BIBLIOGRAPHY AND NEWS BRIEFS

BIBLIOGRAPHY

Germany

Existing Nuclear Power Plants and New Safety Requirements – An International Survey, Christian Raetzke/Michael Micklinghoff, Berlin, 2006, 528 pages

This book is a bilingual edition, published in both English (Nuclear Power Plants and New Safety Requirements – An International Survey) and German (*Bestehende Kernkraftwerke und Neue Sicherheitsanforderungen – Ein Internationaler Vergleich*).

The report examines to which extent and by what means new requirements can be applied to existing nuclear power plants. The question of existing nuclear power plants and new safety requirements has acquired heightened importance in recent years in all nuclear power producing countries. As existing installations reach a certain age, the challenge of new and possibly more advanced safety requirements poses many questions. This report examines which criteria are applied when evaluating the safety level of existing nuclear power plants and how backfitting measures – if necessary – are conceived and implemented.

The Association of German nuclear operators – VGB PowerTech – commissioned Christian Raetzke, who is a lawyer and specialist in nuclear law and has been working for German nuclear power plant operators since 1999, to write this report. This book is the result of his collaboration with Michael Micklinghoff, who holds a PhD in physics and has been for many years Head of the Department Nuclear Regulation and Policy of a German utility.

This book is based on a survey in nine countries, namely Belgium, Finland, France, Germany, Spain, Sweden, Switzerland, the United Kingdom and the USA. After an introductory chapter with some general reflections on different categories of backfitting, each of these countries is dealt with in a national report. The national report starts with a general introduction into the regulatory system. Then the question of new requirements for NPPs is dealt with in detail. In a final chapter, the results of the national reports are brought together, compared and evaluated.

50 Jahre Internationale Atomenergie-Organisation IAEO: Ein Wirken für Frieden und Sicherheit im nuklearen Zeitalter, by Dirk Schriefer/Walter Sandtner/Wolfgang Rudischhauser (eds.), Nomos Verlagsgesellschaft, Baden-Baden, 2006, 218 pages*

The 50th meeting of the International Atomic Energy Agency's General Conference was held in September 2006. On 29 July 2007, the IAEA Statute will have been in force for 50 years. The Federal Republic of Germany joined the Agency almost at the beginning, depositing its instrument of ratification on 1 October 1957 as the 53rd State to do so. There is therefore a window of opportunity to celebrate the anniversary of an international organisation with an outstanding record. This publication, sponsored by the German Federal Foreign Office, seizes this occasion by offering a compilation of 16 well-selected contributions in the German language.

Introduced by the German Ministers for Foreign Affairs and for Economic Affairs, Frank-Walter Steinmeier and Michael Glos, and by IAEA Director General, Mohamed ElBaradei, the volume undertakes to review 50 years of activity of the IAEA as well as German contributions thereto. From different angles, German experts, working for ministries, in the business field, at university establishments and at the IAEA itself, aim to promote understanding of the Agency's work. Or, as Minister Glos emphasises in his introductory remarks, the compilation serves to reflect the long-lasting close and trusting co-operation between Germany and the IAEA.

The first contribution by Hans-Friedrich Meyer, a former spokesman of the IAEA, deals with the history of the Organisation (pp. 10-29), presenting the recollections of a senior official over time. Meyer focuses especially on the years immediately before and after the establishment of the Agency. He notes that nuclear energy was traditionally either associated with medical applications or – in Germany's war years – with its use for military purposes. Consequently, the UN General Assembly was right to expand the scope of activities of the proposed Atomic Energy Agency from verification tasks to peaceful uses, too. The newly-founded Federal Republic of Germany strongly supported this two-fold approach, which proved to be a challenge for the following decades but also was the strength of the Organisation's work. Meyer recalls a number of key decisions that had to be taken at the first General Conference meeting, including the choice of Vienna as Headquarters, the decision on the first budget, the composition of the Board of Governors, and the approval of the relationship agreement with the UN. Other important aspects were the first safeguards inspections in the Norwegian research reactor near Oslo and the foundation of the IAEA's research laboratory at Seibersdorf. The next step had to be taken when the Nuclear Non-Proliferation Treaty entered into force in 1970, requiring that the whole system of safeguards be reviewed. Furthermore, regional agreements on nuclear weapon-free zones needed to be taken into account. The Organisation was confronted with new challenges, such as the accident at Chernobyl in 1986 leading to the immediate formation of working groups and a number of subsequent activities on nuclear safety and liability. Starting in the 1990s, possible improvements to the safeguards system once again became the focus, following the detection of undeclared activities in Iraq and the DPRK, which were finally reflected in the drafting of the Additional Protocol. In its fifty years of existence, the author concludes, the IAEA managed to achieve a politically and technically well-respected place within the UN family. This was the result of its activities as moderator between Member States in relation to the peaceful uses of nuclear energy and as an institution for nuclear security. However, appreciation for the IAEA is now particularly high

* This book review was kindly contributed by Dr. Sebastian Seidel, currently Legal Adviser and Deputy Head at the Federation of German Industries' Representation to the European Union, Brusssels. Before that, he was, *inter alia*, a participant at the International School of Nuclear Law (2003) and received a Legal Doctorate in International Law with a thesis on Supervisory and Dispute Settlement Mechanisms in Arms Control Law (2004).

with regard to safeguards and verification activities, as reflected in the award of the Nobel Peace Price to the Agency as well as to its present Director General ElBaradei.

The bodies of the IAEA and their handling of Iraq and other recent crises are the subject of comment by the German Representative for Arms Control and Disarmament issues, Ambassador Friedrich Gröning, jointly with the Head of the IAEA Unit at the Federal Foreign Office Wolfgang Rudischhauser (pp. 32-57). The Board of Governors is considered to have changed from a body of nuclear experts into a diplomatic forum, shifting from consensual "Vienna spirit" to confrontational voting procedures. In parallel, the Director General's role had changed from a technical administrator to the advocate of the Non-Proliferation Treaty. The authors then turn to an aspect of the highest interest: the division of labour between the Board of Governors and the UN Security Council. According to the Statute, it's all very simple: any established non-compliance with the safeguards obligations is to be reported from the inspectors through the Director General to the Board of Governors, which in turn informs the UN Security Council and General Assembly. However, things are more complicated when it comes to the practical application of such regulations. It does therefore not come as surprise when Gröning and Rudischhauser underline that there is an on-going debate on the question of when, how and in which way such a report needs to be filed – let alone the notion of "non-compliance", a term that has been subject to intense research in the recent past, but is still impossible to define. In addition, once an issue has been brought to the attention of the Security Council, the Board of Governors may continue to take its own course of action, even though the sanctions regimes under the IAEA General Conference and under the UN Security Council remain entirely different. The authors then chose the cases of Iraq, Iran and North Korea to demonstrate in detail that in each of these situations, initiatives to find solutions were pursued outside formal bodies.

Another interesting contribution is presented by Walter Sandtner, Head of the Unit for International Nuclear Energy Organisations at the Ministry for Economic Affairs. Sandtner explains the development of the IAEA Safeguards System (pp. 58-75) as a two-step process, complemented by regional initiatives such as Euratom and resulting in recent calls for further action (Committee 25). Following the Baruch Plan and the famous "Atoms for Peace" speech by President Eisenhower, the classical system of comprehensive safeguards [INFCIRC/153] had been established as a first step, based on Article XII of the IAEA Statute. At that time, it was perceived as a sufficient measure to prevent the illegal diversion of nuclear material for its deployment in atomic weapons or other nuclear devices. However, 20 years later it became clear that South Africa, Iraq and North Korea had managed to maintain illegal nuclear weapons programs, demonstrating that the traditional system needed some revision. This resulted in the 1997 Model Additional Protocol [INFCIRC/540]. Sandtner then turns to the call for further strengthening safeguards through the Committee 25, advocated by the US Administration and others. Nevertheless he concludes that "not a few Member States" take the view that with the Additional Protocol, an effective set of instruments has been created, which first of all needs to be ratified by Member States. The adoption of supplementary standards appears to be less urgent. He closes with a number of remarks regarding the sometimes difficult and remote relationship between Euratom and the IAEA. However, he concludes that this partnership has eventually become one based on equal standing, which might be underlined by the recent EU celebration of 25 years of nuclear safeguards co-operation.

Dirk Schriefer, former Director for Safeguards at the IAEA, contributed a number of texts to this publication. At the beginning, he explains briefly and concisely the main tasks of the IAEA (pp. 30-31), referring to nuclear verification and safeguards, nuclear safety and security as well as nuclear applications and technologies. A comprehensive contribution is devoted to the cornerstones of the safeguards system (pp. 76-95), reflecting the rich experience of the IAEA's practitioner. Schriefer describes the purpose and aims of classical safeguards and the associated verification concept, closing with some insightful remarks on the relationship between special inspections and the complementary

access concept under the Additional Protocol. He then turns to "safeguards today" and portrays the recently achieved improvements to the verification system, in particular through the Additional Protocol and measures such as environmental sampling, the assessment of satellite information and the use of open source and data base material. All this is accompanied by data guiding the reader to the practical question of what extent of security may actually be expected for the EUR 100 million that 141 Member States spend on safeguards. For Schriefer the answer seems relatively clear: the system needs further strengthening through technical improvements, more intense communication between the Agency and the States and, last but not least, a better disarmament policy, based on reliable steps which the recognised nuclear-weapon States have to take.

The book closes with a contribution by Wolfram Tonhauser, Head of Section for Nuclear and Treaty Law at the IAEA's Office of Legal Affairs, on "The International Legal Agreements – An Overview" (pp. 194-207). In his article, he covers in several sections the most prominent international treaties and other normative texts. Starting out with the Statute and the typical agreement on privileges and immunities of the Organisation, Tonhauser deals in quite a few sub-chapters with legal and non-legal documents on all important aspects of the Agency's work, spanning nuclear safety and security, safeguards and non-proliferation, liability for nuclear damage and technical co-operation.

As it is impossible to review all – sometimes shorter – contributions, the following items shall be mentioned as they fall within the purview of the *Nuclear Law Bulletin*: Anita Nilsson/Dirk Schriefer: "The Fight Against Nuclear Terrorism", pp. 108-120; Dirk Schriefer: "The IAEA and The United Nations System", pp. 149-153; Wilhelm Gmelin: "IAEA and Euratom – A Not Always Well-balanced Relationship", pp. 154-167. Other pieces of writing deal especially with aspects of the relationship between Germany and the IAEA, such as the German national R&D programme in support of the Agency's activities.

The purpose of this publication is to honour 50 years of IAEA work for peace and development in nuclear affairs. It certainly draws an impressive picture and presents the first half century of the Agency in an extremely lively way. The book has been published at the right time, closing a gap in German writing on international nuclear affairs.

Sweden

*Weapons of Terror – Freeing the World of Nuclear, Biological and Chemical Arms, Stockholm, 2006, 227 pages**

This report, recently published by the independent international Weapons of Mass Destruction Commission − WMDC, chaired by Hans Blix, puts forward a number of concrete proposals on how the world could be freed of nuclear, biological and chemical weapons. It analyses the threats under which the world is living today – above all, 27 000 nuclear weapons and efforts by individual States and perhaps terrorist groups to develop or obtain different kinds of weapons of terror. The report discusses how these threats and risks can be addressed, including current issues such as Iran and the Middle East, North Korea, India and Pakistan.

The Commission's 14 members from all continents state that common global efforts to achieve arms limitation and disarmament have stagnated. After 50 years of cold war, we even see the risk of arms races involving new types of nuclear weapons, space weapons and missiles.

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* The information in this Note has been taken from a press release issued by the WMDC on 1 June 2006, available on its website at www.wmdcommission.org.

The Commission concludes that it is high time to revitalize global cooperation on disarmament and it presents a list of 60 recommendations. First, that all governments should accept the Comprehensive Test Ban Treaty that was adopted ten years ago, that States currently in possession of nuclear weapons must reduce their arsenals and that they must stop producing plutonium and highly enriched uranium for more nuclear weapons. The Commission advises that the world must aim at achieving a ban on both possession and use of nuclear weapons, in the same way as bans that apply to biological and chemical weapons.

As part of a new, concerted effort, the Commission proposes that a world summit be called at the United Nations in New York on disarmament, non-proliferation and terrorist use of weapons of mass destruction. This summit should also discuss and decide on reforms to make the UN disarmament more effective. To break deadlocks at the Conference on Disarmament in Geneva, the Commission proposes that unanimity should no longer be required for issues to be put on the agenda, but that a two-thirds majority should suffice.

Commenting on the Commission's work, Dr. Blix says that although existing international treaties have shown weaknesses, a policy based on unilateralism and military actions has failed and has been costly in terms of lives and resources. Efforts to jointly create global security must now be intensified. He concludes that all States – especially those with nuclear weapons – have a responsibility and must contribute to this process.

This report can be downloaded from the WMDC website at:
www.wmdcommission.org/files/Weapons_of_Terror.pdf.

NEWS BRIEFS

OECD Nuclear Energy Agency

Inaugural Session of 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 (see *Nuclear Law Bulletin* No. 77). This Tribunal was initially established in 1957 pursuant to the Convention on the Establishment of a Security Control in the Field of Nuclear Energy. Its jurisdiction is now 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.

The Tribunal held its Inaugural Session on 27 October 2006 at the Headquarters of the OECD with the following judges in attendance: 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. Mann (Netherlands) and Prof. Vaughan Lowe (United Kingdom). At that Session, Prof. Armin von Bogdandy was elected President, and Ms. Julia Schwartz, Head of Legal Affairs of the OECD Nuclear Energy Agency, was appointed Registrar of the Tribunal.[1]

1. The Tribunal approved a number of amendments to its existing Rules of Procedure and requested that the NEA Secretariat undertakes an examination of certain other proposed modifications.

Fiftieth Anniversary of the Nuclear Law Committee

The Nuclear Law Committee of the OECD Nuclear Energy Agency will celebrate its 50th anniversary in early 2007. At its meeting of 24 January 1957, the OECD/NEA Steering Committee for Nuclear Energy decided to establish a Working Party, whose task would be to examine and formulate proposals on the question of harmonisation of legislation concerning third-party liability in the case of damage caused by the peaceful uses of nuclear energy. This Working Party eventually became the Group of Governmental Experts on Third Party Liability in the Field of Nuclear Energy, which in turn was transformed into the Nuclear Law Committee in 2000.

To mark this occasion, a special session of the Committee devoted to its "past, present and future" will be held on Tuesday 6 February 2007 in conjunction with the NLC's next regulatory scheduled meeting.

International Nuclear Law Association

2007 Nuclear Inter Jura Biennial Congress in Brussels

The 2007 Nuclear Inter Jura Congress will be held in Brussels, Belgium from 1 to 4 October 2007, followed by a technical visit which will be organised on 5 October. This congress will be the 18th in a series of biennial meetings that began in 1973. It is now the leading international conference for specialists in nuclear law. The following topics will be addressed during the meeting:

- Nuclear safety and regulation.
- Radiological protection.
- Radioactive waste management and decommissioning.
- Transport of nuclear material.
- Radioactive sources management.
- Nuclear liability and insurance.
- International nuclear trade.
- Non-proliferation.
- Nuclear security.
- Nuclear energy and environmental protection.
- European Union nuclear legislation.

Authors are invited to submit an abstract of their proposed paper before 15 January 2007. Further information is available on the website of the congress at: www.bnla.be.

Eleventh INLA Regional Meeting of the German Branch

The German branch of the International Nuclear Law Association held its 11th Regional Conference in Goslar, Germany, on 9 and 10 November 2006. In organising this conference, the German branch of INLA, joined forces for the first time with a partner, namely the Institute for German and International Mining and Energy Law of the Technical University of Clausthal. The theme of this conference was "Elements of a Global Nuclear Law Regime" and it comprised working sessions on international law and the use of nuclear energy, final disposal of radioactive waste, comparative aspects of nuclear liability law and current problems of German nuclear law.