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# **NUCLEAR LEGISLATION IN OECD COUNTRIES**

## **Regulatory and Institutional Framework for Nuclear Activities**

**Austria**

## ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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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, the 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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## **AUSTRIA**

This chapter was last revised in 1999 and is correct as of that date.

The NEA Secretariat is currently revising this chapter in close consultation with the national authorities and plans to issue a new version in the near future.

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## I. GENERAL REGULATORY REGIME

### General Outline

Austria does not operate any nuclear power plants. Thus, its interest in the safety of nuclear facilities relates primarily to environmental, health and safety concerns arising from nuclear power plants in neighbouring countries.

In 1978, legislation prohibiting nuclear power plants on Austrian territory was adopted as a result of a referendum, in November 1978, rejecting the nuclear power plant project Zwentendorf. The events in Chernobyl in 1986 reinforced this parliamentary decision and further strengthened public opposition to nuclear power. Confirming this policy, on 13 August 1999 the Parliament adopted the Federal Constitutional Act for a Nuclear-Free Austria [BGBl 1999 I, p. 1161].

The policy adopted by the Austrian government aims to establish a “Nuclear Power Free Zone Central Europe”. In line with this general policy, Austria attaches great importance to international efforts to harmonise and steadily increase nuclear safety levels on a multilateral and global basis. Austria contributes to various programmes aimed at analysing and evaluating the safety of nuclear power plants in the context of both European Union and International Atomic Energy Agency (IAEA) activities, such as the IAEA’s extra budgetary programme on VVER and RBMK reactors. It has also embarked on bilateral activities with neighbouring countries to exchange information on nuclear safety related matters, including not only operational information on nuclear installations but also early warning schemes in the case of nuclear incidents or accidents and mutual assistance for the prevention or mitigation of effects from such radiological events.

### 1. Introduction

In Austria, the development and use of nuclear energy for peaceful purposes have been significantly influenced by the passing, on 15 December 1978, of the Act prohibiting the use of nuclear fission for energy purposes in Austria [BGBl<sup>1</sup> No. 676/1978: “*Bundesgesetz vom 15 Dezember 1978 über das Verbot der Nutzung der Kernspaltung für die Energieversorgung in Österreich*”].

This Act, adopted as a result of the referendum rejecting the start-up of the first Austrian nuclear power plant at Zwentendorf in 1978, is at the origin of the Austrian government’s nuclear power policy.

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1. BGBl: *Bundesgesetzblatt* = Federal Law Gazette.

The Federal Constitutional Act for a Nuclear-Free Austria of 13 August 1999 [BGBl 1999 I, p. 1161] refers to the 1978 Act and confirms Austria's policy on both civil and military matters in the nuclear field.

Legislation in the nuclear field is directed primarily towards *nuclear safety* and addresses the following areas:

- radiation protection: all rules and measures concerned with the protection of the lives or health of human beings and future generations from damage due to ionising radiation;
- facility safety: all construction and other technical norms and standards designed to afford protection against ionising radiation from nuclear facilities;
- safeguards: accounting and control of nuclear materials designed to prevent their diversion from peaceful utilisation (non-proliferation);
- protection of nuclear materials and installations against interference or encroachment by unauthorised third parties (physical protection).

These matters are covered in various pieces of legislation, involving both federal (*Bund*) and regional (*Land*) authorities.

In addition, there are licensing provisions in specific statutes and the General Administrative Procedures Act of 1991 applies as well.

## **2. Mining Regime**

There is no specific legislation in this field. The Mining Act of 1954 [BGBl No. 73/1954] does not restrict the mining of ores containing uranium or thorium. They may be prospected for and mined by any person in compliance with the general provisions of the Mining Act.

## **3. Radioactive Substances, Nuclear Fuel and Equipment**

The main provisions of the Radiation Protection Act of 11 June 1969 [*Strahlenschutzgesetz*, BGBl No. 227/1969] address the licensing of the construction and operation of installations involved in the handling of radioactive materials or of radiation-emitting equipment [Sections 5-7].

“Handling of radioactive materials” means the extraction, production, storage, carriage, delivery, supply, processing, use or disposal of radioactive materials or any activity resulting in the emission of ionising radiation [Section 2(e)].

“Radiation-emitting equipment” means devices used for the production of ionising radiation or the use of which involves the emission of radiation in so far as the ionising radiation does not result from spontaneous nuclear processes [Section 2(d)].

Under the Radiation Protection Act, any other activities involving radioactive materials or the operation of ionising radiation-emitting devices also require a licence [Section 10].

Specific regulations exempt from licensing activities involving radioactive materials entailing no radiation hazards, the carriage of radioactive materials, provided it complies with the appropriate transport regulations [Section 13], and installations used for military research and experimental purposes.

The design of devices containing radioactive materials or of radiation-emitting equipment may be approved by the authority in accordance with strict legal requirements. Such an approval may simplify the licensing procedures [Sections 19-22].

The possession of radioactive materials or of radiation-emitting equipment which is exempt from licensing under the Radiation Protection Act must be reported [Section 25], unless for example, the radioactive material is below given limits of activity, or the transport of radioactive materials is in compliance with the relevant transport regulations.

#### **4. Nuclear Installations**

Apart from the site at Zwentendorf, where a nuclear power plant was built but not put into operation, Austria operates the following four “nuclear facilities” (three research reactors and a central waste processing and interim storage facility):

##### *Atominstitut (Atomic Institute)*

The Austrian Universities’ Atomic Institute in Vienna operates a TRIGA Mark II research reactor. It has a maximum thermal power output of 250 kW. However, it can also be operated in the “pulse mode” up to a maximum output of 250 MW. In operation since 1962, the reactor has been used exclusively for university research and teaching purposes.

Because of its low thermal output, the reactor’s original 57 fuel elements are still in the core. A further 22 fuel elements have been loaded in subsequent years. Over the past 33 years, 8 fuel elements were permanently removed, and a total of 8 fresh fuel elements are in storage.

##### *Österreichisches Forschungszentrum Seibersdorf (Austrian Research Centre)*

The ASTRA research reactor at the Austrian Research Centre Seibersdorf, a 10 MW thermal water-cooled and moderated pool type reactor, has been in operation since 1960. The reactor is mainly used for the production of radioisotopes for industrial and medical purposes, irradiation of materials, and irradiation of samples for the analysis of neutron activation. The future of the reactor is currently under review, with the option of possible shut-down.

##### *Reaktorinstitut Graz (Graz Reactor Institute)*

The Graz Reactor Institute has been operating a nominal 10 kW Siemens ARGONAUT reactor since 1965. The fuel enrichment levels are 20% and 90%. The reactor is mainly used for training purposes within the framework of Graz Universities’ education programme. The available fuel reserves will last until 2005.

*Interim Storage Facility for Radioactive Waste*

This waste storage facility, together with related waste treatment facilities, is operated by the Seibersdorf Austrian Research Centre to meet the radioactive waste management needs of Austrian industry, hospitals, other medical institutions and research institutes. The storage facility has a design capacity of 15 000 barrels containing 200 litres each. Approximately 50% of this capacity is still available.

**a) *Licensing and inspection, including nuclear safety***

As a result of Austria's federal structure, licensing procedures involve federal (*Bund*) as well as regional (*Länder*) authorities. The construction and operation of installations for the handling of radioactive materials and ionising radiation-emitting equipment require a licence [Radiation Protection Act, Sections 5-7]. Under that Act, licensing is a shared responsibility, mainly held by the Federal Minister for Women's Affairs and Consumer Protection (within the Federal Chancellery). The distribution of responsibilities is specified in Section 41 of the Act. The examination of licences is dealt with primarily in the Radiation Protection Act and the Radiation Protection Ordinance of 12 January 1972 [BGBl No. 47/1972]. The licensing procedure is subject to the provisions of the General Administrative Procedure Act (*Allgemeines Verwaltungsverfahrensgesetz*) [BGBl No. 51/1991].

An operating licence is granted where the installation has been built in compliance with specified conditions, a radiation protection officer has been appointed and the regular operation of the installation entails no hazard from ionising radiation [Section 6(2)].

The operation of installations for the handling of radioactive materials or for housing radiation-emitting equipment in accordance with the Radiation Protection Act is monitored and inspected at regular intervals by the licensing authority as specified in the applicable legislation [Section 17].

On the subject of nuclear safety, it is of relevance to note that Austria ratified the 1994 Convention on Nuclear safety on 26 August 1997.

**b) *Emergency response***

The Radiation Protection Act provides that in the event of imminent danger coming from an installation in which radioactive materials are handled or ionising radiation-emitting equipment is housed, the authorities must take all appropriate measures to avert the danger. They may issue provisional instructions and, after consulting the radiation protection officer of the installation, shall proceed in compliance with Section 4 of the 1950 Act on the Enforcement of Administrative Decisions (*Verwaltungs-vollstreckungsgesetz*).

**i) *National emergency arrangements***

Section 38 of the Radiation Protection Act sets forth general principles concerning measures to be taken in the case of radioactive contamination. In general, the competence for taking such measures lies with the Regional Governor (*Landes-hauptmann*), subject to orders from the Federal Department of Radiation Protection within the Federal Chancellery.



For radiological emergencies, a national contingency plan – containing, in particular, provisions on the exchange of information, civil protection measures, warning and informing the public and convening the National Crisis Management Board – has been drawn up. Together with appropriate general recommendations issued by the federal authorities, this plan serves as the basis for preparatory measures to be taken at the regional level.

The Federal Alarm Centre (*Bundeswarnzentrale*) of the Federal Minister of the Interior acts as a “message relay centre” for the Radiation Protection Department of the Federal Chancellery, whose experts are available around the clock. If an incident is reported to the Federal Alarm Centre, the radiation protection experts are immediately called in. If they come to the conclusion that there is imminent danger, all competent authorities are informed.

The Federal Chancellery may decide on any urgent preliminary counter-measures. If necessary, the National Crisis Management Board (*Koordinationsausschuß des Staatlichen Krisenmanagements*) will convene. Its membership comprises all Federal Ministries, the regional governments and socio-professional interest groups as well as the Austrian radio and television network (ORF) and the Austrian Press Agency. This team of experts advises the Federal government, co-ordinates all measures necessary for an emergency response at short notice and makes arrangements for a long-term concerted strategy at all levels of public administration.

*ii) The Austrian Radiation Early Warning and Monitoring System*

A special chapter of the Austrian Radiation Protection Act deals with large-scale radiation surveillance, monitoring emergency situations and the implementation of remedial counter-measures.

Pursuant to this Act, the Austrian Federal Chancellery (Department for Radiation Protection) operates both an automatic Radiation Early Warning System and a Laboratory-Based Monitoring Network in order to comply with the requirements of rapid recognition and precise determination of radioactive contaminants. In addition, several hundred car-borne and several air-borne dose rate measurement units have been installed in the networks of the Federal Minister of the Interior and the Federal Army. Furthermore, the Federal Chancellery plays an important role as the competent authority for the planning and implementation of counter-measures.

The Laboratory-Based Monitoring Network (*Laborgestütztes Überwachung-snetz für Radioaktivität*) handles the radionuclide-specific monitoring of air, precipitation, surface water bodies and foodstuffs.

The Radiation Early Warning System (*Strahlenfrühwarnsystem*) continuously monitors external gamma dose rates throughout the country. Near the Austrian borders, several aerosol and radioiodine warning devices have been installed. This automatic computerised system is managed by the Federal Chancellery and has been in operation since 1979.

All in all, 336 sensor stations, 9 regional centres and a national centre have been set up. The System design meets the requirements of operational safety and reliability. From the sensor stations, data is transmitted to the regional centres at approximately three-minute intervals and also on-line to the national centre. Thus, it is possible to monitor the nuclear radiation situation in all of Austria.

The public has permanent access to the data via the ORF-TELETEXT service. The data gathered by the Radiation Early Warning and Monitoring System are exchanged on-line with

corresponding systems in the neighbouring Slovak Republic and it is planned to enhance this exchange further.

At international level, Austria ratified the 1986 Convention on Early Notification of a Nuclear Accident on 18 February 1988, and it has been a Party to the 1986 Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency since 21 November 1989.

## **5. Trade in Nuclear Materials and Equipment**

Under the Non-proliferation Act of 1991 [*Sicherheitskontrollgesetz* 1991, BGBl No. 415/1992] and in compliance with Austria's international obligations under the Nuclear Non-proliferation Treaty (NPT), the export of nuclear materials and related non-nuclear materials as well as nuclear equipment is subject to a licence granted in accordance with the provisions of the NPT, by the Federal Chancellery (*Bundeskanzler*).

The Export Control Ordinances [BGBl No. 629/1975; BGBl No. 518/78] designate the items subject to export licences [Non-Proliferation Act, Article II, Section 4 (8-11)].

The list of goods which may not be exported without a licence, in accordance with the Non-Proliferation Act, was amended by an Ordinance of 14 November 1990 [BGBl No. 685/1990]. The amendment includes numerous items involving nuclear materials. The last amendment, introduced by Ordinance of 14 December 1993, includes systems, equipment and components for use in aerodynamic enrichment plants, chemical exchange or in exchange enrichment plants, laser-based enrichment plants, plasma separation and electromagnetic enrichment plants for the conversion of uranium.

## **6. Radiation Protection**

The main focus of Austrian nuclear safety legislation is radiation protection, dealt with primarily in the 1969 Radiation Protection Act and the 1972 Radiation Protection Ordinance.

These instruments define general measures to protect the lives and health of individuals and future generations against the hazards of ionising radiation, as well as licensing conditions for the construction and operation of installations designed to handle of radioactive materials, as explained under Section 4 "Nuclear Installations" above.

The radiation protection provisions contained in the Act and in the Ordinance are designed:

- to ensure that exposure of individuals to radiation is kept "as low as possible";
- to restrict the absorption of radioactive materials by the human body to a minimum; and
- to ensure that only the smallest possible quantities of radioactive materials are released into the air, water or soil.

The Radiation Protection Act requires pre-employment medical examinations and periodic health checks of exposed workers as well as their dosimetric surveillance. It also provides that special radiation protection provisions are to be defined in a specific Radiation Protection Ordinance.

At present (1999), the Radiation Protection Act as well as the Radiation Protection Ordinance are being adapted to the requirements of the law of the European Union in this field. Article 55 of EU Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation provides that EU Member States adapt their respective legal instruments before 13 May 2000 in order to comply with this Directive.

Matters of a more general nature concerning the health aspects of radiation protection may be brought to the attention of the Radiation Protection Commission (*Strahlenschutzkommission* – SSK) which acts as an advisory body to the Minister for Women’s Affairs and Consumer Protection.

As the Radiation Protection Act 1969 is based upon the Imperial Health Act [*Reichssanitätsgesetz* – RGBI<sup>2</sup> No. 68 dated 30 April 1870], a new Radiation Protection Act is currently being prepared and will take account of the latest developments in this field.

## **7. Radioactive Waste Management**

Since Austria does not operate nuclear power plants, there is no major production of high level radioactive waste (HLW) and consequently no need for intermediate or final HLW storage facilities. The relatively small quantities of HLW resulting from the Austrian research reactors are covered by a framework contract for “US-origin nuclear fuel” and shall be returned to the US during the next decade.

Low and medium level radioactive waste (L/MLW) from hospitals, industry and research laboratories (30-40 tonnes/year) is collected and treated by the Austrian Research Centre Seibersdorf. The research centre is equipped with suitable facilities to process and condition the waste, e.g. incinerator, supercompactor and waste water evaporator. As a conditioning process, cementing is predominantly used.

On the basis of a joint agreement between the Republic of Austria, the community of Seibersdorf and the Austrian Research Centre Seibersdorf, the intermediate storage facility on the site of the research centre, with a capacity of 15 000 drums of conditioned waste is scheduled to be operational until 2012. After this date, the waste will be transferred to a final storage facility to be built on a site to be selected at the beginning of the next decade.

The 1972 Radiation Protection Ordinance contains detailed provisions concerning the handling of radioactive waste, which mainly relate to radiation protection measures. According to the current (1999) draft legislation modifying the Radiation Protection Ordinance, the licensing of installations requires both the applicants for new licences and the operators of existing installations to furnish waste management schemes. The decision on a specific repository site shall take account of the requirements of the 1993 Environmental Impact Assessment Act [*Umweltverträglichkeitsprüfungsgesetz*] and of the procedure laid down in the land use legislation of the *Länder* [1972 Radiation Protection Ordinance].

The 1989 Ordinance on the Specification of Hazardous Wastes [*Verordnung über die Festlegung von gefährlicher Abfällen* – BGBl No. 607/1989] includes radioactive waste within the defined limits of the Radiation Protection Act. Accordingly, radioactive waste is included in a list of

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2. RGBI: *Reichsgesetzblatt* = Imperial Law Gazette.

substances to which the 1989 Act on the Rehabilitation of Hazardous Waste Sites applies [*Alllastensanierungsgesetz* – BGBl No. 299/1989].

A further Ordinance on the Transfer of Radioactive Wastes [*Verbringung-sverordnung für radioaktive Abfälle* – BGBl No. 44/1997] relating to the supervision and control of shipments of radioactive waste into, out of and through the national territory, came into force on 1 March 1997. It was enacted pursuant to the Radiation Protection Act in order to implement the provisions of Council Directive 92/3/Euratom of 3 February 1992 on the supervision and control of shipments of radioactive waste between Member States and into and out of the Community. The Annexes to the Ordinance define, *inter alia*, the applicable standard documentation and the list of quantity and concentration levels for radioactive waste.

## **8. Non-Proliferation and Physical Protection**

Austria has been a Party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) since 27 June 1969 [BGBl No. 258/1970] and, in accordance with the Treaty, concluded an Agreement on 21 September 1971 with the International Atomic Energy Agency (IAEA) on the Application of Safeguards [BGBl No. 239/1972]. The legal basis for Austria's non-proliferation policy was established through the Austrian Nuclear Non-proliferation Act of 1972, amended in 1991. The authority responsible for safeguards and nuclear export controls is the Federal Chancellor.

Austria also ratified on 13 March 1998 the 1996 Comprehensive Nuclear Test Ban Treaty.

Following the Austrian accession to the European Union, the bilateral Safeguards Agreement with the IAEA was suspended and replaced by the trilateral agreement between the IAEA, Euratom and the non-nuclear-weapon states Members of Euratom.

As regards physical protection of nuclear materials, the 1991 Non-proliferation Act also contains provisions on interference or encroachment by unauthorised third parties. The Federal Minister of the Interior may impose any measures it considers necessary to ensure the protection of nuclear materials at the national level [Article II, Sections 6 and 7].

The Federal Minister of the Interior is responsible for issuing licences and for the adoption of security measures in connection with the handling of nuclear material, including protective measures against interference or encroachment [Sections 6 and 7]. Before decisions are taken, the Federal Chancellery (both the divisions for Safeguards and for Radiation Protection) shall be consulted. In addition, the Federal Minister of the Interior decides on protective measures with regard to the carriage of materials that come within the purview of the Act on the Transport of Dangerous Goods by Road.

Physical protection levels are based on the IAEA Guidelines and Recommendations for the Physical Protection of Nuclear Materials as published in IAEA document INFCIRC/225/Rev.3.

Austria has also been a Party to the 1979 Convention on the Physical Protection of Nuclear Material since 22 December 1988.

## **9. Transport**

In Austria, the transport of radioactive material is strictly controlled so as to ensure maximum safety. Safety measures of a general nature are embodied in the 1969 Radiation Protection Act.

The transport of radioactive materials by **rail** is governed by the Regulations concerning the International Carriage of Dangerous Goods by Rail (RID), an Annex to the Convention concerning International Carriage by Rail (COTIF), to which Austria is a Party. The RID applies to the international transport of dangerous goods to or from Austria. Under the Act on the Carriage of Dangerous Goods<sup>3</sup> of 1998 (GGBG), it also applies to transport operations within Austria.

The international transport of such material by **road** is primarily subject to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) to which Austria is a Party. In addition to ADR, there are provisions in the GGBG which refer to, implement and complete the ADR. Under the GGBG, ADR is also applicable to the domestic carriage of dangerous goods by road in Austria.

The GGBG also implements several directives of the European Union concerning the carriage of dangerous goods by road, rail and inland navigation, which refer to, implement and complete the international agreements mentioned above.

As regards **air** transport, the provisions of the International Civil Aviation Organisation (ICAO). Technical Instructions for the Safe Transport of Dangerous Goods by Air are implemented by the GGBG. Furthermore, the Dangerous Goods Regulations of the International Air Transport Association (IATA) constitute an integral part of any carriage contract concluded by an IATA-carrier.

Since the relevant international legal instrument for the transport of dangerous goods by **inland waterways** (ADN) has not yet entered into force, the transport of radioactive material by this means is subject to the provisions of an Ordinance<sup>4</sup> based on the 1997 Federal Act on Inland Navigation<sup>5</sup> and to the provisions of the GGBG, as far as they are common to all modes of transport.

Regardless of the applicable law of the state in which a harbour is located, the transport of radioactive materials by **sea** on ships registered in Austria has to comply with the International Maritime Organisation (IMO) Dangerous Goods Code. The provisions of this IMDG-Code are also referred to in the GGBG.

## **10. Nuclear Third Party Liability**

The Nuclear Liability Act of 1964 (*Atomhaftpflichtgesetz*) was repealed and replaced on 1 January 1999 by the Federal Law on Civil Liability for Damages Caused by Radioactivity,<sup>6</sup> adopted by the Austrian Parliament on 7 October 1998. This Act governs civil liability for damage to persons or property resulting from ionising radiation from nuclear installations, nuclear substances or radioisotopes [Section 1]. This Act applies to nuclear damages caused after 1 January 1999.

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3. *Bundesgesetz über die Beförderung gefährlicher Güter und über eine Änderung des Kraftfahrtgesetzes 1967 und der Straßenverkehrsordnung 1960 (Gefahrgut-beförderungsgesetz – GGBG)*, BGBl I, No. 145/1998.

4. *Verordnung des Bundesministers für Wissenschaft und Verkehr über die Beförderung gefährlicher Güter auf Wasserstraßen (ADN-Verordnung)*, BGBl II, No. 295/1997.

5. *Bundesgesetz über die Binnenschifffahrt (Schiffahrtsgesetz)*, BGBl I, No. 62/1997.

6. *Bundesgesetz über die zivilrechtliche Haftung für Schäden durch Radioaktivität (Atomhaftungsgesetz 1999)*, BGBl I, No. 170/1998.

The Act provides for the unlimited liability of the operator of a nuclear installation and the carrier of nuclear material. The operator of a nuclear installation is liable for all damage caused by the operation of that installation, including the dismantling of the plant and the disposal of the radioactive substances which are located there [Section 3(1)]. The operator is also liable for damages caused outside the installation by radioactive material originating from that installation if the damage is caused before another operator has taken charge of this material, or where the material has been sent to the operator, if the damage is caused after that operator has taken legal charge over the material [Section 3(2)]. The carrier of nuclear substances is liable for all damage caused during the carriage of nuclear material by land, air or sea, unless he proves that he did not know and could not have known that the goods transported were nuclear material [Section 4].

The operator of a nuclear installation situated on Austrian territory is required to maintain financial security to cover this liability of at least Austrian Schillings (ATS) 5.6 billion (approximately euros 400 million), as well as ATS 560 million (approximately euros 40 million) for interest and costs. For research facilities, the minimum amount is fixed at ATS 560 million plus ATS 56 million for interest and costs [Section 6]. The carrier of nuclear material is obliged to maintain financial security coverage of at least ATS 560 million (ATS 56 million for source material) and ATS 56 million (ATS 5.6 million for source material) for interest and costs [Section 7].

The liability imposed on the handler of radioisotopes is fault-based. Liability is also unlimited, and must be covered by financial security in the manner and to the extent customary in the ordinary course of business [Sections 9 and 10].

The definition of nuclear damage was significantly widened with the adoption of the 1998 Act. Damage now includes damage to persons or property, the costs of preventive measures and measures of reinstatement of the environment [Section 11].

Furthermore, the 1998 Act provides that the plaintiff is entitled to bring an action before a court in whose jurisdiction the damage was either caused or suffered. The objective of this provision is to ensure that if nuclear damage, although caused in a foreign territory, is suffered in Austria, then an Austrian court will have jurisdiction and Austrian law will be applicable.

## **II. INSTITUTIONAL FRAMEWORK**

In Austria, the enforcement of federal legislation is in principle a matter for the *Länder* except in cases where the *Bund* (Federal government) is expressly made responsible under the Constitution [Federal Constitution, Article 15]. As regards nuclear energy legislation, therefore, the Federal government has no exclusive competence.

## **1. Regulatory and Supervisory Authorities**

### **A. Federal Authorities (*Bund*)**

Federal ministers are responsible for the application of the pertinent provisions of the Radiation Protection Act of 1969 with regard to:

- nuclear reactors;
- production of nuclear fuels or processing of irradiated nuclear fuels;
- particle accelerators;
- specified types of construction; and
- radiation activities carried out by doctors and in hospitals.

#### **a) *The Federal Chancellery***

In his capacity as the national nuclear non-proliferation authority, the Federal Chancellor (*Bundeskanzler*) is responsible for nuclear material accountancy and control in accordance with the Non-proliferation Act of 1991. Under that Act, he is also responsible for the export control of fissionable material, non-nuclear material (*e.g.* heavy water, zirconium, etc.) and equipment. In his capacity as nuclear co-ordination minister, the Federal Chancellor is in charge of all issues involving the negotiation and implementation of legal instruments concluded with the IAEA.

#### **b) *The Federal Minister for Women's Affairs and Consumer Protection***

The Federal Minister for Women's Affairs and Consumer Protection is generally responsible for radiation protection as far as health matters are concerned. The Minister is also responsible for issues relating to the long-term storage of radioactive waste, including the siting, construction and operation of storage facilities.

#### **c) *The Federal Minister of the Interior***

The Federal Minister of the Interior is responsible for issuing licences and for the adoption of security measures in connection with the handling of nuclear material, including protective measures against interference or encroachment by unauthorised third parties [Safeguards Act, Part 3]. In addition, the Federal Minister of the Interior is in charge of transport safety measures with regard to the carriage of nuclear materials subject to the Act on the Transport of Dangerous Goods by Road.

#### **d) *The Federal Minister for Economic Affairs***

The Federal Minister for Economic Affairs is responsible for a limited number of matters concerning the safety of nuclear installations, *e.g.* pressure vessels and power engines.

Under the 1995 Foreign Trade Act [*Außenhandelsgesetz*, BGBl No. 172/1995], the Federal Minister for Economic Affairs is responsible for the licensing of exports of nuclear-related “dual use” materials.

**e) *The Federal Minister of Finance***

As far as nuclear third party liability is concerned, the Federal Minister of Finance decides whether the nature and amount of the financial security offered by the operator is sufficient to cover his liability under the Nuclear Liability Act of 1964 [Section 17(3)].

**f) *The Federal Minister of Labour, Health and Social Affairs***

The Central Labour Inspectorate of the Federal Minister of Labour, Health and Social Affairs is responsible for the protection of the health of employees carrying out ionising radiation activities.

**g) *The Federal Minister of Science and Transport***

The Federal Minister of Science and Transport is the competent authority for the transport of dangerous goods (including radioactive material) by all modes of transport in Austria and also for the approval of packages and shipments of radioactive material. It is the competent authority for the implementation and interpretation of the IAEA Regulations for the safe transport of radioactive materials (IAEA Safety Series Nos. 6, 7 and 37 as amended by IAEA Documents ST-1 and ST-2) as well as for the legislation enforcing these Regulations.

The Minister also bears responsibility for the co-ordination and strategic orientation of energy research and development in general and nuclear research in particular, and is the competent authority for the construction and operation of university-based nuclear installations.

**h) *The Federal Minister of Justice***

The Federal Minister of Justice is responsible for legal matters related to the Nuclear Liability Act.

**i) *The Federal Minister for the Environment***

The 1986 Federal Ministries Act provides that the Federal Minister for the Environment is responsible for protection of the environment against ionising radiation.

**j) *The Federal Minister for Foreign Affairs***

The Federal Minister for Foreign Affairs is the competent authority representing Austria internationally.



## **B. Regional Authorities (*Länder*)**

The Regional Governor (*Landeshauptmann*), in his capacity as the highest authority in the *Land*, is the competent authority for the enforcement of Parts II and III of the 1969 Radiation Protection Act as far as installations requiring licences are concerned, except where the Federal Ministers are explicitly given responsibility by the Law [Section 41(1)(ii) and 41(2)]. The Regional Governor is also the competent authority for licensing X-ray equipment.

## **C. District Authorities (*Bezirksverwaltungsbehörden*)**

In general, the district authorities are responsible for the application of Parts I to III of the Radiation Protection Act, except where the Law expressly provides that the Federal Minister or the Regional Governor is in charge [Section 41(1)(iii) and 41(2)].

Under the Constitution, responsibility for granting construction licences for installations which will handle radioactive materials would normally lie with the mayor of the town to which the site of the installation belongs. In practice, however, advantage is usually taken of the possibility of transferring this responsibility to the regional authorities' (*Länder*) level.

## **2. Advisory Bodies**

### **a) Forum for Nuclear Questions**

A Forum for Nuclear Questions (*Forum für Atomfragen*) was established by an Order of 30 April 1990 [BGBl No. 234/1990] as a nuclear advisory board. The Forum's task is to advise the Federal Chancellor on all questions relating to nuclear energy and ionising radiation which call for co-ordination.

The members of the Forum include experts in the fields of reactor technology, radiation protection, meteorology, nuclear medicine, ecology, biology, geology, energy economics, law and emergency management as well as government officials from various ministries.

### **b) Radiation Protection Commission (*SSK*)**

The Radiation Protection Commission (*Strahlenschutzkommission – SSK*) was set up in 1961 under the Imperial Health Act [RGBl No. 68/1870, Section 17] and under the Federal Ministries Act of 1973 as the advisory body to the Federal Ministry for Women's Affairs and Consumer Protection.

The Commission's opinions are in the nature of recommendations. The Commission has 32 members and is chaired by the head of the Ministry's department for foodstuffs, veterinary administration and radiation protection.

### **3. Public and Semi-Public Agencies**

#### **a) *The Seibersdorf Austrian Research Centre***

##### *i) Legal Status*

On 15 September 1980, the Seibersdorf Austrian Research Centre (*Österreichisches Forschungszentrum Seibersdorf GmbH*) was formed from the Austrian Nuclear Research Centre set up in 1956. It is 51% owned by the Austrian Republic and in varying shares by industrial firms.

##### *ii) Responsibilities*

The Centre was originally set up to undertake research into the peaceful uses of nuclear energy. Since June 1980, the Centre's terms of reference have made provision for greater emphasis on studies involving alternative forms of energy, and for contract research. Therefore, the Centre's present activities include research and development in the areas of energy and safety; materials research; isotope and ionising radiation techniques; measuring and information processing techniques; environmental protection; health and food as well as industrial consulting.

##### *iii) Structure*

The Centre has two managing directors chosen by the Annual General Meeting. Its Supervisory Board consists of seventeen members chosen by the General Meeting for a term of four years.

##### *iv) Financing*

The Centre is financed basically by federal grants. These are supplemented by income from contract research projects and members' contributions.

#### **b) *The Graz Nuclear Institute***

The Nuclear Institute in Graz has been operating an Argonaut Research Reactor since 1965. The reactor, with a generating power of 10 kW, is mainly used for training purposes within the education programme of the University of Graz.

#### **c) *The Nuclear Institute of the Austrian Universities***

The Nuclear Institute of the Austrian Universities is the operator of the TRIGA Research Reactor. This research reactor has been in operation since 1962 and is used exclusively for educational and training purposes in relation to the education programme of Austrian universities.

**d) *The Institute of Risk Research, University of Vienna***

The Institute of Risk Research (*Institut für Risikoforschung*) of the University of Vienna was founded in 1995 with the aim of supporting an interdisciplinary, independent and critical scientific discussion of risks to society and to manage relevant interdisciplinary projects. The Institute consists of a small international team of scientists from different disciplines. Originally, research focused on topics concerning nuclear safety, but has lately evolved towards more fundamental questions of risk research and more general aspects of risk.