

# **N**uclear Law Bulletin

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**June 2006  
Nuclear Energy Agency  
Organisation for Economic Co-operation and Development**

## ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The OECD is a unique forum where the governments of 30 democracies work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

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## NUCLEAR ENERGY AGENCY

The OECD Nuclear Energy Agency (NEA) was established on 1<sup>st</sup> February 1958 under the name of the OEEC European Nuclear Energy Agency. It received its present designation on 20<sup>th</sup> April 1972, when Japan became its first non-European full member. NEA membership today consists of 28 OECD member countries: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, Norway, Portugal, Republic of Korea, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The Commission of the European Communities also takes part in the work of the Agency.

The mission of the NEA is:

- to assist its member countries in maintaining and further developing, through international co-operation, the scientific, technological and legal bases required for a safe, environmentally friendly and economical use of nuclear energy for peaceful purposes, as well as
- to provide authoritative assessments and to forge common understandings on key issues, as input to government decisions on nuclear energy policy and to broader OECD policy analyses in areas such as energy and sustainable development.

Specific areas of competence of the NEA include safety and regulation of nuclear activities, radioactive waste management, radiological protection, nuclear science, economic and technical analyses of the nuclear fuel cycle, nuclear law and liability, and public information. The NEA Data Bank provides nuclear data and computer program services for participating countries.

In these and related tasks, the NEA works in close collaboration with the International Atomic Energy Agency in Vienna, with which it has a Co-operation Agreement, as well as with other international organisations in the nuclear field.

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## **A Tribute to Fabrizio Nocera**

### **From the members of NEA Legal Affairs Section**

Fabrizio Nocera, lawyer of international renown in the field of nuclear law and esteemed friend and colleague, passed away on 30 January 2006. The members of the Legal Affairs Section of the OECD Nuclear Energy Agency would like to open this edition of the *Nuclear Law Bulletin* with a few words about his life and work, as well as the character of the man who played such an important role in the nuclear law field over the past thirty years.

Fabrizio represented Italy on the NEA Nuclear Law Committee for 25 years, participating actively in debates on a variety of subjects, and sharing in particular his extensive experience in the field of radiation protection legislation. In addition, he was a member of several NEA *ad hoc* expert or specialist groups established to study particularly challenging legal issues, such as those relating to radioactive waste management and the transport of nuclear substances. He also represented Italy in the recent negotiations to amend the Paris and Brussels Supplementary Conventions on nuclear third party liability and regularly attended and contributed to NEA-sponsored international symposia, workshops and meetings on nuclear liability and insurance issues.

His commitment to education and training brought him to lecture at the International School of Nuclear Law (ISNL) at the University of Montpellier 1, France, where he inspired the interest of the younger generation in the specialised field of radiation protection within the European Union. The 2006 session of the ISNL shall be dedicated to his memory.

Fabrizio was also extremely active within the International Nuclear Law Association, having participated in 17 congresses since 1974, and its Board of Governors since 1982, as well as having chaired both Working Group IV on Radiation Protection and the Reading Committee for the INLA Prize.

One of Fabrizio's most recent achievements, his book published by Intersentia entitled "The Legal Regime of Nuclear Energy – A Comprehensive Guide to International and European Union Law" (described in *Nuclear Law Bulletin* No. 76, December 2005), will certainly prove an invaluable tool for any nuclear law student or practitioner for a great many years to come.

Fabrizio was a regular contributor to this Bulletin, providing us with twice-yearly updates on nuclear legislative and regulatory developments in Italy, and also submitting articles on a number of occasions on a wide array of topical subjects. His dedication to detail and accuracy made our task as editor an easy one, and his pleasant demeanour and sense of humour made it a pleasure to work with him.

On a more personal note, all of us at NEA Legal Affairs will remember the friendship, joviality and warmth which we shared with Fabrizio, at both professional and personal levels. We will miss him, and bid him the fondest of farewells.

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## **Nuclear Transparency and Safety Act: What Changes for French Nuclear Law?**

by Marc Léger and Laetitia Grammatico\*

1. The long-promised Act No. 2006-686 of 13 June 2006 on nuclear transparency and safety<sup>1</sup> (hereinafter referred to as the TSN Act) is the result of a long process, begun in the 1990s, reflecting the (more or less general) desire to promulgate a comprehensive nuclear legislative framework.

For in France, there was no all-embracing nuclear act containing all the legislation governing the use of nuclear energy,<sup>2</sup> although many countries had adopted such acts (United States, Germany, Italy) with the purpose of ensuring the coherence of the regime, at least as regards the principles involved.<sup>3</sup>

French nuclear legislation was in fact based on an old Act of 2 August 1961 on Measures to Combat Atmospheric Pollution and Odours,<sup>4</sup> Section 8 of which provided that the provisions of the act applied to “any kind of pollution caused by radioactive substances”.<sup>5</sup> Thus, while the most polluting industrial activities were regulated as early as 1917 under an Act of 19 December on Hazardous, Unsanitary and Incommodious Establishments, replaced by Act No. 76-663 of 19 July 1976 on Installations Classified for Environmental Protection Purposes (ICPE), the construction and operation of nuclear installations were essentially regulated by a truncated act and a regulation dating from 1963.<sup>6</sup>

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1. Official Journal of 14 June 2006, p. 8946.

2. See for example Henri Pac, *Droit et politiques nucléaires*, PUF, 1994; Jean-Philippe Colson, *Le nucléaire sans les français*, Maspero, 1977.

3. Furthermore, the International Atomic Energy Agency (IAEA) has prepared a manual to help states draft their national nuclear legislation, see Carlton Stoiber, Alec Jean Baer, Norbert Pelzer, Wolfram Tonhauser, *Handbook on Nuclear Law*, IAEA, 2003.

4. Act No. 61-842 of 2 August 1961 on measures to combat atmospheric pollution and odours, amending the Act of 19 December 1917, Official Journal of 3 August 1961, p. 7195.

5. This became Article L.227-1 of the Environment Code.

6. Decree No. 63-1228 of 11 December 1963 on nuclear installations, Official Journal of 14 December 1963, p. 11092.

The absence of a nuclear act,<sup>7</sup> however, did not mean the absence of a legal framework, which, although disparate and consisting essentially of regulations, could be considered as being complete, and has enabled dozens of nuclear installations, including power plants, to operate safely in France since 1945. Indeed, French nuclear law is one of the best adapted and structured systems in the world, and it has enabled the development of an extremely competitive nuclear industry while meeting strict safety and security requirements, thus constituting a model for nuclear countries.

The fact remains, however, that the absence of a nuclear act meant that there was no parliamentary debate on these issues which raised many economic, social and environmental questions of an importance which merited at least some consideration on the part of the country's representatives.<sup>8</sup> Supporters of a comprehensive nuclear act also pointed out that nuclear law, which had become particularly complex with entangled procedures, was fragmentary in nature and lacking coherence, something which the new TSN Act is endeavouring to correct.

The TSN Act is thus the first legislative text which is intended to give a general legal framework to "nuclear activities", thus answering the criticisms about the "democratic deficit" in this field. It is a particularly important text, which guarantees legal certainty in the nuclear sector and one of the objectives of which (nuclear transparency) is presented as a guarantee of improved nuclear safety, defined in Section 1(1) of the act as "nuclear safety, radiation protection, the prevention of malicious acts and measures to combat them, and measures to protect the public in the event of an accident."

The concept of safety, a major concern of our times, includes an objective element – the absence of danger or threat for an individual – but also a subjective element which is even more important: the feeling, on the part of the public, of being safe.<sup>9</sup> The second aspect of the above definition is implemented by the act by virtue of nuclear transparency.

The drafting of this bill, submitted to the Senate on 18 June 2002,<sup>10</sup> follows on from the text presented in 2001 to the National Assembly by Dominique Voynet<sup>11</sup> and from the task conferred in March 1998 by the prime minister on Jean-Yves Le Déaut (member for Meurthe-et-Moselle), namely to examine the system of control and expertise in the fields of nuclear safety and radiation protection, and to make suitable proposals. This mission gave rise to a report,<sup>12</sup> in which the author discussed the content of a nuclear act. The bill which resulted from this was rejected in total in June 1999 by the *Conseil d'État* before even being submitted to parliament. In May 2000, a new text was submitted to the *Conseil d'État* for opinion and resulted in the bill submitted in July 2001 by Mrs. Voynet. This bill, which would have become void and of no effect on the expiry of the mandate of the preceding

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7. An act was, however, passed in 1980 on the protection and control of nuclear materials (Act No. 80-572 of 25 July 1980, Official Journal of 26 July 1980, p. 1882). This has now been codified as Articles L.1333-1 et seq. of the Defence Code.
  8. All the relevant decisions were thus taken at executive level, as pointed out by Professor Jean-Philippe Colson in 1977: "*Le monopole gouvernemental sur la définition de la politique électronucléaire est total*", in "*Aspects juridiques de la politique nucléaire de la Vème République*", AJDA, 1977, p. 290.
  9. See Professor Jean-Marie Pontier "*De la sécurité*", AJDA, 22 May 2006, p. 1009.
  10. Bill No. 326 (2001-2002) on nuclear transparency and safety.
  11. Bill No. 3217, submitted to the National Assembly on 4 July 2001.
  12. Report to the prime minister, "*Le système français de radioprotection, de contrôle et de sécurité nucléaire : la longue marche vers l'indépendance et la transparence*", *La Documentation française*, 1998, p. 163.



assembly, was withdrawn from the assembly bureau in June 2002 before being submitted to the Senate under the name of the new minister responsible for the environment, Roselyne Bachelot.

This is the same bill that was resubmitted in 2005 to the Senate for a first reading, after an unsuccessful attempt to insert it in Title V of the 2004 Energy Orientation Act. Unsuccessful, because of the political scope of the act,<sup>13</sup> which was not the best legislative vector for the law governing nuclear activities.

It is interesting to note that the text finally submitted to the Senate was amended yet again by a letter from the prime minister, deposited with the Senate on 22 February 2006, the purpose of which was to insert an additional title, within the bill deposited, setting up an independent administrative authority responsible for controlling nuclear safety and radiation protection.

This customary procedure, not provided for under any text, derives from the right of legislative initiative and has been maintained although the 1958 Constitution recognised that the government has a right of amendment. As confirmed by the decisions of the Constitutional Council,<sup>14</sup> however, the latter right is not the same as the procedure used, since a letter from the prime minister directly amending the content of a bill already submitted has the effect of changing the text serving as the basis for parliamentary discussion. The procedure followed is therefore identical to that laid down in Articles 39 and 42 of the Constitution for the drafting, examination and voting of bills. In practice, the debate about the contents of a correcting letter takes place in the same conditions as for the initial bill, which means in particular that amendments can be made.<sup>15</sup> The difference is that it is not countersigned, which in no way affects its legality.

The bill was finally adopted on first reading by the Senate on 8 March 2006 after a declaration of urgency, and by the National Assembly on 29 March. In the meantime, the urgency was lifted and the second reading before the Senate took place in record time, ending with a vote in favour. This procedure did not fail to cause surprise and in particular to give rise to comments about the much anticipated parliamentary democracy and the type of transparency involved. Indeed, a debate which was shortened on second reading before the Senate and inexistent before the National Assembly is in contradiction with the withdrawal of the declaration of urgency, which led certain members of Parliament to speak of Parliament's role being denied, and does nothing to rectify the much criticised democratic deficit.

In addition to setting up a legislative framework for nuclear activities, the objectives of the new act are to establish important definitions at legislative level<sup>16</sup> and lay down the main principles to

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13. Act No. 2005-781 of 13 July 2005 programming the orientations of energy policy, Official Journal of 14 July 2005.
  14. "A corrective letter, signed by the prime minister, does not constitute an amendment made by the government to a bill under Article 44(1) of the Constitution, but an application of the power of legislative initiative which the prime minister enjoys under Article 39(1) of the Constitution". See Decisions No. 78-100 DC of 29 December 1978, No. 90-285 DC of 28 December 1990 and No. 2000-433 DC of 27 July 2000.
  15. For an example of the discussion of a bill involving a correcting letter, Official Journal Débats A.N., Debate of 4 June 1996, p. 3776 *et seq.*
  16. Such as nuclear security, nuclear safety, protection against ionising radiation and nuclear transparency. "Nuclear safety consists of all the technical provisions and organisational measures relating to the design, construction, operation, shutdown and disassembly of installations in which a source of ionising radiation is located, and to the transport of radioactive materials, adopted with a view to preventing accidents and mitigating their effects".

which nuclear activities are subject,<sup>17</sup> to organise nuclear information, to review the administrative framework for civilian basic nuclear installations, and to clarify and strengthen the control system and sanctions applicable.

2. It is also interesting to consider the consequences of this act as regards nuclear law inasmuch as, far from enshrining its distinctive nature, the act tends to standardise and put it on an equal footing with other branches of the law, as pointed out by the rapporteur to the national assembly in the report of 20 March 2006 which asserted that nuclear activities “are now fully governed by the ordinary law”.<sup>18</sup>

This development – born of the need to take account of new issues such as environmental concerns and the democratisation of industrial and technological choices, the increase in the number of public and also private players, and European integration – raises questions about the identity, even the very existence, of nuclear law. It was indeed clear, as from 1994, that a general nuclear act was not justified in a legal context characterised by the existence of cross-cutting environmental law provisions and other procedures of the ordinary law applicable to nuclear activities.<sup>19</sup> Paradoxically, although presenting itself as an act specific to the nuclear field, and more especially that of nuclear installations, the TSN Act in fact leads to nuclear law being absorbed by other branches, notably environmental law, and to the application of environmental principles and/or principles applying to installations classified for environmental protection purposes, considered as being general principles from which nuclear installations, no matter how special a case, cannot escape.

The desire for nuclear “transparency” has therefore given rise to an act by virtue of which nuclear law in general (I) and nuclear administrative control in particular, have lost their distinctive nature, the only particular features remaining being the administrative reorganisation of the monitoring of nuclear safety and radiation protection by the setting up of a nuclear safety authority (III) and the enshrinement in law of a legal regime applying to nuclear installations which is increasingly based on the model of installations classified for environmental protection purposes (II).

## **I. The loss of the distinctive nature of nuclear law in the concept of transparency**

The title of the act uses the concept of “transparency” which the *Conseil d’État* had rejected when examining the previous bill in June 1999. One possible reason for this is that the Conseil had simply noted that this word had no legal meaning and was more of a political term.

The reason for maintaining the reference to this concept seems to be to show the government’s desire to broaden the information to the public. It may be noted, however, that the Act of 17 July 1978

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“Protection against ionising radiation, hereinafter referred to as radiation protection, consists of all the rules, procedures and means of prevention and surveillance aimed at preventing or reducing the direct or indirect adverse effects on persons of ionising radiation, including damage to the environment”.

17. Principles of prevention, polluter-pays or participation but also radiation protection principles included in the Public Health Code.
18. Report No. 2976 of Mr. Alain Venot, member of Parliament, prepared for the Economic Affairs Commission, submitted on 20 March 2006, p. 11.
19. Report on “*Les enjeux d’une loi nucléaire en France*”, Jean-Philippe Colson et Jean-Paul Schapira, October 1994, p. 85.

which introduced a right of access to administrative documents<sup>20</sup> does not refer to the concept of “transparency”. It would, therefore, have been better to use the simple and non-contentious concept of information, but such was not the will of parliament.

The concept of transparency is based on the idea that administrative action should be public and that, in order to be applied, administrative decisions cannot remain secret. However, the call for a right of access to information and documents is more recent and originates in the idea that the public is entitled to know about decisions concerning it as well as their motives, and that the government has an interest in improving its image by opening up its files. It should be pointed out that giving access to information is also a way of garnering support for public projects.

It is, however, difficult properly to delimit this concept,<sup>21</sup> defined in the dictionary as “the condition of allowing full reality to appear”. It is not easy to require the government or any individual to apply such a definition strictly since it necessarily encounters the problem of various items of information or documents which cannot be divulged (national external or internal security, industrial secrets, etc.).

Transparency can therefore only be relative and it would be better to speak rather of a right to information and the administration’s corresponding obligation to provide information.

The TSN Act defines nuclear transparency as “all the provisions taken to guarantee the public’s right to reliable and accessible information about nuclear safety”.<sup>22</sup> Section 18 of the act confirms this approach by laying down the principle that the government is responsible for informing the public about monitoring procedures and results with regard to nuclear safety and radiation protection.

A number of provisions are designed to ensure this. They are not really innovative inasmuch as they existed already in environmental law: the right of access to information (A) and the reorganisation of information bodies (B), which have led to the drafting of legislation incorporating environmental provisions which, by their nature, are cross-cutting and therefore directly applicable, and remove the distinctive and special aspect of nuclear law.

#### **A. *Right of access to nuclear information***

The act lays down the main principles applicable to nuclear activities, principles which are well known and enshrined in environmental law. It is not, however, customary to repeat in every legislative text, albeit an act of general scope, the legal principles applicable, especially when they are not specific to it. The information principle, which the TSN Act develops more particularly, devoting

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20. Act No. 78-753 of 17 July 1978 introducing various measures for improving relations between the administration and the public, and various administrative, social and fiscal provisions, Official Journal of 17 July 1978, p. 2851.

21. See Mr. Renaud Denoix de Saint-Marc, Vice-President of the *Conseil d’État*, “*La transparence, vertus et limites*” Colloquium for the XXV<sup>th</sup> anniversary of the Act of 17 July 1978 on access to administrative documents, p. 11, available on the Internet site [www.cada.fr](http://www.cada.fr).

22. Section 1(I)(4).

title III to it, is given two aspects: the right to be informed, included in Section 2 of the act,<sup>23</sup> and the right to obtain information (Sections 19 and *et seq.*).

Enshrining the public's right to nuclear information in the act in this way is a response to the widely perceived notion that secrecy, and therefore lack of transparency, is the rule in nuclear matters. For, although the public authorities had responded to the Chernobyl accident by creating the Higher Council for Nuclear Safety and Information,<sup>24</sup> more was needed in order to address the criticisms born of the "affair of the Chernobyl cloud".

Thus, anyone, i.e. without any need for a special interest, is entitled to be informed about the risks related to nuclear activities and their impact on the health and safety of persons as well as on the environment, and releases from nuclear installations.

The distinction made between the environmental impact of such activities and of releases from installations may appear surprising. Apparently, the lawmaker wished the text to be exhaustive at the risk of its containing redundancies. It may be noted that the act lays down the principle of this right, but leaves it to implementing decrees to specify arrangements for its application.

If the principle of participation is to have any meaning, there must also be a right to obtain information. Section 19(I) of the act refers to the Environment Code as regards the procedures for obtaining information.

The only difference between this right and the one given by the Environment Code relates to the possessor of information, who may be any person, public or private, who operates a nuclear installation or transports radioactive substances, whereas the Environment Code refers only to public authorities<sup>25</sup> and not to private persons.<sup>26</sup> Thus, while the government remains responsible for informing the public about the risks related to nuclear activities and their impact,<sup>27</sup> all operators and persons in charge of transport now have obligations to disclose information too, which considerably broadens the range of enterprises concerned.<sup>28</sup>

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23. "Every person shall be entitled, on the conditions laid down by the present act and its implementing decrees, to be informed about the risks related to nuclear activities and their impact on the health and safety of persons and on the environment, and on the release of effluents from installations".

24. Decree No. 87-137 of 2 March 1987 on the Higher Council for Nuclear Safety and Information, Official Journal of 3 March 1987, p. 2385.

25. These are listed in Article L.121-3 of the Environment Code: they are the government, territorial authorities and their groupings, statutory bodies, and persons entrusted with a public service mission relating to the environment inasmuch as the information concerns the performance of the tasks involved with this mission.

26. One of the bill's rapporteurs considers the extension to information held by all operators of nuclear activities as the essential contribution of this title, see A. Venot, *Rapport fait au nom de la commission des affaires économiques, de l'environnement et du territoire sur le projet de loi relatif à la transparence et à la sécurité en matière nucléaire*, No. 2976, p. 55.

27. Section 18 of the act provides: "The government shall be responsible for informing the public about monitoring procedures and results with regard to nuclear safety and radiation protection. It shall inform the public about the consequences, on the national territory, of nuclear activities performed outside such territory, notably in the event of an incident or accident".

28. In the nuclear field, the CEA and EDF (the French national electricity company) were already concerned by the right to obtain information under the Environment Code, the former as a statutory body and the

Such a broadening is understandable given that the act gives no indication about the type of format containing the “information”, unlike the Act of 17 July 1978<sup>29</sup> which created a right of access to administrative “documents”. Here again, it imitates the Environment Code which provides that “all information available, in whatever format, shall be considered as information relating to the environment”, in speaking about information only, a term which it is not easy to define in law so as to know what types of acts are concerned by the provision.

Thus, use of the term “information” seems broad and unclear, and risks presenting difficulties of interpretation. The dictionary definition of the term, as used in the above provision, is “facts or knowledge provided or learned as a result of research or study”, without any indication as to what form this information must take (verbal, written, official, unofficial, electronic, etc.).

It may be supposed that any document, note or report containing information falling within the scope of Section 4 of the act, should be communicated irrespective of whether it is a private document or not. For, the result achieved by the new legislation, by adapting the 1978 Act by means of a few essential amendments and clarifications, is that all documents are now to be communicated. Section 19(II) of the act provides that any disputes about a refusal to communicate information shall be referred to the administrative courts in accordance with the procedures laid down by the 1978 Act on access to administrative documents, and Section 20 provides that the Commission for Access to Administrative Documents (CADA) which, as its name indicates, had jurisdiction over administrative documents only, is now also competent to rule on questions relating to access to information in the possession of nuclear operators.

This application of administrative law and administrative dispute procedures to private documents seems totally contrary to the principle of the separation of powers, and subjects private law persons to principles resulting from prerogatives which are outside the scope of the ordinary law.

However, if only public operators were concerned by these provisions, this would be contrary to the constitutional principle of equal treatment by the law. If this is not the case, it results from the act that employers with a private law status would be taking administrative decisions by refusing to communicate nuclear information and would thus be subject to the administrative courts.

This is all the more surprising in that nuclear operators are obliged to communicate information which they have established themselves but also which they have received, i.e. which they got from somewhere else.

It is, however, difficult for the public to know what information nuclear operators have received and, should the latter deny possessing any, to check whether they received it or not, when the information does not concern the enterprise directly.

The information to be communicated is nevertheless limited by subject matter, since it must concern:

- the risks related to the exposure to ionising radiation which could result from the activity,

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latter as a public person responsible for providing a public service. However, the transformation of EDF into a limited company could have given rise to doubts which are now no longer relevant.

29. The above-mentioned Act No. 78-753 of 17 July 1978 introducing various measures for improving relations between the administration and the public, and various administrative, social and fiscal provisions.

- the safety and radiation protection measures taken to prevent or reduce these risks or exposures.

The scope of application of the act with regard to information addresses the numerous expectations of environmentalists inasmuch as it also concerns nuclear installations and activities relating to defence. For, with the exception of Sections 1 (definitions) and 2 (right to information) the provisions of the TSN Act do not apply to such installations and activities, contrary to the “culture of secrecy” which was recently mentioned by the working party set up in the context of the EPR “*tête de série*” public debate in Flamanville.<sup>30</sup> However, an important first step was taken by Decree No. 2001-592 of 5 July 2001 relating to these activities and installations, Part 2 of which concerns information and sets up “information commissions” at the sites of basic nuclear installations classified as secret, and for the home ports of nuclear-powered military vessels.

Thus, we feel there was no need for a reference to the fact that environmental principles such as participation and information apply to nuclear law, or such reference should at least have been limited to an indication of the relevant provisions of the Environment Code.<sup>31</sup> As it is, the result is the continued integration of environmental law into other branches of the law while removing the distinctive nature of nuclear law.

### ***B. The reorganisation of information bodies***

Title III of the act on public information with regard to nuclear safety includes two chapters reshaping certain nuclear information players through the creation of the High Committee for Nuclear Safety Transparency, which is to replace the Higher Nuclear Safety and Information Council,<sup>32</sup> and the task of which is to help inform the public about nuclear activities and issue opinions on reforms intended to improve nuclear safety and radiation protection,<sup>33</sup> and the establishment of local information commissions (CLI).

The High Committee for Nuclear Safety Transparency is a body for information, consultation and debate about the risks related to nuclear activities and the impact of these activities on the health of persons, the environment and nuclear safety. Its task is to give opinions on any question within its field of competence and any monitoring and information relating thereto. Referrals may also be made to it with regard to information concerning nuclear safety and its supervision by the ministers responsible, the chairperson of the Parliamentary Office for assessing scientific and technological options, the chairperson of CLIs, the operators of basic nuclear installations (INB) and the chairperson of Parliamentary Commissions.

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30. See the “Access to information” report of the working group, October 2005-February 2006, which can be consulted on the Internet site [www.debatpublic-epr.org](http://www.debatpublic-epr.org).

31. The right of access to environmental information is laid down in Chapter IV of Title II of Book I of the Environment Code, the scope of which was considerably broadened by Act No. 2005-1319 of 26 October 2005 containing various provisions to bring it into line with Community law in the field of environment.

32. The decree creating this Council is to be repealed.

33. Given its composition, it may be wondered whether the High Committee has the expertise needed to give an opinion on such technical subjects as the improvement and monitoring of nuclear safety, how to control the risks of irradiation, contamination and criticality presented by nuclear installations and transport, or the improvement and monitoring of radiation protection.

The act gives this body a significant role inasmuch as nuclear safety covers not only questions of security and criminal intent but also radiation protection and the safety of the population.

The importance of its role can also be seen by the fact that it must publish its opinions and prepare an annual activity report which is also made public. Moreover, under the principle of transparency in nuclear matters, persons responsible for nuclear activities as well as the administrative authorities concerned are obliged to communicate to the High Committee any information and documents which would help it accomplish its tasks.<sup>34</sup>

It is also empowered to commission expert reports and organise debates. Doubts may be had about the type of debates in question and about the relevance of this task given what already exists in the way of public debate and modes of participation under environmental law.

Moreover, the TSN Act merely enshrines in law the existence of local information commissions.

Here again, its provisions are not innovative<sup>35</sup> but enhance the status of these commissions and confirm their role. They have a general monitoring, information and consultation mission with regard to nuclear safety, radiation protection and the impact of nuclear activities on persons and the environment.

The addition of an evaluation task in the bill had introduced a strong risk of ambiguity since evaluation should remain the exclusive responsibility of the safety authority and its inspectorates; that is why Parliament decided to withdraw this task.

The drafting of Section 22 on the CLIs confirms that there is today in French law no precise and standardised terminology concerning the information commissions or even a definition of their role, competencies and mode of financing.

Use is therefore made of what exists already for large energy installations in general and, in particular, for basic nuclear installations classified as secret (INBS), waste processing facilities on the site of each radioactive waste underground laboratory or high-risk installations.

The act simply says that CLIs must have a legal personality and be incorporated as an association but, as for the High Committee, leaves the arrangements for implementing these provisions to be dealt with by a decree of the *Conseil d'État*.

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34. Section 25 of the act.

35. It is the Prime Ministerial Circular of 15 December 1981 on the conditions for the creation and functioning of local information commissions for large energy installations (the "Mauroy Circular") which set up the CLIs, created at the initiative of the *conseils généraux*. To these general CLIs were added various specific CLIs: Article L.542-13 of the Environment Code sets up Local Information and Monitoring Committees, provided for under the Act of 30 December 1991 on radioactive waste. The local information and monitoring commissions for radioactive waste facilities (CLISs) are provided for in Article L.125-I-II.2 of the Environment Code in application of Decree No. 93-1410 of 29 December 1993 laying down the procedures for exercising the right to information, and the local information and consultation committees (CLICs) for high-risk installations were set up by Section 2 of Act No. 2003-699 of 3 July 2003 for any industrial complex including one or more Seveso ICPEs.

The act also introduces an additional obligation for the administrative authorities, namely the mandatory consultation of the CLI, if one exists, for any project about which a public enquiry is being held.

Lastly, Section 22.VII enshrines in law the possibility for CLIs to constitute a federation to represent them, although in fact existing CLIs had already created a national association of local information commissions (ANCLI) in 2000. This association meets annually, facilitating the creation of a network of relationships between CLIs and helping information to circulate more easily.

These provisions show that while nuclear transparency has led to the right to information being enshrined in law and the creation of special information bodies, the regulatory authorities did not wait for a comprehensive nuclear act to make these activities subject to particular obligations with regard to information. The principal impact of the application of the concept of transparency has therefore been the absorption of nuclear law by the branch of law closest to it, environmental law. This is equally valid with respect to the special administrative provisions applicable to nuclear activities.

## **II. Watering down administrative law on nuclear activities into law applicable to installations classified for environmental protection purposes (ICPE)**

The administrative law relating specifically to nuclear activities, and providing a legal framework for the design, operation and shutdown of nuclear facilities, is set out in Title IV of the TSN Act, which has 24 articles and whose only real innovation in relation to existing regulations is to enshrine them in law.

Accordingly, while the *status quo* with regard to the legal regime applicable to basic nuclear installations since 1963 has been maintained bar one or two amendments, the latter appear to simply restate the regulations applicable to classified installations and therefore raise doubts over the added value they bring to the act.

As noted above, while environmental law, which incorporates regulations applicable to installations classified for environmental protection purposes, addresses cross-cutting issues covering different branches of law, it also deals with interactions that automatically fall within the scope of all areas of law in accordance with the principle of integration set out in Article 130-R-2 of the Treaty of Maastricht.<sup>36</sup> Because environmental law is designed to protect public order, it applies to all installations, civil works, operations or activities that have an impact on open spaces, natural resources and habitats, sites and landscapes, air quality, animal and plant species, as well as the diversity of ecosystems which are defined as being part of the common heritage of the nation under Article L. 110-1 I. of the Environment Code and whose protection, development, restoration, rehabilitation and management are of general interest and help to meet the goal of sustainable development (Art. L. 110-1.II of the Environment Code).

There would therefore seem to have been no need to explicitly incorporate the above provisions into nuclear law or to merge two hitherto separate regimes. However, the extraordinary nature of nuclear activities is such that, in view of the environmental constraints, it was no longer possible at present to keep in place a legal regime that was considered to be a special regime for classified installations, even though there was no real intention to make them subject purely and simply to the

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36. On the concept of integration in environmental law, see Sylvie Caudal-Sizaret, *La protection intégrée de l'environnement en droit public français*, thesis submitted at Lyon III, 1993.



ordinary law for such installations. This special regime did seem to be criticised for its peculiarities, lack of a solid basis and so-called omissions.

In addition, changes in the administrative law applicable to classified installations have led to improvements in existing procedures in other areas of the law (town planning, criminal law, etc.) that had not been taken into account in nuclear law, which continued to apply the principle of independent legislations.

The TSN Act therefore provides a response to such criticism by rationalising administrative law on nuclear activities and by bringing the legal regime governing nuclear controls and disputes into line with that applicable to installations classified for environmental protection purposes (ICPE).

#### **A. *Rationalisation of administrative law on nuclear activities***

Title IV of the act on basic nuclear installations and carriage of radioactive substances does in fact provide a definition of basic nuclear installations and the legal regime that applies to them by giving legislative force to the regime arising from amended Decree No. 63-1228 of 11 December 1963 based on Act No. 61\_842 of 2 August on the control of atmospheric pollution and odours.

In general, the legal regime applicable to nuclear installations has been maintained and simply restated.

However, the licensing procedure for the creation of a basic nuclear installation will be amended as a result of the division of competences between the state and the Nuclear Safety Authority (ASN) (see section III below). Licences will henceforth be issued by decree issued once the Nuclear Safety Authority has given its opinion, and will determine solely the characteristics and perimeter of the installation as well as the deadline for commissioning. Requirements relating to the design, construction and operation of the facility, water abstraction and maximum release levels will therefore no longer be specified in the decree authorising creation but in a decision issued by the Nuclear Safety Authority and subject to the approval of discharge levels. Once these stages have been completed, the Nuclear Safety Authority will authorise the commissioning of the installation.<sup>37</sup>

Accordingly, although the procedure has been retained, it is no longer seamless but broken down into stages subject to different authorities. The same applies to the procedure for the final shutdown and dismantling of a basic nuclear installation.

It should first be noted that the wording of this title is modelled on ICPE law, whereby nuclear activities are made subject to the provisions of the act “due to the risks or inconveniences they may present to public health and safety and protection of the natural environment”.

This similarity of scope between the TSN Act and ICPE regulations required further details to be given regarding the application of different regulatory regimes (ICPE, IOTA), duly provided in Article 28 IV and V. Accordingly, the act specifies that basic nuclear installations are not subject to the provisions of Articles L. 214-1 to L.214-6 of the Environment Code, nor are they subject to the provisions relating to installations classified for environmental protection purposes.<sup>38</sup>

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37. Articles 29 and following of the act.

38. Section I of Book V of the Environment Code. In addition, these classified installations are not subject to licensing or to declaration under Article L. 1333-4 of the Public Health Code.

In addition, facilities and installations required for the operation of a basic nuclear installation and located within its perimeter, including those listed in one of the categories included in the water<sup>39</sup> or ICPE<sup>40</sup> classification, are deemed to be part of that installation and therefore subject to the legal regime applicable to basic nuclear installations arising from the act. In contrast, other facilities and installations, that is to say those which are not required for the operation of the basic nuclear installation but which are subject to water or ICPE regulations and located within its perimeter, remain subject to the provisions of the Environment Code, although the Nuclear Safety Authority replaces the competent administrative authority with regard to individual decisions concerning them (in principle the prefect).

Until now, under Article 6 *bis* of the Decree of 11 December 1963 and in conformity with an opinion issued by the State Council on 4 October 1983, solely facilities that are part of a basic nuclear installation and that constitute an element necessary for its operation, as well as installations classified for environmental protection purposes (ICPE) that have a “compelling link” with the basic nuclear installation were subject to the nuclear installations regime and to the authority in charge of nuclear safety. The purpose of the above-mentioned provision of the act is therefore to maintain this distinction while at the same time extending the jurisdiction of the Nuclear Safety Authority to all facilities and equipment located within the perimeter of a basic nuclear installation.

This change clearly obeys a certain form of legal and administrative logic and it would be reasonable to think that it will avoid potential conflicts of jurisdiction between safety authorities and inspection authorities. However, it would also be pertinent to ask why the legislator only went part-way and failed to take the bolder step of extending the basic nuclear installation regime to all facilities and installations within the perimeter of a basic nuclear installation.

With regard to the provisions of environmental law, while it is important to specify those which do not apply to basic nuclear installations, in contrast there is no point in stating those which do apply given that, unless otherwise specified, they must necessarily apply. Consequently, the act recalls, in Article 29, that the licence to create a basic nuclear installation is issued by decree following a public enquiry; the latter, however, is an instrument of environmental law that necessarily applies under the conditions set out in the Environment Code.

Moreover, administrative law relating to nuclear activities is also subject to the provisions of town planning law, according to the ICPE model, in that Article 32 of the act establishes a link between the issuing of a licence for creation of a basic nuclear installation and performance of the corresponding work, despite the principle of the independence of different legislations.

This provision is exactly the same as that applicable to installations classified for environmental protection purposes. Article L. 425-10 of the Town Planning Code states that work on a project relating to an ICPE subject to licensing cannot begin until the public enquiry has been completed, a provision recently added to the Town Planning Code under Order No. 2005-1527 of 8 December 2005 on building and planning permits.

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39. See Decree No. 93-743 of 29 March 1993, as amended, relating to the nomenclature of operations requiring a licence or declaration in accordance with Article 10 of Act No. 92-3 of 3 January 1992 on water.

40. See Decree No. 53-578 of 20 May 1953, as amended, relating to the nomenclature of establishments classed as dangerous, insalubrious or noxious establishments.

The innovation lies in the new Article L. 425-12 which states that “work” cannot be performed until the public enquiry into the application to build a basic nuclear installation has been completed. However, in our opinion, this does not mean to say that building or redevelopment permits or prior declarations of work cannot be issued before the public enquiry has been completed.

It is also worth noting that nuclear law follows the so-called high-level Seveso provisions relating to classified installations (that is to say licensed and subject to public utility requirements) with regard to the health and safety of workers.

Title IV chapter II of the act does in fact enhance the role of employees in basic nuclear installations, firstly by applying the existing preventive measures in Seveso classified installations to basic nuclear installations<sup>41</sup> and secondly by enhancing the role of the CHSWC<sup>42</sup> in basic nuclear installations by transposing existing provisions with regard to Seveso classified installations. Accordingly, the extension of the competence of the CHSWC, which until now had been restricted solely to safety in the workplace (and working conditions), to encompass nuclear safety is now enshrined in law.

This watering-down of special administrative law relating to nuclear activities into regulations applicable to installations classified for environmental protection purposes can also be seen in the monitoring and dispute-settlement procedures applicable to basic nuclear installations.

***B. Basing inspection and dispute-settlement regimes for basic nuclear installations on the regime applicable to installations classified for environmental protection purposes***

Until now, decisions relating to basic nuclear installations, and in particular decrees authorising their creation, were subject to a dispute-settlement procedure known as an annulment or appeal on the grounds of *ultra vires* action, in accordance with earlier case history of the *Conseil d'État*,<sup>43</sup> for which

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41. Such as the obligation on the head of the establishment to immediately notify the labour inspectorate and nuclear safety authority of any serious and imminent danger and to specify how he intends to respond to that danger, the obligation that basic nuclear installations have appropriate accident prevention, fire-fighting and emergency service resources at their disposal, by improving relations between the user firm and outside firms – Joint specification of preventive measures by the head of the user firm’s establishment and the head of the external firm, obligation that the head of the user firm’s establishment ensure the external firm complies with the measures that the former is responsible for applying
  42. Enlargement of CHSWC meetings held to draw up safety regulations for the establishment to include representatives of the heads of external firms and their employees (this obligation is not enforced in cases where there is a similar arrangement in the form of inter-firm committees on safety and working conditions, as is the case of EDF’s nuclear power plants), an increase in the number of members of the staff delegation and in the time for which staff representatives are assigned to the CHSWC, provision of special training for staff representatives on the CHSWC, notification of staff representatives on the CHSWC when the authority responsible for regulating installations is present so that the former can present their observations to the latter, notification of the dates of CHSWC meetings on safety to the authority responsible for regulating installations, obligation to inform the SCST of the firm’s safety policy and the follow-up given to incidents that might have had serious consequences and possibility given to the CHSWC to analyse the incident and propose measures, obligation to consult the CHSWC before deciding to sub-contract and also in relation to the internal emergency plan (PUI) and requirement that the CHSWC meet at periodic intervals and also after any accident involving an external employee.
  43. *Assemblée du Conseil d'État*, “Herr c/EdF”, 28 February 1978.

the deadline is two months following publication of the decisions or decrees in the Official Journal or their notification.

However, Article 45 of the TSN Act extends the full jurisdiction regime already applicable to classified installations to basic nuclear installations. Henceforth, the judge will be able to cancel a disputed administrative decision, amend that decision, request the addition of stricter measures or impose fines.

Besides the inherent risks in such powers arising from the complexity of the issue addressed, the constraint in using full jurisdiction is the time it takes for it to take effect.

Thus, as provided for in Article 45, decrees authorising the creation of basic nuclear installations, as well as those relating to a change of operator, modification of the boundaries of the installation or significant modification of those boundaries, as well as decrees authorising the final shutdown and dismantling of a basic nuclear installation or the changeover to the monitoring phase of a radioactive water storage facility could be challenged by a third party for a period of up to two years of their publication.

Other administrative decisions could be referred to administrative jurisdiction during a four-year period which, if necessary, can be extended to up to two years after the commissioning of the installation.

The difficulty in transposing the disputes regime for installations classified for environmental protection purposes to basic nuclear installations results in a special-rules regime in ordinary law and also in ICPE law. Consequently, the deadlines are no longer either two months or four years, but two months or two years, four years, or even six years. In addition, since the procedure has been “broken down” into several stages (decree authorising creation, Nuclear Safety Authority requirements and commissioning licence) that are to be performed at different times, the period during which the procedure could be disputed could extend over many years

These provisions could result in a loss of legal security for the firms concerned and constitute a very real threat, given that construction of a nuclear installation requires a major investment in terms of financial, material and human resources. Paradoxically, it might well be asked whether extending the rights of third parties in this way, given the complexity of the process, is genuinely capable of facilitating appeals against decisions relating to basic nuclear installations.

In terms of criminal law, the TSN Act remedies a de facto situation that is often criticised by the opponents of nuclear power, namely that the lack of legislation made it impossible to treat infringements of regulations as offences, unlike the situation with regard to classified installations (the Act of 19 July 1976 contains such provisions, subsequently incorporated into Articles L. 512-1 and following of the Environment Code).

Under Article 48 of the act, the severity of criminal penalties has been considerably increased.

The unlicensed creation or operation of a basic nuclear installation or continued operation of such an installation in violation of an administrative measure or jurisdictional decision is now punishable by three years' imprisonment and a EUR 150 000 fine. Operating a basic nuclear installation in violation of a summons issued by the administrative authority to respect a requirement or decision regarding the conditions for rehabilitation of the site is also punishable by two years' imprisonment and a EUR 75 000 fine.

Article 48 also provides for special penalties for the carriage of radioactive substances without the authorisation or approval required by the legislation in force or in violation of regulatory provisions.<sup>44</sup> While the legitimacy of such a penalty cannot be disputed in principle, it should be noted that Act No. 75-1335 of 31 December 1975 on transport and Decree No. 77-1331 of 30 November 1977 on the carriage of dangerous materials punishes the same offences. Following adoption of the TSN Act, the same offence is now punished twice

Article 48 also punishes with a fine of EUR 7 500 any refusal to provide the administrative authority with information relating to nuclear safety<sup>45</sup> or failure to publish the annual report provided for under Article 21 of the act, not allowing the public to have access to the report or using it to provide false information.

While the basic trend in French law is to punish failure to comply with the requirements it puts in place, in practice it can be seen that most of the reports that have to be drawn up with regard to the environment, notably the annual report by listed companies (report containing information on the way in which those companies take account of the social and environmental consequences of their activities)<sup>46</sup> are not subject to any legal requirement to make the report available to the general public and, in particular, that the non-disclosure of these documents (to the persons concerned and in particular the shareholders of listed companies) is not a criminal offence.

In addition, because the report must describe “the measures taken with regard to nuclear safety and radiation protection, incidents and accidents relating to nuclear safety and radiation protection, as well as the measures taken to limit growth in such events and their impacts on public health and the environment, the nature and results of measurements of radioactive and non-radioactive discharges from the installation to the environment”, the risk of an operator proving unable to fully comply with this new requirement, whose scope is fairly unclear, is particularly high.

Moreover, if provisions in criminal law are to be interpreted strictly, then there is also a risk that the format of the annual report may become set in stone as no more than an inventory serving simply as a cover with no additional analysis or discussion, thereby losing sight of its initial purpose.

Accordingly, the TSN Act does not challenge the legal regime that has applied to basic nuclear installations since 1963, but simply renews it and enshrines the integration of environmental provisions in this law, thereby undoubtedly causing it to lose its distinctive nature.

The only genuine innovation in this act is the creation of an independent administrative authority (AAI) to monitor the activities of nuclear installations, thereby responding to the desire expressed by the president of the republic,<sup>47</sup> the aim being to try and strengthen the confidence of the French people in this sector.

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44. One year’s imprisonment and a EUR 30 000 fine.

45. One year’s imprisonment and a EUR 15 000 fine.

46. Article L. 225-102-1 al. 4 of the Commercial Code.

47. “I asked the government to create, under the act on nuclear transparency, an independent authority, by as early as this year, with the task of overseeing nuclear safety, radiation protection and information”, Jacques Chirac, President of the French Republic, New Year’s speech to the Nation, 5 January 2006.

### III. Adapting nuclear law through the institutional reorganisation of nuclear monitoring

The independent administrative authority set up under Article 4 of the act, arising from the letter of amendment, is the French Nuclear Safety Authority which replaces the Directorate-General of Nuclear Safety and Radiation Protection (DHSNR) and which now shares, with the ministers responsible for nuclear safety and radiation protection, regulatory and inspection powers in the area of nuclear safety, radiation protection and public information.

This authority is modelled on existing regulatory authorities<sup>48</sup> which had been set up to regulate competing sectors or economic markets, as a result of mistrust and suspicion with regard to the traditional state whose power was contested and whose impartiality and effectiveness were challenged. In this respect, we did not feel it appropriate to compare the introduction of competition in the electricity and gas sector, which had given rise to the creation of the Energy Regulation Commission, to competition in the nuclear sector.

The institutional reorganisation of nuclear monitoring on the basis of this model therefore led to a transfer of regulatory and monitoring powers from the state to the new authority.

Accordingly, Articles 4 to 17 of the act set out the working procedures for the board of the Nuclear Safety Authority, which consists of 5 members appointed by decree,<sup>49</sup> for a six-year non-renewable term, as well as its obligations, although it is primarily the division of competences between the independent administrative authority and the government that interests us here.

Article 3 of the act, added by the national assembly as an amendment during the first reading, is fairly original in that acts seldom provide a detailed list, in a specific article, of the powers of administrative authorities, which confirms the unusual nature of this division of competences in the nuclear sector. Decisions regarding the procedures for implementing the TSN Act, the issuing of licences for the creation, final shutdown and dismantling of a basic nuclear installation are taken by decree issued by the *Conseil d'État*. Subsequently, the ministers responsible for nuclear safety and radiation protection set out, each within their own field of responsibility, the general technical regulations; in contrast, the Nuclear Safety Authority can take regulatory decisions of a technical nature to supplement the procedures for implementing decrees and orders relating to nuclear and radiation protection.

Article 4, on the other hand, defines the scope of the powers of the Nuclear Safety Authority. This covers the Authority's participation in the monitoring of nuclear safety and radiation protection inspections and the provision of information to the public in these areas. However, it should be noted that the article states that this Authority is to be consulted on the drafts of ministerial decrees and order of a regulatory nature relating to nuclear safety, which in principle lies outside its scope of competence. This wording therefore extends the competence of the Nuclear Safety Authority to nuclear safety and will pose problems regarding the division of powers between the ASN and the other administrative authorities (such as the Senior Civil Defence Official [*Haut fonctionnaire de la défense*] assigned to the Minister for Industry).

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48. For a study on independent administrative authorities, see the 2001 Report by the *Conseil d'État*, *La Documentation française, Études et documents* No. 52, p. 253 to 462.

49. Three members, including the chairperson, are chosen by the president of the republic and the two others by the president of the National Assembly and president of the Senate respectively, Article 10, paragraph 1.

Accordingly, although the Authority's regulatory competence has been restricted by the ministerial approval procedure, this division of competences may well lead to difficulties of interpretation and, as a result, extension of the powers of the Nuclear Safety Authority for which no provision had been made in the act.

While applying rules of economic public law, such as regulatory law, is more traditional in the nuclear sector, inasmuch that the rules applicable to state intervention that have always applied in the sector are based on economic public law,<sup>50</sup> the application of regulatory law that has recently emerged is a new development and raises a number of questions regarding the relevance of the application of such rules to the nuclear industry.

Indeed, the creation of an independent administrative authority in the nuclear sector which participates in the monitoring of nuclear safety and radiation protection raises questions over the creation of such an authority in an area covered by special regulatory regimes such as nuclear safety and radiation protection and even nuclear security.

It is scarcely conceivable that such an independent authority could be granted some of the sovereign powers of the state. The latter has sovereign powers that cannot be taken from it without diminishing its substance, namely those of the "minimal state" (or "state as policeman") needed to guarantee the safety of citizens in the broad sense of the term, which is consistent with a liberal vision of the role of the state whereby the state has only limited prerogatives (police, army, foreign relations and justice).

These powers necessarily belong to government or, by delegation, a central administration.

It should also be recalled that the *Conseil d'État* has issued unfavourable opinions regarding the creation of such authorities whenever it felt that certain basic principles of our administrative and constitutional organisation were at stake.<sup>51</sup>

One of the characteristics of the French institutional system is the principle whereby all state administrations are subordinated to the government, which itself is answerable to Parliament. This system is the direct outcome of the principle of national sovereignty defined in Article 3 of the 1958 Declaration of man and of the citizen, and in the Constitution which states that "The government ... shall have at its disposal the civil service".

The proposal to create an independent administrative authority in the first draft of the TSN Act was rejected out of hand in 1999 by the *Conseil d'État* on the grounds that an independent authority could not reasonably wield decision-making and monitoring powers in the areas of nuclear safety and radiation protection which are subject to special regulations, particularly if the draft legislation were to lead to a division of uncertain and inconsistent competences between the government and the authority.

Furthermore, the outcome of creation these authorities would be to remove certain sectors from the control of government in order to entrust them to so-called neutral bodies, which would contravene

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50. Energy law, which comprises nuclear law, was until now included in public law on the economy and was independent of environmental law, see in this respect Laetitia Grammatico, *Les moyens juridiques du développement énergétique dans le respect de l'environnement en droit français*, P.U.F., 2003.

51. 2001 Report by the *Conseil d'État*, p. 258.

the democratic principles whereby the civil service can only take action under the direct responsibility of elected politicians.

Lastly, the Constitutional Council, despite having validated the existence of these authorities, nonetheless provided a framework for their use of regulatory power nonetheless did not hesitate to censure legislative approvals deemed to be excessive, such as those giving the Higher Audiovisual Council (CSA) the power to lay down, by regulatory means, [...] all rules relating to institutional communication.<sup>52</sup>

There are therefore doubts over the relevance of this reorganisation. It is clearly not the independence of inspection authorities with regard to the state that is either sought or desired by citizens, but rather that of these authorities with regard to firms in the nuclear sector. Article 8, point 2, of the Nuclear Safety Convention of 20 September 1994 states that “Each Contracting Party shall take the appropriate steps to ensure an effective separation between the functions of the regulatory body and those of any other body or organization concerned with the promotion or utilization of nuclear energy.”<sup>53</sup>

While the creation of an independent authority in the nuclear sector would appear to be the outcome of the analysis of the separation of the IPSN (Institute of Nuclear Protection and Safety) and the CEA, which gave rise to creation of the IRSN (Institute of Radiation Protection and Nuclear Safety), due to the situation of the IPSN within the CEA which was criticised in 1998<sup>54</sup> for being contrary to the principle of independence of the monitoring authority vis-à-vis the parties monitored, there would seem to have been a misunderstanding in that the two situations are extremely different. The IPSN had indeed been set up within the CEA<sup>55</sup> and the criticisms voiced in this regard related to the lack of independence between the monitoring authority and an operator being inspected and not between the latter and the state.

Lastly, the creation of an independent administrative authority for monitoring purposes in the nuclear sector seems to be an attempt to adapt the law to the reality of the situation, due to the decline in state intervention which had characterised nuclear law since 1945 as a result of the privatisation of certain firms in the sector.

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The decline in the distinctive nature of nuclear law began with the accident at Chernobyl in 1986 and the shift in public life towards a democratisation of scientific and technological choices. However, nuclear law has always been a case apart in view of the activities to which it applies (considered to be of strategic importance), a situation outside ordinary law that is only partially maintained by the TSN Act.

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52. Decision No 88-248 DC of 17 January 1989 for the CSA, Rec., p. 18.

53. Namely the operators of all types of nuclear facility.

54. Report to the prime minister, *Le système français de radioprotection, de contrôle et de sécurité nucléaire : la longue marche vers l'indépendance et la transparence*, by Jean-Yves Le Déaut, *La Documentation française*, 1998.

55. Under the Order of 2 November 1976, Official Journal of 4 November 1976, p. 6408.



Since nuclear regulations appear to take second place to environmental law, the necessary account taken of environmental concerns is tending to water down nuclear law into environmental law instead of preserving its own distinctive nature. The danger here is that environmental administrative authorities will take control of nuclear law, which may well lead to an approach whose ultimate objective would be non-renewal of the nuclear option in the long term.

So the development of nuclear law, which has always been in advance of law in other sectors, might find itself stopped in its tracks, despite the fact that right from the outset it has addressed the protection of persons and the environment against the intrinsic risks in activities in the sector. The concept of sustainable development has also led to the incorporation of environmental concerns into nuclear law, through the concepts of precaution, irreversibility and sustainability.

It should nonetheless be noted that nuclear law is fighting back against its watering-down in other areas of law on the grounds of the particularities of the activities it regulates, which the development of special nuclear law would seem to confirm.

Besides use of the concept of “transparency”, which is more of a media term than a legal concept and which implies that earlier practices were highly opaque, it is astonishing to see the number of repressive measures that have been put in place, clearly driven by a highly focused and discriminatory desire for severity towards nuclear activities as opposed to other high-risk industrial activities, despite the fact that nuclear energy has ensured the energy independence of France for over thirty years and that its relevance has been enshrined in the Planning Act No. 2005-781 of 13 July 2005 on the future directions for energy policy.

If the provisions of the TSN Act really are relevant to the risks posed by nuclear activities, then there are very good grounds for asking why equivalent risks (chemical, biological, etc.) should not be treated in the same way. In which case, nuclear law could be viewed as the “mother law” for environmental law and more generally law on industrial activities.

# **Revised Paris and Vienna Nuclear Liability Conventions – Challenges for Nuclear Insurers**

**by Mark Tetley\***

## **Abstract**

The revisions recently implemented to both the Vienna and Paris nuclear liability conventions are intended to widen significantly the amount and scope of compensation payable in the event of a nuclear accident. Whilst this is a laudable objective, the final extent of the revisions leaves nuclear site operators and their insurers with greater uncertainty as a result of the wider and unquantifiable nature of some aspects of the revised nuclear damage definition, in particular where reference is made to environmental reinstatement and extended prescription periods.

Incorporating broader definitions in the convention revisions will therefore leave gaps in the insurance cover where insurers are unable to insure the new, wider scope of cover. If no insurance is available, then the liability for the revised scope of cover must fall upon either the operator or the national government.

This paper gives an overview of where and why the major gaps in nuclear liability insurance cover will occur in the revised conventions; it also examines the problems in defining the revised scope of cover and looks at where these unquantifiable risks should now reside, to ensure there is equity between the liabilities imposed on the nuclear industry and those imposed on other industrial sectors.

## **Introduction**

The foundation for almost every nuclear liability regime in the world today has been provided by two international conventions – the OECD’s Paris Convention of 1960 and the UN’s Vienna Convention of 1963. The contents of these conventions were drawn from various national laws that had been drafted to accommodate the rise of the civil nuclear industry in the 1950s and the special risks this new industrial sector brought with it. In return for an onerous obligation of absolute and strict liability, nuclear site operators received a temporal and financial limit to their liability that enabled them to approach the conventional private insurance market to transfer the risks inherent in the total but limited liability obligation placed upon them. Whilst there are subtle national variations in emphasis and detail, in broad terms the concept that operators have a absolute liability that is restricted

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in most dimensions has permitted the involvement of private capital in the development of the civil nuclear industry and has allowed us today to benefit from the situation where nearly one-fifth of all electricity in the world is nuclear generated.

The nuclear industry is not alone in having obligations placed upon it; most industries that have the potential to cause substantial off-site human injury or physical damage are obliged to provide some form of liability cover to assist with the compensation of any victims following an accident. However, as we find ourselves at the beginning of the 21<sup>st</sup> century, society in general is more demanding and aware of what “rights” people feel they should have and those rights relating to the environment have become a high priority. As a consequence, large industrial operations have become objects of suspicion and, in some cases, vitriol; this changing public perception has inevitably passed through the democratic institutions to influence lawmaking and now the majority of developed world industrial liability legislation is leaning towards a much more onerous “polluter pays” principle. Whilst the general principle is a laudable one, some aspects of newer or proposed legislation is ahead of appropriate market mechanisms to deal with the liability and industries are finding themselves shouldered with untransferable liabilities that could burden their balance sheets and hamper innovation and development. It must be hoped that market mechanisms can develop over time, but at present the insurance industry is struggling the world over to provide for the new risks presented by unquantifiable environmental liabilities due to be imposed upon a multitude of industrial sectors.

This, then, is the context in which the nuclear liability conventions were recently revised. Perhaps it was to be expected for an industry that suffers such a poor perception and apparently unshakeable link to weapons and dangerous “waste”, but the revised conventions significantly broaden nuclear operators’ already onerous responsibilities and will stretch the insurance markets to provide the risk transfer hitherto enjoyed. The imposition of greater liability comes at a time when the nuclear industry’s improving safety record and innovative new designs make the risk of a major accident with off-site implications ever smaller. Nevertheless, some aspects of the revisions made are sensible and take account of developments such as inflation and a greater awareness of what action might be required following a major nuclear accident – experience gained as a result of the Chernobyl accident, whose 20<sup>th</sup> anniversary we have just “celebrated”.

### **The Nuclear Liability Convention Amendments**

The changes made to the Paris Convention in 2004 largely mirror those made in 1997 to the UN’s Vienna Convention and for the purposes of this paper the major changes affecting both will be covered; the changes are neatly encapsulated by the OECD’s 2004 publicity that hailed the revisions as offering “more financial compensation, to more people, for a wider range of nuclear damages”. In brief the changes are as follows:

#### ***Increased amounts of financial obligation required***

The 1997 amendment to the Vienna Convention raised the operator’s financial obligation from 5 million US dollars (USD) to 300 million Special Drawing Rights (SDR), whilst the 2004 Paris Convention revision raised its obligation from SDR 15 million to EUR 700 million. The Brussels Supplementary regime adds a further EUR 800 million on top of the Paris/Vienna regimes, thereby taking the maximum financial compensation available up to EUR 1 500 million (in the case of the combined Paris/Brussels arrangements). The part that is of interest to the insurance market is that first layer of cover – the EUR 700 million for Paris and SDR 300 million for Vienna, as this is what is

normally subject to insurance. The change, in the case of the Paris revision, is a 38-fold increase in the operator's obligation – probably justified but substantial nonetheless.

### ***Increased temporal obligations***

Both conventions have increased the temporal obligations of the operator (the caducity period) – the situation prior to revision was that no claims could be brought against the operator for nuclear damage once ten years had elapsed from the date of any nuclear incident; this applied equally to both bodily injury/death and other types of physical damage. The situation is now that both conventions permit claims to be brought against the operator for up to 30 years after the incident for bodily injury or death, although the ten-year period remains for other types of nuclear damage. The convention offered the flexibility for governments to extend this period of caducity if they desired and indeed some governments took this opportunity; however, notwithstanding this the private insurance market has not extended its period of indemnification beyond ten years. The amount of time available to make a claim once nuclear damage becomes known or is discovered (the prescription period) is now three years for both regimes – this represents no change for the Vienna Convention but an extension of one year for the Paris Convention.

### ***Increased scope of liability***

The most fundamental changes to the conventions are those relating to the scope of liabilities for compensation. The concept of nuclear damage was common to both conventions as the triggering cause for compensation; the difference between the two regimes was that Vienna defined nuclear damage whereas Paris did not. Defined or not, nuclear damage under the old arrangements was largely limited to damage to or loss of life of any person and damage to or loss of any property. There was some flexibility in the interpretation of the concept, particularly in the case of the undefined Paris Convention and, for example, with the UK's precedent based legal system, some direct economic damage was considered to constitute nuclear property damage. But in broad terms, the compensation offered was quite narrowly defined.

The revisions to both the Paris and Vienna Conventions now widen the scope of nuclear damage from the original, basic loss of life or injury, damage to property to add the following:

- economic loss arising from loss or damage;
- the costs of measures of reinstatement of impaired environment (unless such impairment is insignificant);
- loss of income deriving from an economic interest in any use or enjoyment of the environment, incurred as a result of a significant impairment of that environment;
- the costs of preventive measures, and further loss or damage caused by such measures; any other economic loss, other than any caused by the impairment of the environment.

It is immediately obvious that any nuclear plant operator with a site in a country that adheres to either of the two convention regimes now will have a much wider range of nuclear damage obligations than before, some of which will perhaps take many years to decide whether they are valid or not in a court of law. In discussions, the convention drafters and commentators of course expressed the intent that the new scope of cover is not intended to be too broad, but the worrying lack of defined liability

obligations leaves a large degree of uncertainty for both victim and operator. This can not be satisfactory when measured against the original convention objectives and the revisions may also mark a step away from the objective of legal harmonisation among both sets of convention states.

### ***Changes to the geographical & jurisdiction arrangements***

Further amendments have widened the geographical scope of the conventions, which are sensible as various anomalies existed under the old arrangements. In particular, the conventions restricted compensation to the signatory states, which clearly was somewhat of an injustice to those affected by the same nuclear damage but who resided in a non-signatory state! Jurisdiction can now extend under the new arrangements to include courts of a primarily affected state (this would presumably be in the event of a transport accident) instead of the contracting party. However, in the majority of cases, jurisdiction remains with the contracting party where the site causing damage is located.

This, then, is a brief overview of the material changes to both conventions. Before moving onto analysing these amendments in the context of insurance, it is necessary to understand a few basic concepts of insurance.

### **Basic concepts of insurance**

Most forms of insurance are based on a few simple principles:

#### ***Insurable interest***

The legal doctrine of *insurable interest* requires that the person to be covered by insurance should have a current financial interest, recognised in law, in the thing or event to be insured.

#### ***Premium analysis and loss expectation***

The financial consideration (or premium) paid to the insurer in return for the transfer of risk is the result of extensive analysis and often significant actuarial work. Previous and expected loss events, theoretical and actual risk assessments and prevailing market expectations of capital return and use are all aspects used to set premiums. However, underwriters therefore can only predict losses that are foreseeable because science or technology has recognised a causal link between the risk and the harm.

To predict claims from a harm that is not known to science or technology at the time the policy is issued is impossible; premiums cannot, therefore, be calculated with the same degree of reliability and it will introduce the potential for more volatility within a portfolio and this will greatly affect the appetite of an insurer for developing products for such events.

#### ***Certainty of exposure***

In addition to the analysis required to calculate a premium, insurers also need to assess the amount of capital to commit to the risk being transferred and how much is likely to be exposed to loss; this may not just be the consequences of a single loss, it may also be an accumulation of losses

through the aggregation of multiple policies arising from the same consequence. Some certainty of exposure is therefore important for an insurer.

### ***Fortuity***

Any insured event must be fortuitous and it must not be immediately predictable. Insurance only provides protection in circumstances where the loss is accidental; policies do not cover the consequences of the normal operations of a business, especially when the loss arises from an activity it has been specifically authorised to undertake. Such losses would be considered to be inevitable and beyond the scope of insurance.

### ***Proximate cause of any loss***

Insurers need to be able to establish a clear link of causation between the insured damage suffered and the identified incident. For example, in the case of cancer, where approximately one third of mankind are likely to contract cancer at some stage in their lives as the result of a multitude of causes (many of which remain unknown), it is difficult to separate out the individual cause of the disease as being the one liable for recovery under insurance. Therefore, to link directly and successfully cancer to a specific event is by no means certain; what is certain is that to do will incur substantial legal costs and would take some time. From both the victim and insurer's perspective, this is an unsatisfactory arrangement; for the insurer such lack of certainty makes setting a premium impossible, particularly when a substantial temporal delay in claiming is a possibility.

### ***Anything is insurable***

Finally, it is important to dispel one of the great myths of insurance; there is a widespread belief that anything is insurable. This is not the case and never has been and as noted above, there are a number of prerequisites for insurability that determine the willingness of insurers to offer cover. In simple terms, general insurance exists to protect people and businesses against the consequences of an accident. It may be a theft of stock, a road accident or injury suffered by a visitor to the premises. However, all policies contain some exclusions and many liabilities faced by a business are not insured; these must be accepted as the risks inherent in running a business. The list is very long indeed but includes:

- many contractual obligations;
- customer rejection of products;
- certain types of environmental pollution;
- deliberate non compliance with laws or regulations;
- the inevitable consequences of deliberate or reckless behaviour;
- acts of war.

Therefore, insurance is not a substitute for risk management, it complements it. Businesses that show a disregard for the property of others, the environment or the welfare of employees or neighbours cannot pass the responsibility to an insurer.

To summarise insurers require certainty of exposure and financial interest, fortuity of the insured event, clearly defined indemnity and an immediate and proximate link between any loss event and the insurance. All types of liability insurance provide more of a challenge to insurers, as some of these basic requirements are sometimes compromised and the more this is the case, the more difficult it is for insurers to price and accept the risk.

### **The Convention Amendments in the context of insurance**

Before investigating the specific challenges presented by the revised conventions, some further comments on the general state of the current insurance market are useful. It is important to remember that insurance is possible thanks to the provision of private (as opposed to state) capital and as such it is exposed to the prevailing business climate; the insurance market is one of the more pure supply and demand driven markets operating today, with considerable freedom for businesses to access and leave the insurance sector. Therefore, our stakeholders are highly critical of the sector performance and capital will quickly leave if conditions or returns do not meet expectations. In this context, the following factors are important when considering the ability of insurers to provide nuclear operators with insurance for their obligations.

#### ***Availability of capital***

The economic climate affecting the insurance and reinsurance industry has changed significantly in the last few years. The traditional image that insurers and reinsurers have a limitless supply of capital is very wide of the mark.

All liability insurers require the support of capital providers to operate. Due to a combination of factors (the World Trade Centre attacks, asbestosis, the fall in equity markets and the 2005 season of severe hurricanes in North America), a substantial amount of capital has left the industry. Capital is now a scarcer commodity and insurers are becoming increasingly careful of how it is allocated to their various lines of business.

At the same time, shareholders are now becoming much more cautious about how the capital they provide will be utilised; shareholders are increasingly concerned about the implications of insurers underwriting what is often referred to as “long-tail” business, a term that includes liability insurance. This concern has been exacerbated by the massive damage inflicted in many liability markets by asbestos and other long-term industrial diseases.

The consequence is that shareholders demand either:

- a better rate of return on their capital than in the past, driving up premium rates; or
- a desire to deploy their capital and “risk appetite” elsewhere, especially when considering what are perceived to be unattractive liability risks.

The issues surrounding capital are likely to be compounded further when the proposed EU solvency requirements are implemented – placing greater strain on the system as more capital is likely to be required to support many types of insurance. The impact on premiums, capacity and appetite for established product lines is difficult to predict, but is unlikely to encourage the development of new covers or increased capacity in perceived problem areas.

### ***Regulatory requirements***

In the past few years, there has been an increase in regulatory activity and control of the insurance industry to protect the interest of consumers. There has been a tightening of control and senior executives now have personal accountability for the corporate performance of the insurer they represent; corporate governance procedures will be substantially increased and insurers will need to be able to demonstrate to regulators that they have the highest standards of research and development and the underwriting competence, before offering products. This will mean that the historical practice of insurers responding to new opportunities will develop differently and only in circumstances where an insurer has absolute confidence in their ability to properly assess and quantify risk will insurance products be made available.

On the positive side, the effect will be that industry will be much better managed and be more financially secure. On the other hand, insurers are becoming much more selective in the markets in which they wish to operate, the customers to whom they wish to offer products and the products they make available. This is particularly relevant to the nuclear insurance sector, as the risk is often not well perceived by insurers and as a consequence insurers may avoid difficult risks.

### ***Capacity***

Even without the proposed changes to the nuclear liability conventions, a more selective insurance industry offering insurance products at economically viable prices could well result in fewer insurers providing capacity. Indeed, there may well not be a sufficient number of insurers to satisfy the overall demand; this could result in some businesses being unable to purchase the insurance through no fault of their own. Those able to do so could well find the cost of the insurance to be considerably more than have they historically become accustomed to.

### ***Specific difficulties relating to Nuclear Insurance***

The risk faced by nuclear insurers of both third party liability and physical damage is mostly of a catastrophic nature (i.e. any loss event is more likely to be financially expensive, but infrequent). The maximum loss expectancy is for a total nuclear plant loss requiring a full payment under the physical damage policy and widespread radioactive contamination causing many thousands or even hundreds of thousands of claims to be made against the operator for off site damage, leading almost certainly to exhaustion of the third party liability indemnity limit provided by insurers. It is to the remote possibility of this event that insurers commit their capital.

However, insuring the nuclear industry is very different to insuring other businesses; there are very few other single risks that could produce such a severe loss from a single site; perhaps some chemical or oil facilities are the only comparable risks in the world. Much more importantly, as has been previously described, insurance works on the basis of insurers assessing many of hundreds or thousands of risks and using the loss experience from a wide sample of risks to calculate with a realistic premium. The nuclear industry does **not** have a large number of risks, there are around 500 sites in the world and certainly not all of these are insured; the premium produced is therefore relatively low (between USD 400 and USD 600 million annually) so insurers have relatively little data on which to base premium and loss assessment. There is a substantial amount of theoretical loss data available from the nuclear industry, (for example some of the site probabilistic safety analysis studies) and this has proved to be very useful to insurers. However much of the modelling and premium assessment is done on an actuarial and theoretical basis rather than using real data. The inherent



uncertainty of this methodology makes many insurers even more reluctant to commit their capital to nuclear risks.

The above noted factors have set the scene for the operation of developed insurance markets in the early part of the 21<sup>st</sup> century; understanding the prevailing market conditions help when considering the difficulties presented to financial markets as a result of the material changes to the nuclear liability conventions. The revisions will now be analysed in some detail from the point of view of the insurance market.

### ***Increased amounts of financial obligation required***

It is the intention of insurers to provide the new, higher amounts of EUR 700 million/SDR 300 million, although this will be challenge as the new amount exceeds the maximum available capacity currently available; however, the lower risk site and transport amounts should be easier for insurers to provide for. The reason that insurers are hopeful that the limit can be ultimately provided is because limits in some countries are already quite high. The table below shows some examples:

<b>Country</b>	<b>Currency</b>	<b>Liability limit</b>	<b>Currency units per USD</b>	<b>USD equivalent liability limit</b>
<b>Japan</b>	JPY	60 000 000 000	116	517 241 379
<b>Sweden</b>	SDR	360 000 000	0.697	515 880 000
<b>Switzerland</b>	CHF	1 000 000 000	1.32	757 575 757
<b>United States</b>	USD	300 000 000	1	300 000 000

Although none is currently higher than the proposed new Paris Convention limit, the Swiss limit is already close to the revised liability limit and with efforts to secure further capacity, the revised limit probably can be achieved; however, achieving such a limit from the insurance market will be dependent on restricting the scope of cover.

Governments should be aware that more certainty of the bounds of exposure for insurers in all respects of the imposed liability will result in a higher amount of insurance being available. For example, if the full scope of the convention revisions was imposed upon operators, then little or no insurance will be available as some heads of nuclear damage are uninsurable; if the scope of cover is restricted as recommended in this submission then the minimum limit of compensation should be available.

### ***Increased temporal obligations***

Currently, the insurance market finds offering cover for more than ten years unacceptable, owing to a number of factors:

- The insurance market's loss history from so called "long tail" liability insurance (i.e. where insurance exposure is not extinguished after a period of a few years) has been very poor and it continues to be a challenging environment. The woes of insurers worldwide who have suffered losses caused by asbestos have been well chronicled, and other similar lines of business are showing equally limited promise. Capital is therefore scarce for

liability business as shareholders become more reluctant to commit to risk that has a long term and uncertain exposure.

- The basic insurance principle of quantifying risk and exposure is also challenged the longer a policy is valid; second guessing future societal problems in an increasing litigious climate is something that more and more insurers and their shareholders are wary of. Ten years continues to represent the maximum time commitment most insurers are prepared to commit to.
- A further consideration for any claimant who intends to claim on an excessively “old” policy should be the security and solvency of the private sector insurer concerned; trying to make a claim after 15 or 20 years have elapsed is an expensive and not always successful exercise; there is a much greater guarantee of reliable payout from a policy with a caducity of ten years or less.

Today, few general non-life insurers are prepared to offer more than ten years for any policy; this limitation has been accepted by governments and policymakers globally for other lines of insurance. The situation for the provision of insurance for nuclear liability is no different than for general insurance, except that it probably suffers from a poorer perception. The maintenance of the current ten-year prescription will enable insurers to continue subscribing capacity towards the new limits.

### ***Increased scope of liability***

The revised conventions’ scope of cover continues to provide the already established protection based on civil law which has hitherto been insurable by the private market. However, the revised text also now adds significant public law protection, which is generally not insurable. Furthermore, both the revised conventions and the explanatory *exposé des motifs* of the Paris Convention are somewhat ambiguous; some of the decisions regarding heads of damage appear to be left to the discretion of the national competent court, while elsewhere such discretion seems to be disallowed. This ambiguity and combination of insurable and uninsurable damage could lead to confusion and therefore careful drafting of definitions and legislation will be required to ensure operators and insurers are able to quantify at what point liability attaches.

Each category of nuclear damage will be commented upon separately.

#### *1. Loss of life or personal injury*

This category of nuclear damage is unrevised; as such it presents no problem for insurers and therefore operator’s liability insurance for this coverage can continue.

#### *2. Loss of or damage to property*

This category of nuclear damage is also unrevised; as such it presents no problem for insurers and therefore operator’s liability insurance for this coverage will continue.

The extent of the remaining heads of nuclear damage described in the revised conventions is to be determined “by the law of the competent court”. In addition to the difficulties for insurers noted below within each individual head of damage, the possibility of any rogue decisions of the competent

court or other authority causes insurers considerable concern; insurers can not allow their capital to be exposed to the whim of an emotionally charged court deciding on what constitutes nuclear damage following a major nuclear event. In addition, the decisions reached by the relevant adjudicators must be seen to be equitable and well informed if the competent court is to retain its credibility with all interested parties.

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*

This category of nuclear damage, while not explicitly mentioned in the text of the 1960 Paris Convention, is assumed to be insured at present. The 1963 Vienna Convention always had a more broad definition of nuclear damage, so again under this regime, some aspects of economic loss could have been subject to compensation and insurance. The revised conventions themselves state the necessity of a clear economic interest in the property damaged before this head of cover can be triggered. However, it is essential that there is a clear, defined and direct link between the economic loss and the nuclear physical damage loss before compensation for this type of damage can be considered by insurers. Only when there is direct and quantifiable economic interest associated with the physical damage can insurers assess the risk of liability arising from this damage, thus any definition or clarification of this nature in the proposed legislation would be of benefit to operators, insurers and claimants alike; conversely any weakening of this link or ambiguity in definition could cause the withdrawal of insurance support for this cover.

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*

This category of nuclear damage is not insurable at present; this is not a comment on the nuclear nature of the damage but a position adopted by the global insurance market. **Almost all forms of environmental liability are currently uninsurable**; these are the principle reasons why:

- Environmental liability does not pass the test of providing an “insurable interest”; any risk under consideration must be capable of financial quantification and evaluation. The Convention argues that, because remedying environmental damage has a cost, that this aspect of nuclear damage can be imposed upon the operator. This is not sufficient for insurers: the time taken to remedy environmental damage could be years or decades, the standard and quality of any remedy of damage would be the subject of lengthy and emotional debate providing a large range to the potential cost, the pre-existing standard of the damaged environment would also be open to debate and future regulatory requirements could dramatically alter the scope of the remedy and thus alter the cost; all these factors render environmental damage unquantifiable and thus uninsurable.
- There is no direct economic interest in the environment and, once again, it is impossible to provide an “insurable interest”.
- It is difficult to establish what environmental damage occurred at what stage, so making a polluter pay for his or her own pollution is not always possible; this discrepancy prevents the introduction of any insurance.
- Similarly, diminution of land and property value by environmental damage is difficult to pin down to a particular source, making insurance evaluation impossible.

- The use of the words “unless insignificant” as an attempt to restrict action under this damage is also open to confusion and debate; the word “insignificant” is not defined in the convention text and is thus open to national court decisions. This too adds a further element of uncertainty to this particular aspect of nuclear damage.

In simple terms, insurers need to be able to assess financially the probability and severity of any claim before reaching a premium – such analysis is not possible with environmental damage because of its unquantifiable nature. This reaction is consistent with insurance markets across all types of liability business in all countries. The EU Environmental Liability Directive contains similar provisions and several governments have already accepted the arguments against insuring environmental liability damage presented by the general market insurers and the European Insurers’ Committee.

In summary, the nuclear insurance market regards this aspect of nuclear damage uninsurable and therefore will be unwilling to provide any capital to support this type of risk.

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*

This aspect of nuclear damage contains an insurable aspect but also an ambiguous and undefined concept that is therefore uninsurable.

The similarity between the economic interest in this head of damage and that contained in (3) above means that direct economic damage can be insured but with strict conditions as, under this type of nuclear damage, the connection between economic damage and property owned has been severed; instead in this case economic damage can be caused as result of damage to an environment whose use is of economic benefit to someone or even whose use is of **enjoyment** to someone. The insurable aspect of the damage under this type of damage can only be provided in the event of direct economic loss as a result of nuclear damage to a **direct and protected interest to the environment** and only for the value of the protected interest; all other damages under this head of cover fail as having insufficient and thus unquantifiable insurable interest.

6. *The costs of preventive measures, and further loss or damage caused by such measures*

This aspect of nuclear damage is only insurable insofar as it covers the direct economic costs of any preventive measures; therefore measures relating to evacuation and other immediately measurable costs following nuclear damage are insurable. However, any speculative preventative measures relating to the environment or indirect economic activity are uninsurable. Ensuring a clear definition of precisely what is and what is not insurable will be challenging, but it is anticipated that the majority of damage suffered by victims through evacuation and associated disruption following that evacuation as a result of nuclear damage will be insurable.

*Other definitions*

The remaining definitions relating to nuclear damage offered by the revised Paris Conventions do not offer insurers or operators much comfort; they are ambiguous and do not offer any measure of quantification that is of benefit to insurers. Instead measures are left to the whim of the courts and

government, both of whom will be open to emotional influences when deciding liability and any quantum associated.

In summary, the insurers' position with regard to the newly defined and broadened concept of nuclear damage is as follows:

Loss of life or personal injury	Insurable
Loss of or damage to property	Insurable
Economic loss arising from loss or damage	Insurable for direct and quantifiable damage
The costs of measures of reinstatement of impaired environment	Not insurable
Loss of income deriving from a direct economic interest in any use or enjoyment of the environment	Only insurable to the value of a direct and protected economic interest in the environment
The costs of preventative measures, and further loss or damage caused by such measures	Insurable only for the direct and quantifiable aspects of damage, as assessed and controlled by the relevant insurers

### **Changes to the geographical & jurisdiction arrangements**

The limiting of jurisdiction to the state where the nuclear incident occurred is of some comfort to insurers and although there is a broadening under the revised conventions to include actions for damages brought in other countries, it is apparent that in most cases the ultimate jurisdiction rests with the "nuclear" state. However, the prospect of finding the competent court subject to a more hostile, potentially anti-nuclear environment following the trans-boundary spread of nuclear damage would alarm insurers and cause them to withdraw capacity for this type of insurance.

Therefore revisions to the conventions are of material interest to insurers as they open up a wider spectrum of nuclear damage and leave insurers with aspects of cover that can not be easily quantifiable. It is likely that insurers will not be able to provide insurance for many of the new heads of damage and this leads us to the question of how these obligations should be covered.

### **Who should provide compensation for the uninsurable aspects of the revisions?**

There are likely to be several different solutions to provide for operators' obligations that are uninsurable. This is a further undesirable consequence of the revisions, given that one of the key objectives of the nuclear liability system was greater harmonisation. Some governments may accept the new heads of change automatically and for free; others may charge operators for taking on the liabilities, whilst others may simply leave the liabilities with the operators, and their balance sheets.

Personally I would favour the first option, as precedent has already been set for this in many countries with the uninsurable aspects of the existing conventions; the second option is difficult as striking a price for the transfer of risk will be difficult, especially as we insurers have admitted that these aspects of the conventions are currently unquantifiable. The third option does not seem fair to operators – the regime makes liability strict and absolute and it is not an equitable deal if operators then have to shoulder the burden of societal or emotion driven risks. What insurers would wish and

hope for is that governments are able to agree a **consistent** response, so that the hopes of the original drafters of the nuclear liability regimes come closer to being realised through greater harmonisation and therefore certainty for any nuclear accident victims.

## **Conclusion**

Making an industrial “polluter” pay more money to more people is a fair objective for any government, but to impose such a regime on the nuclear industry without restricting the danger posed by these obligations threatens the delicate equilibrium that has allowed insurers to support the nuclear industry throughout its development.

The financial uncertainties introduced by the new heads of cover under the revised conventions will cause a reduction in insurance cover unless a consistent approach is found to deal with the unquantifiable risks imposed upon the nuclear operators. An inconsistent approach will lead to a fragmentation of the existing legal and insurance arrangements, which in turn will compromise the original convention drafters’ objectives of legal harmonisation and an equitable and certain route to compensation for nuclear accident victims.

# CASE LAW AND ADMINISTRATIVE DECISIONS

## CASE LAW

### France

#### *Judgement of the French Supreme Court (Cour de cassation) on the Reprocessing Licence for Australian Spent Nuclear Fuel (2006)*

On 7 December 2005, the French Supreme Court handed down the its definitive judgement in the litigation between Cogema and Greenpeace concerning the Australian spent fuel from ANSTO (Australian Nuclear Science and Technology Organisation), stored at the La Hague site pending its reprocessing (see *Nuclear Law Bulletin* No. 76).

Greenpeace demanded that an end be put to the storage of spent fuel imported from a research reactor operated by ANSTO pursuant to the terms of a contact with Cogema for its reprocessing. It claimed that this material was waste pursuant to Article L. 542.2 of the Environment Code which provides that “the storage in France of imported radioactive waste, even if it has been reprocessed on national territory, is prohibited for any period longer than is technically required for reprocessing”. Cogema contended, for its part, that this material does not fall within the scope of Article L. 542.1 of the same code, and then it was not necessary to obtain a reprocessing licence, in addition to the administrative licence it already obtained to store this spent fuel.

The Supreme Court considered that spent fuel, stored pending its reprocessing and destined for final reprocessing is waste pursuant to Article L. 542.2 of the Environmental Code. The court confirmed that this article applies also to spent fuel.

Finally, the court considered that reprocessing is an operation carried out on the material itself and that the storage, although necessary for cooling, cannot be considered as a step in the reprocessing. In the absence of a reprocessing licence, Cogema could not justify the timeframe necessary for reprocessing, and therefore was subject to the general prohibition on storing imported radioactive waste.

The court therefore rejected Cogema’s appeal in this case.

## Germany

### *Judgements on the Konrad Repository Project and on Intermediate On-site Storage Facilities for Spent Nuclear Fuel (2006)*

1. In judgements dated 8 March 2006, the Higher Administrative Court of the *Land* of Lower Saxony (*Oberverwaltungsgericht*) rejected actions brought by several municipalities and two farmers against the land planning decision of 22 May 2002 authorising the construction and operation of the former ore mine *Konrad* as a repository for low and medium level radioactive waste and against the accompanying authorisation under applicable water legislation [OVG Lüneburg U. 08.03.2006, 7 KS 128/02, 145/02, 146/02, 154/02]. While the actions of the municipalities were rejected as inadmissible, the actions of the farmers were dismissed as unfounded.

The court ruled that the land planning decision does not infringe upon the rights of the municipalities. The project does not touch upon the municipalities' rights of land planning, nor does it affect their rights as operators of municipal facilities or as land owners. This assessment applies equally to the actions brought by the farmers.

The court further considered that the administrative procedure was properly conducted. It is uncertain whether the doubts put forward by the plaintiffs regarding the necessity of pursuing the project may be satisfactorily dealt with in a legal procedure. The necessity of the project clearly follows from the fact that there already exist considerable quantities of radioactive waste, which will increase in the future, and from the legal obligation of the federal state to erect and to operate a final disposal facility for radioactive waste. The need for the repository cannot be denied by pointing at the existing on-site waste storage facilities or by arguing that one single radioactive waste repository for Germany is the preferred solution or by stating that alternative sites for the repository had not been sufficiently explored. The land planning authority concluded that the site is suitable and that, in accordance with the state of science and technology, all necessary measures to prevent damage and the risk of damage were taken. The court is only entitled to appraise whether this decision of the authority is based on the relevant facts and data and whether the safety assessment follows a sufficiently cautious approach. The court confirms that.

The court considered that the deliberations of the competent authority demonstrated that the radiological exposure of the population in the vicinity of the repository, even in a worst case scenario, would be considerably lower than the prescribed dose limits. Preventive measures against incidents and accidents are adequate. Transport of waste is not covered by the land planning decision but will be regulated by separate licences. With regard to the protection of future generations, long-term safety does not require proof that the disposal will be risk-free forever. Developments which may occur in several hundred thousand years' time cannot justify an action today against an administrative decision.

The court also ruled that it is not correct to state that terrorist acts, such as an intentional plane crash, have not been sufficiently considered by the authority. There are doubts as to whether the Atomic Energy Act is applicable to severe terrorist acts. Such dangers and risks are not inherent to the operation of the repository. They are, with regard to their type and extent, uncertain and, even in a best case scenario, can only be foreseeable to a limited extent. Prevention and protection are mainly tasks of the state through its competent entities. The state entities have to decide, exercising their discretion, which protection measures are appropriate and citizens have no right to request that certain specific measures be taken. Moreover, the authority concluded that even a plane crash on the part of the repository which is above the ground would not lead to catastrophic consequences requiring the evacuation of the population due to radiation exposure.



2. The Bavarian Higher Administrative Court (*Bayerischer Verwaltungsgerichtshof*), in a judgement of 2 January 2006, rejected actions against the granting of a licence for the on-site storage of nuclear fuel at Gundremmingen. The licence covers the storage of spent nuclear fuel in containers of the Castor V/52 type which are placed in a reinforced concrete building. The plaintiffs are owners of residential houses in the vicinity.\* The court confirmed the general legal view that the on-site storage of spent nuclear fuel needs a licence under Section 6 (storage licence) and not under Section 7 (nuclear installation licence) of the Atomic Energy Act. The court dealt in greater detail with the long-term safety of Castor containers and in particular with the necessary preventive measures in case of incidents caused by third parties. It arrived at the conclusion that the competent licensing authority, in accordance with the state of science and technology, assessed all measures necessary to prevent damage. The judgement emphasises that the court has only to assess whether the safety appraisal by the authority is based on sufficient data and scientific knowledge. That can be confirmed for the envisaged and licensed storage period of 40 years. Even in the case of an incident within that period, appropriate protection measures are in place.

With regard to nuclear security and physical protection, the court considered the possibility of a plane crash into the facility, and concluded, as did the licence authority, that the possibility of accidental crash may be disregarded due to its extremely low probability and consequently, it is part of the so-called residual risk (*Restrisiko*). The yardstick for such risk is practical reason (*praktische Vernunft*). Protective measures required must be proportional, which means that events of the residual risk type need not be covered by the operator. Although the necessary physical protection includes measures against terrorist acts, an intentional plane crash by terrorists may be seen in a different light. It is true, though, that the operators of installations with a high risk potential may be required to provide prevention and protection which are in line with the high risk of the facility. But protection against severe intentional acts of terrorism is normally a task of state authorities.

Consequently, it is correct that the licensing authority, exercising its discretion, decided that the intentional crash is part of the residual risk, too. Storage facilities for spent fuel are neither so-called “soft” targets nor do they represent “symbols”. That qualification makes an attack less probable. Since 11 September 2001, numerous restrictions of air traffic were introduced at national and international level with a view to minimising the risk of a terrorist crash. Even if a fully fuelled Boeing 747 airplane crashed into a storage facility, experts concur that the impact would not entail a release of radioactivity in excess of the prescribed intervention levels for evacuation. On the other hand, a terrorist attack with anti-tank weapons against a storage facility would not necessarily be categorised as part of the residual risk.

## Japan

### *Judgement of Kanazawa District Court Ordering Closure of Shika Plant (2006)*

On 24 March 2006, the Kanazawa District Court ruled that the 1 358 MW Shika nuclear power plant, which began operating on 15 March 2006, was vulnerable to earthquakes and ordered its closure. The Shika plant is Japan’s 55<sup>th</sup> nuclear power plant and the second largest in output. 135 local residents from 17 prefectures had filed a lawsuit against the operator of the reactor in August 1999, shortly after construction of the reactor began. The plaintiffs contended that the reactor, whose design

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\* BayVGH U. 02.01.06, 22 A 04.40016; the Court rejected identical actions regarding *Gundremmingen* on 9 January 2006 and, regarding the on-site storage facilities at *Grafenrheinfeld* and *Niederaichbach*, on 12 January 2006; 22 A 04.40010 – 40014, 22 A 03.40019 - 40021, 22 A 03.40048 – 40049.

is based on the quake-resistance design guidelines drawn up in September 1978 by the then Atomic Energy Commission, is vulnerable to damage in a large earthquake.

During the trial, the operator of the plant, Horuriku Electric Power, explained that the reactor was designed to withstand an earthquake measuring 6.5 on the Richter scale, with its epicenter just below the reactor. This was deemed to be the largest earthquake which could occur in the area.

The ruling contended that the scale and intensity of the largest earthquake assumed in the reactor design is too small. It referred to a 7.2 magnitude earthquake that occurred off Miyagi Prefecture on 16 August 2005, and noted its effect on Tohoku Electric Power Company's Onagawa NPP in that same prefecture. Three reactors there had automatically shut down because vibrations on-site were larger than had been factored into the quake-resistant design. The district court ruled that the architectural structure of the reactor under-estimated the damage which could be caused by an earthquake. The court considered that local residents could be exposed to radiation far exceeding the permitted levels in the event of a large earthquake.

The basis of the current quake-resistance design guidelines for NPPs is that they must be built on bedrock located away from active fault lines and be designed to safely withstand the estimated largest possible earthquake that could take place in the area. This ruling is significant as it has cast doubt on the adequacy of the guidelines. The Nuclear Safety Commission had commenced work to revise the guidelines in July 2001 but has not yet reached a conclusion.

Horuriku Electric Power, which operates the plant, has expressed its intention to appeal this ruling. Operations have therefore resumed for the moment in the absence of a court injunction for immediate closure of the plant.

As Japan experiences approximately 20% of the most violent earthquakes on the planet, if the Supreme Court were to uphold this ruling, it would call into question the safety foundation upon which the nation's reactors are built and could lead to their temporary closure.

## **European Union**

### ***Judgement of the Court of First Instance in Relation to German Tax Exemptions for Reserves Set up by Nuclear Power Stations (2006)\****

On 26 January 2006, the Court of First Instance (CFI) ruled in the case *Stadtwerke Schwäbisch Hall GmbH, Stadtwerke Tübingen GmbH, Stadtwerke Uelzen GmbH v Commission of the European Communities* (Case T-92/02) that the German scheme of tax exemption for the reserves set up by nuclear power stations does not amount to state aid.

Nuclear power stations established in Germany are obliged by law to set up reserves to cover, first, the costs of disposing of their irradiated fuel and their radioactive waste and, second, the permanent closure of their plants. The *Handelsgesetzbuch* (German commercial code) states that those reserves can be counted among the liabilities of the undertaking concerned and lead to a reduction of the corresponding amount from the taxable total.

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\* The text of this case-note is taken from Press Release No. 06/06 released by the Press and Information Unit of the Court of First Instance of the European Communities on 26 January 2006. The full text of the judgement may be found on the Court's Internet site at the following link: [http://curia.eu.int/jurisp/cgi-bin/form.pl?lang=EN&Submit=rechercer&numaff=T-92/02](http://curia.eu.int/jurisp/cgi-bin/form.pl?lang=EN&Submit=rechercher&numaff=T-92/02).

In 1999, three German electricity production and distribution utilities requested the Commission to examine the tax exemption scheme applied to those financial reserves. They claimed that that tax exemption amounted to state aid to nuclear power stations. However, following a summary examination, the Commission decided that the tax measure at issue did not amount to aid of such a nature.

The three public utilities contested the Commission's decision before the CFI. The court noted that the examined tax exemption amounts to an economic advantage granted through state resources in so far as the state waives its right to levy a certain amount of tax revenue. Nevertheless, the CFI considered that neither the tax exemption scheme for the reserves, nor the detailed rules for the implementation by the authorities of the tax scheme in dispute grant to nuclear power stations a specific advantage inherent in the notion of state aid.

In addition, the public utilities did not establish that the amount of those reserves is to be regarded as disproportionate in the light of the scale of the expenditure that nuclear power stations necessarily incur in order to finance their public law obligation to dispose of their radioactive waste and to decommission their plants.

The CFI therefore found that the examination of the tax scheme in dispute did not reveal any factors which would have obliged the Commission to initiate the formal procedure for detailed investigation of state aid, and in these circumstances it dismissed the action as unfounded.

***Judgement of the Court of Justice in relation to its Jurisdiction to Rule on Disputes Concerning Interpretation and Application of the Provisions of Conventions Forming Part of the Community Legal Order (2006)\****

On 30 May 2006, the Court of Justice of the European Communities ruled in the case *Commission of the European Communities v. Ireland* (Case C-459/03) that by bringing proceedings against the United Kingdom within the framework of the Convention on the Law of the Sea, Ireland has breached Community law.

The background to this dispute between the Ireland and the UK concerning the operation of the MOX (mixed oxide fuel) plant at Sellafield was described in *Nuclear Law Bulletin* No. 69 and the outcome of the proceedings on the same subject initiated under the OSPAR Convention were described by William Leigh of British Nuclear Fuel Ltd. in *Nuclear Law Bulletin* No 72.

The United Nations Convention on the Law of the Sea was approved on behalf of the European Community by Council decision of 1998.<sup>1</sup> According to the declaration of Community competence made at the time of the formal confirmation of that convention, the Community enjoys exclusive competence with regard to the convention provisions on the prevention of marine pollution only to the extent to which those provisions affect existing Community rules. The convention also provides for a dispute settlement procedure. Furthermore, under the EC Treaty, member states undertake not to

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\* The text of this case-note is taken from Press Release No. 45/06 released by the Press and Information Unit of the Court of First Instance of the European Communities on 30 May 2006. The full text of the judgement may be found on the Court's Internet site at the following URL: <http://curia.eu.int/jurisp/cgi-bin/form.pl?lang=EN&Submit=rechercher&numaff=C-459/03>

1. Decision 98/392/EC (OJ 1998 L 179, p. 1).

submit a dispute concerning the interpretation or application of Community law to any court or tribunal other than the Court of Justice of the European Communities.

The MOX plant, situated at Sellafield on the coast of the Irish Sea, recycles material from nuclear reactors and converts it into a new fuel known as MOX intended for use as an energy source in nuclear power stations. Ireland raised the issue of the MOX plant with the UK authorities, questioning in particular the soundness of the reports and decisions which formed the basis for justification of the plant's construction.

Ireland instituted proceedings against the United Kingdom before the arbitral tribunal provided for under the convention with a view to resolving the dispute concerning the MOX plant, the international transfer of radioactive substances and the protection of the marine environment of the Irish Sea. The applicant criticised the United Kingdom for failure to comply with the convention by not taking the appropriate measures to protect the marine environment with regard to operation of the MOX plant.

The European Commission was informed of the proceedings brought by Ireland and requested that they be suspended on the ground that the dispute in question came within the exclusive jurisdiction of the court. Ireland did not accede to that request and the Commission accordingly brought this action before the ECJ.

The Court ruled that the provisions of the convention which the UK was accused of having breached related to the protection and preservation of the marine environment, an area in which the Community's external competence is not exclusive but is, in principle, shared between it and the Member states. The court further considered that the matters covered by the convention provisions which Ireland invoked before the arbitral tribunal are to a large extent regulated by Community measures. The court referred in particular to the directives relating to the obligation to carry out a proper assessment of the environmental impact of plant-related activities on the marine environment, to international transfers of radioactive substances connected to the activity of the MOX plant, and to the freedom of access to information on the environment. Finally, the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) which Ireland invoked before the arbitral tribunal was concluded by the Community.

The Court ruled that as the provisions of the convention relied on by Ireland in the context of the dispute form part of the Community legal order, the Court accordingly has jurisdiction to deal with disputes relating to their interpretation or application and to determine whether a member state has complied with them. It concluded therefore that by bringing proceedings under the dispute-settlement procedure laid down in the Convention on the Law of the Sea, without having first informed and consulted the competent Community institutions, Ireland has failed to comply with its duty of cooperation under the EC and EA Treaties and is in breach of Community law.

## ADMINISTRATIVE DECISIONS

### **Hungary**

#### ***Parliamentary Decision on Construction of a Low/Intermediate-level Waste Repository and on the Lifetime Extension of Paks NPP (2005)***

On 21 November 2005, the Hungarian parliament approved a resolution to give approval in principle for preparatory work for construction of a national low- and intermediate-level waste (LLW/ILW) repository in Bataapati, in the Uveghuta region. The resolution also endorsed plans for a 20-year lifetime extension of the Paks nuclear power plant. The current licences of Paks' four units are set to expire between 2012 and 2017.

This parliamentary decision followed the referendum that took place in July 2005, where the municipality of Bataapati voted to approve construction of this repository. Residents voted 90.7% in favour of having the repository built on municipal land. The vote followed a decade of geological investigation and subsequent site approval by the Hungarian Geological Survey.

# NATIONAL LEGISLATIVE AND REGULATORY ACTIVITIES

## **Australia**

### *Radioactive waste management*

#### *Commonwealth Radioactive Waste Management Act (2005)*

This act, whose full title is “An Act to make provision in relation to the selection of a site for, and the establishment and operation of, a radioactive waste management facility, and for related purposes”, and which was adopted on 14 December 2005, aims to put beyond doubt the commonwealth’s power to do all things necessary for, or incidental to, the selection of specified commonwealth land as a site for, and the establishment and operation of, a radioactive waste management facility. It entered into force on the day following its adoption.

Existing or future state and territory law may purport to prohibit, regulate or hinder things that the commonwealth may do to select a site or establish and operate a facility. Notwithstanding any such legislation, this act provides the commonwealth with the express authority to do anything necessary for, or incidental to, establishing or operating such a facility and transporting radioactive waste to it.

On 15 July 2005, the Australian government announced that it would proceed with its waste management policy by investigating three commonwealth sites in the Northern Territory. The act specifies in its schedule the three sites which are to undergo further investigations: the Mt Everard site, the Harts Range site and the Fishers Ridge site.

The act provides that the minister may declare one, or a specified part of one, of the specified sites, as the place where a facility may be established and operated. It further provides that the minister may declare land to provide for suitable road access to the site.

The act ensures that commonwealth regulatory processes must comply with the Australian Radiation Protection and Nuclear Safety Act 1998 (see *Nuclear Law Bulletin* No. 63), the Environment Protection and Biodiversity Conservation Act 1999 (see *Nuclear Law Bulletin* No. 67) and the Nuclear Non-Proliferation (Safeguards) Act 1987 (see *Nuclear Law Bulletin* Nos. 38 and 40).

This legislation comprises five parts. Part 1 first sets out definitions of the terms and expressions used in the act and, second, identifies persons who may make nominations of sites and establishes rules about nomination of sites. Part 2 specifies identified persons with the authority to do certain things as part of the process of selecting one of the three sites in the Northern Territory for a radioactive waste management facility. Part 3, which governs acquisition and extinguishment of rights and interests in the site, or part of the site, or land chosen as the route to the site, provides for affected parties to be compensated. Part 4 then governs the conduct of activities in relation to the selected site.

Part 5 covers miscellaneous issues including the amount of compensation to be paid to persons whose rights or interests have been affected.

## **Brazil**

### ***Regime of radioactive materials***

#### *Amendment to the Federal Constitution (2006)*

This Amendment No. 49 to the Federal Constitution (published in the Official Journal of 9 February 2006) aims to modify Article 21, paragraph XXIII (b), and to add a new sub-paragraph (c). It provides that trade in and use of radioisotopes for research, medical, agricultural and industrial purposes are subject to licensing. Similarly, the production of, trade in and use of radioisotopes with half-lives of up to two hours are subject to licensing. It also provides for strict third party liability for nuclear damage, with no need to prove fault.

Finally, Article 177 V was amended to terminate the Federal Union's monopoly with regard to the production, commercialisation and use of short-lived radioisotopes for medical, agricultural and industrial purposes.

## **France**

### ***General legislation***

#### *Law on Nuclear Transparency and Safety (2006)*

Law No. 2006-686 was adopted on 13 June 2006. The text of this legislation is available in French at the following URL:  
[www.legifrance.gouv.fr/WAspad/UnTexteDeJorf?numjo=DEVX0100081L](http://www.legifrance.gouv.fr/WAspad/UnTexteDeJorf?numjo=DEVX0100081L). It is the subject of a detailed analysis under the "Articles" section of this *Bulletin*.

### ***Radiation protection***

#### *Decree on Radiological Emergency Situations (2005)*

Decree No. 2005-1179 of 13 September 2005 was adopted following the issuing of an interministerial order on 7 April 2005 on the action of the public authorities in the event of an incident resulting in a radiological emergency situation (see *Nuclear Law Bulletin* No. 75).

This order, which was adopted by the French authorities following the proceedings for failure to fulfil an obligation taken by the European Commission before the Court of Justice of the European Communities with regard to France's failure to implement Council Directive 89/618/Euratom of 27 November 1989 on informing the general public about health protection measures to be applied and steps to be taken in the event of a radiological emergency (see *Nuclear Law Bulletin* Nos. 45 and 48).

The Decree of 13 September 2005 makes additional provision for the definition of the radiological emergency situation, the role of the prefect (*préfet*), the responsibilities of those carrying

out nuclear activities and of those intervening in emergency situations, and the measures to be taken in the event of long-term exposure to ionising radiation.

*Order on Public Information in the Event of a Radiological Emergency (2005)*

This order, adopted on 4 November 2005, sets out the list of information which must be brought to the attention of persons who may be exposed to ionising radiation in a radiological emergency situation. Such information relates in particular to the following preventive actions which, on a case by case basis, may concern certain groups of the public only:

- evaluation, sheltering, or listening to the radio and/or television;
- distribution and use of protective substances;
- restrictions in circulation and consumption of foodstuffs;
- application of specific hygiene and decontamination rules.

If the radiological emergency situation is preceded by a danger period or pre-alert stage, then the public which may be affected should receive information already during that alert phase with instructions such as:

- listening to the radio or the television;
- preparatory tasks for establishments with particular responsibilities;
- recommendations for health professional involved in the intervention.

The prefect may use the radio and television services as necessary to assist in applying this order.

*Interministerial Order on Measuring Radioactivity in the Environment in the Event of an Incident Resulting in a Radiological Emergency Situation (2005)*

This Interministerial Order of 29 November 2005 was adopted to implement the Interministerial Order of 7 April 2005 (see *Nuclear Law Bulletin* No. 75) on the action of the public authorities in the event of an incident resulting in a radiological emergency situation, as defined at Article R. 1333-76 of the Public Health Code.

It covers all the events which may or actually result in an abnormal release of radioactive materials or an abnormal irradiation without release of radioactive materials. It applies to radioactivity measuring activities used on all or part of the national territory during an incident falling under the scope of the afore-mentioned interministerial order, without prejudice to any other type of measure that should and can be taken.

It specifies the objectives of measuring radioactivity in the environment during the different phases of an incident, and organises the necessary coordination of measures, centralisation, treatment and rendering of results and their interpretation, and the roles and obligations of the various players.



During the different phases of an incident (threat, emergency, post-accidental situation), the public authorities in charge of emergency management organise the measurement of radioactivity in the environment. These measures are designed to cover all relevant aspects, in particular in relation to public protection, and information of the concerned public, the authorities of neighbouring countries and international bodies.

The main bodies responsible for implementing this directive are:

- the Directorate for Defence and Civil Security of the Ministry of the Interior, responsible in particular for ensuring that departmental emergency plans are compatible with this directive, and that all relevant services will be prepared to intervene in each department;
- the prefectures which may requisition the necessary means in the primary intervention zones of the Atomic Energy Commission (CEA), Cogema or GIE intra;
- the Directorate-General for Nuclear Safety and Radiation Protection (DGSNR) which is responsible for organising permanent monitoring of radiation protection, in particular the radiological monitoring of the environment across the entire national territory;
- the Delegate for Nuclear Safety and Radiation Protection for Defence-related Activities and Installations (DSND) which is responsible for controlling nuclear safety and radiation protection for defence-related activities and installations;
- the Institute for Radiation Protection and Nuclear Safety (IRSN) which is responsible, at national level, for centralising, verifying the coherence of, and using all results of measurements and testing carried out during an incident and its consequences for different actors;
- the operators, which put their emergency plans into operation during an incident resulting in a radiological emergency.

*Order on Methods for Training of Persons Specialised in Radiation Protection and Certification of the Service Provider (2005)*

This order, adopted on 26 October 2005, repeals the 2003 Order of the same name (see *Nuclear Law Bulletin* No. 73). It provides a list of the sectors concerned, and redefines the conditions governing radiation protection training for persons specialised in radiation protection and the means by which certifying bodies and trainers obtain their own certification. A training certificate is delivered following an examination the scope of which is defined in Article 4.

This order was amended by an Order of 13 January 2006 which adds persons specialised in medical radiation physics to the list of graduates who may be exempted from the training module entitled “ionising radiation and biological effects” of the theory module, set out in Annex 1 of the order.

Furthermore, the text states that should a candidate fail one of the examinations described in Article 4 of the order, then the candidate must follow the relevant training again. Finally, it specifies that the certificate obtained for the module followed is now valid for one year rather than six months.

*Interministerial Order on the Application of the Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency (2006)*

This interministerial order was adopted on 30 November 2005. It aims to set out the conditions of application of the 1986 Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency (see *Nuclear Law Bulletin* No. 38; the text of this convention is reproduced in the Supplement to NLB No. 38) by the French public authorities. It specifies the national contact points under this convention. The Ministry of Foreign Affairs is the main national contact point and maintains a permanent alert centre for this purpose. The Directorate-General for Nuclear Safety and Radiation Protection (DGSNR) is the competent body pursuant to Article 4.1 of the convention.

The directive also sets out the procedure for nominating the ministerial department or the body responsible for the operational side of the assistance, and establishes for each ministry the obligation to maintain an inventory of its availability in terms of experts, material, and medical assistance, and to notify the competent body of that inventory.

***Radioactive waste management***

*Planning Act Concerning the Sustainable Management of Radioactive Materials and Waste (2006)*

Adopted on 28 June 2006, the text of the Planning Act concerning the Sustainable Management of Radioactive Materials and Waste (Act No. 2006-739) was published in Official Journal No. 149 of 29 June 2006 and may be consulted in French on the Legifrance internet site at the following URL: [www.legifrance.gouv.fr/WAspad/UnTexteDeJorf?numjo=ECOX0600036L#](http://www.legifrance.gouv.fr/WAspad/UnTexteDeJorf?numjo=ECOX0600036L#). An unofficial English translation of the text is also available at the following URL: [www.industrie.gouv.fr/energie/anglais/pdf/loi-28-06-06-ang.pdf](http://www.industrie.gouv.fr/energie/anglais/pdf/loi-28-06-06-ang.pdf).

With a view to examining the possible solutions for managing long-lived high-level radioactive waste, the Act of 30 December 1991 relating to Research on Radioactive Waste Management, called the “Bataille Act” (see *Nuclear Law Bulletin* Nos. 49, 50; the text of the act is reproduced in the Supplement to NLB No. 49), established a vast research programme and set a deadline for government to prepare a draft bill within 15 years, i.e. by end 2006. The 2006 Law prolongs the Bataille structure by specifying the deadlines by which the different solutions could enter into force.

The law confirms the continuity and complementarity of the three axes already selected by the Bataille Act: partitioning and transmutation of long-lived radioactive elements; reversible waste disposal in a deep geological formation and storage.

With regard to the partitioning and transmutation of long-lived radioactive elements, the act states that corresponding studies and investigations shall be conducted in conjunction with those concerning the new generations of nuclear reactors and those concerning accelerator-driven reactors dedicated to the transmutation of waste, in order to provide by 2012 an assessment of the industrial prospects of those systems and to commission a pilot facility before the end of 2020.

As regards reversible waste disposal in a deep geological formation, by 2015 all of the conditions should be fulfilled to obtain an authorisation. Operations at the storage facility should commence in 2025, which is compatible with the calendar of production of long-lived high-level waste from the French nuclear cycle.

The text also adds two essential elements in areas not covered by the 1991 Act. First, it proposes national management of waste, and also of radioactive materials whether recoverable or not, by establishing a national radioactive material and waste management plan. This plan “shall take stock of existing modes for managing radioactive materials and waste, list the foreseeable requirements of storage or disposal facilities, detail the required capacities of such facilities together with corresponding storage times and, in the case of radioactive waste for which no final management mode exists, determine the objectives to be achieved.” A decree will specify the requirements of this national plan, which will be established and updated every three years by the government.

Furthermore, this act establishes a legislative framework for the dismantling of nuclear installations, and, in particular, the question of secure financial provisions made by operators to ensure that the amount judged necessary for decommissioning is available. The act establishes, within the National Radioactive Waste Management Agency (ANDRA), a dedicated fund in order to finance investigations and studies relating to the storage and the deep geological disposal of radioactive waste. The resources of the fund shall originate from the product of the additional “research tax” to the tax on major nuclear installations (INB). A second dedicated fund is established within ANDRA in order to build, operate, shut definitely, maintain and monitor the storage and disposal facilities for high-level and long-lived waste. The parliament will participate in the control of these financial provisions and their position within company accounts.

The act confirms in Article 8 the ban on disposal of foreign radioactive waste in France. Fuel or waste introduced into France for processing may only be authorised pursuant to intergovernmental agreements and provided that the radioactive waste resulting from processing of such substances shall not be stored in France beyond the term prescribed by such agreements.

Finally, the text reinforces the socio-economic support to regions concerned by future disposal. The act reinforces the local development public interest groupings already established in the Meuse and Haute-Marne regions; it aims to associate more closely the nuclear industry in local industrial projects and it strengthens the local information and monitoring committees for elected representatives and the public.

### ***Third party liability***

#### *Act Authorising Approval of International Agreements on Third Party Liability in the Field of Nuclear Energy (2006)*

This act, which authorises approval of the Protocol amending the Paris Convention on Third Party Liability in the Field of Nuclear Energy, and of the Protocol amending the Brussels Supplementary Convention, was adopted on 27 June 2006. The consequential amendment of the provisions of national legislation governing nuclear third party liability is carried out by Article 55 of the 2006 on Nuclear Transparency and Safety, which is the subject of an article in this Bulletin.

## Germany

### *Transport of radioactive materials*

#### *European Agreement Relating to the International Transportation of Dangerous Goods by Road (ADR) (2005)*

A new German version of the Annexes A and B of the European Agreement Relating to the International Transportation of Dangerous Goods by Road (ADR) was published as an Annex to *Bundesgesetzblatt* 2005 II, p. 1128. The publication is based on Article 2 of the 17<sup>th</sup> ADR Amendment Ordinance of 27 August 2004 [*Bundesgesetzblatt* 2004 II, p. 1274], and it includes the version of 27 November 2003 and the 2005 Lists of Errata [*Bundesgesetzblatt* 2003 II, p. 1743; 2004 II, p. 1132; 2005 II, p. 205, 770, 1030].

#### *Ordinance on the Transportation of Dangerous Goods by Road and Rail (2006)*

The 2005 consolidated version of the Ordinance on the Transportation of Dangerous Goods by Road and Rail (see *Nuclear Law Bulletin* No. 76) was amended by Article 3a of the 4<sup>th</sup> Ordinance to Amend Ordinances on the Transportation of Dangerous Goods of 2 November 2005 [*Bundesgesetzblatt* 2005 I, p. 3131].

#### *Corrigenda to the 2004 RID Regulations (2005)*

The 12<sup>th</sup> Ordinance to Amend the International Order on the Carriage of Dangerous Goods by Rail (RID) (see *Nuclear Law Bulletin* No. 74) has been complemented by the List of Errata No. 1 of the Intergovernmental Organisation for International Carriage by Rail (OTIF) and by a list of corrigenda to its German version [*Bundesgesetzblatt* 2005 II, p. 1129].

### *Regulations on nuclear trade (including non-proliferation)*

#### *Amendments to the 1961 Foreign Trade Act and to the 1993 Foreign Trade Ordinance (2006)*

A 12<sup>th</sup> Act to Amend the Foreign Trade Act and the Foreign Trade Ordinance was issued on 28 March 2006 [*Bundesgesetzblatt* 2006 I, p. 574]. In accordance with its Article 5, it entered into force on 8 April 2006.

The Foreign Trade Act (consolidated version published in *Bundesgesetzblatt* part III no. 7400-1 and last amended by Acts of 21 December 2004 and 21 June 2005, *Bundesgesetzblatt* 2004 I, p. 3603; 2005 I, p. 1818, see also *Nuclear Law Bulletin* No.74) was amended with regard to the import provisions and to the provisions on administrative and penal sanctions.

The amendment of the continuously amended Foreign Trade Ordinance, as last amended by the Seventy-third Amendment Ordinance of 18 January 2006 [*Bundesanzeiger* 2005 pp. 9169, 13393, 13487, 16997; 2006 p. 427] (see *Nuclear Law Bulletin* Nos. 67, 73), also covers administrative sanctions and implements, like the January 2006 amendment, European Community Law.

### *Amendment to the Import List (2005)*

A new version of the Import List as last amended by the Ordinances of 23 December 2004 and of 19 April 2005 [*Bundesanzeiger* 2004 p. 24733; 2005 p. 6965] (see *Nuclear Law Bulletin* No. 74) was published as annex to the 152<sup>nd</sup> Ordinance to Amend the Import List – Annex to the Foreign Trade Act, on 19 December 2005 [*Bundesanzeiger* 2005 p. 17338 and supplement volume 2005 No. 248a].

## **Hungary**

### ***General legislation***

#### *Amendment of the Atomic Energy Act (2005)*

Section 10(4) of the 1996 Act on Atomic Energy (published in the Supplement to *Nuclear Law Bulletin* No. 60) was amended in December 2005. The purpose of this amendment is to facilitate the task of the State Audit Office in auditing the management of the Central Nuclear Financial Fund, to ensure that municipal subsidies are used exclusively to cover the cost of information and control activities. Section 10(4) now reads as follows:

“In order to regularly provide information to the population of communities in the vicinity of a facility or the exploration aiming at the site selection of a facility, the licensee of a nuclear power plant, an interim storage or final disposal facility for spent fuel, as well as that of a radioactive waste disposal facility shall promote the establishment of municipal control and information associations. The licensee can grant assistance – also from the Central Nuclear Financial Fund – to the municipal control and information associations and to the municipal associations for regional development to be established here, as well as to the municipalities forming these associations that can be utilised for dissemination of information on operation, regional or municipal development.”

The government is authorised to elaborate detailed rules on this subject during 2006 before entry into force of this amendment in 2007.

### ***Environmental protection***

#### *Amendment of the Order on Radioactive Releases into the Air and Water in Connection with the Use of Atomic Energy (2006)*

Decree No. 15/2001 (VI.6.) of the Minister of Environment on Radioactive Releases into the Atmosphere and into Water in the Course of Using Atomic Energy and their Monitoring during the Licensing Procedure was amended in 2006 (see *Nuclear Law Bulletin* No. 70). The amendment provides that the regionally competent inspectorate (hereinafter referred to as the regional environmental authority) in the first instance and the National Inspectorate for Environment, Nature and Water in the second instance shall enforce the considerations related to environment protection, nature conservation and water quality protection concerning radioactive releases. The release limits, levels and the standard for release monitoring shall be submitted to the regional environmental authority for the co-authority’s approval.

## ***Regulations on nuclear trade***

### *Amendment of the Decree on International Trade of Nuclear Dual-use Items (2005)*

Government Decree 263/2004 [IX.23 Korm.] on the regulation of international trade in nuclear dual-use items was amended in 2005. The amendment provides that the Hungarian Atomic Energy Authority (HAEA) issues both its preliminary licence required for the export licence, and its preliminary professional opinion required for the international import certificate, specified in the Government Decree 50/2004 [III. 23 Korm.] on the licensing of foreign trade in dual-use goods and technologies, upon the request of the Hungarian Trade Licensing Office.

## **India**

### ***Regulations on nuclear trade (including non-proliferation)***

#### *Weapons of Mass Destruction Act (2005)*

This act was passed in May 2005 by the Indian parliament. It aims to partly fulfil India's obligations under UN Security Council Resolution 1540 [UNSCR 1540] which calls on all countries to criminalise proliferation activities and to control transfer and use of WMD-relevant equipment and materials. Under this new legislation, the Indian government has criminalised the unauthorised possession of WMD and it has addressed lacunae and loopholes that existed in previous laws and regulations. The law also establishes more specific penalties for export control and proliferation-related violations.

This act establishes new controls over nuclear commodities. Similar to India's previous export control regulations and practices, the Weapons of Mass Destruction Act controls a wide range of nuclear-related items including, but not limited to, "nuclear reactors, fuel reprocessing plants, fuel fabrication plants, uranium enrichment plants, uranium and plutonium conversion facilities, heavy water production plants, and tritium recovery plants". The new law also makes it a legal requirement for re-exports of controlled items of Indian origin to be approved by the Indian government.

The Department of Atomic Energy remains responsible for the approval of all nuclear-related exports. However, the new law establishes a number of further restrictions on the export of nuclear dual-use technology. By way of example, prior to the implementation of the new law, the Department of Atomic Energy obliged facilities receiving Indian nuclear materials or equipment to be covered by an IAEA safeguards agreement to ensure that non-proliferation objectives are met. The new act now makes this a formal requirement under national law. The legislation also states that the Indian export control authorities may apply additional conditions for exports if a transfer raises national or international security concerns. The entity importing the materials must also agree to on-site verification by Indian government inspectors, if the Department of Atomic Energy deems it necessary.

The new legislation provides for heightened scrutiny with regard to the transfer of highly sensitive items, including equipment that could be used for uranium enrichment or plutonium separation. The act requires nations importing nuclear reactors from India to agree that the materials or technology will not be used in the production of highly enriched uranium (HEU), without advance governmental consent. These criteria were also applied previously, but now they have been formally incorporated into national legislation.

## **Ireland**

### ***Regime of radioactive materials***

#### *Radiological Protection Act 1991 (Control of High-activity Sealed Radioactive Sources) Order (2005)*

This order, which entered into force on 31 December 2005, is made by the power conferred on the Minister for the Environment, Heritage and Local Government under Section 30(2) of the Radiological Protection Act of 1991 (see *Nuclear Law Bulletin* Nos. 45, 48, 71) and provides for the implementation of Council Directive 2003/122/Euratom of 22 December 2003 on the control of high-activity sealed radioactive sources and orphan sources (see *Nuclear Law Bulletin* Nos. 72 & 73). The purpose of the directive is to prevent exposure of workers and the public to ionising radiation arising from the inadequate control of high-activity sealed radioactive sources and orphan sources by defining specific requirements ensuring that each source is kept under control. The order states that the Radiological Protection Institute of Ireland is the competent authority to authorise any practice involving a source. It defines the responsibilities of licence holders as regards, *inter alia*, the records of all sources, their monitoring, identification and marking.

## **Romania**

### ***General legislation***

#### *Amendment to the 1996 Law on the Safe Conduct of Nuclear Activities (2006)*

Law No. 63/2006, adopted on 22 March 2006, introduced a number of important amendments into the 1996 Law on the Safe Conduct of Nuclear Activities (the text of this law was reproduced in the Supplement to *Nuclear Law Bulletin* No. 59; see *Bulletin* Nos. 61, 68, 72 and 75 for information on previous amendments to this legislation). This law is now entitled Law on the Safe Conduct, Regulation, Authorisation and Control of Nuclear Activities.

The principal amendments to this legislation are as follows.

The objective of this law becomes the regulation, authorisation and control of nuclear activities deployed exclusively for peaceful purposes, so that such activities meet the nuclear safety conditions established for the protection of professionally-exposed personnel, patients, the environment, the public and property, engendering minimal risks, as provided by regulations and in compliance with the international agreements and conventions to which Romania is a party.

The national authority competent in the nuclear field which exercises these powers of regulation, authorisation and control is the National Commission for the Control of Nuclear Activities (CNCAN). This public institution of national interest has legal personality and is headed by a chairperson who holds the rank of secretary of state, coordinated by the prime minister through his/her chancellery. The Commission is financially autonomous, through funds provided from fees related to authorisation and control activities, contributions of international bodies or economic entities, interest from existing capital and other revenue in accordance with legislation in force. The Commission is responsible for defining general strategy and the regulation, authorisation and control policy in the nuclear field. It is also responsible for issuing regulations with regard to radiation protection, non-proliferation of nuclear weapons, the physical protection of nuclear materials and installations, shipments of radioactive materials and radioactive waste and spent fuel management.

Licence-holders are required to obtain a possession, conservation, decommissioning or transfer authorisation prior to the winding-up of operations or decommissioning of nuclear or radiological installations, as well as the transfer of nuclear or radiological installations, radioactive goods or nuclear materials.

The central authority for environmental protection organizes the network supervising environmental radioactivity on Romanian territory, providing the required data for the integrated environmental monitoring system. In the event of a nuclear accident, responsibility for coordinating task force operations lies with an Emergency Ministerial Committee under the auspices of the Ministry of Administration and Domestic Affairs, in cooperation with all competent specialised bodies of the central and local administration. Intervention plans to respond to radiological emergencies due to nuclear accidents abroad shall be prepared under the supervision of the Emergency Ministerial Committee. For all goods requiring an authorisation, the National Customs Authority within the Ministry of Public Finance shall inspect and allow their access in or out of the country based on the authorisation issued by the Commission.

Finally, when Romania accedes to the European Union, the control of nuclear safeguards shall be performed in accordance with the provisions of the Euratom Treaty.

*Amendment to the 2003 Ordinance on the Use of Nuclear Energy Exclusively for Peaceful Purposes (2006)*

Law No. 57/2006, adopted on 17 March 2006 introduces a number of amendments into the 2003 Ordinance on the Use of Nuclear Energy Exclusively for Peaceful Purposes. This ordinance is now called Ordinance on the Promotion, Development and Monitoring of Nuclear Activities.

The amended text reiterates the general framework of pursuing sustainable development objectives, and provides that the promotion, development and monitoring of nuclear activities for peaceful purposes represent a national priority. Promotion is defined to mean measures aimed at improving the general knowledge, organising, financing and legislating of activities in the nuclear field; development is defined as measures aimed at extending, converting and improving activities in the nuclear field; and monitoring means all systematic measures aimed at surveying and reporting information in connection with nuclear activities.

This decree provides that the location of industrial and research reactors, as well as radioactive waste and spent fuel final storage facilities shall be approved by law based on the National Nuclear Development Strategy and the authorisations issued by the regulator.

Nuclear activities shall be carried out in accordance with the National Nuclear Plan as approved by government decision. The National Agency for Atomic Energy within the Ministry of Education and Research is reorganised and becomes the Nuclear Agency. The Nuclear Agency is responsible for the promotion, development and monitoring of nuclear activities, in accordance with the terms of the National Nuclear Plan. Its tasks include the following:

- participation in the drawing up of the National Nuclear Development Strategy and National Nuclear Plan; monitoring the implementation of their organisational, technical and financial components;
- establishing and monitoring the implementation of research and development strategy in the nuclear field;



- monitoring the continual upgrading of physical protection systems, reports on the security of nuclear and radiological installations, nuclear warranties, the safe management of radioactive waste and spent fuel,
- drafting of national legislation and ensuring its compatibility with EU legislation and international agreements.

The agency is administered by a board of directors made up of nine members, appointed and dismissed by decision of the prime minister upon proposal of the chief executive of the agency.

### ***Radiation protection***

#### *Order Approving Guidelines on the Monitoring of Radioactive Emissions Originating from Nuclear and Radiological Installations (2005)*

Order No. 276 of 26 September 2005 of the chairperson of the National Commission for the Control of Nuclear Activities (CNCAN) sets out the requirements for monitoring radioactive emissions resulting from an authorised nuclear activity at the emission source in normal conditions and in the event of nuclear or radiological emergency, in compliance with the provisions of the 1996 Law on the Safe Conduct of Nuclear Activities (see description *supra*), and the Fundamental Radiological Safety Guidelines. It provides that in accordance with the results of the preliminary radiological impact assessment, the CNCAN may request the license-holder/applicant to monitor both the radioactive emissions and the radioactivity of the environment in the vicinity of the installation.

#### *Order Approving Guidelines on Orphan Sources and High Activity Sealed Sources (2005)*

Order No. 356 of 21 November 2005 of the chairperson of the National Commission for the Control of Nuclear Activities (CNCAN) aims to prevent the exposure of workers and the public to radiation generated by orphan sources and improperly supervised high activity sealed sources, and to harmonise the existing supervision procedures with EU requirements.

### ***Regime of nuclear installations***

#### *Order Approving Guidelines on the Authorisation Procedure for the Construction of Nuclear Facilities (2005)*

Order No. 407 of 21 December 2005 of the chairperson of the National Commission for the Control of Nuclear Activities (CNCAN) establishes the licensing procedure governing the construction and dismantling of nuclear installations.

### ***Transport of radioactive materials***

#### *Order Approving Guidelines on the Transport of Radioactive Materials (2005)*

Order No. 357 of 21 December 2005 of the chairperson of the National Commission for the Control of Nuclear Activities (CNCAN) sets out guidelines that are designed to implement the IAEA's requirements as formulated in TSR-1 "Regulations for the safe transport of radioactive material". They establish measures to be taken in order to protect and secure the transport of radioactive material in

order to keep the radiation exposure of humans, property and the environment under accepted limits both during and subsequent to operations ancillary to the transport of radioactive materials. The protection requirements aim to (a) seal off radioactive content (b) supervise external radiation intensity (c) prevent criticality and (d) prevent any heat-generated impairment. These guidelines apply to the transport of radioactive materials irrespective of the mode of transport.

## **Slovak Republic**

### ***General legislation***

#### *New Regulations Adopted in Implementation of the 2004 Atomic Act (2006)*

Since the adoption of the Atomic Act on 9 September 2004 and its subsequent entry into force on 1 December 2004 (see *Nuclear Law Bulletin* No. 74), the Nuclear Regulatory Authority of the Slovak Republic prepared a series of new regulations, which were finally published in February 2006. This list of these regulations is as follows:

- Regulation No. 46/2006 Coll. on dual-use goods falling under the supervision of the Nuclear Regulatory Authority of the Slovak Republic.
- Regulation No. 47/2006 Coll. on maximum limits of small quantities of nuclear material and radioactive waste in respect of which no nuclear damage is expected and therefore subject to exclusion from the third party liability regime.
- Regulation No. 48/2006 Coll. laying down details of notification of operational accidents and accidents during shipment, as details of ascertainment of the causes of them.
- Regulation No. 49/2006 Coll. on the periodic assessment of nuclear safety.
- Regulation No. 50/2006 Coll. laying down details on the nuclear safety requirements for nuclear installations during siting, design, construction, commissioning, operation, decommissioning and closure of repository, as well as criteria for categorisation of classified equipment into safety classes.
- Regulation No. 51/2006 Coll. laying down details on the requirements for the provision of physical protection.
- Regulation No. 52/2006 Coll. on specialist qualifications.
- Regulation No. 53/2006 Coll. laying down details on the requirements for handling nuclear materials, radioactive waste and spent fuel.
- Regulation No. 54/2006 Coll. on accountancy for and control of nuclear material and notification of selected activities.
- Regulation No. 55/2006 Coll. on details of emergency planning for nuclear accidents or emergencies.
- Regulation No. 56/2006 Coll. laying down details of the requirements for documentation of licence-holders' quality systems and also details of the requirements for the quality of nuclear installations, the quality of selected installations and details concerning the scope of their approval.
- Regulation No. 57/2006 Coll. laying down details of the requirements for shipment of radioactive material.

- Regulation No. 58/2006 Coll. laying down details of the scope, content and method of preparation of documentation for nuclear installations, as required for individual decisions.

An unofficial translation of these regulations into all official EU languages can be found in the TRIS database at the following URL by entering country (Slovak Republic), year (2005) and the reference numbers of the instruments concerned (456 to 468): <http://europa.eu.int/comm/enterprise/tris/pisa/app/search/index.cfm?lang=EN>.

## **Slovenia**

### ***Radiation protection***

#### *Regulation on the Use of Radiation Sources and Radiation Practices (2006)*

This regulation was adopted on 6 February 2006 and published in Official Gazette RS 27/06. It defines the technical requirements for the type approval of radiation sources, the format of the document for reporting the intention to carry out a radiation practice, the content of the application for a licence to carry out radiation practice and to use radiation sources, as well as the rules of conduct relating to the use and storage of radiation sources. It determines the content of the registers and the method to be used for maintaining the registers of radiation sources, radiation practices and nuclear and radiation facilities.

## **Sweden**

### ***Third party liability***

#### *Report of the Swedish Nuclear Liability Committee (2006)*

A report carried out by the Swedish Nuclear Liability Committee was presented to the Minister of the Environment on 28 April 2006. This Committee was established to conduct a review of the regulations in Swedish law on liability for damage caused by radiological accidents, and to identify financial solutions that could provide a basis for covering the liability of operators of nuclear installations as far as possible. One of the principal tasks of this Inquiry was to investigate the conditions for Swedish accession to the 2004 Protocols to Amend the Paris Convention on Third Party Liability for Nuclear Damage and the Brussels Convention Supplementary to the Paris Convention.

The present Swedish regulations on liability for damage arising as a result of radiological accidents at nuclear installations and during carriage of certain types of nuclear materials or nuclear waste are set out in the 1968 Nuclear Liability Act (the text of this act as amended in 1982 was published in the Supplement to *Nuclear Law Bulletin* No. 33).

The Inquiry's deliberations led it to conclude that Sweden should accede to the Protocols amending the Paris Convention and the Brussels Supplementary Convention as they entail an obvious improvement of compensation protection in the event of radiological accidents. This means that the domestic legislation must be adjusted and several central provisions amended in order to bring Swedish law into line with the partially or completely new commitments that follow from the revised conventions. The Committee further concluded that there is not sufficient reason at present for Sweden

to accede to the 1997 Convention on Supplementary Compensation for Nuclear Damage adopted under the auspices of the IAEA.

The Committee considers it necessary to amend a large number of provisions in the Nuclear Liability Act that require amendment, relating in particular to the scope of the act, the definitions of certain concepts, the regulation of liability and levels of liability, the level of obligatory insurance, the rules on compensation out of public funds and the rules on competent courts. It further recommends bringing certain definitions into line with more modern usage, replacing the terms nuclear accident and nuclear damage by radiological accident and radiological damage respectively. The terms nuclear fuel, nuclear substance and radioactive product should also be replaced with the concepts nuclear material and nuclear waste. The proposed changes to the Nuclear Liability Act are so extensive, in fact, that the Committee recommends repealing the existing legislation and enacting a new act.

The Inquiry proposes that as a general rule, unlimited third party liability with financial coverage up to EUR 1 500 million should be introduced for operators of nuclear installations in Sweden. It further suggests that in cases where radiological damage arises outside Sweden, the government should have the option of directing that the operator's liability to compensate shall be limited to the amount of liability that applies in the other state with regard to Sweden (reciprocity). Under the Committee's proposal, however, such a limitation of the liability to compensate can never be considered with regard to states that have no nuclear installations in their territory.

As regard insurance coverage, the Committee has established that at present there is a lack of insurance capacity in the private market above a level of EUR 550 million. Even if this liability insurance were to exclude damage caused by terrorist acts, the insurance capacity could not be increased. It follows from this that in order to reach the EUR 700 million reference amount set by the Paris Convention, the operator is required to provide other acceptable financial security for the difference between EUR 550 million and at least EUR 700 million. The Committee examined "piercing the corporate veil" as part of a legal solution, but arrived at the assessment that there is no legal possibility at present of securing additional assets alongside the operator's share capital. In the opinion of the Committee, the principles concerning piercing the corporate veil that have developed in the case law do not imply that shareholders can become personally liable for the debts of the company in which they hold shares, or that the parent company can be forced to assume responsibility for the subsidiary's liabilities in situations where the operator is unable to compensate any persons suffering damage after a radiological accident. The Committee further considered that introducing such an arrangement exclusively in the area of nuclear liability would have too far-reaching implications.

The other financial solutions considered by the Committee were security interests provided by guarantees or pledges, systems in which compensation funds are built up, risk-spreading by pooling arrangements or bilateral agreements and a system of "catastrophe bonds". After examining these solutions in the private market, the Committee concluded that there are no working solutions that can be regarded as a satisfactory alternative to insurance. An operator's parent company may conceivably provide a guarantee for the interval between EUR 550 and 700 million, but such a commitment is only a partial solution as it cannot realistically extend to substantially higher levels. The Committee did find, on the other hand, that there is a basis for financing subject to charges within the framework of the state guarantee model, which can supplement the level that is currently possible to insure.

The Committee proposed that the government be authorised by the parliament to shoulder the state with financial commitments in the field of nuclear liability, against charges that reflect that risk. The Committee considered that such a commitment should preferably take the form of a reinsurance commitment. The Inquiry assessed that such financing of the operator's liability may be warranted up to EUR 1 200 million. Between EUR 1 200 million and up to EUR 1 500 million, damage is covered

by the operation of the Brussels Supplementary Convention, a collective system of state funding based on energy production and gross national product. The Inquiry then considered what would happen if the damage after an accident should exceed even this level, and whether all the operator's assets could be claimed within the framework of its unlimited liability. The Committee considered that there is no guarantee of how far these assets would suffice, and it is not considered realistically possible to obtain any such guarantee and therefore the Inquiry proposes that, just as is now the case, the Parliament be given the option of setting any supplementary compensation by special decision.

The Inquiry also addressed a number of issues associated with the settlement of claims in the event of a radiological accident. It noted that currently there is a lack of special rules in this field, and concluded that it would be preferable to have a system for settling claims worked out in advance. As regards the coordination of compensation funds from different sources, the Inquiry noted that coordination could be achieved either by the state assuming overall responsibility for the settlement of claims or by the insurer assuming such responsibility. Another possibility, in the opinion of the Inquiry, would be to let each of the actors making funds available for compensation be responsible exclusively for the settlement of claims pertaining to its own funds and to supplement this arrangement by an obligation for them to consult one another. Such an obligation to consult could be regulated by legislation.

The Inquiry concluded that a claims settlement model involving an obligation to consult could be a fully conceivable solution but it advocated rather an alternative model for settling claims in which the funds for paying compensation are consolidated in the Nordic Nuclear Insurers or some other direct insurer operating in the future. A natural way of arranging this consolidation of compensation funds would be for the state to take on the role of reinsurer within the framework of the state guarantee model. The direct insurer would then be responsible for the settlement of claims up to EUR 1 200 million. With regard to the third tier (under the Brussels Supplementary Convention), an agreement would have to be made in advance between the insurer and the state, tying the settlement of claims for these compensation funds to the direct insurer as well, in return for a reasonable charge.

## **Ukraine**

### ***Third party liability***

#### *Amendment to the 2001 Law on Civil Liability for Nuclear Damage and its Financial Security (2006)*

On 3 April 2006, the Ukrainian president signed a Law to amend the 2001 Law on Civil Liability for Nuclear Damage and its Financial Security (this law was published in the Supplement to *Nuclear Law Bulletin* No. 69) with regard to research reactors. This amendment, adopted by the parliament on 16 March 2006, sets the liability of operators of research reactors at a sum in national currency equivalent to 5 million Special Drawing Rights (SDR). This compares with the liability amount of SDR 150 million applicable to other nuclear installations. This amendment entered into force on the date of its publication.

Ukraine is party to the 1963 Vienna Convention which provides that an operator's minimum liability for damage resulting from an accident at a nuclear installation (including a research reactor) should be at least USD 5 million for any one nuclear incident. The US dollar referred to is a unit of account equivalent to the value of the US dollar in terms of gold on 29 April 1963 (USD 35 per one troy ounce of fine gold). This would be worth approximately USD 50 million in today's currency.

# INTERNATIONAL REGULATORY ACTIVITIES

## **International Commission of Radiological Protection**

### *Revision of International Commission on Radiological Protection (ICRP) Recommendations*

The International Commission on Radiological Protection was first established in 1928, as the International X-ray and Radium Protection Committee, linked to the International Congresses of Radiology. In 1950 it was restructured and renamed. Although its parent organisation remains the International Society of Radiology (ISR, the professional society of radiologist physicians), it has greatly broadened its interests to take account of the increasing uses of ionising radiation outside the medical area and practices involving the generation of radiation and radioactive materials. The Commission is a non-profit-making organisation, financed mainly by voluntary contributions from national and international bodies with an interest in radiological protection. Some additional funds accrue from royalties on the Commission's publications. Members' institutions also provide support by making in-kind contributions.

The first general recommendations of the Commission were issued in 1928 and concerned the protection of the medical profession through the restriction of working hours with medical sources. The development of both the military and industrial uses of nuclear energy led the Commission in the early 1950s to introduce recommendations for the protection of the public. In 1977, the Commission first quantified the risks of stochastic effects of radiation and proposed a system of dose limitation with its three principles of justification, optimisation of protection and individual dose limitation. In 1991, the Commission produced new recommendations partly because of revisions upward of the estimates of risk from exposure to radiation, and partly to extend its philosophy to a system of protection, rather than one of dose limitation. The principles of justification, optimisation and individual dose limitation remained, but more stringent requirements were placed on the optimisation of protection from sources by restricting maximum doses by constraints so as to limit the inequity that is likely to result from inherent economic and societal judgements. Subsequent reports providing advice on more specialised topics have been published.

The Commission has always been an advisory body, which offers its recommendations to regulatory and advisory agencies at international, regional and national levels, mainly by providing guidance on the fundamental principles on which appropriate radiological protection can be based. The Commission does not aim to provide regulatory texts, but rather believes that regulatory texts developed by national authorities should be developed from, and have aims that are broadly consistent with, its guidance. The main objective of the ICRP recommendations is to provide an appropriate standard of protection for man without unduly limiting the beneficial practices giving rise to radiation exposure. The International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources, first established in 1962, have always closely followed the ICRP Recommendations.

Since issuing its latest basic recommendations in 1991 as ICRP Publication 60, the Commission has reviewed these recommendations regularly and, from time to time, has issued supplementary reports in the Annals of the ICRP. The extent of these supplementary reports and the publication of new scientific data have indicated the need for consolidation and revision of these recommendations. The recognition that the radiological protection of non-human species should receive more emphasis than in the past and societal developments in relation to expectations of transparency in establishing globally accepted recommendations are also important factors. The Commission has therefore decided to issue revised recommendations with three primary aims in mind:

- to take account of new biological and physical information and of trends in the setting of radiation safety standards;
- to improve and streamline the presentation of the recommendations; and
- to maintain as much stability in the recommendations as is consistent with the new scientific information.

The major features of the revised recommendations are:

- Maintaining the Commission's three fundamental principles of radiological protection, namely justification, optimisation and dose limitation, and clarifying how they apply to radiation sources delivering exposure and to individuals receiving exposure. This includes establishing source-related principles that apply to all controllable exposure situations, which the revised recommendations now characterise as *planned, emergency and existing exposure situations*.
- Maintaining the Commission's individual dose limits for effective dose and equivalent dose from all regulated sources that represent the maximum dose that would be accepted in planned situations by regulatory authorities.
- Using the same conceptual approach for constraining doses in source-related protection, which should be applicable to all exposure situations, regardless of the type of source. The dose constraints would then quantify the most fundamental levels of protection for workers and the public from single sources in all situations.
- Complementing the limits and constraints with the requirement to optimise protection at a source.
- Bringing up to date the understanding of the biology and physics of radiation exposure, and consequently updating the radiation and tissue weighting factors in the dosimetric quantity effective dose.
- Including a policy approach for radiological protection of non-human species.

It is anticipated that these draft recommendations should be finalised and approved in November 2006.

# MULTILATERAL AGREEMENTS

## *Agreement on the International Thermonuclear Experimental Reactor (ITER) (2006)*

On 24 May 2006, the European Union, the United States, the Russian Federation, Japan, India, China and the Republic of Korea initialed an agreement in Brussels to build the first nuclear fusion reactor. Negotiations on this project took place under the auspices of the International Atomic Energy Agency.

ITER will be an experimental reactor which will reproduce the physical reaction – fusion – that occurs in the sun and stars. Existing experiments have already shown that it is possible to replicate this process on Earth. ITER aims to do this at a scale and in conditions that will demonstrate the scientific and technological feasibility of fusion as an energy source. It is anticipated that fusion may well prove cheaper and safer than fission, the basis on which contemporary nuclear power plants operate. Like current nuclear installations, fusion power plants would operate without emitting gases that are responsible for global warming, like carbon dioxide.

The key advantages to fusion, as described by the European Union in its press release describing the finalisation of this agreement, are as follows:

- it could provide a large-scale energy source with basic fuels which are abundant and available everywhere;
- very low global impact on the environment – no CO<sub>2</sub> greenhouse gas emissions;
- day-to-day-operation of a fusion power station would not require the transport of radioactive materials;
- power stations would be inherently safe, with no possibility of “meltdown” or “runaway reactions”;
- there is no long-lasting radioactive waste to create a burden on future generations.

The project is estimated at more than EUR 10 billion over 40 years. The European Union is to pay 40% of the project’s construction costs (estimated at EUR 4.5 billion). France, as the host country of this installation at Cadarache, will split the remaining 60% with the non-EU signatories. Construction is due to commence in 2007 in Cadarache and is expected to last up to a decade.

The agreement also covers reactor operations, projected to cost EUR 5 billion over 25 years. Of the operating costs, the EU is to contribute 26%, the United States 13%, Japan 13%, China, India, Russia and South Korea 10% each and France the remaining 8%.



Following initialing of this agreement on 24 May, each party is required to submit the agreement and related documents to its respective authorities in order to secure the authorisation to sign the agreement. It is hoped that all parties will be able to sign the agreement on 29 November 2006 in order to allow construction commence in 2007.

The EU is establishing a new European organisation in Barcelona, in the form of a joint undertaking pursuant to the Euratom Treaty, which will be responsible for providing all of Europe's contributions to the ITER Organisation, including the procurement and transfer of contributions in kind, the assignment of qualified staff and financial contributions to the budget of the ITER Organisation.

The ITER Agreement, once finalised, will be open for accession by or co-operation with other countries which have demonstrated a capacity for specific technologies and knowledge and are ready to contribute to the project.

# BIBLIOGRAPHY AND NEWS BRIEFS

## BIBLIOGRAPHY

### **OECD Nuclear Energy Agency**

*Indemnification of Damage in the Event of a Nuclear Accident, OECD/NEA, Paris, July 2006, 150 pages*

These Proceedings from the Second International Workshop on the Indemnification of Nuclear Damage, held in Bratislava, Slovak Republic, from 18 to 20 May 2005, will be available in July 2006. The workshop was co-organised by the OECD Nuclear Energy Agency and the Nuclear Regulatory Authority of the Slovak Republic. It attracted wide participation from national nuclear authorities, regulators, operators of nuclear installations, nuclear insurers and international organisations.

The purpose of the workshop was to assess the third party liability and compensation mechanisms that would be implemented by participating countries in the event of a nuclear accident taking place within or near their borders. To accommodate this objective, two fictitious accident scenarios were developed: one involving a fire in a nuclear installation located in the Slovak Republic and resulting in the release of significant amounts of radioactive materials off-site, and the other a fire on board a ship transporting enriched uranium hexafluoride along the Danube River. The first scenario was designed to involve the greatest possible number of countries, with the second being restricted to countries with a geographical proximity to the Danube. These proceedings contain the papers presented at the workshop, as well as reports on the discussion sessions held.

*International Nuclear Law in the Post-Chernobyl Period, Joint publication between the OECD/NEA and the IAEA, Paris, July 2006, 241 pages*

The accident which took place on 26 April 1986 at the Chernobyl nuclear power plant in Ukraine was to have a decisive influence on the development of international nuclear law over the following two decades.

Within six months of the accident, a convention on early notification of a nuclear accident and a convention on assistance in the event of a nuclear accident or radiological emergency were negotiated and adopted under the auspices of the International Atomic Energy Agency. In 1988, a joint protocol forming a bridge between the two existing international nuclear liability regimes was established. 1994 saw the adoption of a convention establishing international benchmarks for nuclear safety, followed by a convention on the safety of spent fuel and radioactive waste management in 1997. The existing international regimes governing liability for nuclear damage have been significantly reinforced and a new global regime created.

The purpose of this compendium, jointly produced by the OECD Nuclear Energy Agency and the International Atomic Energy Agency, is to provide thoughtful analysis on each of the above instruments, demonstrating the extent to which progress has been made and identifying areas in which further improvement would be desirable. It reproduces a number of articles which have been published in the OECD/NEA *Nuclear Law Bulletin*, accompanied by some previously unpublished works. It also summarises the practical steps taken by the respective international organisations that support the international legal framework.

### **International Journal of Nuclear Law (IJNL)**

The first issue of a new journal on international nuclear law has recently been issued by Interscience Publishers. It describes itself as aiming “to provide a forum for thoughtful analysis focusing on issues of concern to nuclear law and regulations, to arrange for and promote studies and the knowledge of legal problems related to the peaceful use of nuclear energy under the special aspects of the protection of people and the environment, to help promote the exchange of information and to contribute to the development of legislation governing the peaceful uses of nuclear energy”.

The Editor-in-Chief of the IJNL is Professor Dr. André Maisseu of WONUC, the World Council of Nuclear Workers. Four issues of the IJNL are to be published per year.

## **NEWS BRIEFS**

### ***Cooperative Arrangement Between US Department of Energy and OECD Nuclear Energy Agency***

On 10 April 2006, the US Department of Energy (DOE) and the OECD Nuclear Energy Agency (OECD/NEA) signed an Arrangement for Cooperation in the Field of Nuclear Data and Computer Programs. Assistant Secretary for Nuclear Energy in the DOE, Denis Spurgeon, and Director General of the NEA, Luis Echávarri, signed this arrangement which extends and supports the exchange of nuclear data and related information as well as computer programs pertinent to civilian nuclear, science and technology initiated under the previous Cooperative Arrangement adopted on 15 December 1985. The new arrangement runs for five years, automatically renewable.

### ***Euratom Joins Generation IV Framework Agreement***

On 12 January 2006, the European Commission approved the European Atomic Energy Community's (Euratom) participation in the Framework Agreement for International Collaboration on Research and Development of Generation IV Nuclear Energy Systems (see *Nuclear Law Bulletin* No.75). Euratom will join the Generation IV International Forum, a platform for international cooperation between researchers and nuclear industry experts from Argentina, Brazil, Canada, France, Japan, Republic of Korea, South Africa, Switzerland, the United Kingdom and the United States, who are working together to lay the groundwork for the fourth generation nuclear reactor - Generation IV. The OECD Secretary-General is Depositary of the Generation IV Framework Agreement.

### ***Nomination of Judges to the European Nuclear Energy Tribunal***

On 24 May 2006, the OECD Council adopted a Resolution concerning the appointment of the judges of the European Nuclear Energy Tribunal. This Tribunal was initially established in 1957

pursuant to the Convention on the Establishment of a Security Control in the Field of Nuclear Energy. Since the application of the security control system (non-proliferation of nuclear weapons) was suspended in the 1970s in order to avoid duplication with similar systems established by Euratom and the IAEA, and since the winding up of Eurochemic in 1990, the jurisdiction of the Tribunal has been limited to resolving differences concerning the interpretation or application of the 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy and the 1963 Brussels Supplementary Convention. There have been no cases so far.

Seven independent judges are appointed every five years by the OECD Council upon proposals submitted by countries party to the 1957 Convention according to a procedure of rotation. The judges appointed for this term of office, commencing 24 May 2006, are Dr. Peter Baumann (Austria), Ms. Mia Wouters (Belgium), Mr. Olivier Talevski (Denmark), Ms. Marie-Claire Guyader (France), Prof. Armin von Bogdandy (Germany), Mr. E.A. Maan (Netherlands) and Prof. Vaughan Lowe (United Kingdom). An inaugural session of the Tribunal will be held over the coming months.

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