

TABLE OF CONTENTS

<i>Chapter 1.</i>	General	5
<i>Chapter 2.</i>	Supervision	9
<i>Chapter 3.</i>	Administrative Authorities	41
<i>Chapter 4.</i>	Liability	45
<i>Chapter 5.</i>	Administrative Fines.....	57
<i>Chapter 6.</i>	Final Provisions	59
 <i>Appendices</i>		
1.	Definitions Pursuant to Section 2, paragraph (4).....	63
2.	Allowances for Legal Liability and Financial Security	65
3.	Quantities of Electricity Pursuant to Section 7, paragraph (1a).....	67
4.	Safety Review Pursuant to Section 19a, paragraph (1).....	69

GERMANY

Act on the Peaceful Utilisation of Atomic Energy and the Protection Against its Hazards (Atomic Energy Act)*

of 23 December 1959 (BGBl.** I, p. 814),
as amended and promulgated on 15 July 1985 (BGBl. I, p. 1565),
last amendment by the Act of 22 April 2002 (BGBl. I, p. 1351)

Chapter 1

GENERAL

Section 1

Purpose of the Act

Adopted: 22 April 2002¹

The purpose of this Act is:

1. to phase out the use of nuclear energy for the commercial generation of electricity in a structured manner, and to ensure on-going operation up until the date of discontinuation;
2. to protect life, health and property against the hazards of nuclear energy and the detrimental effects of ionising radiation and to provide compensation for damage and injuries caused by nuclear energy or ionising radiation;
3. to prevent danger to the internal or external security of the Federal Republic of Germany from the application or release of nuclear energy;

* Unofficial translation kindly provided by the German Authorities

** BGBl.: *Bundesgesetzblatt* = Federal Law Gazette of the Federal Republic of Germany

1. The purpose of the date indicated in italics at the beginning of each Section is to identify when it was last amended.

4. to enable the Federal Republic of Germany to meet its international obligations in the field of nuclear energy and radiation protection.

Section 2

Definitions

Adopted: 13 December 2001

- (1) The term “radioactive material” (nuclear fuel and other radioactive substances) as used herein shall refer to all material containing one or more radionuclides and whose activity or specific activity in conjunction with nuclear energy or radiation protection cannot be disregarded under the provisions of this Act or a statutory ordinance promulgated on the basis of this Act. The term “nuclear fuel” as used herein shall refer to special fissionable material in the form of

1. ^{239}Pu and ^{241}Pu ,
2. uranium enriched in isotopes ^{235}U or ^{233}U ,
3. any material containing one or more of the substances cited under points 1 and 2,
4. substances which permit a self-sustaining chain reaction to be maintained in a suitable installation and which are defined in a statutory ordinance;

the term “uranium enriched in isotopes 235 or 233” shall mean uranium containing the isotopes ^{235}U or ^{233}U or both in such quantities that the sum total of the amounts of these two isotopes is greater than the amount of isotope ^{238}U multiplied by the naturally occurring ratio of isotope ^{235}U in relation to isotope ^{238}U .

- (2) The activity or specific activity of a substance may be disregarded pursuant to paragraph (1), sentence 1 above provided that, pursuant to a statutory ordinance promulgated on the basis of this Act:
 1. it falls below specified exemption levels;
 2. if the substance concerned is incurred within the context of a licensable activity under the provisions of this Act or a statutory ordinance promulgated on the basis of this Act, it falls below specified clearance levels and clearance has been given;
 3. the substance concerned is of natural origin which is not used because of its radioactivity, as a nuclear fuel or to generate nuclear fuel, and is not subject to monitoring under the provisions of this Act or a statutory ordinance promulgated on the basis of this Act.

Notwithstanding sentence 1 above, a statutory ordinance promulgated on the basis of this Act concerning the use of substances on humans or the appropriated addition of substances to the production of pharmaceuticals, medical products, plant protection products, pesticides, substances referred to in Section 1, paragraphs 1-5 of the Fertilizer Act, or consumer goods or the activation thereof, may stipulate certain cases in which the activity or activity concentration of a substance must not be disregarded.

- (3) For the application of licensing provisions pursuant to this Act or any statutory ordinances promulgated on the basis of this Act, substances in which the proportion of isotopes ^{233}U , ^{235}U , ^{239}Pu and ^{241}Pu does not exceed 15 grams in total or the concentration of the isotopes listed does not exceed 15 grams per 100 kilograms shall be classified as “other radioactive material”. Sentence 1 above shall not apply to solidified high-level fission product solutions derived from the processing of nuclear fuel.
- (4) For the application of the provisions relating to liability and financial security, the terms “nuclear incident”, “nuclear installation”, “operator of a nuclear installation”, “nuclear substances” and “Special Drawing Rights” shall have the meanings defined in Appendix 1 hereto.
- (5) The term “Paris Convention” shall mean the convention dated 29 July 1960 relating to third party liability in the field of nuclear energy, as amended and promulgated on 5 February 1976 (BGBl. II, pp. 310, 311), in conjunction with the Protocol of 16 November 1982 (BGBl. 1985 II, p. 690).
- (6) The term “Brussels Supplementary Convention” shall mean the convention dated 31 January 1963 supplementary to the Paris Convention, as amended and promulgated on 5 February 1976 (BGBl. II, pp. 310, 318), in conjunction with the Protocol of 16 November 1982 (BGBl. 1985 II, p. 690).
- (7) The term “Joint Protocol” shall mean the Joint Protocol of 21 September 1988 Relating to the Application of the Vienna Convention and the Paris Convention (BGBl. 2001 II, pp. 202, 203).
- (8) The term “Vienna Convention” shall mean the Vienna Convention of 21 May 1963 on Civil Liability for Nuclear Damage (BGBl. 2001 II, pp. 202, 207), in the respective valid versions for the Parties.

Section 2a

Environmental impact assessment

Adopted: 27 July 2001

- (1) If, under the provisions of the Act on Environmental Impact Assessment, there is an obligation to carry out an environmental impact assessment for projects which are subject to licensing or plan approval under the provisions of this Act or a statutory ordinance promulgated on the basis thereof (projects subject to compulsory EIA), the environmental impact assessment shall constitute an integral part of the licensing or plan approval procedures stipulated by this Act or a statutory ordinance promulgated on the basis thereof. The environmental impact assessment should be carried out in accordance with the provisions outlined in Section 7, paragraph (4), sentences 1 and 2, and the statutory ordinance pursuant to Section 7, paragraph (4), sentence 3, on the subject of the environmental impact assessment, the application documents, the announcement of the project and the date for the public hearing, the disclosure of application documents for public inspection, the raising of objections, the involvement of the authorities, the implementation of the public hearing, the content of the licensing permit, and the service and public announcement of the decision; in the case of projects according to Section 7 and Section 9b, subject to compulsory EIA other than the installations listed in Appendix 1 of the

Act on Environmental Impact Assessment, no public hearing shall take place if the project is liable to licensing under the valid provisions for other radioactive substances. Section 2, paragraph (1), sentence 4, and Section 14 of the Act on Environmental Impact Assessment and Section 9b, paragraphs (2) and (5), No. 1, shall remain unaffected by this.

- (2) Before filing a complaint to the administrative court concerning an administrative act promulgated subsequent to an environmental impact assessment, the requirement for verification by way of pre-trial review will be waived.

Chapter 2

SUPERVISION

Section 3

Imports and exports

Adopted: 15 July 1985

- (1) Any person who imports or exports nuclear fuel shall require a licence.
- (2) An import licence shall be granted, provided that:
 1. there are no known facts giving rise to doubts as to the reliability of the importer, and
 2. it is assured that the nuclear fuel to be imported will be used in conformity with the provisions hereof, the statutory ordinances issued hereunder and the international obligations of the Federal Republic of Germany in the field of nuclear energy.
- (3) An export licence shall be granted provided that:
 1. there are no known facts giving rise to doubts as to the reliability of the exporter, and
 2. it is assured that the nuclear fuel to be exported will not be used in such a way as to jeopardise the international obligations of the Federal Republic of Germany in the field of nuclear energy or the internal or external security of the Federal Republic of Germany.
- (4) Nothing herein contained shall affect any other legal provision relating to imports or exports.
- (5) Any other conveyance into or out of the territorial scope of this Act shall be deemed to be imports or exports as defined herein.

Section 4

Carriage of nuclear fuel

Adopted: 22 April 2002

- (1) The carriage of nuclear fuel outside an enclosed site where nuclear fuel is kept in government custody or where practices licensed pursuant to Sections 6, 7 and 9 hereof are pursued, shall require a licence. Such licence shall be granted to the consignor or the person attending to the consignment or carriage of the nuclear fuel.
- (2) A licence shall be granted provided that:
 1. there are no known facts giving rise to doubts as to the reliability of the applicant, the carrier and the persons actually effecting the carriage;
 2. it is assured that the carriage will be effected by persons who possess the necessary knowledge of the possible radiation hazards and the protective measures to be applied to the intended carriage of nuclear fuel;
 3. it is assured that the nuclear fuel will be carried in conformity with such legal provisions on the carriage of dangerous goods as are applicable to the respective carrier or, in the absence of such provisions, that such other precautions have been taken as are necessary in the light of the state of the art in science and technology in order to prevent damage resulting from the carriage of nuclear fuel;
 4. the necessary financial security has been provided for covering the legal liability to pay compensation for damage;
 5. the necessary protection has been provided against disruptive action or other interference by third parties;
 6. the choice of the mode, time and route of carriage will not conflict with overriding public interests;
 7. with reference to the carriage of irradiated fuel rods from installations for the fission of nuclear fuel for the commercial generation of electricity to central interim storage facilities pursuant to Section 6, paragraph (1), evidence is showing that there is no possibility of storage at the local interim storage facilities to be constructed in accordance with Section 9a, paragraph (2), sentence 3.
- (3) The financial security required pursuant to paragraph (2), No. 4, in order to cover the legal liability for damages need not be provided for the carriage of the nuclear fuel referred to in Appendix 2 hereto.
- (4) The licence shall be granted for each individual carriage; a general licence may be granted to an applicant for a period not exceeding three years provided that this is not contrary to the purposes referred to in Section 1, paragraphs (2)-(4).

- (5) A duplicate or certified copy of the licensing notice shall be available during carriage. Furthermore, the carrier shall have available a certificate in conformity with the requirements of Article 4(c) of the Paris Convention unless the particular carriage concerned does not require, pursuant to paragraph (3) above, any provision of financial security covering the legal liability to pay compensation for damage. The licensing notice and the certificate shall be presented to the competent authority and its duly authorised agents on request.
- (6) Paragraph (5), first sentence, shall not apply to carriage by rail attended to by a railroad operator. In all other respects, nothing contained herein shall affect any legal provision applicable to carriers and relating to the carriage of dangerous goods.

Section 4a

Financial security for international carriage

Adopted: 22 April 2002

- (1) Subject to paragraphs (3) and (4), the financial security required pursuant to Section 4, paragraph (2), No. 4, to cover the legal liability for damages in the international carriage of nuclear fuel is deemed to have been provided if the certificate of financial security required under Article 4(c) of the Paris Convention relates to the operator of a nuclear installation located in one of the Contracting States of the Paris Convention.
- (2) Insurer as defined in Article 4(c) of the Paris Convention shall be:
 1. an insurance company licensed to operate a third party liability insurance business within the Federal Republic of Germany;
 2. an insurance company from another country as per the definition of Section 105, paragraph (1), of the Act on the Supervision of Insurance Companies which is licensed to operate a third party liability insurance business within its country of domicile, provided that the obligations of a third party liability insurer are not only assumed by it but also by an insurer or pool of insurers licensed to do so in accordance with the provisions of No. 1.

Other financial security in lieu of insurance may be permitted if it is assured that the party obliged to provide security will be in a position to meet its legal liability to pay compensation for damage within the scope of the requirements of financial security as long as claims against such party have to be anticipated.

- (3) If the Brussels Supplementary Convention has not yet come into force in a Contracting State of the Paris Convention, the granting of a licence pursuant to Section 4 for the transit of nuclear fuel may be made subject to the condition that the maximum liability of the operator of the nuclear installation provided for in such Contracting State may be increased with respect to nuclear incidents occurring during carriage within Germany to the extent necessary in view of the amount and nature of the nuclear fuel and the safety measures taken. The operator of the nuclear installation shall furnish proof of the provision of financial security for such increased maximum liability by submitting a certificate issued by the responsible authority of such Contracting State.

- (4) For imports or exports of nuclear fuel from or to any other Contracting State of the Paris Convention in which the Brussels Supplementary Convention has not yet come into force, the granting of a licence pursuant to Section 4 may be made subject to the condition that the operator of the nuclear installation located within Germany, to or from which the nuclear fuel shall be carried, assumes liability in accordance with the provisions hereof for nuclear incidents occurring during such carriage within Germany if the maximum liability provided in such other Contracting State of the Paris Convention is not adequate in view of the amount and nature of the nuclear fuel and the safety measures taken.

Section 4b

Carriage of nuclear substances in special cases

Adopted: 15 July 1985

- (1) Any person carrying nuclear substances without requiring a licence pursuant to Section 4 shall furnish proof to the responsible authority, before commencement of such carriage, that the necessary financial security for covering the legal liability for damages has been provided. If the financial security offered is insufficient the authority shall determine the necessary financial security according to the principles of Section 13, paragraph (2), No. 1, Section 4, paragraph (5), second and third sentences, and Section 4a, shall be applied.
- (2) Paragraph (1) above shall not be applied to the carriage of the nuclear substances referred to in Appendix 2 hereto.

Section 5

Authorised possession of nuclear fuel; government custody

Adopted: 22 April 2002

- (1) Whoever handles or carries nuclear fuel on the basis of a licence issued under the provisions of this Act or a statutory ordinance promulgated on the basis thereof, particularly anyone who:
1. carries nuclear fuel as authorised under Section 4;
 2. stores nuclear fuel on the basis of a licence pursuant to Section 6;
 3. treats, processes or otherwise utilises nuclear fuel in an installation licensed under Section 7 or on the basis of a licence pursuant to Section 9;
 4. temporarily stores nuclear fuel in a state collecting facility on the basis of Sections 9a-9c, or who stores or disposes of nuclear fuel in a plant for the safekeeping or final disposal of radioactive waste;
- shall be authorised to possess nuclear fuel.

An order to store nuclear fuel pursuant to Section 19, paragraph (3), sentence 2, No. 2, shall likewise authorise the possession of nuclear fuel.

- (2) In the interests of protecting the general public, whoever is in direct possession of nuclear fuel without being duly authorised to do so pursuant to paragraph (1), sentence 1, is obliged to ensure that the nuclear fuel is surrendered to the custody of a party who is authorised to possess nuclear fuel in accordance with paragraph (1), sentence 1. Sentence 1 shall not apply to persons who find and pick up nuclear fuel, acquire the actual control of nuclear fuel without intending to do so, or who acquire actual control of nuclear fuel without being aware of what it is.
- (3) In the case of paragraph (2), sentence 1, if storage with the direct holder on the basis of a licence pursuant to Section 6 or other ownership pursuant to paragraph (1), sentence 1, proves impossible, the nuclear fuel shall be surrendered to government custody by delivering it to the authority responsible for custody without delay, until such time as authorised possession is established, unless an order pursuant to Section 19, paragraph (3), sentence 2, No. 2, contains or permits provisions to the contrary. In the interests of protecting the general public, whoever has surrendered nuclear fuel pursuant to sentence 1 shall ensure authorised possession pursuant to paragraph (1), sentence 1, in conjunction with paragraph (2), sentence 1. Sentence 2 shall apply accordingly to the owners of utilisation and consumption rights to nuclear fuel held in government custody, and to anyone who is required to accept or accept the return of nuclear fuel from a third party without being duly authorised to possess the nuclear fuel in accordance with paragraph (1), sentence 1.
- (4) Any nuclear fuel whose authorised owner in accordance with paragraph (1) cannot be ascertained or cannot be called upon shall be placed in government custody.
- (5) In the case of government custody, the necessary precautions in the light of the state of the art in science and technology to prevent damage resulting from the storage of nuclear fuel shall be taken, and necessary protection shall be provided against disruptive action or other interference by third parties.
- (6) The removal of nuclear fuel from government custody or the surrender of nuclear fuel shall only be admissible to a designated party who is authorised to possess such nuclear fuel in accordance with paragraph (1), sentence 1.
- (7) In order to enforce the obligations pursuant to paragraph (2), sentence 1, and paragraph (3), sentences 2 and 3, the authority responsible for custody may issue orders against the persons cited in these paragraphs for the nuclear fuel to remain with the obligated party or for it to be surrendered to a party with authorised possession. Notwithstanding Section 11, paragraph (3), of the Administrative Enforcement Act, the maximum amount of the administrative fine shall be 500 000 euros. The powers of the supervisory authorities pursuant to Section 19, paragraph (3), shall remain unaffected.
- (8) Paragraphs (1)-(7) shall not apply to nuclear fuel contained in radioactive waste.

Section 6

Licence for the storage of nuclear fuel

Adopted: 22 April 2002

- (1) Any storage of nuclear fuel outside government custody shall require a licence. A licence shall furthermore be required for any significant amendment to approved storage.
- (2) A licence shall be granted if there is a need for such storage and if:
 1. there are no known facts giving rise to doubts as to the reliability of the applicant or of the persons responsible for the management and supervision of such storage, and the persons responsible for such management and supervision have the requisite qualification;
 2. the necessary precautions have been taken in the light of the state of the art in science and technology to prevent damage resulting from the storage of nuclear fuel;
 3. the necessary financial security has been provided for covering the legal liability to pay compensation for damage;
 4. the necessary protection has been provided against disruptive action or other interference by third parties.
- (3) Whoever stores irradiated nuclear fuel in shipping and storage containers in a separate storage building within the enclosed site of an installation for the fission of nuclear fuel for the commercial generation of electricity in order to comply with the obligations under Section 9a, paragraph (2), sentence 3, until such time as it is surrendered to a facility for the final disposal of radioactive waste, shall require a licence pursuant to paragraph (1). The licence requirements of Nos. 1-4 in paragraph (2) shall apply accordingly.
- (4) A licence for the temporary storage of nuclear fuel in the form of irradiated fuel rods within an enclosed site on which a licensed activity pursuant to Section 7 is practised shall be granted to anyone who has applied for the requisite storage licence based on the obligation pursuant to Section 9a, paragraph (2), sentence 3. The licence shall be limited until the date when the licence required under Section 9a, paragraph (2), sentence 3, can be utilised, or until the storage application has been revoked or effectively rejected, but no longer than five years; the period of validity of the licence may be extended by one year upon application. The licence pursuant to sentences 1 and 2 must only be issued subject to the submission of evidence of an alternative facility for proper storage once this time limit has expired. Such evidence must be re-submitted annually. A decision regarding the licence application should be reached within nine months of receipt of the application and submission of full application documents. The responsible authority may extend this period by three months if necessary due to the complexity of the investigations or for reasons attributable to the applicant; justification for the extension of this limit must be given to the applicant. Otherwise, paragraph (2) shall apply accordingly.

Section 7

Licensing of installations

Adopted: 22 April 2002

- (1) Whoever erects, operates or otherwise holds a stationary installation for the production, treatment, processing or fission of nuclear fuel or the reprocessing of irradiated nuclear fuel or materially alters such installation or its operation, shall require a licence. No further licences will be issued for the construction and operation of installations for the fission of nuclear fuel for the commercial generation of electricity or of facilities for the reprocessing of irradiated nuclear fuel. This shall not apply to material alterations to such installations or the operation thereof.
- (1a) The authorisation to operate an installation for the fission of nuclear fuel for the commercial generation of electricity shall expire once the electricity volume for that installation as listed in Appendix 3, column 2, or the electricity volume derived from transfers pursuant to paragraph (1b) has been produced. Production of the electricity volumes listed in Appendix 3, column 2, shall be measured by means of a measuring device. The measuring device pursuant to sentence 2 must be approved and calibrated. Any measuring device which is not approved and calibrated must not be used. Anyone who uses a measuring device pursuant to sentence 2 must install and connect the measuring device without delay, and must handle and maintain it in such a way that the accuracy of the measurement and the reliable reading of the indicators is guaranteed. The provisions of the Calibration Act and the Calibration Ordinance promulgated on the basis of this Act shall apply. The licensee shall have the proper status of the calibrated measuring device checked and certified each calendar year by an expert organisation, and shall also have the quantity of electricity generated each calendar year checked and certified by an auditor or auditing company within a one-month period.
- (1b) The electricity volumes pursuant to Appendix 3, column 2, may be wholly or partially transferred to another installation, provided the receiving installation commenced commercial power operation later than the donating installation. Notwithstanding sentence 1, electricity volumes may also be transferred from an installation which began commercial power operation later than the receiving installation, subject to the approval of the transfer by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety by agreement with the Federal Chancellery and the Federal Ministry of Economics and Technology. Approval pursuant to sentence 2 is not necessary if the donating installation is to permanently discontinue power operation and an application for decommissioning of the plant pursuant to paragraph (3), sentence 1, has been submitted.
- (1c) The licensee must:
1. notify the responsible authority, on a monthly basis, of the volumes of electricity generated in the previous month as per the definition of paragraph (1a) in conjunction with Appendix 3, column 2;
 2. submit to the responsible authority the results of the checks and certificates pursuant to paragraph (1a), sentence 3, within one month of receipt;

3. notify the responsible authority of any transfers implemented between installations pursuant to paragraph (1b) within one week of determining the transfer.

In the first monthly notification of the electricity volume generated pursuant to sentence 1, No. 1, the licensee must submit notification of the electricity volume generated between 1 January 2000 and the last day of April 2002, which must have been checked and certified by an auditor or auditing company. The period of the first monthly notification shall commence as of 1 May 2002. The information submitted pursuant to sentence 1, Nos. 1-3, and specification of the residual electricity volume remaining will be published by the responsible authority in the Federal Bulletin [*Bundesanzeiger*]; the quantities of electricity generated pursuant to sentence 1, No. 1, shall be published annually in the Federal Bulletin as an annual total for a given calendar year, with monthly publication in cases where the anticipated residual operating period is less than six months.

- (1d) For the nuclear power station Mülheim-Kärlich, paragraph (1a), sentence 1, paragraph (1b), sentences 1-3, and paragraph (1c), sentence 1, No. 3, shall apply subject to the proviso that the electricity volume listed in Appendix 3, column 2, may only be produced by the nuclear power stations listed therein after transferring to them.
- (2) A licence may only be granted if:
 1. there are no known facts giving rise to doubts as to the reliability of the applicant and of the persons responsible for the erection and management of the installation and the supervision of its operation, and the persons responsible for the erection and management of the installation and the supervision of its operation have the requisite qualification;
 2. it is assured that the persons who are otherwise engaged in the operation of the installation have the necessary knowledge concerning the safe operation of the installation, the possible hazards and the protective measures to be taken;
 3. the necessary precautions have been taken in the light of the state of the art in science and technology to prevent damage resulting from the erection and operation of the installation;
 4. the necessary financial security has been provided to comply with the legal liability to pay compensation for damage;
 5. the necessary protection has been provided against disruptive action or other interference by third parties;
 6. the choice of the site of the installation does not conflict with overriding public interests, in particular in view of its environmental impacts.
- (3) The decommissioning of an installation as defined in paragraph (1), sentence 1, as well as the safe confinement of an installation, or the dismantling of an installation or of parts thereof shall require a licence. Paragraph (2) shall apply accordingly. A licence pursuant to the first sentence shall not be required to the extent the scheduled measures have already been the subject of a licence pursuant to paragraph (1), sentence 1, or of an order pursuant to Section 19, paragraph (3).

- (4) All federal, *Länder*², local and other regional authorities whose jurisdiction is involved shall take part in the licensing procedure. In the case of differences of opinion between the licensing authority and a federal authority taking part in the procedure, the licensing authority shall obtain instructions from the Federal Ministry in charge of nuclear safety and radiation protection. In all other respects, the licensing procedure shall be governed by a statutory ordinance in accordance with the principles laid down in Sections 8, 10, paragraphs (1)-(4) and (6)-(8), (10), second sentence, and 18 of the Federal Pollution Control Act; this may stipulate that when examining the environmental impacts of the overall measures planned with regard to the decommissioning, safe confinement or the dismantling of installations for the fission of nuclear fuel or parts thereof, the requirement for a public hearing may be waived.
- (5) Paragraphs (1), (2) and (4) shall apply accordingly to non-stationary installations. However, the statutory ordinance referred to in paragraph (4), third sentence, may provide that a project need not be publicly announced and the documents need not be disclosed for public inspection and that in such a case objections will not be discussed at a hearing.
- (6) Section 14 of the Federal Pollution Control Act shall apply accordingly to the impacts of a licensed installation on other premises.

Section 7a

Advance notice

Adopted: 15 July 1985

- (1) Upon application, an advance notice may be issued with respect to individual aspects on which the granting of the licence for an installation pursuant to Section 7 depends, in particular with respect to the choice of the site of the installation. The advance notice shall become invalid if the applicant does not apply for the licence within two years from the date on which such notice has become final; upon application, this term may be extended for up to a further two years.
- (2) Section 7, paragraphs (4) and (5), as well as Sections 17 and 18 shall apply accordingly.

Section 7b

Objections by third parties in the case of a partial licence or advance notice

Adopted: 15 July 1985

To the extent that an application has been decided upon by the grant of a partial licence or an advance notice pursuant to Sections 7 or 7a, and to the extent that such decision has become final, third parties shall not be entitled, in any subsequent procedure for the licensing of the installation, to raise objections on the basis of facts which had already been presented or which such third parties might have presented in view of the documents or the notice which had been disclosed for public inspection.

2. *Länder* (singular = *Land*): States making up the Federal Republic of Germany.

Section 7c (Repealed)

Section 8

Relation of this Act to the Federal Pollution Control Act and the Safety of Equipment Act

Adopted: 27 December 2000

- (1) The provisions of the Federal Pollution Control Act relating to installations requiring a licence and to the prohibition of the further utilisation of such installations shall not apply to installations requiring a licence pursuant to Section 7, insofar as the protection against the hazards of nuclear energy or the detrimental effects of ionising radiation are concerned.
- (2) If an installation requiring a licence pursuant to Section 4 of the Federal Pollution Control Act requires a licence pursuant to Section 7 hereof, the latter shall include the licence pursuant to Section 4 of the Federal Pollution Control Act. The nuclear licensing authority shall make its decision in agreement with the *Länder* authority in charge of pollution control and in compliance with the provisions of the Federal Pollution Control Act and the statutory ordinances issued thereunder.
- (3) With respect to installations which require supervision pursuant to Section 2, paragraph (2a), of the Safe Plant and Equipment Act and are used as parts of installations requiring a licence pursuant to Section 7 hereof, the licensing authority may, on a case-to-case basis, grant exemptions from the applicable legal provisions relating to the erection and operation of installations requiring supervision, to the extent that such exemption is due to the special technical nature of the installations pursuant to Section 7.

Section 9

Treatment, processing and other utilisation of nuclear fuel outside installations requiring a licence

Adopted: 22 April 2002

- (1) Whoever treats, processes or otherwise utilises nuclear fuel outside installations of the kind referred to in Section 7 shall require a licence. Furthermore, a licence shall be required by any person who applies a method of treating, processing or otherwise utilising nuclear fuel that is materially different from the method specified in the licensing instrument or who materially alters the operating establishment or its location as specified in the licensing instrument.
- (2) A licence may only be granted if:
 1. there are no known facts giving rise to doubts as to the reliability of the applicant or of the persons responsible for the management and supervision of the utilisation of the nuclear fuel and provided the persons responsible for the management and supervision of the nuclear fuel have the qualification required for this purpose;

2. it is assured that the persons who are otherwise engaged in connection with the intended use of the nuclear fuel have the necessary knowledge of the possible hazards and the protective measures to be taken;
3. the necessary precautions have been taken in the light of the state of the art in science and technology to prevent damage resulting from the utilisation of the nuclear fuel;
4. the necessary financial security has been provided for covering the legal liability to pay compensation for damage;
5. the necessary protection has been provided against disruptive action or other interference by third parties;
6. the choice of the location where the nuclear fuel is to be utilised does not conflict with overriding public interests, in particular in view of the non-contamination of water, air and soil.

Section 9a

Utilisation of residual radioactive material and disposal of radioactive waste

Adopted: 22 April 2002

- (1) Whoever erects, operates, otherwise holds, materially alters, decommissions or disposes of installations in which nuclear fuel is handled, or handles radioactive material outside such installations, or operates installations for the generation of ionising radiation, shall make provisions to assure that residual radioactive material as well as disassembled or dismantled radioactive components are utilised without detrimental effects in conformity with the purposes referred to in Section 1, Nos. 2-4, or are disposed of as radioactive waste (direct final disposal) in a regulated manner. The delivery of irradiated nuclear fuel originating from the operation of installations for the fission of nuclear fuel for the commercial generation of electricity to an installation for the reprocessing of irradiated nuclear fuel for the purposes of non-detrimental utilisation shall become unlawful as of 1 July 2005.
 - (1a) The operators of installations for the fission of nuclear fuel for the commercial generation of electricity are required to furnish proof that they have taken adequate precautions in order to comply with their obligations pursuant to paragraph (1) for the irradiated fuel incurred and the radioactive fuel yet to be incurred during the course of the operational period envisaged in accordance with Section 7, paragraphs (1a) and (1b), including any radioactive waste to be returned in the case of reprocessing of irradiated nuclear fuel (proof of waste management precautions). This proof must be updated annually as per 31 December of each year and submitted by 31 March of the following year at the latest. Any significant changes in the requirements on which the management precautions are based must be notified to the responsible authority without delay.
 - (1b) For the purposes of regulated disposal, proof must be furnished showing that the safe storage in interim storage facilities of both irradiated nuclear fuel and returned radioactive waste from the reprocessing of irradiated nuclear fuel is guaranteed until such time as it is surrendered to a facility for final disposal. Proof regarding the disposal of irradiated nuclear fuel is provided in

the form of realistic projections showing the availability of adequate interim storage facilities to meet requirements. Regarding the interim storage requirements for irradiated nuclear fuel over the next two years on the basis of realistic projections, proof must be furnished that interim storage facilities are both legally and technically available, either by the party responsible for management or a third party. Proof concerning the disposal of returned radioactive waste from the reprocessing of irradiated nuclear fuel must be furnished in the form of realistic projections showing the availability of adequate interim storage facilities as per the date of the bindingly agreed return of such radioactive waste. Notwithstanding paragraph (1a), sentence 1, proof of the regulated disposal of returned radioactive waste may be furnished by a third party if they are responsible for interim storage of the returned radioactive waste on behalf of the party responsible for management. In addition to realistic projections pursuant to sentence 4, the third party is also required to prove that the interim storage requirements of the party responsible for management will be contractually assured according to requirements. In cases where several parties responsible for management have transferred the responsibility for furnishing proof to one and the same third party, the latter may provide joint proof (collective proof). The collective proof shall consist of realistic projections pursuant to sentence 4 for the total interim storage requirements of the parties, together with evidence that this will be contractually assured according to requirements.

- (1c) Insofar as the permissible non-detrimental utilisation of irradiated nuclear fuel pursuant to paragraph (1), sentence 2, is envisaged, proof must be furnished showing the guaranteed reuse of plutonium extracted from reprocessing as well as any future plutonium to be extracted in installations for the fission of nuclear fuel for the commercial generation of electricity; this shall not apply to plutonium which has already been reused by 31 August 2000, or to plutonium which has already been extracted and for which the utilisation and consumption rights have already been transferred to third parties by the above date. In the case of reuse in installations for the fission of nuclear fuel for the commercial generation of electricity within the scope of validity of this Act, this proof shall be deemed to have been furnished, provided realistic projections are available for the reprocessing of irradiated nuclear fuel, for the production of fuel rods with the plutonium generated from reprocessing and the plutonium yet to be incurred, and for the use of said fuel rods, and provided the measures required to implement these projections within the next two years are verified via the submission of contracts or excerpts of contracts or via corresponding confirmations from third parties having suitable facilities for such purposes, or in cases where the fuel rods are to be used in suitable installations belonging to the party responsible for management, via submission of the plans for such use. Proof of reuse in other installations operating within the European Union or Switzerland for the commercial generation of electricity shall be deemed to have been furnished, provided binding confirmations are submitted showing the transfer of utilisation and consumption rights regarding the reuse of plutonium generated from reprocessing.
- (1d) With reference to the uranium extracted from the reprocessing of irradiated nuclear fuel, the parties responsible for management are required to furnish proof of safe storage in the form of realistic projections showing the availability of adequate interim storage facilities according to requirements. Paragraph (1b), sentence 3, shall apply accordingly. As soon as the temporarily stored uranium is due to be removed from interim storage, this fact must be notified to the responsible authority, including the planned management channel, in order to comply with the obligations under paragraph (1).
- (1e) Paragraph (1a) shall apply accordingly to the operators of installations for the fission of nuclear fuel for research purposes.

- (2) Whoever holds radioactive waste shall surrender such waste to an installation pursuant to paragraph (3) below. This shall not apply to the extent that anything to the contrary has been provided for pursuant to sentence 3 or by an ordinance issued hereunder or has been ordered or approved pursuant to this Act or such ordinance. The operator of a plant for the fission of nuclear fuel for the commercial generation of electricity is required to ensure that an interim storage facility pursuant to Section 6, paragraphs (1) and (3), is constructed within the enclosed site, or pursuant to Section 6, paragraph (1), in the vicinity of the installation (a local interim storage facility), and that the irradiated nuclear fuel incurred is stored there until such time as it is surrendered to a facility for the final disposal of radioactive waste; the option of the delivery of irradiated nuclear fuel for reprocessing pursuant to paragraph (1), sentence 2, shall remain unaffected by this. Upon application, the responsible authority will concede exemptions from the precautionary obligation pursuant to sentence 3, provided the operator of the installation has submitted an application for decommissioning and has given a binding declaration of a date prior to 1 July 2005 by which operation of the installation for the fission of nuclear fuel for the commercial generation of electricity will be permanently discontinued. If the responsible authority grants an exemption from the precautionary obligation pursuant to sentence 3, the licence to operate the plant for the fission of nuclear fuel for the commercial generation of electricity shall expire as per the date cited by the operator in his application.
- (3) The *Länder* shall establish state collecting facilities for the interim storage of the radioactive waste originating in their territories, and the Federation shall establish installations for the safekeeping and final disposal of radioactive waste. To fulfil their obligations, both the *Länder* and the Federation may avail themselves of the services of third parties. In order to fulfil its obligation, the Federation may wholly or partially assign the performance of its duties, together with the necessary jurisdictional powers, to third parties, provided they are able to offer a guarantee for the proper fulfilment of the assigned tasks; the third party will be subject to supervision from the Federation. The third party pursuant to sentence 3, may receive a fee for the use of installations for safekeeping and final disposal, instead of costs. Insofar as the performance of duties pursuant to sentence 3 has been assigned, the contributions levied pursuant to Section 21b, the advance payments levied on the basis of the statutory ordinance promulgated pursuant to Section 21b, paragraph (3), and the amounts levied by the state collecting facilities pursuant to Section 21a, paragraph (2), sentence 9, shall be deemed payments made to the third party. The Federation shall bear no responsibility for breaches of official duties in place of the third party pursuant to sentence 3; the third party must obtain adequate liability insurance coverage for any such damages resulting from breaches of official duties. Section 25 shall remain unaffected by this. Insofar as the performance of duties is assigned to third parties by the Federation pursuant to sentence 3, the Federation shall exempt the former from compensation liabilities under Section 25 up to a maximum amount of 2.5 billion euros. Any contravention of administrative acts adopted by the third party pursuant to sentence 3 shall be decided by the supervisory authority.

Section 9b

Plan approval procedure

Adopted: 22 April 2002

- (1) The erection and operation of the federal installations referred to in Section 9a, paragraph (3), as well as any major alteration of such installations or their operation shall be subject to a plan

approval procedure. Section 74, paragraph 6, of the Administrative Procedures Act shall apply to the extent that the competent authority may grant on application or ex officio a planning licence instead of a plan approval only, if the major alteration of the installations mentioned in sentence 1 or of their operation is applied for, and if this alteration has no material adverse effects on the objects to be protected according to Section 2, paragraph 1, sentence 2, of the Act on Assessment of Environmental Effects. Section 76 of the Administrative Procedures Act shall not apply.

- (2) During the plan approval procedure, the environmental impacts of the installation shall be assessed. The assessment of the environmental impacts shall be part of the examination pursuant to paragraph (4).
- (3) To achieve the purposes referred to in Section 1 hereof, the plan approval notice may contain restrictions and obligations. To the extent necessary for the achievement of the purposes referred to in Section 1, Nos. (2)-(4), obligations may also be imposed subsequently.
- (4) The plan approval notice may only be issued if the requirements referred to in Section 7, paragraph (2), Nos. 1-3 and 5 have been complied with. It may not be issued if:
 1. the erection or operation of the proposed installation suggest that the common welfare will be impaired and that such impairment cannot be prevented by restrictions and obligations, or
 2. the erection or operation of the installation conflicts with other provisions of public law, in particular with respect to the environmental impact of the installation.
- (5) Sections 72-75, 77 and 78 of the Administrative Procedures Act shall apply to the plan approval procedure subject to the following conditions:
 1. The announcement of the project and of the date of the hearing, the disclosure of the plan for public inspection, the raising of objections, the performance of the hearing and the service of the decisions shall be provided for by the statutory ordinance issued pursuant to Section 7, paragraph (4), third sentence. As far as nuclear safety and radiation protection are concerned, the provisions contained in this statutory ordinance shall apply accordingly to the form, contents, kind and scope of the plan to be submitted.
 2. Where judgement has been reserved, the announcement and disclosure for public inspection of any documents subsequently submitted may be waived if such announcement and disclosure would not reveal any additional facts which may be material to third party interests.
 3. The plan approval procedure shall not cover the acceptability of the project under the provisions of the mining and deep storage law. This question shall be decided upon by the authority otherwise in charge.

Section 9c

State collecting facilities

Adopted: 3 May 2000

The valid licensing provisions in this Act and in statutory ordinances promulgated on the basis of this Act governing the handling of radioactive material shall apply to the storage and processing of radioactive waste at state collecting facilities referred to in Section 9a, paragraph (3), sentence 1, clause 1.

Section 9d-9f (Repealed)

Section 9g

Preservation Order

Adopted: 6 April 1998

- (1) To secure projects pursuant to Section 9b or to secure or continue a site investigation for facilities intended for final disposal of radioactive wastes, a statutory ordinance can specify a planning area for a maximum of ten years, on the area or in the subsurface of which essentially value-increasing changes, or changes which substantially impede the project pursuant to Section 9b or the site investigation are prohibited. The specification may be extended by statutory ordinance two times by a maximum of ten years in each case, provided that the conditions under sentence 1 continue to exist. Prior to such a specification pursuant to sentences 1 and 2, consultations must be held with the municipalities and districts which are affected by the specification. The preservation order pursuant to sentences 1 and 2 shall be revoked before expiry of the periods indicated, if the conditions for a specification cease to apply. The specification pursuant to sentences 1 and 2 becomes ineffective on the commencement of publication of the plan within the framework of the plan approval procedure pursuant to Section 9b of this Act, or pursuant to Section 57a of the Federal Mining Act.
- (2) From the commencement of publication of the plan within the framework of the plan approval procedure pursuant to Section 9b, essentially value-increasing changes or changes which substantially impede the project may not be undertaken on the areas affected by the plan or in the area of the subsurface covered by the plan, until the planned use is made. Changes commenced previously in a lawful way, maintenance work and the continuation of a prior lawful use remain unaffected.
- (3) Paragraph (2) shall apply *mutatis mutandis* in the case of projects on underground preparatory site investigation for facilities intended for final disposal of radioactive wastes based on the provisions of the Federal Mining Act; publication of the plan within the framework of the plan approval procedure pursuant to Section 9b of this Act shall be replaced by publication of the plan within the framework of the plan approval procedure pursuant to Section 57a of the Federal Mining Act.

- (4) Upon application, the responsible authority shall allow exemptions from the preservation order pursuant to paragraphs (1)-(3), provided such exemptions do not conflict with overriding public interests and if upholding the preservation order would result in clearly unintended hardship in a particular case.
- (5) If the preservation order pursuant to paragraphs (1)-(3) is of more than five years duration, the owners and other persons entitled to use can demand a reasonable monetary compensation for the resulting pecuniary loss. The compensation shall be paid by the party responsible for the project. Section 21b shall remain unaffected.

Section 10

Exemptions

Adopted: 6 April 1998

Exemptions from the provisions of Sections 3-7 and 9 may be granted by statutory ordinance to the extent that the amount or nature of the nuclear fuel or certain protective measures or devices suggest that damage resulting from a self-sustaining chain reaction or the effects of ionising radiation will not occur, and to the extent such exemptions are not contrary to the purposes referred to in Section 1, Nos. 3 and 4. Exemptions for radioactive waste from the provisions pursuant to Section 3 may be granted by statutory ordinances as detailed in Section 11, paragraph (1), No. 6.

Section 11

Enabling provisions (licence, notification, general approval)

Adopted: 22 April 2002

- (1) Unless special provision has been made by this Act for nuclear fuel and installations as defined in Section 7, it may be provided by statutory ordinance that, in order to achieve the purposes referred to in Section 1:
 1. The prospecting for and handling of radioactive material (extraction, production, storage, treatment, processing, other utilisation or disposal), transactions in radioactive material (acquisition or delivery to others), the carriage as well as imports and exports of such material shall require a licence or notification, stating the prerequisites and ancillary provisions under which and the techniques via which the release of radioactive material may be exempt from monitoring under this Act or a statutory ordinance promulgated on the basis of this Act, or radioactive material of natural origin may be exempt from monitoring under said provisions.
 2. The erection and operation of installations for the generation of ionising radiation shall require a licence or notification.
 3. A general approval may be issued for installations, equipment and devices containing radioactive material or generating ionising radiation, provided their design has been

approved by an authority to be specified in such statutory ordinance; such ordinance shall also specify the notifications to be made by the operators of such installations, equipment and devices.

4. Safety-related components whose manufacture is to be started before the application is filed or the licence granted, may only be installed in installations pursuant to Section 7, paragraph (1), sentence 1, if there is a justified interest in such prior manufacture and if a test procedure demonstrates that material, design, erection and manufacture meet the requirements referred to in Section 7, paragraph (2), No. 3; the ordinance shall further provide which authority shall be in charge of the procedure, which documents shall be submitted and which legal effects will ensue from such approval of prior manufacture.
 5. Radioactive material may not be utilised in certain ways or for certain purposes, or may only be disposed of in certain ways, or may not be circulated or shipped across national borders, to the extent that such prohibition is necessary for the protection of life and health of the population against the hazards of radioactive material or for the enforcement of resolutions of the international organisations of which the Federal Republic of Germany is a member.
 6. In order to implement legal instruments of the European Communities, the import, export and transit (international carriage) of radioactive material shall require a licence or permit, and the filing of notifications and reports, and the holding of documentation. Furthermore, it may also stipulate that permits may be furnished with collateral clauses.
 7. Any work to protect against rays of natural origin shall require a licence or notification; further details of such work shall be given.
 8. The appropriated addition of radioactive material to the manufacture of pharmaceuticals, medical products, plant protection products, pesticides, substances listed in Section 1, Nos. 1-5, of the Fertilizer Act or consumer goods, or the activation thereof, together with the international carriage of such products, shall require a licence or notification.
- (2) The statutory ordinance may provide that licences, permits pursuant to paragraph (1), No. 6, and general approvals within the purposes of this Act will be granted subject to certain personal and objective conditions and may determine the procedure for granting such licences, permits pursuant to paragraph (1), No. 6, and general approvals.
 - (3) Where the release of radioactive material or the exemption from monitoring of radioactive material of natural origin pursuant to a statutory ordinance promulgated on the basis of paragraph (1), No. 1, envisages disposal in accordance with the provisions of the Closed Substance Cycle and Waste Management Act or statutory ordinances promulgated on the basis of said Act, such material must not be reused or recycled under the aforementioned provisions.

Section 12

Enabling provisions (protective measures)

Adopted: 22 April 2002

- (1) To achieve the purposes referred to in Section 1, it may be provided by statutory ordinance:
1. Which precautions and supervisory measures, including the justification required under Article 6, paragraphs (1) and (2), of 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 (Official Journal of the EC No. L 159, p. 1) and Article 3 of Council Directive 97/43/Euratom of 30 June 1997 on health protection of individuals against the dangers of ionising radiation in relation to medical exposure and repealing Directive 84/466/Euratom (Official Journal of the EC No. L 180, p. 22), must be taken in order to protect individuals and the general public with regard to the handling of and transactions in radioactive material, the erection, operation and possession of installations of the kind referred to in Sections 7 and 11, paragraph (1), No. 2, as well as the handling of and transactions in installations, equipment and devices of the kind referred to in Section 11, paragraph (1), No. 3, and also with regard to the appropriated addition of radioactive material or activation of material, in order to protect against ionising radiation of natural origin whilst working.
 2. Which precautions have to be taken to prevent that certain radiation doses and certain concentrations of radioactive material in air and water are exceeded.
 3. That the employment of persons in areas involving radiation exposure is only admissible after submission of a certificate issued by a specially authorised physician and that the supervisory authority, after consultation with authorised medical experts, will decide in the case of medical doubts concerning such employment.
 - 3a. That, and in which way, an ethics commission should be involved in assessing projects for the use of radioactive material or ionising radiation on human beings in the interests of medical research, which requirements should be imposed on such an ethics commission in terms of its independence and expertise, and under which conditions its registration may be implemented or revoked, and how this will be publicised.
 - 3b. That, and in which way, diagnostic reference figures are obtained, prepared and published in conjunction with the practice of medicine or dentistry for the use of radioactive material or ionising radiation on human beings; the radiation exposure of individuals for medical purposes is ascertained; and surveys in this respect are carried out.
 - 3c. That the responsible authorities shall determine and designate medical and dental practices; that, and in which way, these medical and dental practices are required to carry out tests in order to ensure that the requirements of medical science are observed when using radioactive material or ionising radiation in medicine; and that the procedures and equipment used comply with the respective required quality standards in order to ensure the minimum possible radiation exposure of patients; and that, and in which way, the results of such tests are notified to the responsible authorities.

4. That, and to which extent, persons who stay or have been staying in areas involving radiation exposure or who carry out or have carried out work pursuant to Section 11, paragraph (1), No. 7, are obliged to tolerate measurements of the radiation doses of their body and to undergo medical examinations and, to the extent necessary for the protection of other persons or of the general public, medical treatment, and that such examination or treatment is carried out by specially authorised physicians, and that, and in which way, the radiation exposure of individuals due to cosmic radiation when operating aircraft is ascertained, recorded and transmitted to offices to be outlined in greater detail or defined in a statutory ordinance promulgated on the basis of this Act, and that these offices forward such notifications to the radiation protection register.
- 4a. That measurement offices are defined by the responsible authorities in order to ascertain radiation exposure.
5. That, and in which way, records shall be kept of and reports submitted on the production, extraction, acquisition, possession, delivery and other whereabouts of radioactive material and measurements of doses and dose rates of ionising radiation,
6. That, and in which way, the operator of an installation in which radioactive material are or are to be handled is obliged to report to the supervisory authority whether, and if so which, deviations have occurred from the statements in the licensing application, including the accompanying documents, or from the licence.
7. That safety-related deviations from specified normal operation, in particular accidents and other events causing damage during the handling of radioactive material, the erection and operation of installations in which radioactive material are handled and during the handling of installations, equipment and devices of the kind referred to in Section 11, paragraph (1), No. 3, shall be reported to the supervisory authority; it may further be provided under which conditions and in which way the experience gained, with the exception of individual data concerning personal and factual circumstances, may be published for the purpose of improving the safety precautions by the agencies referred to in such ordinance,
- 7a. That, and in which way, the general public should be notified of any safety-related deviations from specified normal operation, particularly accidents; the valid rules of conduct and health protection measures which must be taken in the event of a radiological emergency; and that, and in which way, individuals who are deployed or may be deployed in rescue operations in the event of a radiological emergency are informed about the possible health risks and precautionary measures.
8. Which radioactive waste shall be surrendered to the state collecting facilities and to the federal installations pursuant to Section 9a, paragraph (3), and that, in view of the extent of the hazards involved, some other method of interim storage or other exceptions from the system of compulsory surrender will be acceptable or may be directed or approved.
9. Which requirements must be met with regard to the non-detrimental utilisation and regulated disposal of residual radioactive materials and disassembled or dismantled radioactive components; that, and with what content, information is to be submitted and updated in order to meet the obligations pursuant to Section 9a, paragraphs (1)-(1e); that, and in which way, radioactive waste, prior to its surrender to the state collecting facilities and the federal installations, must be treated and kept in interim storage; and that, and in

which way, proof of the quantity and nature of such waste must be furnished with respect to its treatment and interim storage as well as with respect to its carriage; how its surrender shall be effected; how the material must be kept and stored at the state collecting facilities and the federal installations; under which conditions and how it is to be transported from the state collecting facilities to the federal installations; and how installations pursuant to Section 9a, paragraph (3), must be supervised.

- 9a. That, and in which way, residues and other materials resulting from the types of work outlined in Section 11, paragraph (1), No. 7, are to be utilised or disposed of, particularly that, and in which way, radioactive contamination resulting from such residues or other materials is to be eliminated.
10. In which way the protection of radioactive material and of installations as defined in Section 7 and Section 11, paragraph (1), No. 2, and of federal installations pursuant to Section 9a, paragraph (3), shall be assured against disruptive action and other interference by third parties.
- 10a. That the responsible authorities may officially designate individuals and organisations as authorised experts.
11. Which requirements shall be established with regard to the training, professional knowledge and skills, particularly in terms of vocational experience, suitability, instruction in expert duties, extent of testing activities and other requirements and obligations, as well as the reliability and independence, of the authorised experts referred to in Section 20 hereof and also of those individuals employed as officially appointed authorised experts under a statutory ordinance promulgated on the basis of this Act, and which conditions, in view of their technical equipment and the co-operation of employees specialised in different lines, shall be met by organisations which are to be called in as authorised experts as defined in Section 20.
12. Which requirements are to be established with regard to the requisite technical qualifications or knowledge of the persons involved in the handling or carriage of radioactive material or in the erection and operation of installations pursuant to Section 7 and Section 9a, paragraph (3), sentence 1, second clause, and Section 11, paragraph (1), No. 2, or in the decommissioning or dismantling of installations or parts thereof pursuant to Section 7, paragraph (3), or in safe confinement or associated activities; the proof of such qualification or knowledge which must be furnished; and in which way the responsible licensing and supervisory authorities pursuant to Sections 23 and 24 hereof shall verify the existence of the requisite qualifications or knowledge; which requirements shall be imposed with regard to the recognition of training courses when furnishing proof of technical qualifications; and to what extent such individuals are required to attend a recognised training course at specified intervals.
13. That the supervisory authority may issue directions for the implementation of the legal provisions made under Nos. 1-10 above.

The first sentence, Nos. 1 and 7 shall apply accordingly to the carriage of radioactive material to the extent that the purposes referred to in Section 1, Nos. 1, 3 and 4, are to be achieved and provisions relating to financial security are concerned.

- (2) The fundamental right to physical inviolability [Article 2, paragraph (2), first sentence of the Basic Law] shall be restricted as provided for in paragraph (1), first sentence, No. 4 above.

Section 12a

Enabling provision (Decision of the Steering Committee)

Adopted: 15 July 1985

The Federal Government is authorised to put into force by statutory ordinance, with the consent of the *Bundesrat* (Upper House of the Federal Parliament), decisions of the Steering Committee of the European Nuclear Energy Agency, or its successor, under Article 1(a)(ii) and (iii) and under Article 1(b) of the Paris Convention, and, insofar, to amend or repeal Appendix 1, paragraph (1), Nos. 2 and 3, and Appendix 2 hereto, provided this is necessary in order to accomplish the purposes referred to in Section 1.

Section 12b

Verification of reliability of persons as a protection against a diversion or major release of radioactive material

Adopted: 22 April 2002

- (1) As a protection against unauthorised acts which may lead to a diversion or major release of radioactive material, the responsible licensing and supervisory authorities pursuant to Sections 23 and 24 are required to verify the requisite reliability of persons engaged in the handling or carriage of radioactive material and in the erection and operation of installations as defined in Sections 7 and 11, paragraph (1), No. 2, as well as federal installations pursuant to Section 9a, paragraph (3), subject to their written consent. Either a comprehensive reliability check (category 1), an extended reliability check (category 2) or a simple reliability check (category 3) shall be carried out.
- (2) When carrying out reliability checks, the responsible authorities shall take the following action, which shall be graded according to the respective verification categories and with due regard for the affected individual's responsibility, his or her access authorisations to secure areas, the nature of the nuclear installation, particularly the nature and quantity of radioactive material, and additionally, with reference to the carriage of radioactive material, with due regard for the packaging and mode of transport:
1. verification of the individual's identity;
 2. enquiries to the federal and regional offices of criminal investigation, other federal and regional police authorities, and the federal and regional intelligence services for any findings which may be significant to an assessment of reliability;
 3. an enquiry to the federal commissioner for documents from the state security police [*Staatssicherheitsdienst* – Stasi] of the former German Democratic Republic in order to

ascertain the individual's possible official or unofficial employment by the state security police if the individual in question was born prior to 1 January 1970 and there is reason to suspect such employment;

4. a) a request for unrestricted information from the Federal Central Register [*Bundeszentralregister*], or
 - b) a request for a police certificate of good conduct for authorities pursuant to Section 30, paragraph (5), of the Federal Central Register Act.
- (3) If there are any factual grounds to doubt the reliability of the individual in question, the responsible authority may conduct one or more enquiries of the next highest verification category and may additionally:
1. submit an enquiry to the prosecuting authorities;
 2. consult investigative or criminal records at the public prosecutors' offices;
 3. when carrying out checks in conjunction with licences for the carriage of radioactive material, obtain excerpts from the Central Transport Register.
- (4) The responsible authority shall give the affected individual an opportunity to put forward their case if the information obtained gives rise to doubts concerning the individual's reliability.
- (5) The data obtained within the context of this verification process may only be stored in the required scope by the responsible authorities pursuant to Sections 23 and 24, may only be utilised for the purposes of verifying reliability as per the provisions contained herein, and may not be disclosed to other parties. The responsible authority shall notify the applicant of the outcome of the reliability verification process, but without disclosing the findings underlying this result. In the event of failure to ascertain reliability, the responsible authority shall notify the affected party of this fact in writing, stating the reasons.
- (6) A statutory ordinance will regulate the details of the verification process, the detailed allocation to verification categories in accordance with paragraph (2), specification of the intervals at which verification must be repeated, and details of the survey process and the expiry dates.

Section 12c

Radiation protection register

Adopted: 9 October 1989

- (1) The data relating to the radiation exposure of occupationally exposed persons and collected on the basis of an ordinance promulgated pursuant to Section 12, paragraph (1), first sentence, No. 4, shall be recorded in a register set up at the Federal Office for Radiation Protection [*Bundesamt für Strahlenschutz – BfS*], for the purpose of monitoring dose limits and observing the radiation protection principles. The person concerned shall be advised of the storage of the data.

- (2) For the above purposes, the register may be used to furnish information, to the extent required, to the supervisory authorities in charge pursuant to Section 24 as well as to the agencies and persons responsible for precautions and monitoring measures for the protection of occupationally exposed persons.
- (3) For the purpose of scientific research in the field of radiation protection, personal data may be transmitted to third parties with the consent of the person concerned. Without the consent of the person concerned, the data may be transmitted if the transmission or the proposed use of the data do not conflict with protectable interests of the person concerned or if the public interest in the research project by far outweighs the interest of the person concerned in secrecy. A transmission of personal data for purposes of scientific research shall be excluded if the purpose of the scientific research can be achieved with reasonable effort by using depersonalised data. Wider provisions concerning data protection and relating to the processing and use of personal data for scientific research shall remain unaffected.
- (4) The recipient of personal data may only use the data for the purpose for which they were lawfully transmitted. The details with respect to the prerequisites and the procedure for the supply of information and the transmission of personal data shall be provided for by a statutory ordinance.

Section 13

Financial security for covering the legal liability to pay compensation for damage

Adopted: 22 April 2002

- (1) In the licensing procedure, the administrative authority shall determine the type, terms and amount of the financial security to be provided by the applicant to meet the legal liability to pay compensation for damage. Such determination shall be renewed every two years and in the event of a material change in circumstances; in such a case, the administrative authority shall direct that the party obliged to provide financial security shall furnish proof within an adequate period of time that such security has indeed been provided.
- (2) The financial security provided pursuant to paragraph (1) above shall:
 1. in the case of installations and practices possibly involving liability under the Paris Convention in conjunction with Section 25, paragraphs (1)-(4) hereof, pursuant to Section 25a or pursuant to any of the international treaties referred to in Section 25a, paragraph (2), be adequate as compared with the hazards of the installation or practice;
 2. in the case of other practices requiring a licence hereunder or under a statutory ordinance issued hereunder, assure fulfilment of the legal liability to pay compensation for damage to the extent appropriate to the circumstances.
- (3) Within the limits laid down in paragraph (2) above, and to achieve the purposes referred to in Section 1, a statutory ordinance may be issued containing more detailed provisions as to the measures required for covering the legal liability to pay compensation for damage. The amount of the financial security shall be fixed subject to a maximum of 2.5 billion euros; the maximum

and the amounts of financial security shall be reviewed every five years with a view to maintaining the real value of the financial security.

- (4) The Federation and the *Länder* shall not be obliged to provide financial security. To the extent a *Länd* may be held liable under the Paris Convention in conjunction with Section 25, paragraphs (1)-(4), under Section 25a or under any of the international treaties referred to in Section 25a, paragraph (2), the licensing authority shall apply paragraphs (1) and (2), as well as the statutory ordinance issued under paragraph (3) accordingly in order to determine the extent and amount to which the *Länd* shall guarantee fulfilment of the uncovered legal liability to pay compensation for damage by means of the indemnification pursuant to Section 34. For the purposes of this Act, such guarantee shall be the equivalent of financial security. Sentences 2 and 3 shall not apply to the Federation.
- (5) For the purposes of this Act, legal liability to pay compensation for damage shall mean the liability to pay compensation based on statutory legal liability provisions of private law. Such legal liability to pay compensation for damage shall not include obligations arising under Sections 110 and 111 of Volume Seven of the German Social Code and shall include obligations for indemnification arising under Section 7, paragraph (6) hereof, in conjunction with Section 14 of the Federal Pollution Control Act, as well as similar obligations for indemnification or compensation only to the extent that the damage or impairment has been caused by an accident.

Section 14

Third party liability insurance and other forms of financial security

Adopted: 22 April 2002

- (1) If, for installations and practices involving liability under the Paris Convention in conjunction with Section 25, paragraphs (1)-(4), under Section 25a or under any of the international treaties referred to in Section 25a, paragraph (2), or pursuant to Section 26, paragraph (1), in conjunction with paragraph (1a), financial security is provided in the form of third party liability insurance, Sections 158c-158h of the Insurance Contracts Act shall apply accordingly to such insurance except that the term referred to in Section 158c, paragraph (2), of the Insurance Contracts Act shall be two months and that such term, in the case of liability for the carriage of nuclear substances and radioactive material considered equivalent thereto in accordance with Section 26, paragraph (1a), shall be suspended for the duration of such carriage; if Section 158c, paragraph (4), of the Insurance Contracts Act is applied the indemnification under Section 34 shall not be taken into account. Section 156, paragraph (3), of the Insurance Contracts Act shall not be applied.
- (2) If the financial security is not provided by third party liability insurance but by some other form of financial security, paragraph (1) shall apply accordingly.

Section 15

Priority of claims to be satisfied out of the financial security provided

Adopted: 15 July 1985

- (1) If an operator of a nuclear installation obliged to provide financial security and a claimant are, at the time of a nuclear incident, subsidiaries of one and the same corporation as defined in Section 18 of the Stock Corporation Act, the financial security may only be used for the fulfilment of the legal liability for damages of such claimant if this will not prejudice the satisfaction of the claims of other claimants. The term nuclear installations as used in the first sentence shall include reactors which are part of a means of transport.
- (2) If damage is caused to an industrial facility in the vicinity of the nuclear installation, paragraph (1), first sentence, shall apply accordingly if the site had been chosen because the energy generated at the nuclear installation was to be used for production processes.
- (3) Subordinate claims pursuant to paragraphs (1) and (2) shall be of equal priority in relation to each other.

Section 16 (Repealed)

Section 17

Restrictions, obligations imposed, revocations, designation as operator of a nuclear installation

Adopted: 22 April 2002

- (1) Licences and general approvals granted hereunder or under a statutory ordinance issued hereunder shall be in writing. To achieve the purposes referred to in Section 1, they may contain restrictions and may be subject to certain obligations. To the extent necessary to achieve the purposes referred to in Section 1, Nos. 2 and 3, obligations may be imposed subsequently. Licences, other than those granted pursuant to Section 7, as well as general approvals may be granted for a fixed period of time.
- (2) Licences and general approvals may be withdrawn if any of their preconditions had not been fulfilled at the time such licences or approvals were granted.
- (3) Licences and general approvals may be revoked if:
 1. they have not been used within two years unless otherwise provided for in such licence or general approval;
 2. any of their preconditions has ceased to be fulfilled at a later time and no remedial action has been taken within a reasonable period of time; or
 3. the provisions hereof or of a statutory ordinance issued hereunder, orders or directions issued hereunder by the supervisory authorities, or the provisions of the notice relating to

the licence or general approval have been violated materially or repeatedly, or if a subsequently imposed obligation has not been complied with and no remedial action has been taken within a reasonable period of time;

4. even after setting an appropriate period of grace, proper proof pursuant to Section 9a, paragraphs (1a)-(1e), has not been furnished, or even after setting an appropriate period of grace, no results from the safety review to be conducted in accordance with Section 19a, paragraph (1), have been submitted.
- (4) Licences shall be revoked if the financial security provided does not comply with the determination under Section 13, paragraph (1), and the party obliged to provide financial security does not furnish proof of such provision in accordance with the determination within a reasonable period of time to be fixed by the administrative authority.
- (5) Licences or general approvals shall also be revoked if such revocation is necessary to avoid substantial hazards to the personnel, third parties or the general public and if subsequently imposed obligations cannot remedy the situation within a reasonable period of time.
- (6) When a licence is granted for practices authorising the operation of a nuclear installation, the licensee shall be expressly designated as operator of a nuclear installation in the licensing notice.

Section 18

Compensation

Adopted: 15 July 1985

- (1) If a licence or general approval granted hereunder or under a statutory ordinance issued hereunder is withdrawn or revoked, adequate financial compensation shall be paid to the licensee. If the withdrawal or revocation is pronounced by a federal authority, the Federation shall be liable for the compensation, and if the withdrawal or revocation is pronounced by a *Länder* authority, the *Länder* whose authority pronounced the withdrawal or revocation shall be liable for the compensation. The amount of the compensation shall be fixed with due regard to the interests of the general public and of the party concerned as well as the reasons which have led to such withdrawal or revocation. The compensation shall be limited to the amount of the expenses incurred by the party concerned and, in the case of an installation, by the current market value of such installation. As to the amount of compensation, legal proceedings may be instituted before a court of general jurisdiction.
- (2) The authority shall not be obliged to pay compensation if:
 1. the holder of a licence or general approval has obtained such licence or approval as a result of substantially incorrect or incomplete statements;
 2. the holder of a licence or general approval, or persons actively engaged thereunder on behalf of such holder, have caused the revocation of the licence or general approval by their conduct, in particular by material or repeated violations of the provisions hereof or of statutory ordinances issued hereunder or of orders and directions issued by the

supervisory authorities, or of the terms and conditions of the notice granting the licence or general approval, or by non-compliance with subsequently imposed obligations;

3. the revocation had to be pronounced because the licensed installation or practice subsequently caused material hazards to the personnel, third parties or the general public.
- (3) Paragraphs (1) and (2) shall apply accordingly to subsequently imposed obligations pursuant to Section 17, paragraph (1), third sentence.
- (4) If a *Länd* is liable for compensation, the Federation or another *Länd* shall be obliged to contribute to such compensation in accordance with their overall interest in the withdrawal or revocation. The same shall apply if the Federation is liable for compensation.

Section 19

Government supervision

Adopted: 26 August 1992

- (1) The handling of and dealing in radioactive material, the erection, operation and possession of installations of the kind referred to in Section 7 and Section 11, paragraph (1), No. 2, the handling of or dealing in installations, equipment and devices of the kind referred to in Section 11, paragraph (1), No. 3, as well as the carriage of such material, installations, equipment and devices, the appropriated addition of radioactive material and the activation thereof, where requirements in this respect exist under this Act or on the basis of a statutory ordinance pursuant hereto, as well as work of the type defined in Section 11, paragraph (1), No. 7, shall be subject to government supervision. The supervisory authorities shall in particular assure compliance with the provisions hereof and of the statutory ordinances issued hereunder, with the orders and directions issued hereunder and thereunder by the supervisory authorities, and with the terms and conditions of the notice granting the licence or general approval, as well as with subsequently imposed obligations. The provisions of Section 139b of the Trade and Industry Code shall apply accordingly to the powers and duties of the supervisory authorities. The Federal Ministry responsible for nuclear safety and radiation protection may communicate to the Federal Ministry of the Interior the information communicated by the authorities responsible pursuant to Sections 22-24, indicating violations of import and export provisions of this Act, or of statutory ordinances issued hereunder, or of orders and directives issued hereunder by the supervisory authorities, or of the terms and conditions of the notice granting the licence, to the extent this is necessary for the Federal Criminal Police Office to fulfil its duties in the prosecution of criminal offences in foreign trade transactions; unless anything to the contrary is provided for by law, the information so communicated may only be used for the purpose for which it is communicated.
- (2) Any person commissioned by the supervisory authority, and the authorised experts called in by such authority pursuant to Section 20 hereof, as well as any person commissioned by other authorities which have been called in, shall at all times have access to places where radioactive material, installations of the kind referred to in Section 7 and Section 11, paragraph (1), No. 2, or installations, equipment and devices of the kind referred to in Section 11, paragraph (1), No. 3, are located, or where there are effects of radiation originating therefrom, or to places where there is reason to believe that such conditions prevail, and such persons shall be

authorised to carry out all examinations at such places which are necessary for the performance of their duties. In this connection, they may request the persons in charge or actively employed to provide them with the information they require. In all other respects, Section 13 of the Safe Plant and Equipment Act shall apply accordingly. The fundamental right to inviolability of the home as laid down in Article 13 of the Basic Law shall be restricted to the extent it conflicts with the powers granted hereby.

- (3) The supervisory authority may order that a situation be discontinued which is contrary to the provisions hereof or of the statutory ordinances issued hereunder, or to the terms and conditions of the notice granting the licence or general approval, or to any subsequently imposed obligation, or which may constitute a hazard to life, health or property because of the effects of ionising radiation. In particular, the supervisory authority may order that:
 1. certain protective measures shall be taken;
 2. radioactive material shall be stored or kept in custody at a place designated by it;
 3. the handling of radioactive material, the erection and operation of installations of the kind referred to in Section 7 and Section 11, paragraph (1), No. 2, as well as the handling of installations, equipment and devices of the kind referred to in Section 11, paragraph (1), No. 3, shall be suspended or, if a requisite licence is not granted or is definitely revoked, discontinued.
- (4) Nothing herein contained shall affect the supervisory powers under other legal provisions and the general powers resulting from *Länder* legislation.
- (5) Paragraphs (1)-(4) shall apply accordingly installations set up by third parties pursuant to Section 9a, paragraph (3), sentence 3.

Section 19a

Safety review

Adopted: 22 April 2002

- (1) Anyone who operates an installation for the fission of nuclear fuel for the commercial generation of electricity is required to conduct a safety review of the installation and to submit the results thereof to the supervisory authority by the date specified in Appendix 4 of this Act, provided this date is later than 27 April 2002. Ten years after the date cited in Appendix 4, the results of a renewed safety review should be submitted.
- (2) The obligation to submit the results of a safety review shall not apply if the licensee gives a binding declaration to the supervisory authority and the licensing authority stating that operation of the installation will be permanently discontinued no later than three years after the dates specified in Appendix 4. The authorisation to operate the installation shall expire as per the date cited in the owner's statement pursuant to sentence 1. Sentences 1 and 2 shall apply accordingly in the event of paragraph (1), sentence 2.

Section 20

Authorised experts

Adopted: 26 August 1992

In the licensing and supervisory procedures hereunder or under the statutory ordinances issued hereunder, the authorities in charge may consult authorised experts. Section 13 of the Safe Plant and Equipment Act shall apply accordingly.

Section 21

Costs

Adopted: 22 April 2002

(1) Costs (fees and expenses) shall be charged:

1. for decisions with respect to applications filed pursuant to Sections 4, 6, 7, 7a, 9, 9a and 9b;
2. for determinations pursuant to Section 4b, paragraph (1), second sentence, and Section 13, paragraph (1), second sentence; for decisions pursuant to Section 9b, paragraph (3), second sentence; for decisions pursuant to Section 17, paragraph (1), third sentence, and paragraphs (2)-(5), insofar as Section 18, paragraph (2), provides that there is no obligation to pay a compensation; and for decisions pursuant to Section 19, paragraph (3);
3. for government custody of nuclear fuel pursuant to Section 5, paragraph (1);
4. for other official acts including tests and examinations carried out by the Federal Office for Radiation Protection [*Bundesamt für Strahlenschutz – BfS*] to the extent it is responsible pursuant to Section 23 and by the Federal Aviation Authority [*Luftfahrt-Bundesamt – LBA*] to the extent it is responsible pursuant to Section 23b;
- 4a. for decisions pursuant to Section 9g;
5. for the other supervisory measures pursuant to Section 19 which have to be defined in the statutory ordinance referred to in paragraph (3) below;
6. for verification of the results of the safety review pursuant to Section 19a.

(1a) Costs will be levied in the following instances:

1. the revocation or withdrawal of an official act defined in paragraph (1), where this is the responsibility of the affected party and costs have not already been levied under paragraph (1);

2. the rejection of an application for performance of an official act defined in paragraph (1) for reasons other than the authority's lack of jurisdiction;
3. the withdrawal of an application for performance of an official act defined in paragraph (1) after processing has begun but prior to its completion;
4. the complete or partial dismissal or withdrawal of an objection to:
 - a) an official act defined in paragraph (1), or
 - b) a fixed order for payment of costs pursuant to paragraph (1) in conjunction with the statutory ordinance promulgated in accordance with paragraph (3).

In the cases outlined in sentence 1, Nos. 1, 2 and 4a, fees may be set at up to the amount of the fee specified for the official act, in the cases outlined in sentence 1, No. 3, up to the amount of three-quarters of the fee specified for the official act, and in the cases outlined in sentence 1, No. 4b, up to the amount of 10% of the disputed contribution.

- (2) Authorised experts' fees shall be reimbursed as expenses to the extent they are limited to amounts constituting an adequate consideration for the authorised expert's services in view of the requisite technical knowledge and the particular difficulties of appraisal, testing and examination.
- (3) Further details shall be determined by statutory ordinance in accordance with the principles of the Administrative Costs Act. Such statutory ordinance shall define the facts and circumstances which are subject to a fee, and the fees shall be determined in the form of fixed rates or skeleton rates or in accordance with the value of the matter concerned. The rates shall be assessed so as to cover the personnel and non-personnel expenses involved in the official acts, tests or examinations; in the case of a supporting official act, the importance, economic value or other benefit to or for the person liable to pay the fee may also be taken into reasonable consideration. Said ordinance may contain provisions deviating from Section 8 of the Administrative Costs Act as far as the cost exemption of the Federal Office for Radiation Protection and the obligation to pay fees for the official acts of certain authorities are concerned. Notwithstanding Section 20 of the Administrative Costs Act, the period of prescription for the costs owed may be extended. It may be provided that the ordinance shall also be applicable to the administrative procedures pending at the time it takes effect, insofar as the costs concerned have not yet been assessed.
- (4) Expenditures for protective measures and medical examinations carried out under this Act or under a statutory ordinance issued hereunder shall be borne by the party which, under this Act or under a statutory ordinance to be issued hereunder, requires a licence or is obliged to notify the practice necessitating such protective measure or medical examination.
- (5) In all other respects, the relevant cost provisions under *Länder* law shall apply to implementation by the *Länder* authorities of this Act and other statutory ordinances adopted on the basis of Section 7, paragraph (4), sentence 3, and paragraph (5); Section 7a, paragraph (2), and Sections 10-12, except as provided in paragraph (2) above.

Section 21a

Costs (fees and expenses) or consideration for the use of installations pursuant to Section 9a, paragraph (3)

Adopted: 15 July 1985

- (1) For the use of installations pursuant to Section 9a, paragraph (3), the parties obliged to surrender material shall be charged with costs (fees and expenses). Fees pursuant to Section 21, paragraph (2), and expenditures pursuant to Section 21, paragraph (4), may also be charged as expenses. The general principles of the law of fees relating to the origination of a fee, the parties entitled to receive and obliged to pay a fee, the definite assessment of a fee, advance payments, provision of security, due date, delay penalty, respite, abatement, remission, prescription, refund and legal remedies shall be applied in compliance with Sections 11, 12 and 13, paragraph (2), Sections 14 and 16-22 of the Administrative Costs Act, except as otherwise provided for in the statutory ordinance referred to in paragraph (2) below.
- (2) The facts and circumstances which are subject to a fee pursuant to paragraph (1) above may be defined in a statutory ordinance providing for fixed rates or skeleton rates. The rates shall be assessed so as to cover the costs of the current management and maintenance of the installations pursuant to Section 9a, paragraph (3), to the extent these costs can be charged in accordance with the principles of business administration. Said costs shall also include interest on and depreciation of the capital invested. The depreciation shall be calculated on a uniform basis in accordance with the anticipated useful life and the kind of use. The capital share originating from contributions pursuant to Section 21b as well as from services and grants by third parties shall not be taken into account when calculating the amount of interest. In addition, both the extent and the kind of the use concerned shall be taken into consideration when assessing the fee. A basic fee may be charged for the use of state collecting facilities in order to cover the relevant capital expenditure. When assessing the costs or considerations charged for the surrender of material to a state collecting facility, expenses incurred in the subsequent delivery to federal installations as well as advance payments under Section 21b, paragraph (2) below may be included. These shall be paid over to the Federation.
- (3) The state collecting facilities may charge a consideration for use, in lieu of costs, in accordance with a set of rules for such use. When calculating the consideration the principles of assessment contained in paragraph (2) above shall be taken into account.

Section 21b

Contributions

Adopted: 22 April 2002

- (1) To cover the necessary expenses for planning, the acquisition of real estate and rights, facility-related research and development, investigation, the maintenance of land and facilities as well as the erection, extension and renewal of federal installations pursuant to Section 9a, paragraph (3), contributions shall be levied from any party which stands to benefit from the opportunity of utilising these installations for the regulated disposal of radioactive waste

pursuant to Section 9a, paragraph (1), sentence 1. Said necessary expenses shall also include the value, at the time of their availability, of the items and rights that are made available out of the assets of the operator of the installation.

- (2) Advance payments against said contributions may be required to be made by those who have filed an application for the grant of a licence pursuant to Sections 6, 7 or 9, or under a statutory ordinance issued hereunder, for the handling of radioactive material or for the generation of ionising radiation or to whom such a licence has been granted, provided implementation of a measure pursuant to paragraph (1), sentence 1, has already begun.
- (3) Further details concerning imposition, exemption, respite, abatement and refund with respect to contributions and advance payments may be laid down in a statutory ordinance. Said statutory ordinance may determine the parties entitled to receive or obliged to pay the contribution and the time at which the obligation to pay the contribution is incurred. The contributions shall be assessed in such a way that they cover the expenses incurred pursuant to paragraph (1) above which can be charged in accordance with the principles of business administration. The contributions shall be reasonable in relation to the benefits which the party obliged to pay the contributions derives from the installation. Advance payments against contributions shall be refunded, including adequate interest, to the extent they exceed the contributions determined on the basis of the expenses actually incurred.
- (4) Any contributions or advance payments already levied, insofar as these have been levied in order to cover the expenses incurred, will not be refunded if a federal installation pursuant to Section 9a, paragraph (3), is ultimately not erected or operated, or if the party liable to pay the contribution or advance payment fails to take advantage of the opportunities outlined in paragraph (1), sentence 1.

Chapter 3

ADMINISTRATIVE AUTHORITIES

Section 22

Responsibility for international carriage and the supervision thereof

Adopted: 29 October 2001

- (1) The Federal Office for Trade and Export Control [*Bundesamt für Wirtschaft und Ausfuhrkontrolle* – BAFA] shall decide on applications for licences pursuant to Section 3 and on the withdrawal or revocation of licences already granted. The same shall apply insofar as the statutory ordinances issued under Section 11 require licences and approvals for international carriage.
- (2) The supervision of international carriage shall be the responsibility of the Federal Ministry of Finance or of the customs authorities appointed by said Ministry.
- (3) To the extent that the Federal Office for Trade and Export Control (BAFA) makes decisions under paragraph (1) above, it shall be bound by the technical instructions issued by the Federal Ministry in charge of nuclear safety and radiation protection, notwithstanding its subordination to the Federal Minister for Industry and Technology and his powers to issue instructions under other legal provisions.

Section 23

Responsibility of the Federal Office for Radiation Protection

Adopted: 22 April 2002

- (1) The Federal Office for Radiation Protection [*Bundesamt für Strahlenschutz* – BfS] shall be responsible for:
 1. the government custody of nuclear fuel, including the promulgation of decisions pursuant to Section 5, paragraph (7), sentence 1;
 2. the erection and operation of federal installations for the safekeeping and final disposal of radioactive waste, the transfer of duties by the Federation to third parties pursuant to Section 9a, paragraph (3), sentence 3, and supervision pursuant to Section 19, paragraph (5);

3. the licensing of the carriage of nuclear fuel and large sources,
 4. the licensing of the storage of nuclear fuel outside government custody to the extent such storage is not preliminary to or part of a practice requiring a licence pursuant to Sections 7 or 9;
 5. the withdrawal or revocation of licences pursuant to Nos. 3 and 4 above; and
 6. the setting-up and maintenance of a register of the radiation exposures of occupationally exposed persons;
 7. the creation and maintenance of an ethics commission register as defined in Section 12, paragraph (1), sentence 1, No. 3a, its registration and the revocation thereof;
 8. the investigation, preparation and publication of diagnostic reference figures, determination of the radiation exposure of individuals for medical reasons, and the related surveys required in this respect on the basis of an ordinance pursuant to Section 12, paragraph (1), sentence 1, No. 3b;
 9. the acceptance and publication of information pursuant to Section 7, paragraph (1c);
 10. decisions pursuant to Section 9a, paragraph (2), sentence 4.
- (2) Large sources as referred to in paragraph (1), No. 3 above shall be radioactive material whose activity per package to be carried or shipped exceeds 1 000 terabequerels.
- (3) A statutory ordinance may stipulate that the Federal Office for Radiation Protection is responsible for:
1. approval of the use of radioactive material or ionising radiation on human beings within the context of medical research;
 2. licensing of the designs of installations, equipment and other devices of the type defined in Section 11, paragraph (1), No. 3.

Section 23a

Responsibility of the Federal Administrative Office

Adopted: 22 April 2002

The Federal Administrative Office [*Bundesverwaltungsamt* – BVA] is responsible for decisions pursuant to Section 9g.

Section 23b

Responsibility of the Federal Civil Aviation Authority

Adopted: 3 May 2000

The Federal Civil Aviation Authority [*Luftfahrt-Bundesamt* – LBA] is responsible for monitoring compliance with the requirements concerning the protection of individuals from radiation exposure caused by cosmic radiation during the operation of aircraft as specified in a statutory ordinance promulgated on the basis of this Act. Notwithstanding sentence 1, in the case of aircraft operated within the scope of the Federal Ministry of Defence, responsibility for monitoring shall lie with said Ministry or the offices appointed by it.

Section 24

Responsibility of *Länder* authorities

Adopted: 3 May 2000

- (1) All other administrative functions under Chapter 2 and the statutory ordinances issued thereunder shall be discharged by the *Länder* on behalf of the Federation. The Federal Railroads Office [*Eisenbahn-Bundesamt* – EBA] shall be responsible for the supervision of the carriage of radioactive material by rail and ship or on maglev train effected by the federal railroads; this shall not apply to the carriage of radioactive material by private railroad companies if the carriage is exclusively effected on rails owned by those companies. The second sentence shall also apply to the licensing of such carriages unless the corresponding responsibility is as referred to in Section 23.
- (2) The supreme *Länder* authorities designated by the *Länder* governments shall be responsible for the granting of licences pursuant to Sections 7, 7a and 9 and the withdrawal and revocation of such licences as well as the plan approval procedure pursuant to Section 9b and the cancellation of the plan approval notice. These authorities shall supervise the installations pursuant to Section 7 and the use of nuclear fuel outside such installations. In particular cases, they may delegate their functions to subordinate authorities. Complaints against orders of these subordinate authorities shall be decided upon by the supreme *Länder* authority. To the extent that provisions other than those laid down herein confer supervisory powers to other authorities, such responsibilities shall not be affected.
- (3) In matters relating to the official duties of the Federal Ministry of Defence, the responsibilities outlined in paragraphs (1) and (2) above will be carried out by said Ministry or the offices appointed by it, in agreement with the Federal Ministry in charge of nuclear safety and radiation protection. The same shall apply to civilian employees in the case of troops and their civilian retainues who are stationed in the Federal Republic of Germany on the basis of international agreements.

Section 24a

Transmission of information

Adopted: 29 October 2001

The Federal Ministry responsible for nuclear safety and radiation protection may transmit information contained in nuclear licences granted by authorities in charge pursuant to Sections 22-24 (licensee, statutory bases, essentials of contents) to the supreme federal authorities responsible for foreign trade transactions to assist in the fulfilment of their duties with respect to the grant of licences or the supervision of foreign trade transactions. If, in individual cases, this information is insufficient, further information contained in the nuclear licence may be transmitted. Unless anything to the contrary is provided for by law, the information transmitted may be used by the recipient only for the purpose for which it was transmitted.

Chapter 4

LIABILITY

Section 25

Liability for nuclear installations

Adopted: 5 March 2001

- (1) If damage is caused by a nuclear incident originating from a nuclear installation, the provisions of this Act, in addition to the provisions of the Paris Convention, shall apply to the liability of the operator of such nuclear installation. Irrespective of its binding character under international law, the Paris Convention and the Joint Protocol shall apply as national law in the Federal Republic of Germany, unless its provisions depend on reciprocity as effected by the entry into force of the Convention.
- (2) If, in the case of a carriage of nuclear substances, including the storage incidental to such carriage, the carrier enters into a contract for the assumption of liability from the operator of a nuclear installation located within the territorial scope of this Act, such carrier shall be considered operator of the nuclear installation from the time of its assumption of liability. Said contract shall be in writing. The assumption of liability shall only be valid if it has been approved, upon application of the carrier, by the authority responsible for the licensing of carriage, prior to the commencement of the carriage of nuclear substances or any storage incidental thereto. Such licence may only be granted if the carrier is licensed to do business within the territorial scope of this Act, or if the carrier has its principal place of business as a forwarding agent within the territorial scope of this Act and the operator of the nuclear installation has declared its consent to the authority.
- (3) The provisions of Article 9 of the Paris Convention relating to the exclusion of liability for damage caused by nuclear incidents which are a direct consequence of acts in an armed conflict, hostilities, civil war, insurrection or a grave natural disaster of an exceptional character, shall not be applicable. If the damage occurs in another country, the first sentence shall only apply insofar as such other country, at the time of the nuclear incident, has provided for a system of compensation in relation to the Federal Republic of Germany which is equivalent as to nature, terms and amount.
- (4) The operator of a nuclear installation shall be liable, irrespective of the location of damage occurrence. Article 2 of the Paris Convention shall not apply.
- (5) The operator of a nuclear installation shall not be liable under the Paris Convention if the damage was caused by a nuclear incident which is due to the nuclear substances referred to in Appendix 2 hereto.

Section 25a

Liability for nuclear ships

Adopted: 15 July 1985

- (1) The provisions of this Chapter shall apply accordingly to the liability of the operator of a nuclear ship, including the following modifications:
 1. The provisions of the Paris Convention shall be replaced by the corresponding provisions of the Brussels Convention on the Liability of Operators of Nuclear Ships (BGBl. 1975 II, p. 977). Irrespective of its binding character under international law, the latter shall apply as national law in the Federal Republic of Germany, unless its provisions depend on reciprocity as effected by its entry into force.
 2. If the damage occurs in another country, Section 31, paragraph (1), shall apply, with regard to the amount exceeding the maximum amount under the Brussels Convention on the Liability of Operators of Nuclear Ships, only to the extent that the laws of such other country, at the time of the nuclear incident, provided for a settlement of the liability of operators of nuclear ships in relation to the Federal Republic of Germany which is equivalent as to nature, terms and amount. Section 31, paragraph (2), Sections 36, 38, paragraph (1), and Section 40 shall not apply.
 3. Section 34 shall only apply to nuclear ships authorised to sail under the flag of the Federal Republic of Germany. If, within the territorial scope of this Act, a nuclear ship is built or equipped with a reactor for another country or persons of another country, Section 34 shall apply until such time as the nuclear ship is registered in such other country or acquires the right to sail under the flag of another country. Seventy-five percent of the indemnification pursuant to Section 34 shall be borne by the Federation and the remaining percentage by the *Länd* in charge of licensing the nuclear ship pursuant to Section 7.
 4. In the case of nuclear ships which are not entitled to sail under the flag of the Federal Republic of Germany, this Chapter shall only apply if nuclear damage caused by the nuclear ship has occurred within the territorial scope of this Act.
 5. Claims for damages shall be decided by the courts of the country under whose flag the nuclear ship is entitled to sail; in the cases referred to in No. 4 above, the court of the place within the territorial scope of this Act where the nuclear damage has occurred shall also have jurisdiction.
- (2) To the extent international treaties on the liability for nuclear ships contain mandatory provisions deviating from those of this Act, such provisions shall take precedence over the provisions of this Act.

Section 26

Liability in other cases

Adopted: 13 December 2001

- (1) If, in cases other than those referred to in the Paris Convention in conjunction with Section 25, paragraphs (1)-(4), loss of life, personal injury, deterioration of health or damage to property is caused by the effects of a nuclear fission process or the radiation of radioactive material or the effects of ionising radiation emanating from an installation for the generation of ionising radiation, the holder of the material subjected to nuclear fission, of the radioactive material or of the installation for the generation of ionising radiation shall be liable for damages pursuant to Sections 27-30, Section 31, paragraph (2), Section 32, paragraphs (1), (4) and (5), and Section 33. There shall be no liability to pay compensation if the damage was caused by an incident which neither the holder nor the persons acting on behalf of the holder in connection with such holding could have avoided by taking every reasonable precaution and which is neither due to a defective condition of the protective devices nor to a failure in their function.
- (1a) Paragraph (1), sentence 2, shall not apply to damages caused by radioactive material which would fall under the definition of nuclear fuel, radioactive products and waste under application of the Paris Convention, the Brussels Convention on the Liability of Operators of Nuclear Ships or the Vienna Convention in conjunction with the Joint Protocol.
- (2) Paragraph (1) above shall apply accordingly in cases where a damage of the kind referred to in paragraph (1) is caused by the effects of nuclear fusion.
- (3) Any person who has lost possession of the material without having delivered it to a person entitled to such possession under this Act or under a statutory ordinance issued hereunder, shall be liable as if he were the holder.
- (4) The provisions of paragraphs (1)-(3) above shall not apply if:
 1. the radioactive material or installation for the generation of ionising radiation have been applied to the injured person by a physician or dentist, or under the supervision of a physician or dentist, in the course of medical treatment and the material or installations for the generation of ionising radiation used, as well as the necessary measuring equipment, have complied with the valid requirements of the Medical Products Act under the provisions of a statutory ordinance, or where this is absent, with the state of the art in science and technology, and the injury is not due to the fact that the material, installations for the generation of ionising radiation or measuring equipment have not, or not sufficiently, been maintained;
 2. there is a legal relationship between the holder and the injured person under which the latter has accepted the risk associated with the material or installation for the generation of ionising radiation.
- (5) Paragraph (1), second sentence, and paragraph (4), No. 2, shall not apply to the application of radioactive material or ionising radiation on humans in the course of medical research. If the holder of the radioactive material or installation for the generation of ionising radiation denies the causal relation between the application of the radioactive material or ionising radiation and

an injury that has occurred, he shall furnish proof that according to the state of the art in medicine there is no sufficient probability that such a causal relation exists.

- (6) Whoever carries the material on behalf of a third party shall not be liable for damages under the provisions of paragraphs (1)-(3) above. Unless and until the consignee has taken possession of the material the consignor shall be liable for damages irrespective of whether or not the consignor is the holder of such material.
- (7) Within the scope of application of paragraph (1), first sentence, all legal provisions shall remain unaffected under which the holder referred to in paragraph (1) and any persons considered as holders under paragraph (3), are liable to a greater extent than under the provisions hereof or under which a third party is liable for the damage.

Section 27

Contributory fault of the injured person

Adopted: 15 July 1985

If a fault of the person sustaining an injury has contributed to the damage sustained, Section 254 of the Civil Code shall apply; in the event of damage to property, the fault of the person in actual control thereof shall be deemed to be equivalent to that of the injured person.

Section 28

Extent of compensation in the case of death

Adopted: 15 July 1985

- (1) In the event of death, compensation shall be paid in the form of a reimbursement of the costs of an unsuccessful treatment as well as a compensation for the pecuniary loss sustained by the deceased because of a loss or reduction of the earning capacity, an increase in needs or a handicap to the career of the deceased during his or her illness. In addition, the person liable to pay compensation shall refund the funeral costs to the person obliged to bear such costs.
- (2) If the deceased, at the time he or she suffered the injury, had been or might have come under a legal obligation to provide maintenance to a third party who loses such maintenance as a result of the death, the person liable shall pay compensation to such third party to the extent of the maintenance which the deceased would have been obliged to pay during his or her life expectancy. Such liability shall also exist if the third party had been conceived but not yet born at the time the injury was afflicted.

Section 29

Extent of compensation for personal injury

Adopted: 14 March 1990

- (1) In the event of a personal injury or a deterioration of health, compensation shall be paid in the form of a reimbursement of the costs of treatment as well as a compensation for the pecuniary loss sustained by the person injured because of a temporary or permanent loss or reduction of his or her earning capacity, an increase in needs or a handicap to the career during his or her illness.
- (2) In the event of a personal injury or a deterioration of health, the person injured may also claim an adequate compensation for pain and suffering if the injury was afflicted wilfully or by negligence.

Section 30

Annuity

Adopted: 15 July 1985

- (1) Damages for a loss or reduction of earning capacity, an increase in needs or a handicap to the career of the person injured as well as compensation to be paid to a third party pursuant to Section 28, paragraph (2), shall be paid in the form of an annuity.
- (2) The provisions of Section 843, paragraphs (2)-(4), of the Civil Code shall apply accordingly.
- (3) Although the court awarding an annuity may not have required security to be provided by the party liable, the party entitled to such annuity may nevertheless demand security if the financial situation of the party liable has deteriorated materially; similarly, in such a case, the party entitled to an annuity may also demand an increase in the amount of a security ordered by the court.

Section 31

Maximum amounts of liability

Adopted: 13 December 2001

- (1) The liability of the operator of a nuclear installation under the Paris Convention in conjunction with Section 25, paragraphs (1), (2) and (4), and also under the Paris Convention and the Joint Protocol in conjunction with Section 25, paragraphs (1), (2) and (4), shall be unlimited. In the cases provided for in Section 25, paragraph (3), the liability of an operator shall be limited to the maximum amount of the governmental indemnification.
- (2) If the damage occurs in another State, paragraph (1) shall only apply insofar as, at the time of the nuclear incident, said other State has made provisions with the Federal Republic of Germany pursuant to paragraph (1) which are equivalent in terms of nature, terms and amount. Otherwise, if the damage occurs in another State, the liability of an operator of a nuclear installation for the compensation of damages caused by nuclear incidents, including any additional compensation on the basis of international conventions, shall be limited to the amount envisaged by the other State in relation to the Federal Republic of Germany at the time of the nuclear incident. In relation to States whose sovereign territory does not contain any nuclear installations, the liability of an operator of a nuclear installation is limited to the maximum amount as specified in the Brussels Supplementary Convention.
- (2a) Paragraph (2) shall also apply to the liability of a holder of radioactive material in the instances outlined in Section 26, paragraph (1a).
- (3) In the event of damage to property, the party liable under the Paris Convention in conjunction with Section 25, paragraphs (1), (2) and (4), and under the Paris Convention and the Joint Protocol in conjunction with Section 25, paragraphs (1), (2) and (4), or under Section 26, shall only be liable up to the amount of the fair market value of such damaged property and the costs of protection against the radiation hazards originating from such property.

In the case of liability under the Paris Convention in conjunction with Section 25, paragraphs (1), (2)-(4), compensation for damage to the means of transport on which the nuclear substances were being carried at the time of the nuclear incident shall only be paid if the satisfaction of other claims has been secured from the maximum amount of the governmental indemnification in the cases outlined in paragraph (1), or from the maximum amount of liability in the cases outlined in paragraph (2) is assured.

Section 32

Limitation of actions

Adopted: 15 July 1985

- (1) Claims for compensation under this Section shall be barred after three years from the date when the claimant became, or ought to have become, aware of the damage and of the identity of the

person liable, or irrespective thereof, after 30 years starting from the date of the incident causing the damage.

- (2) In the cases referred to in Article 8(b) of the Paris Convention, the limitation period of 30 years under paragraph (1) above shall be replaced by a 20 years period starting from the date of theft, loss, jettison or abandonment.
- (3) Claims for compensation because of death or personal injury under the Paris Convention which are brought before a court against the operator of a nuclear installation within ten years after the nuclear incident shall take precedence over claims lodged after the expiration of such periods.
- (4) Where negotiations concerning compensation are pending between the person liable for compensation and the claimant, the run of the limitation period shall be suspended until such time as either party refuses to continue such negotiations.
- (5) Otherwise, the provisions of the Civil Code concerning limitation of action shall apply.

Section 33

Several parties liable

Adopted: 15 July 1985

- (1) If several parties are legally liable to pay compensation to a third party for damage caused by a nuclear incident or otherwise by the effects of nuclear fission or radiation emitted by radioactive material or the effects of ionising radiation emitted by an accelerator, they shall be jointly and severally liable to such third party except as otherwise provided for in Article 5(d) of the Paris Convention.
- (2) In the cases of paragraph (1) above, the amount of compensation due from each of the parties liable shall be prorated among them according to the circumstances and in particular the extent to which the damage was predominantly caused by the one or the other party, except as otherwise provided for in Article 5(d) of the Paris Convention. However, the operator of a nuclear installation shall not be obliged to pay compensation exceeding the maximum amounts of liability pursuant to Section 31, paragraphs (1) and (2).

Section 34

Indemnification

Adopted: 22 April 2002

- (1) If, as a result of the effects of a nuclear incident, the operator of a nuclear installation located within the territorial scope of this Act has become legally liable to pay compensation for damage under the provisions of the Paris Convention in conjunction with Section 25, paragraphs (1)-(4) and the Paris Convention and the Joint Protocol in conjunction with Section 25, paragraphs (1), (2) and (4) or under foreign laws applicable to the incident or in the

cases outlined in Section 26, paragraph (1a), the operator of the nuclear installation or owner of radioactive material shall be indemnified against any liability to pay compensation for damage to the extent such liability is not covered by or cannot be satisfied out of the financial security provided. The maximum amount of indemnification shall be 2.5 billion euros. The obligation to indemnify the operator shall be restricted to this maximum amount minus the amount which is covered by and can be met out of the financial security provided.

- (2) If, after the occurrence of a harmful incident, recourse to such indemnification seems likely, the operator of the nuclear installation or holder of radioactive material shall be obliged to:
 1. notify the Federal Ministry designated by the Federal Government and the *Länder* authorities designated by the *Länder* Governments without delay of such anticipation;
 2. inform the responsible Federal Ministry and the responsible *Länder* authorities without delay of any claims for compensation which have been raised or preliminary investigations which have been instituted, and provide, upon request, all information which is necessary to examine the circumstance and appreciate the merits of the case;
 3. comply with the instructions of the responsible *Länder* authorities with regard to negotiations, in and out of court, concerning the claims for compensation which have been raised;
 4. refrain from acknowledging or satisfying any claim for compensation without the consent of the responsible *Länder* authorities unless such acknowledgement or satisfaction cannot be refused without obvious inequity.
- (3) In all other respects, Sections 62 and 67 as well as the provisions of Title 6, Chapter 2, of the Insurance Contracts Act, with the exception of Section 152, shall apply accordingly to the indemnification hereunder.

Section 35

Apportionment

Adopted: 15 July 1985

- (1) Where legal liabilities to pay compensation for damage resulting from an incident are expected to exceed the amount available to satisfy such liabilities, their apportionment and the procedure to be observed in this context shall be governed by an act or, pending such act, by statutory ordinance.
- (2) The statutory ordinance referred to in paragraph (1) above may only make such provision for the apportionment of the sums available to cover the legal liability to pay compensation for damage as is necessary to avert hardships. Such statutory ordinance shall ensure that satisfaction of the claims of the injured persons as a whole shall not be unduly prejudiced by the satisfaction of individual claims.

Section 36

Sharing of the indemnification between the Federation and the *Länder*

Adopted: 22 April 2002

The Federation shall bear the indemnification pursuant to Section 34, but below an amount of 500 million euros, only 75%. The remainder shall be borne by the *Länd* in which the nuclear installation is located from which the nuclear incident originated or where the owner received his licence for possession.

Section 37

Recourse in the case of indemnification

Adopted: 5 March 2001

- (1) If the operator of a nuclear installation or holder of radioactive material has been indemnified of the liability to pay compensation for damage pursuant to Section 34, recourse may be taken against such an operator of a nuclear installation or against such a holder of radioactive material to the extent of the indemnities paid if
 1. the operator has violated the obligations pursuant to Section 34, paragraphs (2) or (3); however, recourse shall be excluded to the extent that such violation has not affected the ascertainment of the damage nor the ascertainment or extent of the indemnities paid;
 2. the operator or, in the event of a legal entity, its legal representatives, in the discharge of the functions incumbent on them, caused the damage wilfully or by gross negligence;
 3. the indemnities have been paid because the extent and amount of the financial security provided did not correspond to the extent and amount as determined by the authority in charge.

- (2) Recourse may be taken against the operator of a nuclear installation or holder of radioactive material without the existence of the requirements cited in paragraph (1) if said individual is not a German citizen and his domicile, residence, or place of permanent abode is in a state which is neither a Party to the Treaties of the European Communities, nor to the Paris Convention in conjunction with the Joint Protocol, nor to any other convention with the Federal Republic of Germany concerning liability for nuclear damages which is in force at the time of the nuclear incident.

Section 38

Compensation from the Federation

Adopted: 5 March 2001

- (1) If a party which suffered from the effects of a nuclear incident within the territorial scope of this Act cannot claim compensation pursuant to the laws of another Contracting State of the Paris Convention or the Vienna Convention in conjunction with the Joint Protocol which apply to such incident because:
1. the nuclear incident occurred in the territory of a Non-Contracting State of the Paris Convention or the Vienna Convention in conjunction with the Joint Protocol;
 2. the damage was caused by a nuclear incident which is a direct consequence of acts in an armed conflict, hostilities, civil war, insurrection or a grave natural disaster of an exceptional kind;
 3. the applicable laws do not provide for any liability for damage to the means of transport upon which the nuclear substances were located at the time of the nuclear incident;
 4. the applicable laws do not provide for any liability of the operator if the damage is caused by ionising radiation emitted by another radiation source located in the nuclear installation;
 5. the applicable laws provides a shorter limitation period or term of preclusion than is provided for herein; or
 6. the total amount available for compensation is lower than the maximum amount of the governmental indemnification;
- the Federation shall grant compensation up to the maximum amount of the governmental indemnification.
- (2) The Federation shall further grant compensation up to the maximum amount of the governmental indemnification if the foreign laws applicable to damage suffered within the territorial scope of this Act, or the provisions of an international treaty, provide for such compensation to be paid to the injured person as, with regard to nature, terms and amount, is far lower than the compensation which the injured person would have been awarded had this Act been applied, or if prosecution in the state in whose territory the harmful event originated has no prospect of success.
- (3) Paragraphs (1) and (2) above shall not apply to injured persons who are not Germans as defined in Article 116, paragraph (1), of the Basic Law and who do not have their habitual residence within the territorial scope of this Act, unless their mother country had provided, at the time of the nuclear incident, for an arrangement which, in relation to the Federal Republic of Germany, is equivalent as to nature, terms and amount.

- (4) Claims under paragraphs (1) and (2) above shall be lodged with the Federal Office of Administration [*Bundesverwaltungsamt* – BVA]. Such claims shall lapse three years after the time at which the decision on compensation rendered under foreign or international law has become unappealable, or it becomes apparent that prosecution pursuant to paragraph (2) has no prospect of success.

Section 39

Exemptions from the indemnities to be paid by the Federation and the *Länder*

Adopted: 15 July 1985

- (1) For purposes of the indemnification pursuant to Section 34 and the compensation pursuant to Section 38, claims for compensation without precedence pursuant to Section 15, paragraphs (1) and (2), shall not be taken into consideration.
- (2) Compensation pursuant to Section 29, paragraph (2), shall only be included in the indemnification pursuant to Section 34 and the compensation pursuant to Section 38 if the award of compensation is necessary to avoid grave inequity in view of the particular severity of the injury.

Section 40

Actions against the operator of a nuclear installation located in another Contracting State

Adopted: 15 July 1985

- (1) If, under the provisions of the Paris Convention, a court within the territorial scope of this Act has jurisdiction over actions for compensation against the operator of a nuclear installation located in another Contracting State of the Paris Convention, the liability of such operator shall be governed by the provisions of this Act.
- (2) In derogation of paragraph (1) the following aspects shall be governed by the laws of the Contracting State in which the nuclear installation is located:
1. the person to be considered as operator;
 2. whether the operator's liability will also cover nuclear damage suffered in a Non-Contracting State of the Paris Convention;
 3. whether the operator's liability will cover nuclear damage caused by the radiation of another radiation source located in a nuclear installation;
 4. whether and to what extent the operator's liability will cover damage to the means of transport upon which the nuclear substances were located at the time of the nuclear incident;
 5. up to which maximum amount the operator will be liable;
 6. after which period of time the claim against the operator will prescribe or be precluded;

7. whether and to what extent nuclear damage will be compensated in the cases referred to in Article 9 of the Paris Convention.

Chapter 5

ADMINISTRATIVE FINES

Sections 41-45 (Repealed)

Section 46

Administrative offences

Adopted: 2 April 2002

- (1) An administrative offence is committed by any person who wilfully or negligently:
1. carries nuclear substances without having furnished proof of the financial security required pursuant to Section 4b, paragraph (1), first or second sentences;
 2. erects an installation for the production, treatment, processing or fission of nuclear fuel or for the reprocessing of irradiated nuclear fuel without having the licence required pursuant to Section 7, paragraph (1), sentence 1, also in conjunction with paragraph (5), sentence 1;
 - 2a. uses a measuring device contrary to the provisions of Section 7, paragraph (1a), sentence 4;
 - 2b. fails to install, or to install correctly or promptly, fails to connect, or to connect correctly or promptly, fails to handle, or to handle correctly, or fails to maintain, or to maintain correctly, a measuring device, contrary to the provisions of Section 7, paragraph (1a), sentence 5;
 - 2c. fails to have checked, or to promptly have checked, or fails to have certified, or to promptly have certified, the status of the measuring device or the quantity of electricity generated, contrary to the provisions of Section 7, paragraph (1a), sentence 7;
 - 2d. fails to give notification, or fails to give accurate or complete or prompt notification, fails to transmit this, or fails to transmit it correctly, completely or promptly, or fails to submit, or to promptly submit, a result or a test certificate, contrary to the provisions of Section 7, paragraph (1c), sentence 1, Nos. 1 or 2, or sentence 2;
 - 2e. fails to give notification, or fails to give correct or complete or prompt notification, contrary to the provisions of Section 7, paragraph (1c), sentence 1, No. 3;

3. contravenes a determination pursuant to Section 13, paragraph (1), an enforceable obligation imposed pursuant to Section 17, paragraph (1), second or third sentence, or an enforceable order pursuant to Section 19, paragraph (3);
 4. contravenes a statutory ordinance issued under Section 11, paragraph (1) or Section 12, paragraph (1), first sentence, Nos. 1-7 and 9-12, or an enforceable order under a statutory ordinance issued under Section 12, paragraph (1), first sentence, No. 13, to the extent that, in such statutory ordinance, reference is made to the administrative fines to be imposed under this Section with respect to certain facts or circumstances;
 5. fails to carry along the licensing notice in contravention of Section 4, paragraph (5), first sentence, or the certificate referred to in Section 4, paragraph (5), second sentence, or fails to produce upon request such notice or certificate in contravention of Section 4, paragraph (5), third sentence.
- (2) Offenders shall be liable to an administrative fine of up to 50 000 euros in the cases referred to in paragraph (1), Nos. 1, 2, 2a, 2b, 2c, 2e, 3 and 4, and up to 500 euros in the case referred to in paragraph (1), Nos. 2d and 5.
- (3) The administrative authority as defined in Section 36, paragraph (1), No. 1 of the Administrative Offences Act shall be:
1. the Federal Export Office [*Bundesausfuhramt*] in the cases outlined in paragraph (1), No. 4 insofar as far as the offences in question are contraventions of the compulsory licensing, notifications or other actions required under Section 11, paragraph (1), Nos. 1 or 6, in relation to the international carriage of radioactive material or a contravention of another associated provision;
 2. the Federal Office for Radiation Protection [*Bundesamt für Strahlenschutz – BfS*] in the cases outlined in paragraph (1), Nos. 2a-2e.

Sections 47 and 48 (Repealed)

Section 49

Confiscation

Adopted: 22 April 2002

If a wilful administrative offence is committed as referred to in Section 46, paragraph (1), Nos. 1, 2, 3 or 4, any object,

1. to which the administrative offence relates, or
2. which was used or intended to be used to commit or prepare the offence

may be confiscated.

Sections 50-52 (Repealed)

Chapter 6

FINAL PROVISIONS

Section 53

Registration of damage due to unknown causes

Adopted: 29 October 2001

Damage which, in the light of the state of the art in science, has been caused by the effects of radiation emitted by radioactive material, but cannot be traced to any originator, shall be registered with and investigated by the Federal Ministry responsible for nuclear safety and radiation protection.

Section 54

Promulgation of statutory ordinances

Adopted: 3 May 2000

- (1) Statutory ordinances under Sections 2, 9g, 11, 12, 12b, 12c, 13, 21, paragraph (3), 21a, paragraph (2), 21b, paragraph (3), and 23, paragraph (3), shall be promulgated by the Federal Government. The same shall apply to statutory ordinances under Section 10 to the extent exemptions are granted from the requirement of a licence pursuant to Section 7. The remaining statutory ordinances provided for herein shall be promulgated by the Federal Ministry responsible for nuclear safety and radiation protection.
- (2) The statutory ordinances shall require the consent of the *Bundesrat*. This shall not apply to statutory ordinances whose only purpose it is to replace by other limits the physical, engineering and radiation-biological limits specified in statutory ordinances promulgated under Sections 11 and 12.
- (3) The Federal Government may, by statutory ordinance, delegate all or part of the powers referred to in Sections 11 and 12 to the Federal Ministry responsible for nuclear safety and radiation protection.

Section 55 (Waived)

Section 56

Licences granted under *Länder* law

Adopted: 15 July 1985

- (1) Any licence, exemption or consent granted under *Länder* law for the erection and operation of installations as defined in Section 7 shall continue to be effective. They shall be equivalent to licences granted pursuant to Section 7, and the associated obligations shall be equivalent to the obligations imposed pursuant to Section 17, paragraph (1). To the extent a licence issued under *Länder* law is associated with stipulations relating to the provision, by the operator of the installation, of financial security covering the legal liability for compensations, such stipulations shall constitute, subject to the provisions of paragraph (2) below, determinations as defined in Section 13, paragraph (1).
- (2) The financial security to be provided by the operator of an installation shall be determined by the administrative authority [Section 24, paragraph (2)] within three months after this Act has taken effect; Section 13, paragraph (1), second sentence, second part of the sentence, shall apply accordingly. If a guarantee is fixed under Section 13, paragraph (4), such guarantee shall have retroactive effect as of the date this Act has come into effect.

Section 57

Limitations

Adopted: 27 July 2001

The Explosives Act and the statutory provisions promulgated on the basis of this Act, together with any provisions of *Länder* law in the field of explosives, shall not apply to the handling of nuclear fuel.

Section 57a

Transitional provision on the occasion of the unification of Germany

Adopted: 22 April 2002

- (1) For licences, permits and approvals granted until 30 June 1990, in the area referred to in Article 3 of the Unification Treaty, the following shall apply:
 1. Licences and permits for nuclear power plants shall become invalid upon the expiration of 30 June 1995, those for the carriage of radioactive material upon the expiration of 30 June 1992, and all other licences, permits and approvals, except the licences, permits and approvals pursuant to No. 4, upon the expiration of 30 June 2005, unless these licences, permits and approvals provide for shorter time limits; the licences, permits and approvals which are subject to the above time limits are deemed to be licences granted under the corresponding provisions of this Act and of the statutory ordinances

promulgated hereunder. A licence for a major alteration of an installation or its operation as defined in Section 7, paragraph (1), shall leave a licence granted pursuant to the first sentence unaffected insofar as the licence refers to parts of the installation which are not affected by the alteration.

2. Section 18 shall not apply to licences which continue to be valid for a certain period of time as provided for in No. 1 above if the licensee is a legal entity which is subject to the Act for the Privatisation and Reorganisation of State-Owned Property (Trusteeship Act) of the German Democratic Republic of 17 June 1990 (GBl. I, No. 33, p. 300).
3. In the case of a conversion of legal entities on the basis of the Trusteeship Act of the German Democratic Republic, the licences, permits and approvals granted shall continue to be valid for the periods of time pursuant to No. 1, insofar as an order for such continued validity has not yet been issued at the time the accession becomes effective; the responsible authority shall examine within a reasonable period of time whether the new operator guarantees the continuation of the erection and operation of the installation or of the practice by means of administrative measures and the provision of equipment and personnel. Section 18 shall not apply.
4. The consents contained in licences, permits and approvals for the acceptance of further radioactive waste or for the storage thereof for the purpose of final disposal, or for the acceptance of further nuclear fuel or other radioactive material for the purposes of storage or custody:
 - a) for the acceptance of further radioactive waste or for the storage thereof for the purposes of final disposal; or
 - b) for the acceptance of further nuclear fuel or other radioactive material for the purpose of storage or custody shall become ineffective as per 27 April 2002; otherwise, these licences, permits and approvals;

shall continue to exist in accordance with the provisions of this Act. The licences continuing to exist in accordance with sentence 1 may be amended in line with the provisions of this Act, or directives may be added thereto.

- (2) On and after 1 July 1992, carriages of radioactive material which have so far not required any licence in the area referred to in Article 3 of the Unification Treaty shall be subject to the licensing provisions of this Act and the statutory ordinances promulgated hereunder.

Section 58

Transitional provisions

Adopted: 22 April 2002

- (1) Section 4, paragraph (2), No. 7, Section 9a, paragraph (2), sentences 3-5, and Section 19a shall not apply to installations which are no longer in operation as per 27 April 2002. Section 9a, paragraph (2), sentence 3, shall not apply to installations having adequate interim storage

facilities at the site, which have been approved in accordance with Section 6 or Section 7, as per 27 April 2002.

- (2) Section 5, paragraphs (2) and (3), shall not apply to nuclear fuel which is already in government custody as of 27 April 2002, whose surrender to the responsible authority by recognised non-profit-making research institutions has been notified in writing prior to 1 May 2001, or whose transfer has been contractually agreed prior to 1 May 2001. With effect from 1 January 2003, Section 5, paragraphs (2) and (3), shall apply to nuclear fuel from recognised non-profit-making research institutions.
- (3) Section 7c and Section 23, paragraph (1), No. 4a, in the valid version up until 26 April 2002 shall continue to apply to any administrative proceedings pending up until that date.
- (4) Section 21, paragraph (1a), shall also apply to any administrative proceedings pending as per 11 May 2000, where the costs have not yet been fixed by that date.

Section 58a

Transitional provision relating to the environmental impact assessment

Adopted: 27 July 2001

Section 2a shall only apply to projects to which the Act on Environmental Impact Assessments in the version which entered into force on 3 August 2001 is applicable.

Section 59 (Effective date)

Appendix 1

Definitions Pursuant to Section 2, paragraph (4)

Adopted: 6 April 1998

(1) The terms set forth below shall have the following meanings:

1. “nuclear incident”: any occurrence or succession of occurrences having the same origin which causes damage, provided that such occurrence or succession of occurrences, or any of the damage caused, arises out of or results either from the radioactive properties, or a combination of the radioactive properties with toxic, explosive or other hazardous properties of nuclear fuel or radioactive products or waste, or from ionising radiation emitted by any source of radiation inside a nuclear installation;
 2. “nuclear installation”: reactors other than those comprised in any means of transport; factories for the manufacture or processing of nuclear substances, factories for the separation of isotopes of nuclear fuel, factories for the reprocessing of irradiated nuclear fuel; installations for the final disposal of nuclear material; facilities for the storage of nuclear substances other than storage incidental to the carriage of such substances; two or more nuclear installations of one operator which are located on the same site shall, together with any other premises on that site where radioactive material is held, be treated as a single nuclear installation;
 3. “nuclear fuel”: fissionable material in the form of uranium metal, alloy, or chemical compound (including natural uranium), and plutonium metal, alloy, or chemical compound;
 4. “radioactive products or waste”: radioactive material produced in or made radioactive by exposure to the radiation incidental to the process of producing or utilising nuclear fuel, but does not include:
 - a) nuclear fuel;
 - b) isotopes outside a nuclear installation which have reached the final stage of fabrication so as to be usable for any industrial, commercial, agricultural, medical, scientific or educational purpose.
 5. “nuclear substances”: nuclear fuel (other than natural and depleted uranium) and radioactive products and waste;
 6. “operator of a nuclear installation”: the person designated or recognised by the competent authority as the operator of that installation.
- (2) The term Special Drawing Rights as used herein shall mean the Special Drawing Rights of the International Monetary Fund (BGBl. 1978 II, p. 13) as used by it for its own operations and transactions.

Appendix 2

Allowances for Legal Liability and Financial Security

Adopted: 15 July 1985

Section 4, paragraph (3), Section 4b, paragraph (2), and Section 25, paragraph (5), shall apply to nuclear fuel or nuclear substances the activity or quantity of which,

1. in a single consignment or package, or
2. at a single business or independent branch or, in the case of persons not engaged in business, at the place of the applicant's practice,

does not exceed 10^5 times the allowance and which, in the case of enriched uranium, does not contain more than 350 grams of ^{235}U . The allowance shall be the activity or quantity up to which the handling of such nuclear fuel or material does not require a licence or notification hereunder or under a statutory ordinance issued hereunder.

Appendix 3

Quantities of Electricity Pursuant to Section 7, paragraph (1a)

Adopted: 22 April 2002

Installation	Residual electricity volumes (TWh net) as of 1 January 2001	Start of commercial operation
Obrigheim	8.70	01.04.1969
Stade	23.18	19.05.1972
Bliblis A	62.00	26.02.1975
Neckarwestheim 1	57.35	01.12.1976
Bliblis B	81.46	31.01.1977
Brunsbütte 1	47.67	09.02.1977
Isar 1	78.35	21.03.1979
Unterweser	117.98	06.09.1979
Philippsburg 1	87.14	26.03.1980
Grafenrheinfeld	150.03	17.06.1982
Krümmel	158.22	28.03.1984
Gundremmingen B	160.92	19.07.1984
Philippsburg 2	198.61	18.04.1985
Grohnde	200.90	01.02.1985
Gundremmingen C	168.35	18.01.1985
Brokdorf	217.88	22.12.1986
Isar 2	231.21	09.04.1988
Emsland	230.07	20.06.1988
Neckarwestheim 2	236.04	15.04.1989
Summe	2 516.06	
Mülheim-Kärlich*	107.25	
Total	2 623.31	

* The quantity of electricity listed for the nuclear power station Mülheim-Kärlich of 107.25 TWh may be transferred to the nuclear power stations Emsland, Neckarwestheim 2, Isar 2, Brokdorf, Gundremmingen B and C, and also (up to the amount of 21.45 TWh) to the nuclear power station Biblis B.

Appendix 4

Safety Review Pursuant to Section 19a, paragraph (1)

Adopted: 22 April 2002

Installation	Date
Obrigheim	31.12.1998
Stade	31.12.2000
Biblis A	31.12.2001
Biblis B	31.12.2000
Neckarwestheim	31.12.2007
Brunsbüttel	30.06.2001
Isar 1	31.12.2004
Unterweser	31.12.2001
Philippsburg	31.08.2005
Grafenrheinfeld	31.10.2008
Krümmel	30.06.2008
Gundremmingen B/C	31.12.2007
Grohnde	31.12.2000
Philippsburg 2	31.10.2008
Brokdorf	31.10.2006
Isar 2	31.12.2009
Emsland	31.12.2009
Neckarwestheim 2	31.12.2009