Access to Information was adopted in May 1999 and came into effect on 1 January 2000. It allows any natural or legal person to access information held by:

- state authorities;
- communal bodies;
- private subjects that have been delegated to execute public authority;
- public institutions.

9. Act No. 106/1999 Coll., on the Free Access to Information.

10. *Státní úřad pro jadernou bezpečnost.*

The listed authorities are required to respond to requests within 15 days. There are exemptions in cases of classified information, privacy, business secrets, internal processes of a government body, information collected for a decision that has not yet been reached, intellectual property, criminal investigations and activities of the courts as well as those of the intelligence services.

Appeals are made to a superior body within the state authority concerned, which must make a decision within 15 days. Furthermore, the decision may then be appealed to a regional court or to the Municipal Court in Prague.

Decision of the Supreme Administrative Court

In its decision, the Supreme Administrative Court (hereinafter “the court”) refused the Municipal Court argument in this case. First of all, the court stressed that the competencies of the State Office for Nuclear Safety cannot be considered as a tool of judicial protection. There are clearly two parallel methods for protecting public interest: the State Office for Nuclear Safety can use its competencies to control the sites and also initiate controls on an incentive from third parties. However, it is not a duty of the State Office for Nuclear Safety to initiate a proceeding as a consequence of such an incentive, but is basically a matter of its discretion to do so or not. Thus this control mechanism cannot be considered a tool with which third parties may defend their rights. The only method is judicial procedure.

Consequently, the core question for the court was whether the defendant is considered bound by the Act on Free Access to Information. Obviously, the defendant is neither a state authority or communal body nor has it been delegated to execute public authority towards citizens. Therefore, the court considered whether the defendant is defined as a “public institution”.

Relating to this definition, the court referred to existing case law developed by the Constitutional Court of the Czech Republic. According to this case law, the following criteria are to be considered when evaluating a subject as a “public institution”:

- how the entity was established (whether by means of public or private law);
- who established the entity in question (has it been established by the state or not);
- who has the power to establish the decision-making bodies of the entity in question;
- is there any public oversight of entity activity;
- is the purpose of entity activity of a public or private nature.

Accordingly, the court provided the following evaluation of the defendant as a “public institution” under these criteria.

The defendant was established by the National Property Fund¹¹ on 30 April 1992 by transferring, in the course of the privatisation process, a portion of ownership from the previously existing state enterprise, Czech Energy Industry.¹² Furthermore, as of 31 December 2008, there were four entities holding shares in the defendant’s stock: first among these was the Czech Republic, under the Ministries of Finance, Labour and Social Affairs. Rights arising from ownership by the state enable the Czech Republic to directly govern the defendant’s activities. Consequently, the court ruled

11. *Fond národního majetku.*

12. *České energetické závody.*

that it is obvious that the defendant has been established as a consequence of a decision by the state. Moreover, as a majority owner, the state has the direct power to establish decision-making bodies of the defendant. Having these facts in mind, the court pointed out that, notwithstanding the fact that the defendant is a commercial entity, its status is *de facto* very close to a state enterprise.

Concerning another criteria, which was mentioned above, the court stated that there is obviously a very strong public oversight of defendant activities in the nuclear sector. Furthermore, bearing in mind that the major defendant activity is producing and providing consumers with electricity and heat, the court ruled that both these activities are obviously of a public nature and public interest.

Taking all these arguments into account, the court ruled that the defendant is considered a public institution within the terms of the Act on Free Access to Information. Thus, the public is entitled to access information as provided by this act. Furthermore, the court returned the matter to the Municipal Court of Prague to deal once again with the merits of the case.

Conclusion

The decision of the Supreme Administrative Court of the Czech Republic is of major importance in defining the legal nature of energy utilities, such as ČEZ, under Czech law. This issue has only been occasionally dealt with since privatisation took place in Central Europe during the 1990s, as well as the legal nature of those emerging utilities. They were restructured into commercial companies, but as they are still under partial state ownership, their legal status remains rather unclear.

Following the above decision, the defendant filed an appeal before the Constitutional Court of the Czech Republic. According to the defendant's arguments, the court interpreted the term "public institution" too broadly in its decision, a circumstance that might have grave consequences for other entities in which the state is a majority owner.

However, the Constitutional Court dismissed this claim and pointed out that the Municipal Court in Prague has jurisdiction over the matter now and may rule on all the details of the defendant's obligations under the Act on Free Access to Information.

National Legislative and Regulatory Activities

Bulgaria

General legislation

Amendment to the Act on the Safe Use of Nuclear Energy (2010)

The Bulgarian Act on the Safe Use of Nuclear Energy (ASUNE) has been in force since 2 July 2002.

In implementation of the Nuclear Regulatory Agency's policy to update the legal requirements in accordance with international standards and EU legislation, an act amending and supplementing the ASUNE was adopted (published in State Gazette No. 80 of 12 October 2010) and entered into force on 15 October 2010. The act now takes into account the changes in international conventions and treaties, new EU legislation, new or modified documents of the International Atomic Energy Agency as well as experience in applying the ASUNE in practice. The main changes are in the following fields:

- incorporating the Amendment to the Convention on the Physical Protection of Nuclear Material;
- considering the ratified agreement between EURATOM and countries members to the European Commission Urgent Radiological Information Exchange (ECURIE);
- transposition of Council Directive 2009/71/EURATOM establishing a Community framework for the nuclear safety of nuclear installations;
- introduction of the fundamental safety principles, specified by the document IAEA SF-1 "Safety Fundamentals";
- introduction of a licence for decommissioning, to replace the issuance of a series of permits and to ensure the long-term responsibility of the licensee;
- elimination of shortcomings related to the transfer of the responsibility for safety in case of transfer of ownership or bankruptcy etc.

France

General legislation

Law on the new organisation of the electricity market (2010)

The law on the new organisation of the electricity market passed by the legislature on 24 November 2010 will oblige nuclear power producer *Electricité de France* (EdF) to sell approximately a quarter of its output to alternative electricity suppliers at a government-fixed price. The aim is to implement EU requirements by promoting competition.

The law requires EdF to sell 100 TWh per year to other electricity suppliers at an “economically representative price” which will be agreed annually by ministers based on the opinion of the Energy Regulatory Commission (*Commission de régulation de l'énergie*), an independent administrative authority in charge of regulating the French electricity and gas markets. It will take into account the prevailing economic conditions for electricity generation at the nuclear plants. The law is intended to ensure that all of France's electricity suppliers benefit from the same conditions on the nuclear electricity market.

The new law will be in place until 2025, with the selling price likely to be announced at the start of 2011.

Germany

General legislation

Amendment to the Atomic Energy Act extending the operating lifetime of nuclear power plants (2010)

On 8 December 2010, the German President signed into law the 11th Act to Amend the Atomic Energy Act which will extend the operating lifetime of the 17 nuclear power plants in Germany for an average of twelve years. The German *Bundestag* (lower house) had passed the act on 28 October and on 26 November 2010, the *Bundesrat*, the upper house of the German parliament, held that the act did not require its approval.

This amendment will allow that nuclear power plants built before 1980 operate for approximately eight years longer than set in the so called 2002 phase-out law (see Supplement to *Nuclear Law Bulletin* No. 70). The newer reactors will be allowed to operate approximately 14 years longer than envisaged in 2002.

Within the same legislative procedure the parliament adopted three further acts which the President signed on the same day:

First, the 12th Act to Amend the Atomic Energy Act which implements Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations.

Secondly, parliament adopted the Nuclear Fuel Tax Act which obliges the operators of nuclear power plants to pay an annual fuel tax, starting in 2011, for the use of the fuels uranium 233 and 235 and plutonium 239 and 241. The obligation arises once a specific matter of fuel is used in the reactor leading to a self-sustaining nuclear chain reaction.

Finally, according to the Act Establishing the Special “Energy and Climate Fund” the income from these taxes will flow into this special fund.

Amendment to the Reliability Assessment Ordinance (2010)

The Federal Government and the Federal Minister for the Interior on 22 June 2010 issued the First Ordinance to Amend the Nuclear Reliability Assessment Ordinance¹ (see *Nuclear Law Bulletin* No. 65, p. 40 and *Nuclear Law Bulletin* No. 68, p. 59). Section 12b of the Atomic Energy Act

1. *Bundesgesetzblatt* 2010 I p. 825.

stipulates that the competent authorities are entitled to assess the reliability of applicants for a licence, of licence holders, of employees and of official experts. Section 12b was amended by an Act of 2009 (see *Nuclear Law Bulletin* No. 85, p. 105). The Amendment Ordinance adapts the Reliability Assessment Ordinance to the new version of Section 12b of the Atomic Energy Act and introduces additional changes.

It is the objective of new Section 12b Atomic Energy Act and of the implementing Amendment Ordinance to provide adequate tools for coping with the threat of terrorist acts in particular with regard to nuclear installations and nuclear transport. The amendment, *inter alia*, includes an enlargement of the number of administrative and other bodies to be involved in the assessment procedure, changes in the duty to report, the determination of periods of time for the deletion of personal data and the possibility to use electronic communication in the assessment procedure.

Regime of nuclear installations

Amendment to the Ordinance on Persons Responsible for Nuclear Safety and on Reportable Events (2010)

On 8 June 2010, the Federal Government issued the First Ordinance to Amend the Ordinance on Persons Responsible for Nuclear Safety and on Reportable Events² (see *Nuclear Law Bulletin* No. 51, p. 65 and *Nuclear Law Bulletin* No. 68, p. 59). The ordinance, *inter alia*, regulates the procedures according to which safety-relevant events (reportable events) are to be reported to the competent authority. It also defines the extent of the reports. In the unamended ordinance the criteria to be applied mainly relate to nuclear power plants and to installations for supply and disposal. With regard to research reactors, nuclear installations being decommissioned and spent fuel storage facilities, the criteria could only be applied accordingly. This situation entailed problems of interpretation and difficulties of the supervision of installations. The 2010 Amendment to the Ordinance therefore aims at clarifying its scope of application and at adjusting, specifying and complementing the criteria for defining reportable events.

Environmental protection

Amendment to the Environmental Impact Assessment Act (2010)

The 1990 Environmental Impact Assessment Act as amended and recently published in a consolidated version (see *Nuclear Law Bulletin* No. 85) was further amended by Article 11 of the Act of 11 August 2010 (*Bundesgesetzblatt* 2010 I, p. 1163). The Act implements relevant EU directives.

Greece

Radioactive waste management

Decree transposing European Council Directive 2006/117/Euratom (2010)

Presidential Decree No. 83 (Official Gazette of the Greek Government No. 147/A of 3 September 2010) relating to the “supervision and control of shipments of radioactive waste and nuclear spent fuel” transposes European Council Directive 2006/117/Euratom of 20 November 2006 into Greek legislation.

2. *Bundesgesetzblatt* 2010 I p. 765.

India

Third party liability

*Civil Nuclear Liability Act (2010)*³

At the end of August 2010, a Civil Nuclear Liability Bill (Bill No. 19-C of 2010) was adopted by both houses of the Indian Parliament. It received the assent of the President on 21 September 2010 and was published in the Gazette of India the next day. Section 1(5) of the act prescribes that the legislation will come into force on a particular date, the Central Government may, by notification, appoint, whereas different dates may be appointed for different provisions of the act.

Basic principles

It should first be highlighted that India, as most nuclear power generating countries, has adopted a common set of general principles to govern liability and compensation for damage that occurs as a result of a nuclear accident. The most significant of these principles are:

- the nuclear operator is strictly liable for nuclear damage (see section 4[4] of the act);
- the nuclear operator's liability is limited in amount (see section 6 of the act);
- the nuclear operator is obliged to financially secure its liability (see section 8 of the act);
- the nuclear operator's liability is limited in time – claims must be brought within 10 years after the occurrence of the incident in case of property damage and within 20 years for personal injury – (see section 18 of the act).
- all nuclear damage claims must be brought before the same court or tribunal (a Claims Commissioner established under section 9 of the act or, depending on an evaluation by the government of the severity of the damage, a Nuclear Damage Claims Commission which is established under section 35 of the act).

Section 5(1) of the act establishes a number of situations where the operator is not liable for any nuclear damage: a grave natural disaster of an exceptional character, or an act of armed conflict, hostility, civil war, insurrection or terrorism.

Liability amount

Section 6(2) deals with the liability of the operator. It creates three categories for each type of installation the operator may control. For each category the liability is capped at a certain amount:

1. nuclear reactor having thermal power equal to or above 10 MW: Rs 1 500 Crores (15 billion rupees – USD 322 million – EUR 252 million);
2. spent fuel reprocessing plant: Rs 300 Crores (3 billion Indian Rupees);

3. This summary was drafted by the NEA Secretariat based on the published text of the act in *The Gazette of India* of 22 September 2010.

3. research reactor with thermal power below 10 MW, nuclear fuel cycle facilities other than spent fuel reprocessing facilities and transportation of nuclear materials: Rs 100 Crores (1 billion Indian Rupees).

Additionally, according to Sections 6(1) and 7(1), the government will provide additional amounts up to the rupee equivalent of SDR 300 million if the amount provided for each type of installation proves inadequate to cover all claims. This particular amount matches the amount provided under Article III(1)(a)(i) of the Convention on Supplementary Compensation for Nuclear Damage (CSC), which is not currently in force but which India signed on 27 October 2010.

Furthermore, the act provides under Section 6(2) that the amount of liability shall not include any interest or cost of proceedings.

Operator's right of recourse

One of the most controversial features of the act is the introduction, under Section 17, of a right of recourse which may be exercised by the operator against a supplier of goods or services under three separate conditions:

- a) when such right is expressly provided for in a contract;
- b) in cases where the incident is the result of an act of the supplier or his employee, which includes the supply of equipment or material with patent or latent defects or sub-standard services; or
- c) where the incident resulted from an act of commission/omission with the intent to cause nuclear damage.

Item (b) of this section makes this piece of legislation quite exceptional in comparison with international nuclear third party liability conventions and most national legislation which does not establish a right of recourse against a supplier of defective equipment or material or of sub-standard services.

Non-exclusive character of the act

Another highly controversial element of the act relates to its non-exclusive character. Section 46 provides that the provisions of the act are in addition to, and not in derogation of, any other law, and nothing contained in the act shall exempt the operator from any proceeding which might be instituted against such operator.

By allowing claims to be brought against operators and suppliers on the basis of national legislation other than the act, Section 46 questions the relevance of the act itself and undermines the basic features of the international nuclear third party liability conventions and most national legislation, in particular that the operator is exclusively liable for damage caused by a nuclear incident and that it shall incur no liability for such damage outside the legal regime governing nuclear liability.

Romania

General legislation

Amendment to Article 35 of Law 111/1996 regarding new tasks of CNCAN (2010)

Law No. 200 of 22 October 2010, published in the Official Gazette of Romania (Part I No. 720 of 28 October 2010) completes Article 35 of Law 111/1996 on the safe development, regulation, authorisation and control of nuclear activities in Romania. The law stipulates two further tasks of the CNCAN, the regulatory body in the nuclear field in Romania, namely that CNCAN can take the necessary steps for signing treaties at a governmental level, as far as its tasks are concerned, and that it can sign treaties at the level of departments, as far as its field of activity is concerned.

Order approving norms regarding the radiological monitoring of recyclable metal materials (2010)

Order No. 89 of 8 April 2010 of the CNCAN, published in the Official Gazette (Part I No. 567 of 11 August 2010) approves the norms regarding the radiological monitoring of recyclable metal materials during the whole collection, commercialisation and processing cycle. The reason for the elaboration of the norms is that during the past years, radioactive materials were quite frequently found in recyclable metal materials; this has led to the increase of public anxiety regarding the involved risks. In this context, measures for the monitoring of radiation had to be taken, in order to prevent and, if applicable, detect and control the radioactivity in recyclable metal materials, which some metallurgical plants use as raw material in the production process. The Order implements Articles 8(2) and 9(3) of Council Directive 2003/122/EURATOM of 22 December 2003 on the control of high-activity sealed radioactive sources and orphan sources. The norms are applied to recyclable metal materials coming from units which have nuclear installations and/or radiological installations with radioactive sources and/or materials, units which hold installations for the extraction or processing of substances with natural radioactive content which can concentrate during the technological process, units which decommission the old installations, units which manage the recyclable metal materials, namely units which collect, sell, buy or use recyclable metal materials and units which convey such materials. The provisions of the norms refer to all types of recyclable metal materials used and traded at a national or international level. The norms are not applicable to radioactive waste which is regulated by other regulations.

Serbia

Organisation and structure

Establishment of the Agency for Radiation Protection and Nuclear Safety (2009)

Based on the Law on Ionizing Radiation Protection and Nuclear Safety,⁴ the Law on Public Agencies⁵ and the Law on the Government,⁶ the Serbian Government adopted in September 2009 the decision on the establishment of the Agency for Radiation Protection and Nuclear Safety of Serbia – SRPNA (Official Gazette No. 76/09).

4. Official Gazette RS, No. 36/09.

5. Official Gazette Nos. 18/05 and 81/05.

6. Official Gazette Nos. 55/05, 71/05, 101/07 and 65/08.

SRPNA is an independent regulatory body responsible for protection against ionizing radiation, nuclear safety and radioactive waste management with headquarters in Belgrade. SRPNA was expected to formally commence its work, immediately after its registration as a public agency on 18 December 2009, but it actually started later. The first permanent director general of SRPNA was appointed by the Serbian Government in July 2010 when the Serbian regulatory body in fact started with staffing and gradually performing its functions. The process of staffing is being followed, in parallel, by developing the most urgent set of regulations and other bylaws in order to amend the obsolete ones and to introduce new bylaws, in compliance with international standards and requirements of the International Atomic Energy Agency and the European Union. Other preparatory actions are currently under way with the aim to enable that responsibilities and competencies of the new Serbian regulatory authority, prescribed by the newly enacted nuclear law, be met.

Slovenia

Radiation protection (including nuclear emergency planning)

Rules on operational safety of radiation and nuclear facilities (2009)

These rules were adopted by the Minister of the Environment and Spatial Planning on 19 October 2009 and were published in the Official Gazette No. 85/09.

These rules determine:

- the method of using the operating conditions and limits;
- the method and frequency of reporting on the implementation of programmes on collection and analysis of operating experience;
- the manner and extent of control of ageing; and
- the way of maintenance, testing and inspection of systems, structures and components.

The rules also include provisions on:

- the content, scope and frequency of regular and emergency reporting;
- the frequency, content, scope, duration and method of conducting periodic safety reviews and the manner of reporting on these reviews;
- the cases when the Slovenian Nuclear Safety Administration may order a periodic safety review;
- the content, quality and method of probabilistic safety analysis for checking the safety of nuclear facilities; and
- the evaluation methodology and classification of modifications and the manner and form of information and notification of changes in radiation or nuclear facilities.

With respect to emergency, the rules also determine detailed requirements for an emergency response plan and emergency management in radiation or nuclear facilities, on emergency procedures in such facilities and on ways of providing notice of.

These rules entered into force in November 2009.

Rules on radiation and nuclear safety factors (2009)

These rules were adopted by the Minister of the Environment and Spatial Planning on 30 October 2009 and were published in the Official Gazette No. 92/09.

They determine the conceptual basis for radiation and nuclear facilities and the content of both application and documents to obtain approvals and licences for such facilities under the law governing the protection against ionizing radiation and nuclear safety. They also determine the contents of safety reports and other documentation necessary to demonstrate and ensure the safety of radiation and nuclear facilities as well as additional requirements regarding the organisation of a facility and regarding the content and format of the quality assurance programme and its implementation.

The rules entered into force on 1 November 2009.

Third party liability

*Act on Liability for Nuclear Damage (2010)*⁷

On 22 September 2010, a new Act on Liability for Nuclear Damage was adopted by the Slovenian Parliament (National Assembly), published in Official Gazette No. 77 of 4 October 2010.

Background

The area of nuclear third party liability has been regulated in Slovenia for more than three decades. Third party liability legislation was put into place even before the first fuel was loaded in 1981 and well before the only Slovenian nuclear power plant, Krško NPP, went into commercial operation in 1984.

At that time, Slovenia was part of Yugoslavia, constituting one of its six republics. There were two levels of legislation, the federal level and the level of republics. This equally related to nuclear legislation; thus the third party liability legislation was also two-tiered: the federal Act on Liability for Nuclear Damage from 1978 and the national (Slovene) Act on Insurance for Liability for Nuclear Damage from 1980.

Both acts were based on the Vienna Convention on Civil Liability for Nuclear Damage, to which the former Yugoslavia had become a party in 1977. The federal act provided that in case of the parity of domestic currency Yugoslav dinar, the Federal Executive Council (Government) could determine a new amount for the operator's liability and consequently a new amount of compulsory insurance of its liability. This provision was first applied by a decree in 1987 and then successively almost every following year because of the extremely high inflation at the time.

Already by 1977, the Nuclear Insurance Pool had been established in order to provide insurance coverage for the third party liability risks of the operator of nuclear installations.

Following Slovenia's becoming a sovereign and independent state in 1991, it took several steps to reinforce its policy and legal framework in the area of third party liability:

7. This summary was kindly submitted by Aleš Škraban, Head, Office of General Affairs at the Slovenian Nuclear Safety Administration.

- In 1992, it succeeded to the 1963 Vienna Convention on Civil Liability for Nuclear Damage.
- In 1995, Slovenia acceded to the 1988 Joint Protocol relating to the Application of the Vienna Convention and the Paris Convention.
- In 2002, the Vienna Convention ceased to apply to Slovenia, following a notification of the termination of its application.
- In the same year, Slovenia acceded to the 1960 Convention on Third Party Liability in the Field of Nuclear Energy (Paris Convention).
- In 2003, it acceded to the Convention Supplementary to the Paris Convention (Brussels Supplementary Convention).

Since the revision of the Paris Convention and the Brussels Supplementary Convention, which was conducted under the auspices of the OECD Nuclear Energy Agency, had not yet been concluded at that time, the authorities in Slovenia decided to postpone the preparation of the new third party liability act until the outcome of the Paris/Brussels revision process. Meanwhile, at the end of 2001, the government adopted a Decree on the Establishment of the Amount of the Operator's Limited Liability and the Corresponding Amount of Insurance for Nuclear Liability. The aim of this decree was to harmonise the domestic liability amounts with those in the Paris Convention countries; hence pursuant to its provisions, the operator of a nuclear installation was liable for nuclear damage up to the equivalent of SDR 150 million in Slovenian tolar and was obliged to take out insurance to cover its liability up to this amount.

Recent developments

On 22 September 2010, the new Act on Third Party Liability for Nuclear Damage was adopted. The act governs liability for nuclear damage resulting from the use of nuclear energy for peaceful purposes, the insurance of liability for nuclear damage and the procedure for claiming compensation for nuclear damage.

On one hand, the act follows the provisions of the 2004 Protocol to amend the Paris Convention regarding, for example, the extended heads of damage which are covered, increased liability amounts and extended prescription and extinction periods for nuclear damage claims. On the other hand, the act regulates those areas which the convention leaves to be dealt with by national legislation. For example, the act specifically designates one court which shall be competent to rule on compensation for nuclear damage. It also includes a number of provisions regarding the rules of procedure for claiming compensation and the distribution of compensation.

The act envisages that public funds shall be provided from the state budget and that their amount as well as the manner and dynamics of their drawings shall be determined by an interventional act. The act also provides that the assessment of the amount of nuclear damage must be prepared within six months from the date of the nuclear accident by a special commission. The members of that commission shall be appointed by the government from among the representatives of different ministries (finance, environment and defence), the State Attorney's Office, the insurer and the operator. In its assessment, the Commission shall propose the amount, the manner and the dynamics of the payment of funds. Such assessment is submitted by the Ministry of Finance to the government for adoption. During this period, which should not exceed six months, compensation shall not be payable, although the insurer may settle and pay compensation claims if the extent of nuclear damage and its

known consequences make it evident that the resources of the operator (EUR 700 million) will be sufficient to provide for the full compensation to all injured parties.

Regarding those risks which nuclear insurers are unwilling or unable to cover, the act provides that a premium based insurance agreement between the government and the operator shall be concluded but such an arrangement is limited in time (until the situation on the domestic and international insurance market changes but no longer than four years). The act also prescribes all necessary provisions which ensure its compliance with the 2004 Protocol to amend the Brussels Convention.

This act shall enter into force six months after its publication in the Official Gazette. Application of some provisions directly related to the 2004 Protocol to amend the Paris Convention is at the same time linked to the entry into force of that protocol.

On the day this act enters into force, the existing third party liability legislation shall cease to be valid (1980 republic act and 2001 governmental decree) or shall cease to apply (1978 federal act).

Sweden

General legislation

Abolishment of the Act on phasing out of nuclear energy (2010)

In 2010, the Swedish Parliament decided upon some amendments to the Swedish nuclear legislation.

Since 31 July 2010, the Act (1997:1320) on phasing out of nuclear energy has been abolished. This act was a form of expropriation law, which made it possible for the Swedish government to suspend the right to operate a nuclear reactor, provided there was financial compensation to the operator. The act had been used in the closing down of the two power reactors at Barsebäck in 1999 and 2005.

There have also been amendments to the Environmental Code (1998:808) and to the Act (1984:3) on nuclear activities that, upon their entering into force, will allow for the construction of new nuclear power plants in Sweden.

On 1 January 2011, the amendments to the nuclear legislation that will enter into force will allow for new nuclear power plants in Sweden. Today, the Act (1984:3) on nuclear activities prohibits the government from granting licences for new nuclear power reactors. In the new law this prohibition will be abolished. Instead, and to make possible a gradual replacement of existing reactors, some criteria for the government's examination of permissibility will be laid down in Chapter 17 Section 6a of the Environmental Code (1998:808).⁸ According to the new legislation, the following preconditions must be met for a licence to be granted:

- the new reactor replaces one of the present, electricity generating reactors;
- the older reactor has been permanently shut down when the new reactor starts operating; and

8. A new section 5b in the Act (1984:4) on nuclear activities refers to the Environmental Code for these criteria.

- the new reactor is constructed on a site where one of the present electricity generating reactors in operation is located.

Third party liability

Act on Liability and Compensation for Nuclear Damage (2010)

In June 2010, the Swedish Parliament passed a new Act on Liability and Compensation for Nuclear Damage, published on 13 June 2010 (SF 2010:950). The act implements the 2004 Protocols to Amend the Paris Convention on Third Party Liability in the Field of Nuclear Energy and the Brussels Supplementary Convention. It will come into force on a day to be decided by the government.

The definition of nuclear damage is extended in that it not only covers injury to a person, damage to property, financial loss which is a direct consequence of injury to a person or damage to property and loss of income; the act also covers the costs “to restore the environment or to compensate for loss of environmental value, providing it is environmental damage which is not insignificant and it, or the measures which the cost covers, have been accepted as reasonable by the authority nominated by the government”. Nuclear damage is also considered to include the cost for taking reasonable measures in order to prevent damage.

The act introduces unlimited liability. The operator is to have a liability insurance or is to ensure that another financial security is established which for every point in time covers liability for compensation up to a sum which corresponds to EUR 700 million, or if the installation is a nuclear power reactor in operation for the production of nuclear energy, corresponds to EUR 1 200 million. The government may in regard to liability for nuclear accidents make financial undertakings on behalf of the state, e.g. in the form of reinsurance. For the state’s undertakings the operator is to pay a fee. Furthermore, the state is to pay compensation to a damaged party if compensation cannot be obtained from the liable operator’s security. The state’s total liability for compensation in accordance with this provision is limited to EUR 1 200 million, plus interest for each nuclear accident.

The competent court, in accordance with Article 13(a) of the revised Paris Convention, is the Nacka District Court.

The right to compensation is lost if the victim does not make a claim or initiate proceedings for compensation within three years from the date the damaged party became aware of, or reasonably should have become aware of, the damage and who is liable for it. The act follows the 2004 Protocol by establishing prescription periods of thirty years with respect to personal injury and ten years with respect to all other heads of damages.

An unofficial translation of the act will be published as soon as it enters into force or it can be requested from the NEA’s Secretariat at law@oecd-nea.org.

United States

Radioactive waste management

Final rule on the independent storage of spent nuclear fuel (2010)

The U.S. Nuclear Regulatory Commission (NRC) has approved for publication a final rule amending its regulations that govern licensing requirements for the independent storage of spent nuclear fuel. This final rule extends the initial and renewal terms for both storage cask certificates of compliance

(CoC) and site-specific independent spent fuel storage installation (ISFSI) licences from a term not to exceed 20 years to a term not to exceed 40 years. The rule also clarifies that the term of a general licence runs through any renewal periods unless the CoC specifies otherwise. The term of a general licence commences upon the CoC effective date if the CoC has not been renewed and upon the most recent renewal date if the CoC has been renewed.

In addition, the rule requires that licence renewal applications for both specific licences and CoCs submit a time-limited ageing analysis (TLAA), which assesses the effects of ageing on structures, systems and components that are important to safety during the requested renewal period. Licence renewal applications must also describe an ageing management programme that addresses issues associated with ageing that could adversely affect systems, structures and components important to safety.

Additionally, the final rule allows general licensees to apply changes authorised by a CoC amendment to a previously loaded cask if the licensee demonstrates that the loaded cask conforms to the CoC amendment codified in the list of approved spent fuel storage casks in the NRC's regulations and thus continues to ensure the safe and secure storage of spent nuclear fuel.

Status of the high-level waste repository programme (2010)

The U.S. Department of Energy (DOE) filed an application for authorisation to construct a national high-level nuclear waste repository at Yucca Mountain, Nevada in June 2008 but in March 2010 moved to withdraw its application with prejudice. In June 2010, the Construction Authorization Board denied DOE's motion to withdraw the application, finding that, under the Nuclear Waste Policy Act of 1982, as amended, DOE lacks the authority to withdraw its application.⁹ The Board held that the Nuclear Waste Policy Act required DOE to file an application for a national high-level waste repository, and that DOE's submission of an application triggered a duty on the part of the NRC to approve or disapprove the application based on the merits.¹⁰ DOE has appealed the Board's decision. The Commission has yet to rule on whether DOE can withdraw its application. A lawsuit is currently pending before the U.S. Court of Appeals for the District of Columbia Circuit challenging DOE's motion to withdraw its application.

The Blue Ribbon Commission on America's Nuclear Future continues to investigate alternatives for the storage, processing and disposal of spent nuclear fuel and high-level waste. The Presidential memorandum that established the Blue Ribbon Commission indicates that it must issue a draft report in July 2011 and a final report in January 2012.¹¹

Regulation on nuclear trade (including non-proliferation)

Comprehensive Iran Sanctions, Accountability and Divestment Act (2010)

The Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010 (hereinafter referred to as "act") was enacted on 1 July 2010.¹² This act amends the Iran Sanctions Act of 1996 to expand

9. U.S. Dep't of Energy (High-Level Waste Repository), LBP-10-11, 71 NRC (29 June 2010), at 5, 8.

10. *Ibid* at 7, 17.

11. Memorandum on Blue Ribbon Commission on America's Nuclear Future, 75 Fed. Reg. 5,485 (3 February 2010).

12. Pub. L. No. 111-195, 124 Stat. 1312 [to be codified at 22 U.S.C. §§ 8501–8551 (2010)].

the United States' economic sanctions against Iran and persons, including corporations, which have assisted Iran with the acquisition or development of advanced conventional weapons or petroleum resources. Section 102(a) of the act prohibits the issuance of any nuclear export licence to a country that has primary jurisdiction over a person that has knowingly helped Iran acquire or develop nuclear weapons or advanced conventional weapons that are capable of delivering a nuclear weapon.

Section 102(b) mandates that the Federal Acquisition Regulation¹³ be amended to require a certification from every person, including all business organisations, that is a prospective contractor, certifying that the prospective contractor and any person owned or controlled by the prospective contractor does not engage in any activity for which sanctions could be imposed under section 5 of the Iran Sanctions Act of 1996 as amended. This section also authorises the heads of executive agencies to impose penalties for the submission of false certifications. Such penalties include debarment, which would prohibit the person from participating in federal government contracts, and suspension from eligibility for federal contracts for up to three years.

Title III of the act imposes strict licensing requirements on certain goods, services and technologies that have been designated by the President as being diverted in substantial volumes to Iran.

Final rule on the export and import of nuclear equipment and material (2010)

On 28 July 2010, the NRC issued a final rule amending its regulations that govern the export and import of nuclear equipment and material.¹⁴ The new regulations allow International Atomic Energy Agency Code of Conduct on the Safety and Security of Radioactive Sources Category 1 and 2 quantities of radioactive materials to be imported under a general licence. The NRC eliminated the specific licence requirement for these imports because, since 11 September 2001, the NRC has imposed enhanced security requirements on Category 1 and 2 quantities of radioactive materials. Individuals with unescorted access to these quantities are subject to background investigations, which include fingerprinting and criminal history record checks. In addition, licensees transporting radioactive materials in quantities greater than or equal to Category 2 are subject to enhanced security requirements, including advance notification and monitoring requirements. The establishment of the National Source Tracking System, which tracks transactions involving Category 1 and 2 radioactive sources from cradle to grave, is another recent enhancement.

Imports of radioactive material into the United States under a general licence are still contingent on the consignee being authorised to receive and possess the imported material under an NRC or agreement state licence. Importers of Category 1 and 2 materials under a general licence must also comply with the notification requirements prior to shipment. For instance, importers must submit advance notifications at least seven days before shipment.

The final rule also revises the definition of "radioactive waste". The new regulations link the specific licence requirement for the export and import of radioactive waste to those materials that require a specific licence under the NRC's domestic regulations. A specific licence is thus no longer required to export or import materials for which, under NRC regulations, a specific licence is not

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13. The Federal Acquisition Regulation established the Federal Acquisition Regulations System to codify uniform policies and procedures for acquisition by all federal executive agencies. 48 C.F.R. § 1.000 (2009).
 14. Export and Import of Nuclear Equipment and Material; Updates and Clarifications, 75 Fed. Reg. 44,072 (28 July 2010) (to be codified at 10 C.F.R. pt. 110).

needed for domestic possession. The new regulations clarify that exporting or importing material for recycling, waste treatment, or any other waste management process that generates radioactive material for disposal requires a specific export or import licence.

Additionally, the final rule amends the regulations to reduce the number of export licence applications that require Commission review. The new regulations mandate Commission review of export and import licence applications that raise significant policy issues. An example of a significant policy issue would be the issuance of a licence for a facility where major safety or security issues have recently been raised.

These new regulations became effective on 27 August 2010.

International Regulatory Activities

International Atomic Energy Agency

54th IAEA General Conference (2010)

The 54th regular session of the IAEA General Conference was held in Vienna, from 20 to 24 September 2010. Delegates from 139 member states and representatives of various international organisations participated in the conference.

Resolutions of the conference

A number of resolutions were adopted by the General Conference. As in previous years, two resolutions: GC(54)/RES/7 relating to international co-operation in nuclear, radiation, transport and waste safety and GC(54)/RES/8 relating to nuclear security include sections that are of legal relevance.

Measures to Strengthen International Co-operation in Nuclear, Radiation, Transport and Waste Safety [GC(54)/RES/7]

- Nuclear liability

The General Conference again recognised the importance of effective and coherent nuclear liability mechanisms at the national and global levels [preambular paragraph (z)], and it made specific reference to the Paris Convention on Third Party Liability in the Field of Nuclear Energy, the Vienna Convention on Civil Liability for Nuclear Damage, the Brussels Convention Supplementary to the Paris Convention, the Joint Protocol Related to the Application of the Vienna Convention and the Paris Convention as well as the protocols amending these conventions and the objectives thereof [preambular paragraph (aa)]. It further noted the intention of the Convention on Supplementary Compensation for Nuclear Damage to establish a worldwide nuclear liability regime based on the principles of nuclear liability law, without prejudice to other liability regimes.

In Part 1 and Part 5 of the resolution, the conference continued to welcome the valuable work of the International Expert Group on Nuclear Liability (INLEX), looked forward to the continuation of further outreach efforts by INLEX to promote awareness of, and adherence to, nuclear liability instruments, and encouraged member states to give due consideration to the possibility of joining international nuclear liability instruments.

In Part 5 of the resolution relating to transport safety, the conference continued to stress the importance of having effective liability mechanisms in place to ensure prompt compensation for damage due to a radiological accident or incident during the transport of radioactive material, including maritime transport. It noted in particular the application of the principles of nuclear liability, including strict liability, in the event of a nuclear accident or incident during the transport of radioactive material.

- National infrastructures

In Part 1 of the resolution, the conference requested the Director General to continue the current programme to assist member states in developing and improving their national infrastructure, including legislative and regulatory frameworks, for nuclear, radiation, transport and waste safety.

- Nuclear installation safety

In Part 3 of the resolution, the conference noted that all states currently operating nuclear power plants are contracting parties to the Convention on Nuclear Safety (CNS). Member states commissioning, constructing or planning nuclear power plants, or considering a nuclear power programme, were urged to become parties to the CNS.

The conference continued to endorse the principles and objectives of the non-legally binding Code of Conduct on the Safety of Research Reactors and encouraged member states constructing, operating or decommissioning research reactors, or member states with research reactors in extended shutdown, to participate in international and regional meetings on the application of the Code and to apply the guidance in the Code.

- The safety of spent fuel and radioactive waste management

In Part 6 of the resolution, the conference welcomed the increase in the number of contracting parties to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management from 32 at the first review meeting in 2003 to 56 in 2010. The conference urged member states which have not yet become parties to the Joint Convention to consider doing so. It also continued to welcome the continuing efforts of the contracting parties to enhance the transparency, efficiency and effectiveness of the review process.

- Safety and security of radioactive sources

In Part 10 of the resolution, the conference endorsed the principles and objectives of the non-legally binding Code of Conduct on the Safety and Security of Radioactive Sources and noted that, as of 30 June 2010, 99 states had notified the Director General of their intention to act in accordance with the code. It urged other states to make such a notification.

The conference also underlined the importance of the Guidance on the Import and Export of Radioactive Sources for the establishment of continuous control of radioactive sources. It was noted that, as of 30 June 2010, 59 states had notified the Director General of their intention to act in accordance with the guidance and other states were encouraged to make such a notification. The need for states to implement the guidance in a harmonised and consistent fashion was reiterated.

The conference noted the report of the Chairman of the Open-Ended Meeting of Technical and Legal Experts for Sharing of Information on State's Implementation of the Code of Conduct on the Safety and Security of Radioactive Sources and its supplementary Guidance on the Import and Export of Radioactive Sources held in May 2010. It further noted the conclusions and recommendations of the meeting and requested the Secretariat to implement those recommendations, particularly the organisation of the forthcoming international conference on the safety and security of radioactive sources.

- Nuclear and radiological incident and emergency preparedness and response

In Part 11 of the resolution, the conference urged all member states to become parties to the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, thereby contributing to a broader and stronger international emergency response capability which would be of benefit to all member states.

The conference also recognised that implementation of these conventions may be further enhanced and therefore requested the Secretariat to consider consolidating the co-operative arrangements for international nuclear and radiological emergency preparedness and response.

Nuclear Security [GC(54)/RES/8]

The General Conference again reaffirmed the importance of the Convention on the Physical Protection of Nuclear Material (CPPNM) and the value of the amendment extending its scope.

It also noted the important role of the Agency in developing comprehensive guidance on nuclear security, in consultation with member states, while recognising that such guidance is not legally binding.

It reaffirmed the importance and value of the non-legally binding Code of Conduct on the Safety and Security of Radioactive Sources and underlined the important role of the supplementary Guidance on the Import and Export of Radioactive Sources.

The conference called upon states parties to the CPPNM to ratify the Amendment to the Convention as soon as possible and encouraged them to act in accordance with the objectives and purposes of the Amendment until such time as it enters into force. It also encouraged member states that have not yet done so to adhere to the convention and adopt its amendment as soon as possible.

It furthermore encouraged member states to take into account, as appropriate, the IAEA recommendations on the physical protection of nuclear material and nuclear facilities [INFCIRC/225/Rev.4 (Corrected)].

The conference called upon all member states that have not yet done so to consider becoming party to the International Convention on the Suppression of Acts of Nuclear Terrorism as soon as possible.

Bilateral and Multilateral Agreements

Bilateral Agreements

Co-operation in the peaceful uses of nuclear energy:

Argentina and South Korea: Agreement on civilian nuclear co-operation

Argentina and Chile: Agreement on energy co-operation which includes nuclear power generation

Canada and India: Agreement to promote and develop co-operation in civilian nuclear energy

The Czech Republic and the United States: Joint declaration on industrial and commercial co-operation on civil nuclear energy

France and Morocco: Agreement on co-operation on civil nuclear power

France and the Russian Federation: Expanded co-operation agreement in the nuclear field

France and Saudi Arabia: Agreement on co-operation on civil nuclear power

Japan and Kuwait: Agreement to co-operate in the peaceful uses of nuclear power

Japan and Malaysia: Agreement to co-operate in the peaceful uses of nuclear power

Japan and Jordan: Agreement to co-operate in the peaceful uses of nuclear power

Kazakhstan and the Russian Federation: Memorandum on integration and co-operation, and Joint statement on a proposed joint uranium enrichment plant

Qatar and the Russian Federation: Memorandum of understanding on co-operation in civil nuclear energy activities

South Korea and Turkey: Memorandum of understanding on co-operation in nuclear energy

The United Arab Emirates and the United Kingdom: Agreement on civilian nuclear co-operation

Agreements in the field of research and development:

Belgium and Kazakhstan: Memorandum of understanding on exchange of expertise in civil nuclear research

Belgium and China: Memorandum of understanding on exchange of expertise in civil nuclear research

France, Japan and the United States: Agreement on co-operation towards the joint design and development of fast breeder reactors

Agreements in the field of nuclear fuel:

Australia and the Russian Federation: Agreement on the supply of Australian uranium to Russia for use in its civil nuclear power industry

Belgium and China: Framework agreement on co-operation in MOX fuel fabrication

India and the United States: Agreement on the reprocessing of nuclear material

The Russian Federation and South Africa: Agreement for the supply of enriched uranium to South Africa

Agreements on the construction and operation of nuclear power plants:

Armenia and the Russian Federation: Agreement on intergovernmental co-operation for the construction of new nuclear power capacity

The Russian Federation and Ukraine: Agreement on the completion of two reactor units at Ukraine's Khmel'nitski nuclear power plant

The Russian Federation and Venezuela: Agreement on the construction of two nuclear units in Venezuela

The Russian Federation and Vietnam: Agreement on the construction of two nuclear units in Vietnam

Agreements in the field of information-sharing in the nuclear field:

The United States' Nuclear Regulatory Commission with Japan, Lithuania, Poland, the Slovak Republic and South Korea respectively: Agreements on the exchange of technical information

The United States' Nuclear Regulatory Commission with Australia and Canada respectively: Memoranda of co-operation for the import and export of certain radioactive sources

Agreement in the field of nuclear security:

China and the IAEA: Agreement on practical co-operation on nuclear security

Multilateral Agreements

I. Status of conventions in the field of nuclear energy as of December 2010

Non-proliferation and nuclear security

Treaty on the Non-Proliferation of Nuclear Weapons

The treaty was adopted on 12 June 1968 and entered into force on 5 March 1970. There are **191 parties** to this convention:

Afghanistan	Dominica	Liberia	Saint Vincent and the Grenadines
Albania	Dominican Republic	Libya	Samoa
Algeria	Ecuador	Liechtenstein	San Marino
Andorra	Egypt	Lithuania	Sao Tome and Principe
Angola	El Salvador	Luxembourg	Saudi Arabia
Antigua and Barbuda	Equatorial Guinea	Macedonia	Senegal
Argentina	Eritrea	Madagascar	Serbia
Armenia	Estonia	Malawi	Seychelles
Australia	Ethiopia	Malaysia	Sierra Leone
Austria	Fiji	Maldives	Singapore
Azerbaijan	Finland	Mali	Slovak Republic
Bahamas	France	Malta	Slovenia
Bahrain	Gabon	Marshall Islands	Solomon Islands
Bangladesh	Gambia	Mauritania	Somalia
Barbados	Georgia	Mauritius	South Africa
Belarus	Germany	Mexico	Spain
Belgium	Ghana	Micronesia	Sri Lanka
Belize	Greece	Moldova	Sudan
Benin	Grenada	Monaco	Suriname
Bhutan	Guatemala	Mongolia	Swaziland
Bolivia	Guinea	Montenegro	Sweden
Bosnia and Herzegovina	Guinea-Bissau	Morocco	Switzerland
Botswana	Guyana	Mozambique	Syria
Brazil	Haiti	Myanmar	Tajikistan
Brunei Darussalam	Holy See	Namibia	Tanzania
Bulgaria	Honduras	Nauru	Thailand
Burkina Faso	Hungary	Nepal	Timor-Leste
Burundi	Iceland	Netherlands	Togo
Cambodia	Indonesia	New Zealand	Tonga
Cameroon	Iran	Nicaragua	Trinidad and Tobago
Canada	Iraq	Niger	Tunisia
Cape Verde	Ireland	Nigeria	Turkey
Central African Republic	Italy	Norway	Turkmenistan
Chad	Jamaica	Oman	Tuvalu
Chile	Japan	Palau	Uganda
China	Jordan	Panama	Ukraine
Colombia	Kazakhstan	Papua New Guinea	United Arab Emirates
Comoros	Kenya	Paraguay	United Kingdom
Congo	Kiribati	Peru	United States of
Democratic Republic of the Congo	Democratic People's Republic of Korea*	Philippines	America
Costa Rica	Korea, Republic of	Poland	Uruguay
Côte d'Ivoire	Kuwait	Portugal	Uzbekistan
Croatia	Kyrgyzstan	Qatar	Vanuatu
Cuba	Lao People's Democratic Republic	Romania	Venezuela
Cyprus	Latvia	Russian Federation	Vietnam
Czech Republic	Lebanon	Rwanda	Yemen
Denmark	Lesotho	Saint Kitts and Nevis	Zambia
Djibouti		Saint Lucia	Zimbabwe

* According to www.disarmament2.un.org/TreatyStatus.nsf.

Since the last status report in *Nuclear Law Bulletin* No. 84, there has been no further ratification.

The text of the convention is available at: www.un.org/events/npt2005/npptreaty.html.

Convention on the Physical Protection of Nuclear Material

The convention was adopted on 3 March 1980 and entered into force on 8 February 1987. There are **145 parties** to this convention:

Afghanistan	Djibouti	Lebanon	Qatar
Albania	Dominica	Lesotho	Romania*
Algeria	Dominican Republic	Libya	Russian Federation*
Andorra	Ecuador	Liechtenstein	Rwanda
Antigua and Barbuda	El Salvador	Lithuania*	Saint Kitts and Nevis
Argentina*	Equatorial Guinea	Luxembourg	Saudi Arabia
Armenia*	Estonia	Macedonia	Senegal
Australia	Fiji	Madagascar	Serbia
Austria	Finland*	Mali	Seychelles
Azerbaijan	France*	Malta	Slovak Republic*
Bahamas	Gabon	Marshall Islands	Slovenia*
Bahrain	Georgia	Mauritania	South Africa*
Bangladesh	Germany*	Mexico*	Spain*
Belarus	Ghana	Moldova	Sudan
Belgium*	Greece	Monaco	Swaziland
Bolivia	Grenada	Mongolia	Sweden*
Bosnia and Herzegovina	Guatemala	Montenegro	Switzerland*
Botswana	Guinea	Morocco	Tajikistan
Brazil*	Guinea-Bissau	Mozambique	Tanzania
Bulgaria*	Guyana	Namibia	Togo
Burkina Faso	Honduras	Nauru	Tonga
Cambodia	Hungary*	Netherlands*	Trinidad and Tobago
Cameroon	Iceland	New Zealand	Tunisia
Canada*	India*	Nicaragua	Turkey
Cape Verde	Indonesia	Niger	Turkmenistan
Central African Republic	Ireland	Nigeria	Uganda
Chile	Israel	Niue	Ukraine*
China*	Italy	Norway	United Arab Emirates
Colombia	Jamaica	Oman	United Kingdom*
Comoros	Japan*	Pakistan*	United States of America*
Costa Rica	Jordan	Palau	Uruguay
Croatia	Kazakhstan	Panama	Uzbekistan
Cuba	Kenya	Paraguay	Yemen
Cyprus	Korea, Republic of*	Peru	EURATOM
Czech Republic*	Kuwait	Philippines	
Democratic Republic of the Congo	Lao People's Democratic Republic	Poland	
Denmark	Latvia	Portugal	

* Country with at least one operating nuclear power plant.

Since the last status report in *Nuclear Law Bulletin* No. 84, eight states have become parties to this convention: Bahrain, the Dominican Republic, Guinea-Bissau, Jordan, Lao People's Democratic Republic, Lesotho, Niue and Saudi Arabia.

The text of the Convention is reproduced in *Nuclear Law Bulletin* No. 23 and is also available at: www.iaea.org/Publications/Documents/Infcircs/Others/inf274r1.shtml.

Amendment to the Convention on the Physical Protection of Nuclear Material

The amendment was adopted on 8 July 2005 and has not yet entered into force. There are **42 contracting states** to this convention:

Algeria	Estonia	Lithuania*	Seychelles
Antigua and Barbuda	Fiji	Mali	Slovenia
Australia	Gabon	Mauritania	Spain*
Austria	Germany*	Moldova	Switzerland*
Bahrain	Hungary	Nauru	Tunisia
Bosnia and Herzegovina	India*	Niger	Turkmenistan
Bulgaria*	Indonesia	Nigeria	Ukraine*
Chile	Jordan	Norway	United Arab Emirates
China*	Kenya	Poland	United Kingdom*
Croatia	Libya	Romania*	
Denmark	Liechtenstein	Russian Federation*	

* Country with at least one operating nuclear power plant.

Since the last status report in *Nuclear Law Bulletin* No. 84, 23 states have become contracting parties to this amendment: Antigua and Barbuda, Bahrain, Bosnia and Herzegovina, Chile, China, Denmark, Estonia, Germany, Hungary, Indonesia, Jordan, Liechtenstein, Lithuania, Mali, Moldova, Nauru, Niger, Norway, Slovenia, Tunisia, Ukraine, the United Arab Emirates and the United Kingdom.

The text of this amendment is available at: <http://ola.iaea.org/OLA/treaties/FullText.pdf>.

International Convention for the Suppression of Acts of Nuclear Terrorism

The convention was adopted on 13 April 2005 and entered into force on 7 July 2007. There are **75 parties** to this convention.

Antigua and Barbuda	Fiji	Lithuania	Saudi Arabia
Armenia	Finland	Luxembourg	Serbia
Austria	Gabon	Macedonia	Slovak Republic
Azerbaijan	Georgia	Malawi	Slovenia
Bahrain	Germany	Mali	Solomon Islands
Bangladesh	Guinea-Bissau	Mauritania	South Africa
Belarus	Hungary	Mexico	Spain
Belgium	India	Moldova	Sri Lanka
Brazil	Japan	Mongolia	Switzerland
Burundi	Kazakhstan	Morocco	Tunisia
Central African Republic	Kenya	Nauru	Turkmenistan
Chile	Kiribati	Netherlands	Ukraine
Comoros	Kyrgyzstan	Nicaragua	United Arab Emirates
Croatia	Latvia	Niger	United Kingdom
Cuba	Lebanon	Panama	Uzbekistan
Cyprus	Lesotho	Paraguay	
Czech Republic	Libya	Peru	
Democratic Republic of the Congo	Liechtenstein	Poland	
Denmark		Romania	
Dominican Republic		Russian Federation	
El Salvador		Saint Vincent and the Grenadines	

Since the last status report in *Nuclear Law Bulletin* No. 84, 28 states have become parties to this convention: Antigua and Barbuda, Armenia, Azerbaijan, Bahrain, Belgium, Brazil, Chile, Democratic Republic of the Congo, Cuba, Finland, Georgia, Lesotho, Libya, Liechtenstein, Malawi, Mali, Morocco, Nauru, the Netherlands, Nicaragua, Paraguay, Peru, Poland, Saint Vincent and the Grenadines, Slovenia, the Solomon Islands, Tunisia and the United Kingdom.

The text of the convention is available at: http://untreaty.un.org/English/Terrorism/English_18_15.pdf.

Comprehensive Nuclear-Test-Ban Treaty

The treaty was adopted on 10 September 1996 and has not yet entered into force. There are **153 contracting states** to this convention.

Of the 44 “Annex 2” states whose ratification is necessary for the treaty to enter into force, the following have not yet ratified: China, Egypt, the Democratic People’s Republic of Korea, India, Indonesia, Iran, Israel, Pakistan and the United States of America.

Afghanistan	Denmark	Libya	Russian Federation
Albania	Djibouti	Liechtenstein	Rwanda
Algeria	Dominican Republic	Lithuania	Saint Kitts and Nevis
Andorra	Ecuador	Luxembourg	Saint Lucia
Antigua and Barbuda	El Salvador	Macedonia	Saint Vincent and the Grenadines
Argentina	Eritrea	Madagascar	Samoa
Armenia	Estonia	Malawi	San Marino
Australia	Ethiopia	Malaysia	Senegal
Austria	Fiji	Maldives	Serbia
Azerbaijan	Finland	Mali	Seychelles
Bahamas	France	Malta	Sierra Leone
Bahrain	Gabon	Marshall Islands	Singapore
Bangladesh	Georgia	Mauritania	Slovak Republic
Barbados	Germany	Mexico	Slovenia
Belarus	Greece	Micronesia	South Africa
Belgium	Grenada	Moldova	Spain
Belize	Guyana	Monaco	Sudan
Benin	Haiti	Mongolia	Suriname
Bolivia	Holy See	Montenegro	Sweden
Bosnia and Herzegovina	Honduras	Morocco	Switzerland
Botswana	Hungary	Mozambique	Tajikistan
Brazil	Iceland	Namibia	Tanzania
Bulgaria	Ireland	Nauru	Togo
Burkina Faso	Italy	Netherlands	Trinidad and Tobago
Burundi	Jamaica	New Zealand	Tunisia
Cambodia	Japan	Nicaragua	Turkey
Cameroon	Jordan	Niger	Turkmenistan
Canada	Kazakhstan	Nigeria	Uganda
Cape Verde	Kenya	Norway	Ukraine
Central African Republic	Kiribati	Oman	United Arab Emirates
Chile	Korea, Republic of	Palau	United Kingdom
Colombia	Kuwait	Panama	Uruguay
Democratic Republic of the Congo	Kyrgyzstan	Paraguay	Uzbekistan
Cook Islands	Lao People’s Democratic Republic	Peru	Vanuatu
Costa Rica	Latvia	Philippines	Venezuela
Côte d’Ivoire	Lebanon	Poland	Vietnam
Croatia	Lesotho	Portugal	Zambia
Cyprus	Liberia	Qatar	
Czech Republic		Romania	

Since the last status report in *Nuclear Law Bulletin* No. 84, five countries have become parties to this convention: the Central African Republic, Liberia, the Marshall Islands, Saint Vincent and the Grenadines and Trinidad and Tobago.

The text of the convention is reproduced in *Nuclear Law Bulletin* No. 58 and is also available at: www.ctbto.org/fileadmin/content/treaty/treatytext.tt.html.

Nuclear safety and emergency response

Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency

The convention was adopted on 26 September 1986 and entered into force on 26 February 1987. There are **105 parties** to this convention:

Albania	Finland*	Mali	Senegal
Algeria	France*	Mauritius	Serbia
Argentina*	Gabon	Mexico*	Singapore
Armenia*	Germany*	Moldova	Slovak Republic*
Australia	Greece	Monaco	Slovenia*
Austria	Guatemala	Mongolia	South Africa*
Bangladesh	Hungary*	Montenegro	Spain*
Belarus	Iceland	Morocco	Sri Lanka
Belgium*	India*	Mozambique	Sweden*
Bolivia	Indonesia	Netherlands*	Switzerland*
Bosnia and Herzegovina	Iran	New Zealand	Tanzania
Brazil*	Iraq	Nicaragua	Thailand
Bulgaria*	Ireland	Nigeria	Tunisia
Cameroon	Israel	Norway	Turkey
Canada*	Italy	Oman	Ukraine*
Chile	Japan*	Pakistan*	United Arab Emirates
China*	Jordan	Panama	United Kingdom*
Colombia	Kazakhstan	Peru	United States of America*
Costa Rica	Korea, Republic of*	Philippines	Uruguay
Croatia	Kuwait	Poland	Vietnam
Cuba	Latvia	Portugal	EURATOM
Cyprus	Lebanon	Qatar	Food and Agriculture
Czech Republic*	Libya	Romania*	Organization
Denmark	Liechtenstein	Russian Federation*	World Health Organization
Egypt	Lithuania*	Saint Vincent and the	World Meteorological
El Salvador	Luxembourg	Grenadines	Organization
Estonia	Macedonia	Saudi Arabia	
	Malaysia		

* Country with at least one operating nuclear power plant.

Since the last status report in *Nuclear Law Bulletin* No. 84, four countries have become parties to this convention, namely: Kazakhstan, Mozambique, Oman and Senegal.

The text of the convention is reproduced in the Supplement to the *Nuclear Law Bulletin* No. 38 and is also available at: www.iaea.org/Publications/Documents/Infocircs/Others/infocirc336.shtml.

Convention on Early Notification of a Nuclear Accident

The convention was adopted on 26 September 1986 and entered into force on 27 October 1986. There are **109 parties** to this convention:

Albania	Estonia	Malaysia	Senegal
Algeria	Finland*	Mali	Serbia
Angola	France*	Mauritius	Singapore
Argentina*	Gabon	Mexico*	Slovak Republic*
Armenia*	Georgia	Moldova	Slovenia*
Australia	Germany*	Monaco	South Africa*
Austria	Greece	Mongolia	Spain*
Bangladesh	Guatemala	Montenegro	Sri Lanka
Belarus	Hungary*	Morocco	Sweden*
Belgium*	Iceland	Mozambique	Switzerland*
Bolivia	India*	Myanmar	Tanzania
Bosnia and Herzegovina	Indonesia	Netherlands*	Thailand
Brazil*	Iran	New Zealand	Tunisia
Bulgaria*	Iraq	Nicaragua	Turkey
Cameroon	Ireland	Nigeria	Ukraine*
Canada*	Israel	Norway	United Arab Emirates
Chile	Italy	Oman	United Kingdom*
China*	Japan*	Pakistan*	United States of America*
Colombia	Jordan	Panama	Uruguay
Costa Rica	Kazakhstan	Peru	Vietnam
Croatia	Korea, Republic of*	Philippines	EURATOM
Cuba	Kuwait	Poland	Food and Agriculture Organization
Cyprus	Latvia	Portugal	Organization
Czech Republic*	Lebanon	Qatar	World Health Organization
Denmark	Libya	Romania*	World Meteorological Organization
Dominican Republic	Liechtenstein	Russian Federation*	
Egypt	Lithuania*	Saint Vincent and the Grenadines	
El Salvador	Luxembourg	Saudi Arabia	
	Macedonia		

* Country with at least one operating nuclear power plant.

Since the last status report in *Nuclear Law Bulletin* No. 84, seven countries have become parties to this convention, namely: the Dominican Republic, Georgia, Kazakhstan, Libya, Mozambique, Oman and Senegal.

The text of the convention is reproduced in the Supplement to *Nuclear Law Bulletin* No. 38 and is also available at: www.iaea.org/Publications/Documents/Infcircs/Others/infcirc335.shtml.

Convention on Nuclear Safety

The convention was adopted on 17 June 1994 and entered into force on 24 October 1996. There are **71 parties** to this convention:

Argentina*	Finland*	Lithuania*	Singapore
Armenia*	France*	Luxembourg	Slovak Republic*
Australia	Germany*	Macedonia	Slovenia*
Austria	Greece	Mali	South Africa*
Bangladesh	Hungary*	Malta	Spain*
Belarus	Iceland	Mexico*	Sri Lanka
Belgium*	India*	Moldova	Sweden*
Bosnia and Herzegovina	Indonesia	Netherlands*	Switzerland*
Brazil*	Ireland	Nigeria	Tunisia
Bulgaria*	Italy	Norway	Turkey
Canada*	Japan*	Pakistan*	Ukraine*
Chile	Jordan	Peru	United Arab Emirates
China*	Kazakhstan	Poland	United Kingdom*
Croatia	Korea, Republic of*	Portugal	United States of America*
Cyprus	Kuwait	Romania*	Uruguay
Czech Republic*	Latvia	Russian Federation*	Vietnam
Denmark	Lebanon	Saudi Arabia	EURATOM
Estonia	Libya	Senegal	

* Country with at least one operating nuclear power plant.

Since the last status report in *Nuclear Law Bulletin* No. 84, nine countries have become parties to this convention, namely: Bosnia and Herzegovina, Jordan, Kazakhstan, Libya, Saudi Arabia, Senegal, Tunisia, the United Arab Emirates and Vietnam.

The text of the convention is reproduced in *Nuclear Law Bulletin* No. 53 and is available at: www.iaea.org/Publications/Documents/Infcircs/Others/inf449.shtml.

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

The convention was adopted on 5 September 1997 and entered into force on 18 June 2001. There are **57 parties** to this convention:

Argentina*	Estonia	Latvia	South Africa*
Australia	Finland*	Lithuania*	Spain*
Austria	France*	Luxembourg	Sweden*
Belarus	Gabon	Macedonia	Switzerland*
Belgium*	Georgia	Moldova	Tajikistan
Brazil*	Germany*	Montenegro	Ukraine*
Bulgaria*	Greece	Morocco	United Arab Emirates
Canada*	Hungary*	Netherlands*	United Kingdom*
China*	Iceland	Nigeria	United States of America*
Croatia	Ireland	Norway	Uruguay
Cyprus	Italy	Poland	Uzbekistan
Czech Republic*	Japan*	Portugal	EURATOM
Denmark	Kazakhstan	Romania*	
	Korea, Republic of *	Russian Federation*	
	Kyrgyzstan	Senegal	
		Slovak Republic*	
		Slovenia*	

* Country with at least one operating nuclear power plant.

Since the last status report in *Nuclear Law Bulletin* No. 84, eleven countries have become parties to this convention, namely: Cyprus, Gabon, Georgia, Kazakhstan, Macedonia, Moldova, Montenegro, Portugal, Senegal, the United Arab Emirates and Uzbekistan.

The text of the convention is available at: www.iaea.org/Publications/Documents/Infcircs/1997/infcirc546.pdf.

Liability and compensation for nuclear damage

Paris Convention on Nuclear Third Party Liability

The convention was adopted on 29 July 1960 and entered into force on 1 April 1968, along with its 1964 additional protocol. The 1982 Protocol entered into force on 7 October 1988. The 2004 Protocol has not yet entered into force.

There are **15 parties** to this convention and its 1964 and 1982 additional protocols:

Belgium*	Germany*	Norway	Sweden*
Denmark	Greece	Portugal	Turkey
Finland*	Italy	Slovenia*	United Kingdom*
France*	Netherlands*	Spain*	

* Country with at least one operating nuclear power plant.

The text of the convention is available at: www.nea.fr/html/law/nlparis_conv.html.

Brussels Supplementary Convention on Third Party Liability in the Field of Nuclear Energy

The convention was adopted on 31 January 1963 and entered into force on 4 December 1974, along with its 1964 additional protocol. The 1982 Protocol entered into force on 1 January 1988. The 2004 Protocol has not yet entered into force. There are **12 parties** to this convention:

Belgium*	France*	Netherlands*	Spain*
Denmark	Germany*	Norway	Sweden*
Finland*	Italy	Slovenia*	United Kingdom*

* Country with at least one operating nuclear power plant.

The text of the convention is available at: www.nea.fr/html/law/nlbrussels.html.

Protocol to Amend the Paris Convention on Nuclear Third Party Liability

The protocol was adopted on 12 February 2004 and has not yet entered into force. There are **16 signatories** to this convention, namely: Belgium, Denmark, Finland, France, Germany, Greece, Italy, the Netherlands, Norway, Portugal, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom. No signatory has yet ratified the Protocol.

The text of the protocol is reproduced in the Supplement to *Nuclear Law Bulletin* No. 75 and is also available at: www.nea.fr/html/law/paris_convention.pdf.

Protocol to Amend the Brussels Convention Supplementary to the Paris Convention

The protocol was adopted on 12 February 2004 and has not yet entered into force. There are **13 signatories** to this convention: Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Slovenia, Spain, Sweden, Switzerland and the United Kingdom. Only Spain has ratified the Protocol.

The text of the protocol was reproduced in the Supplement to *Nuclear Law Bulletin* No. 75 and is also available at: www.nea.fr/html/law/brussels_supplementary_convention.pdf.

Vienna Convention on Civil Liability for Nuclear Damage

The convention was adopted on 21 May 1963 and entered into force on 12 November 1977. There are **36 parties** to this convention:

Argentina*	Cuba	Moldova	Saint Vincent and the Grenadines
Armenia*	Czech Republic*	Montenegro	Senegal
Belarus	Egypt	Niger	Serbia
Bolivia	Estonia	Nigeria	Slovak Republic*
Bosnia-Herzegovina	Hungary*	Peru	Trinidad and Tobago
Brazil*	Latvia	Philippines	Ukraine*
Bulgaria*	Lebanon	Poland	Uruguay
Cameroon	Lithuania*	Romania*	
Chile	Macedonia	Russian Federation*	
Croatia	Mexico*		

* Country with at least one operating nuclear power plant.

Since the last status report in *Nuclear Law Bulletin* No. 84, Senegal has become party to this convention.

The text of the convention is available at: www.iaea.org/Publications/Documents/Infcircs/1996/inf500.shtml.

Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage

The convention was adopted on 12 September 1997 and entered into force on 4 October 2003. There are **6 parties** to this convention, namely: Argentina,* Belarus, Latvia, Morocco, Poland and Romania.*

The text of the convention is available at: www.iaea.org/Publications/Documents/Infcircs/1998/infcirc566.shtml.

Joint Protocol relating to the Application of the Vienna Convention and the Paris Convention

The convention was adopted on 21 September 1988 and entered into force on 27 April 1992. There are **26 parties** to this convention (“PC” or “VC” indicates that the state is party to the Paris Convention or Vienna Convention):

Bulgaria* (VC)	Estonia (VC)	Lithuania* (VC)	Slovak Republic* (VC)
Cameroon (VC)	Finland* (PC)	Netherlands* (PC)	Slovenia* (PC)
Chile (VC)	Germany* (PC)	Norway (PC)	Sweden* (PC)
Croatia (VC)	Greece (PC)	Poland (VC)	Turkey (PC)
Czech Republic* (VC)	Hungary* (VC)	Romania* (VC)	Ukraine* (VC)
Denmark (PC)	Italy (PC)	Saint Vincent and the Grenadines (VC)	Uruguay (VC)
Egypt (VC)	Latvia (VC)		

* Country with at least one operating nuclear power plant.

Since the last status report in *Nuclear Law Bulletin* No. 84, Uruguay has become party to this convention.

The text of the convention is reproduced in *Nuclear Law Bulletin* No. 42 and is also available at: www.iaea.org/Publications/Documents/Infcircs/Others/inf402.shtml.

Convention on Supplementary Compensation for Nuclear Damage

The convention was adopted on 12 September 1997 and has not yet entered into force. Four countries have ratified this convention, namely: Argentina, Morocco, Romania and the United States of America.

Since the last status report in *Nuclear Law Bulletin* No. 84, there has been no further ratification.

The text of the Convention is available at: www.iaea.org/Publications/Documents/Infcircs/1998/infcirc567.pdf.

II. Status of conventions in the field of environmental protection/assessment which affect nuclear energy use as of December 2010

Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention)

The convention was adopted on 25 June 1998 and entered into force on 30 October 2001. There are **44 parties** to this convention:

Albania	Czech Republic	Kyrgyzstan	Romania
Armenia	Denmark	Latvia	Serbia
Austria	Estonia	Lithuania	Slovak Republic
Azerbaijan	Finland	Luxembourg	Slovenia
Belarus	France	Macedonia	Spain
Belgium	Georgia	Malta	Sweden
Bosnia and Herzegovina	Germany	Moldova	Tajikistan
Bulgaria	Greece	Montenegro	Turkmenistan
Croatia	Hungary	Netherlands	Ukraine
Cyprus	Italy	Norway	United Kingdom
	Kazakhstan	Poland	European Community
		Portugal	

Since the last status report in *Nuclear Law Bulletin* No. 84, Montenegro and Serbia have become parties to this convention.

The text of the convention is available at: www.unece.org/env/pp/documents/cep43e.pdf.

Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention)

The convention was adopted on 25 February 1991 and entered into force on 10 September 1997. There are **45 parties** to this convention:

Albania	Denmark	Latvia	Romania
Armenia	Estonia	Liechtenstein	Serbia
Austria	Finland	Lithuania	Slovak Republic
Azerbaijan	France	Luxembourg	Slovenia
Belarus	Germany	Macedonia	Spain
Belgium	Greece	Malta	Sweden
Bosnia and Herzegovina	Hungary	Moldova	Switzerland
Bulgaria	Ireland	Montenegro	Ukraine
Canada	Italy	Netherlands	United Kingdom
Croatia	Kazakhstan	Norway	European Community
Cyprus	Kyrgyzstan	Poland	
Czech Republic		Portugal	

Since the last status report in *Nuclear Law Bulletin* No. 84, three states have become parties to this convention, namely: Bosnia and Herzegovina, Malta and Montenegro.

The text of the convention is available at: www.unece.org/env/eia/documents/legaltexts/conventiontextenglish.pdf.

Protocol on Strategic Environmental Assessment (Kiev Protocol)

The protocol was adopted on 21 May 2003 and has not yet entered into force. **Nineteen countries** and an international organisation have ratified this convention, namely: Albania, Austria, Bulgaria, Croatia, the Czech Republic, Estonia, Finland, Germany, Hungary, Luxembourg, Montenegro, the Netherlands, Norway, Romania, Serbia, the Slovak Republic, Slovenia, Spain, Sweden and the European Community.

The text of the convention is available at: www.unece.org/env/eia/documents/legaltexts/protoco%20english.pdf.

Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR)

The convention was adopted on 22 September 1992 and entered into force on 25 March 1998. There are **16 parties** to this convention:

Belgium Denmark Finland France	Germany Iceland Ireland Luxembourg	Netherlands Norway Portugal Spain	Sweden Switzerland United Kingdom European Community
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The text of the convention is available at: www.ospar.org.

Bibliography and News Briefs

Bibliography

IAEA – Handbook on Nuclear Law, Implementing Legislation (2010)

The International Atomic Energy Agency published the second volume of its *Handbook on Nuclear Law*, entitled “Implementing Legislation”. This new handbook is a practical guide to legislative drafting which includes model texts of provisions covering all aspects of nuclear law. The first volume, published by the IAEA in 2003, presented the basic elements of a sound legal framework for managing and regulating nuclear energy while the latest issue responds to the interest of a growing number of states to adopt, amend or update national legislation.

Each chapter of the second volume starts with a narrative summary of key issues and approaches in the area of nuclear legislation under consideration, followed by model provisions. The model texts provide a starting point and basic outline of necessary provisions that will need remodelling consistent with each state’s national approach to legislative drafting, cultural and social norms, economic structure and the nature of its nuclear programme.

The purpose of the latest volume is to help states in drafting nuclear legislation. It will be particularly useful for those states embarking on new or expanding existing nuclear programmes.

The book is available online at www-pub.iaea.org/MTCD/publications/PDF/Pub1456_web.pdf.

News Briefs

European Atomic Energy Community

Communication from the Commission to the European Parliament and the Council on medical applications of ionizing radiation and security of supply of radioisotopes for nuclear medicine (2010)

The Commission’s Communication to the European Parliament and to the Council (COM/2010/0423 and SEC/2010/0974) proposes a way forward to resolve the urgent issue of radioisotope supply shortages for nuclear medicine. It envisages a long-term perspective on the medical applications of ionizing radiation in the European Union to stimulate discussions on the necessary actions, resources and distribution of responsibilities.

The Communication also identifies key issues to improve radiation protection of patients and medical staff, to avoid a rise in population exposure associated with the technological advances in X-ray computed tomography imaging (CT) and an increase of accidental or unintended exposures in radiotherapy.

Several actions are proposed: (i) strengthen the existing regulatory framework, (ii) raise awareness and safety culture, (iii) foster radiation protection and a sustainable supply and use of

radioisotopes through research, (iv) financing mechanisms to ensure sustainable supply of radioisotopes, (v) integration of policies, (vi) international co-operation.

BNLA-EC Workshop on Prospects of a Civil Nuclear Liability Regime in the EU (2010)

The European Commission and the Brussels Nuclear Law Association (BNLA) held a joint workshop on the prospects of a civil nuclear liability regime in the European Union on 17 and 18 June 2010. The workshop was hosted by the European Social and Economic Committee in Brussels, Belgium.

The workshop was preceded by the European Commission's legal study, performed by the law firm Gómez – Acebo & Pombo the outcome of which was that, in its current status, the nuclear third party liability regime as governed by different international treaties creates a legal patchwork which may prove difficult to harmonise. Presentations were delivered by the European Commission, representatives of the OECD Nuclear Energy Agency and the International Atomic Energy Agency, contracting parties to the various conventions on nuclear third party liability and a representative of a country not party to any international nuclear liability convention.

Moreover, representatives from the insurance sector, the nuclear industry and NGOs were present and expressed their concerns with respect to the current nuclear third party liability regimes, e.g. state aid issues and alternative financial guarantees.

The question of whether the European Commission could take the initiative to elaborate a directive on nuclear third party liability was analysed especially by Professor Melchior Wathelet, Belgian Minister of State and a former judge at the Court of Justice of the European Union. He took the view that Article 98 of the Treaty establishing the European Atomic Energy Community does not only allow for limited intervention by the EU on insurance contracts, but that it constitutes a “dormant source of legislative power” which could be used, political will provided, for other substantial liability rules without a need for recourse to Article 203 of the Euratom Treaty.

The European Commission representative concluded that there is a large spectrum of opinions, positions and ways to move forward. He stated that the preparatory work of the legal study and the outcome of the workshop should be continued to be discussed in an expert group.

European Nuclear Safety Training and Tutoring Institute

Creation of new training institute (2010)

Four European Technical Support Organisations¹ have created ENSTTI, the European Nuclear Safety Training and Tutoring Institute. The Institute will offer training sessions and longer tutoring periods for university graduates and for those with some professional experience in the nuclear sector.

ENSTTI aims at providing training in techniques, practices and methods to develop the skills and know-how required for assessing and analysing nuclear and radiological risks in Europe and throughout the world. The course programme lasts around six weeks and there are tutorial periods of several months. The programmes include working groups, simulator sessions, technical visits and

1. *Institut de Radioprotection et de Sûreté Nucléaire (IRSN)* in France, *Gesellschaft für Anlagen- und Reaktorsicherheit (GRS)* in Germany, *Ústav jaderného výzkumu Řež (UJV)* in the Czech Republic and *Lietuvos Energetikos Institutas (LEI)* in Lithuania.

open discussions. Training courses are open to individual applicants from both inside and outside Europe with at least a master's degree and some basic knowledge in the nuclear field.

More information is available at www.ensti.eu/pages/home.aspx.

International Atomic Energy Agency

Global Nuclear Fuel Bank (2010)²

The Board of Governors of the International Atomic Energy Agency (IAEA), at its meeting on 3 December 2010, authorised the Director General to establish a reserve of low enriched uranium (IAEA LEU bank).

The Russian initiative and announcement, on 30 November 2010, that it has – under certain conditions – low enriched uranium available for any IAEA member state, is different from this new IAEA resolution. The Russian reserve at the International Uranium Enrichment Centre at Angarsk, in South East Siberia, was endorsed by the IAEA in November 2009 and is managed under IAEA auspices while the new LEU bank will be owned and put under direct control of the IAEA.

The fuel bank will be located in one or more EU member states. The host state or states must apply IAEA safeguards, safety standards, safety measures and physical protection measures to the LEU in the bank. It shall grant the IAEA the right to transport LEU to and from the IAEA LEU bank as determined by the Agency, and if necessary, guaranteed transit arrangements shall be concluded with states neighbouring the host state.

The IAEA will keep enough LEU to meet the fuel fabrication needs for one full core of a 1 000 MW(e) pressurised water reactor, or three annual reloads of fuel. The fuel will be made available to an eligible IAEA member state at market prices prevailing at the time of supply. In order to be eligible the member state must fulfil the following criteria:

- It is experiencing an LEU supply disruption and is unable to secure LEU from the commercial market, or through state-to-state arrangements, or by any other such means.
- The IAEA has made a conclusion that there has been no diversion of declared nuclear material and there are no issues relating to safeguards implementation in the requesting state.
- The member state has brought into force a comprehensive safeguards agreement requiring the application of IAEA safeguards to all its peaceful nuclear activities.

When the Director General concludes that these three criteria are fully met, the LEU will be transferred to the requesting member state upon advance payment. The recipient state shall conclude a supply agreement with the Agency and through it undertake that:

- The LEU from the IAEA fuel bank can only be used for fuel fabrication for the generation of energy at a nuclear power plant.

2. Information based on the IAEA's "Factsheet: IAEA Low Enriched Uranium Reserve", available at www.iaea.org/Publications/Factsheets/English/iaea_leureserve.html.

- The LEU may not be used to manufacture any nuclear weapon or nuclear explosive device, nor for any other military purpose.
- It shall not further enrich, reprocess, retransfer or re-export the LEU unless the IAEA agrees.
- It shall apply the applicable IAEA safeguards, safety standards and physical protection measures to the LEU.
- It shall take responsibility for all liability for any nuclear damage that may be caused by a nuclear incident associated with the use, handling, storage or transport of the LEU supplied under the agreement.

This new initiative will be financed by the United States, the European Union, the United Arab Emirates, Kuwait, Norway and the U.S. based Nuclear Threat Initiative (NTI), backed by U.S. investor and NTI adviser Warren Buffet.

International Nuclear Law Association

20th Nuclear Inter Jura (2011)

The next INLA Congress will take place in Bucharest, in Romania, from 24 October until 27 October 2011, followed by a one-day trip organised on Friday, 28 October 2011. The Congress will be held in the Palace of the Romanian Parliament.

The purpose of the International Nuclear Law Association (INLA), created in 1972, is to promote the study of legal issues associated with the peaceful uses of nuclear energy and to encourage the exchange of information in this field. Every two years INLA organises a Congress called “Nuclear Inter Jura” in which nuclear lawyers from all around the world participate. INLA membership numbers approximately 600 persons.

Conference organised by the German branch of INLA (2011)

The German branch of INLA is organising a conference on the “continued/long term operation of nuclear power plants – technical, legal and financial requirements” which will be held on 31 March 2011 in Bonn, Germany. The conference languages are English and German, simultaneous interpretation will be provided for the entire meeting. All presentations and summaries of the discussions will be published following the meeting.

OECD Nuclear Energy Agency

New education programme in international nuclear law (2011)

The NEA’s success in training and education programmes has encouraged its Legal Affairs Section to launch a new programme in international nuclear law, the first session of which will take place between 3 and 7 October 2011 at the NEA’s headquarters near Paris, France. The programme is geared towards professionals with a demanding work schedule and aims at providing a high-quality, comprehensive and intensive course in international nuclear law.

It is designed to accommodate lawyers from both the public and private sectors, as well as others who are active in the nuclear field (e.g. scientists, policy makers, managers) or who wish to develop or enhance their knowledge of international nuclear law.

Over a 5-day period, the following 12 topics will be addressed:

- introduction to nuclear law;
- international radiological protection standards;
- nuclear accident notification and assistance;
- nuclear safety;
- nuclear regulatory activities;
- management of spent fuel and radioactive waste;
- nuclear activities and environmental law;
- liability, compensation and insurance for nuclear damage;
- transport of nuclear materials and fuel;
- non-proliferation of nuclear weapons and international safeguards for nuclear materials;
- international trade in nuclear material and equipment;
- nuclear security: physical protection, illicit trafficking and terrorism.

The number of participants is limited to approximately 60. More information on this programme and an application form can be downloaded from the NEA website or requested at inle@oecd-nea.org.

OECD and NEA membership (2010)

In 2010 Chile, Estonia, Israel and Slovenia joined the Organisation for Economic Co-operation and Development (OECD) which increased the number of its member countries to 34.

On 18 November 2010, Poland became the 29th member country of the OECD Nuclear Energy Agency (NEA). Poland has been an OECD member country since 1996, has participated in a selection of NEA activities since 1993 and has recently increased its involvement in Agency activities significantly.

United Nations

Review conference of the parties to Treaty on the Non-Proliferation of Nuclear Weapons (2010)

The 2010 review conference of the parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) was held in May 2010 at UN Headquarters in New York, United States. The President of the review conference was Ambassador Libran N. Cabactulan of the Philippines.

A final document was adopted at the end of the meeting which in its Part I includes a review of the operation of the treaty, followed by conclusions and recommendations for follow-up actions. Part II of the final document deals with the organisation and work of the conference.

The conference reaffirms that the full and effective implementation of the Treaty on the Non-Proliferation of Nuclear Weapons and the regime of non-proliferation in all its aspects has a vital role in promoting international peace and security. The treaty's contribution to peace and security is stressed throughout the document. The conference also highlighted the importance of other

instruments, such as the Comprehensive Nuclear-Test-Ban Treaty, nuclear weapon free-zone treaties and proposals for nuclear disarmament. India, Israel and Pakistan are called upon to accede to the NPT “without further delay and without any conditions, and to bring into force the required comprehensive safeguards agreements and additional protocols consistent with the model additional protocol”. The conference further mentions the Democratic People’s Republic of Korea explicitly, “deeply deplores the nuclear test explosions announced by the Democratic People’s Republic of Korea and declares that the Democratic People’s Republic of Korea cannot have the status of a nuclear-weapon State in accordance with the Treaty in any case”. It urges the DPRK to resume and fulfil its commitments under the Six-Party Talks.

One of the most controversial sections is where parties underscore the “importance of the establishment of nuclear weapon-free zones where they do not exist, especially in the Middle East”. To this end, in the section on the Middle East, the conference endorses that the “Secretary-General of the United Nations and the co-sponsors of the 1995 Resolution, in consultation with the States of the region, will convene a conference in 2012, to be attended by all States of the Middle East, on the establishment of a Middle East zone free of nuclear weapons and all other weapons of mass destruction, on the basis of arrangements freely arrived at by the States of the region, and with the full support and engagement of the nuclear-weapon States”.

List of Correspondents to the Nuclear Law Bulletin

<i>ALBANIA</i>	Mr. F. YLLI, Director, Institute of Nuclear Physics
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