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## **Nuclear Energy Act** **(NEA)**

of 21 March 2003 (Status as of 1 January 2020)

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*The Federal Assembly of the Swiss Confederation*  
on the basis of Article 90 of the Federal Constitution<sup>1</sup>,  
and having considered the Federal Council dispatch of 28 February 2001<sup>2</sup>,  
*decrees:*

### **Chapter 1    General Provisions**

#### **Art. 1**            Subject matter and purpose

This Act regulates the peaceful use of nuclear energy. Its main purpose is to protect humans and the environment against the risks of nuclear energy.

#### **Art. 2**            Scope of application

<sup>1</sup> This Act applies to:

- a. nuclear goods;
- b. nuclear installations;
- c. radioactive waste:
  1. that is generated in nuclear installations, or
  2. that has been delivered in accordance with Article 27 paragraph 1 of the Radiation Protection Act of 22 March 1991<sup>3</sup> (RPA).

<sup>2</sup> The Federal Council may exclude the following from the scope of application of this Act:

- a. nuclear goods that do not serve the use of nuclear energy;
- b. nuclear installations with low or harmless quantities of nuclear materials or radioactive waste;
- c. nuclear goods and radioactive waste with low levels of radiation.

AS 2004 4719

<sup>1</sup> SR 101

<sup>2</sup> BBI 2001 2665

<sup>3</sup> SR 814.50

<sup>3</sup> The provisions of the Radiation Protection Act apply insofar as this Act does not stipulate otherwise.

### Art. 3 Terms and definitions

In this Act:

- a. *monitoring period* means the period of time over which a deep geological repository is monitored before it is closed and during which radioactive waste can be retrieved without undue effort;
- b. *waste management* means conditioning, interim storage and disposal of radioactive waste in a deep geological repository;
- c. *deep geological repository* means a installation located deep underground, which may be closed, if the permanent protection of humans and the environment through passive barriers is ensured;
- d. *nuclear installation* means any installation or installations intended for the use of nuclear energy, the extraction, production, use, processing or storage of nuclear materials, and the management of radioactive waste in accordance with Article 2, paragraph 1c;
- e. *nuclear energy* means any form of energy that is released following the fission or fusion of atomic nuclei;
- f. *nuclear materials* means substances that can be used for obtaining energy by means of nuclear fission processes;
- g. *conditioning* means the entire range of operations by which radioactive waste is prepared for interim storage or final disposal, including mechanical reduction, decontamination, pressing, incineration, embedding in matrices, and packaging;
- h. *nuclear goods* means:
  1. nuclear materials,
  2. materials and equipment intended for or required for the use of nuclear energy,
  3. technology that is required for developing, manufacturing and using goods cited in numbers 1 and 2;
- i. *radioactive waste* means radioactive substances or contaminated materials that are no longer used;
- j. *handling* means research, development, production, storage, transport, import, export, transit and brokerage;
- k. *brokerage* means:
  1. providing the essential requirements for concluding agreements on the delivery, purchase or forwarding of nuclear goods and radioactive waste, regardless of where the nuclear goods and radioactive waste may be located,

2. concluding such agreements if performance is the duty of a third party or parties,
  3. trading in nuclear goods and radioactive waste with foreign countries from Swiss sovereign territory;
- l. *closure* means the backfilling and sealing of all underground excavations and the access shaft of a deep geological repository after termination of the monitoring period;
  - m. *reprocessing* means cutting up of spent fuel elements, chemical dissolution of oxide fuel and separation into uranium, plutonium and fission products.

## Chapter 2 Principles of Nuclear Safety

### Art. 4 Principles governing the use of nuclear energy

<sup>1</sup> When using nuclear energy, humans and the environment must be protected against danger due to ionising radiation. Only harmless quantities of radioactive substances may be released into the environment. Special care must be taken to prevent the release of impermissible quantities of radioactive substances and to protect humans against impermissible levels of radiation during normal operation and accidents.

<sup>2</sup> Long-term impacts on genetic material must be taken into account.

<sup>3</sup> In order to prevent harm to humans and the environment, precautionary measures must be taken that:

- a. are required in accordance with experience and the state of art in science and technology;
- b. contribute towards an additional reduction of risk insofar as they are appropriate.

### Art. 5 Preventive and protective measures

<sup>1</sup> When designing, constructing and operating nuclear installations, preventive and protective measures must be taken in accordance with internationally accepted principles. These measures shall include the use of high-quality components, safety barriers, multiple and automated safety systems, the formation of a suitable organisation with qualified personnel, and the fostering of a strong safety awareness.

<sup>2</sup> Preparation must be made for the implementation of emergency protection measures to limit the extent of damage in the event that dangerous quantities of radioactive substances should be released into the environment.

<sup>3</sup> Security measures must be taken in order to prevent any interference with the safety of nuclear installations and nuclear materials through unauthorised acts or the theft of nuclear materials. If required, such measures shall be classified.

<sup>4</sup> The Federal Council shall stipulate which preventive and protective measures are required.

## Chapter 3 Nuclear Goods

### Art. 6 Licensing obligation

<sup>1</sup> Any person who handles nuclear materials is obliged to obtain a licence from the authority designated by the Federal Council.

<sup>2</sup> The Federal Council may impose a licensing obligation for:

- a. handling or using any materials or equipment intended for, or required for the use of nuclear energy;
- b. the export or brokerage of technology in accordance with Article 3 letter h, number 3.

<sup>3</sup> Licences shall be valid for a limited period only.

<sup>4</sup> The Federal Council shall regulate the licensing procedure.

### Art. 7 Conditions governing the issue of licences

A licence may be issued if the following conditions are met:

- a. the protection of humans and the environment is assured, and nuclear safety and security are guaranteed;
- b. there are no conflicting reasons associated with non-proliferation of nuclear arms, in particular international control measures that are not binding under international law but are supported by Switzerland;
- c. no sanctions have been imposed under the Embargo Act of 22 March 2002<sup>4</sup>;
- d. the required insurance cover exists in accordance with the Nuclear Energy Liability Act of 18 March 1983<sup>5</sup>;
- e. there are no conflicting commitments under international law, and Switzerland's external security is not affected;
- f. the persons responsible for the installation concerned possess the necessary expertise.

### Art. 8 Measures in special cases, measures against specific countries, exemptions from the licensing obligation

<sup>1</sup> In special cases, the Federal Council or its designated authority may prohibit the import, export, transit and brokerage of nuclear materials, or attach certain conditions thereto, regardless of whether a licensing obligation may exist, if such measures are required in the interests of the non-proliferation of nuclear arms.

<sup>2</sup> For the purpose of implementing international treaties, the Federal Council may rule that no licences are to be issued for certain countries or for a specified group of countries.

<sup>4</sup> SR 946.231

<sup>5</sup> SR 732.44

<sup>3</sup> The Federal Council may grant exemption from, or the easing of, licensing obligations, especially for deliveries to countries that are contractual parties to international treaties on the non-proliferation of nuclear arms or which participate in control measures supported by Switzerland.

**Art. 9<sup>6</sup>**            Reprocessing

<sup>1</sup> Spent fuel elements must be disposed of as radioactive waste. They may not be reprocessed or exported for reprocessing.

<sup>2</sup> The Federal Council may provide for exceptions for research purposes.

**Art. 10**            Transport by air of nuclear materials that contain plutonium

Nuclear materials that contain plutonium may not be transported within Swiss airspace.

**Art. 11**            Obligation to report and keep records

<sup>1</sup> Licence holders are obliged to notify the supervisory authorities without delay in the event of special activities and occurrences relating to the handling of nuclear materials which could interfere with nuclear safety or security. The Federal Council shall specify the activities and events concerned.

<sup>2</sup> The Federal Council may impose a reporting obligation for the possession of nuclear materials.

<sup>3</sup> Owners of nuclear materials are obliged to monitor their inventories, maintain detailed records thereof, and report on them to the relevant supervisory authorities on a periodical basis. These obligations shall also apply to any nuclear materials they may own that is kept abroad.

## **Chapter 4    Nuclear Installations**

### **Section 1    General Licence**

**Art. 12**            Licensing obligation

<sup>1</sup> Anyone intending to construct or operate a nuclear installation requires a general licence issued by the Federal Council. Article 12a is reserved.<sup>7</sup>

<sup>2</sup> No legal entitlement exists with respect to the granting of a general licence.

<sup>3</sup> Nuclear installations with a low hazard potential do not require a general licence. The Federal Council shall specify the installations concerned.

<sup>6</sup> Amended by Annex No II 7 of the Energy Act of 30 Sept. 2016, in force since 1 Jan. 2018 (AS 2017 6839; BBl 2013 7561).

<sup>7</sup> Amended by Annex No II 7 of the Energy Act of 30 Sept. 2016, in force since 1 Jan. 2018 (AS 2017 6839; BBl 2013 7561).

**Art. 12a<sup>8</sup>** Ban on granting general licences for nuclear power plants

The granting of general licences for the construction of nuclear power plants is prohibited.

**Art. 13** Conditions governing the granting of a general licence

<sup>1</sup> A general licence may be granted if the following conditions are met:

- a. the protection of humans and the environment can be ensured;
- b. the granting of the licence does not conflict with any other provisions of federal legislation, in particular legislation governing environmental protection, preservation of local natural and cultural heritage, and spatial planning;
- c. a plan has been submitted for decommissioning, or for the monitoring period and the closure of the installation;
- d. evidence has been provided for the disposal of resulting radioactive waste;
- e. Switzerland's external security is not affected;
- f. there are no conflicts with commitments under international law;
- g. with regard to deep geological repositories, the results of geological investigations confirm the suitability of the site.

<sup>2</sup> The general licence shall be granted to a company limited by shares, co-operative or public law entity. If the applicant is a foreign company, it must have a branch registered in the commercial register in Switzerland. The Federal Council may refuse to grant a general licence to a company formed in accordance with the laws of a foreign country if the country in which the company concerned is domiciled does not grant reciprocal rights, insofar as the decision of the Federal Council does not conflict with any existing international commitments.

**Art. 14** Content of the general licence

<sup>1</sup> The general licence shall specify:

- a. the licence holder;
- b. the location of the installation;
- c. the purpose of the installation;
- d. a brief outline of the project;
- e. the maximum permissible exposure to radiation for people in the vicinity of the installation;
- f. and with regard to deep geological repositories:
  1. criteria which, if not fully met, lead to the exclusion of a planned disposal zone due to lack of suitability,
  2. a provisional protection zone.

<sup>8</sup> Inserted by Annex No II 7 of the Energy Act of 30 Sept. 2016, in force since 1 Jan. 2018 (AS 2017 6839; BBl 2013 7561).

<sup>2</sup> A brief outline of the project shall include descriptions of the approximate size and location of the main buildings constituting the installation and the following:

- a. with regard to nuclear reactors: the reactor system, output category, and main cooling system;
- b. with regard to storage or disposal installations for nuclear materials or radioactive waste: the categories of waste to be emplaced and the maximum capacity.

<sup>3</sup> The Federal Council shall specify a deadline for the submission of an application for a construction licence, and may extend this deadline in certain circumstances.

## **Section 2 Construction**

### **Art. 15 Licensing obligation**

Anyone intending to construct a nuclear installation requires a construction licence from the Federal Department of Environment, Transport, Energy and Communications the (Department).

### **Art. 16 Conditions governing the granting of a construction licence**

<sup>1</sup> A construction licence is granted if the following conditions are met:

- a. the protection of humans and the environment is ensured;
- b. the project meets the principles governing nuclear safety and security;
- c. the granting of the licence does not conflict with any other provisions of federal legislation, in particular governing environmental protection, preservation of local natural and cultural heritage, and spatial planning;
- d. the applicant is able to guarantee professional project management and has drawn up a programme of measures relating to quality assurance for all construction activities;
- e. a plan has been submitted for decommissioning, or a project for the monitoring period and a plan for the closure of the installation.

<sup>2</sup> For installations that require a general licence, a construction licence will only be granted if:

- a. the applicant is in possession of a legally valid general licence;
- b. the project concerned complies with the provisions of the general licence.

<sup>3</sup> For installations that are not subject to a general licence, the requirements cited in Article 13 paragraph 1 letters d-f and paragraph 2 also apply.

### **Art. 17 Content of the construction licence**

<sup>1</sup> The construction licence shall specify:

- a. the licence holder;

- b. the location of the installation;
- c. the planned reactor thermal power output or capacity of installation;
- d. the main elements of technical implementation;
- e. a brief outline of emergency protection measures;
- f. a list identifying all structures, systems and components of the installation that may only be constructed or installed after a permit has been issued by the relevant supervisory authority.

<sup>2</sup> The Department shall specify a deadline for the commencement of construction work. It may extend this deadline in certain justified cases.

**Art. 18** Execution of project

The licence holder is obliged to draw up and keep a complete set of documents concerning technical installations, inspections and tests that have been carried out.

### **Section 3 Operation**

**Art. 19** Licensing obligation

Anyone intending to operate a nuclear installation requires an operating licence granted by the Department.

**Art. 20** Conditions governing the granting of an operating licence

<sup>1</sup> An operating licence is granted if the following conditions are met:

- a. the applicant is the owner of the nuclear installation in question;
- b. all provisions pertaining to the general licence and construction licence have been met;
- c. protection of humans and the environment is ensured;
- d. the installation and planned type of operation meet the relevant nuclear safety and security requirements;
- e. the requirements on personnel and organisation can be met;
- f. appropriate measures have been prepared to secure quality assurance for all activities to be carried out within the installation;
- g. appropriate measures for dealing with emergencies have been prepared;
- h. the prescribed insurance cover exists in accordance with the Nuclear Energy Liability Act of 18 March 1983<sup>9</sup>.

<sup>9</sup> SR 732.44



<sup>2</sup> The operating licence may be granted at the same time as the construction licence if the requirements for safe operation can be assessed conclusively at the time of application.

<sup>3</sup> The owner of a nuclear reactor may store nuclear materials in its installation before an operating licence has been granted, as long as it obtains a licence for this purpose from the Department. Articles 20 to 24 apply analogously to this licence.

**Art. 21**           Content of the operating licence

<sup>1</sup> The operating licence shall specify:

- a. the licence holder;
- b. the permitted reactor thermal output or capacity of the installation;
- c. the limits for release of radioactive substances into the environment;
- d. the measures for environmental surveillance;
- e. the safety, security, and emergency measures to be taken by the licence holder during operation of the installation;
- f. the levels of start-up that require a permit from the relevant supervisory authority prior to commencement of operation of the installation.

<sup>2</sup> The validity of an operating licence may be limited to a specific period.

**Art. 22**           General obligations on the part of the licence holder

<sup>1</sup> The licence holder is responsible for the safety of the installation and its operation.

<sup>2</sup> In this connection it shall:

- a. always give the necessary priority to nuclear safety during operation of the installation, i.e. comply with all specified operating limits and conditions;
- b. establish a suitable organisation and employ an adequate number of appropriately qualified personnel; the Federal Council shall specify minimum requirements and regulate the training of specialised staff;
- c. take measures to ensure that the installation is kept in good condition;
- d. carry out follow-up inspections and systematic safety and security evaluations throughout the entire service life of the installation;
- e. in the case of nuclear power plants, carry out a comprehensive periodic safety review;
- f. periodically report to the relevant supervisory authorities about the condition and operation of the installation, and notify them without delay about any events that may occur;
- g. backfit the installation to the necessary extent that it is in keeping with operational experience and the current state of backfitting technology, and beyond insofar as further upgrading is appropriate and results in a further reduction of risk to humans and the environment;

- h. monitor scientific and technological developments, and compare operating experience and findings with those of other installations of a similar nature;
  - i. keep complete documentation on the technical installations and on the operation of the installation, and amend the safety analysis report and the security as necessary;
  - j. carry out appropriate measures to secure quality assurance for all activities conducted within the installation;
  - k. keep the decommissioning plan or the project for the monitoring period and the plan for the closure of the installation up to date.
- <sup>3</sup> The Federal Council shall specify the criteria according to which the licence holder must temporarily shut down and upgrade the installation.

**Art. 23** Security guards

<sup>1</sup> The Department is authorised to require licence holders to maintain armed security guards to protect nuclear installations against unlawful access or interference.

<sup>2</sup> The Federal Council shall regulate the requirements placed on the security guards and shall specify the duties and authority of the personnel after consultation with the relevant cantonal authorities.

<sup>3</sup> The canton in which the installation is located shall regulate the training of the security guards in collaboration with the relevant supervisory authority.

**Art. 24** Reliability assessments

<sup>1</sup> Persons appointed to positions that are essential for nuclear safety and security shall regularly undergo reliability assessments.

<sup>2</sup> These assessments may involve the processing of particularly sensitive personal data concerning the health and mental ability of the subject concerned, together with data regarding his or her lifestyle and habits that may be of relevance to security, and all information may be stored in a database.

<sup>3</sup> Data may be passed on to the owner of the installation and to the relevant supervisory authority.

<sup>4</sup> The Federal Council shall determine which persons shall be subject to reliability assessments and a trustworthiness check and shall also regulate the assessment procedure. It shall specify the authority that is to carry out reliability assessments, process the related data and maintain the associated database.

**Art. 25** Measures in extraordinary situations

The Federal Council may order the precautionary shutdown of nuclear power plants in extraordinary situations.

## Section 4 Decommissioning

### Art. 26 Decommissioning obligations

<sup>1</sup> The owner of a nuclear installation is obliged to decommission the installation if:

- a. it has been definitively taken out of operation;
- b. the operating licence has not been granted or has been withdrawn or has expired in accordance with Article 68 paragraphs 1 letters a or b, and the Department has ordered the installation to be decommissioned.

<sup>2</sup> In this connection the owner is obliged:

- a. to meet all requirements relating to nuclear safety and security;
- b. to transfer all nuclear materials to another nuclear installation;
- c. to decontaminate radioactive components or treat them as radioactive waste;
- d. to properly manage and dispose of radioactive waste;
- e. to maintain surveillance of the installation until such time as all sources of nuclear risks have been removed.

### Art. 27 Decommissioning project

<sup>1</sup> The owner of a nuclear installation is required to submit a project to the relevant supervisory authorities outlining the plans for its decommissioning. The supervisory authority concerned shall specify a deadline for this purpose.

<sup>2</sup> The project shall describe:

- a. the various project phases and overall timetable;
- b. each step in the process of dismantling and demolition;
- c. protective measures;
- d. personnel requirements and organisation;
- e. the management of radioactive waste;
- f. overall costs, measures taken by the operator to secure the necessary financing.

### Art. 28 Decommissioning order

The Department orders the decommissioning of nuclear installations and specifies which tasks require a permit to be obtained from the supervisory authorities.

### Art. 29 Completion of decommissioning

<sup>1</sup> After the decommissioning activities have been completed in accordance with the applicable regulations, the Department shall verify that the installation no longer represents a radiological risk and is thus no longer subject to the provisions of nuclear energy legislation.

<sup>2</sup> The company that was ordered to decommission the nuclear installation may only be liquidated with the prior consent of the Department.

## **Chapter 5 Radioactive Waste**

### **Section 1 General Provisions**

#### **Art. 30 Principles**

<sup>1</sup> Radioactive substances shall be handled in such a manner as to ensure that as little radioactive waste as possible is produced.

<sup>2</sup> All radioactive waste produced in Switzerland shall, as a general rule, be managed in Switzerland.

<sup>3</sup> Radioactive waste shall be managed in such a manner as to ensure the permanent protection of humans and the environment.

#### **Art. 31 Obligation to manage and dispose of radioactive waste**

<sup>1</sup> Any person who operates or decommissions a nuclear installation is obliged to safely manage all radioactive waste arising from that installation at their own cost. The obligation to manage and dispose of radioactive waste shall encompass the necessary preliminary activities such as research and geological investigations, as well as the timely provision of a deep geological repository.

<sup>2</sup> The obligation to manage and dispose of radioactive waste is met if:

- a. the radioactive waste has been transferred to a deep geological repository and the funds required for the monitoring period and the eventual closure have been secured;
- b. the radioactive waste has been transferred to a waste management installation abroad.

<sup>3</sup> If a general licence for a nuclear power plant has been transferred to another licence holder (Article 66 paragraph 2), the previous and the new licence holder shall be responsible for the management of all radioactive waste and spent fuel produced up to the time of transfer of the licence.

<sup>4</sup> The company responsible for the management of radioactive waste may only be liquidated with the prior consent of the Department.

#### **Art. 32 Waste management programme**

<sup>1</sup> Those required to manage and dispose of radioactive waste shall draw up a waste management programme, which shall include a financial plan up to the time at which the nuclear installations will be taken out of operation. The Federal Council shall specify a deadline by which the waste management programme is to be submitted.

<sup>2</sup> The waste management programme shall be reviewed by an authority designated by the Federal Council, after which it shall be forwarded by the Department to the Federal Council for approval.

<sup>3</sup> The authority designated by the Federal Council shall monitor compliance with the programme after it has been approved.

<sup>4</sup> The persons responsible for the management of radioactive waste are obliged to periodically adapt the programme to changing circumstances.

<sup>5</sup> The Federal Council shall provide regular reports on the programme to the Federal Assembly.

**Art. 33** Waste management by the Confederation

<sup>1</sup> The Confederation shall be responsible for the management of:

- a. radioactive waste that has been delivered in accordance with Article 27 paragraph 1 RPA<sup>10</sup>;
- b. other radioactive waste at the expense of the Disposal Fund, if the persons responsible for the management of radioactive waste should fail to fulfil their obligation.

<sup>2</sup> For this purpose, the Confederation may:

- a. participate in geological investigations or carry out such investigations itself;
- b. participate in the construction and operation of a waste management installation or construct and operate such a installation itself.

**Art. 34** Handling radioactive waste

<sup>1</sup> Articles 6 to 11 apply analogously with regard to the handling of radioactive waste outside nuclear installations.

<sup>2</sup> A licence for the import of radioactive waste from nuclear installations that has not been produced in Switzerland, but is to be managed here, may be granted by way of exception if the following conditions are met in addition to those cited in Article 7 above:

- a. Switzerland has consented to the import of radioactive waste for management purposes in an agreement under international law;
- b. Switzerland has a suitable waste management installation that corresponds to the latest international standards of science and technology;
- c. all countries concerned have given their consent to the transit of the radioactive waste in question;
- d. the importer and the exporter of the radioactive waste consignment have signed a legally binding agreement that has been approved by the country of origin and stipulates that the exporter shall accept the consignment if it has to be returned for any reason.

<sup>10</sup> SR 814.50

<sup>3</sup> A licence may be granted for the export of radioactive waste for conditioning if the following conditions are met in addition to those cited in Article 7 above:

- a. the country of destination has consented to the import of radioactive waste for conditioning purposes in an agreement under international law;
- b. the country of destination has a suitable waste management installation that corresponds to the latest international standards of science and technology;
- c. all countries concerned have given their consent to the transit of the radioactive waste in question;
- d. the exporter has entered into a binding agreement with the importer of the radioactive waste that has been approved by the Federal Council or its designated authority and which stipulates that the exporter shall take back any radioactive waste that may result from conditioning or – if applicable – any radioactive waste that may not have been conditioned.

<sup>4</sup> A licence for the export of radioactive waste for storage or disposal may be granted by way of exception if the conditions cited in paragraph 3 letters a-c above are met, and if the exporter has entered into a binding agreement with the importer of the radioactive waste that has been approved by the authority designated by the Federal Council, and which stipulates that the exporter shall take back the consignment if necessary.

## Section 2      **Geological Investigations**

### **Art. 35**          Licensing obligation and conditions

<sup>1</sup> Geological investigations to be carried out in order to examine potential sites for a deep geological repository require a licence from the Department.

<sup>2</sup> The licence is granted if the following conditions are met:

- a. the planned investigations are suitable for providing the necessary basis for subsequent evaluation of the safety of a deep geological repository without affecting the suitability of the site;
- b. the granting of the licence does not conflict with any other provisions of federal legislation, in particular legislation governing environmental protection, nature conservation, protection of natural and cultural landscapes, and spatial planning.

<sup>3</sup> The Federal Council may waive the licensing obligation in the case of investigations that have very little impact on the immediate surroundings.

### **Art. 36**          Content of the licence for geological investigations

<sup>1</sup> The licence specifies:

- a. the main aspects of the investigations, including in particular the approximate location and extent of drilling and underground structures;

- b. the investigations that may only be carried out after a permit has been obtained from the relevant supervisory authorities;
  - c. the scope of geological documentation.
- <sup>2</sup> The licence shall be valid for a limited period only.

### **Section 3 Special Provisions for Deep Geological Repositories**

#### **Art. 37 Operating licence**

<sup>1</sup> An operating licence for a deep geological repository is granted if the following conditions are met in addition to those cited in Article 20 paragraph 1:

- a. the findings obtained during construction confirm the suitability of the site;
- b. it is possible to retrieve the radioactive waste without undue effort until closure of the repository.

<sup>2</sup> The operating licence shall specify the definitive protection zone for the deep geological repository.

<sup>3</sup> It shall specify certain requirements, in particular activity limits for the waste to be stored. The emplacement of each type of waste requires a permit to be obtained beforehand from the relevant supervisory authorities.

#### **Art. 38 Special obligations on the part of an operating licence holder for a deep geological repository**

<sup>1</sup> The Federal Council may oblige the holder of an operating licence for a deep geological repository to take radioactive waste originating from Switzerland against payment of sufficient remuneration to cover costs, as long as the waste concerned meets the requirements cited in the operating licence.

<sup>2</sup> The licence holder is obliged to keep complete records of all findings obtained up to the end of the monitoring period and of relevance to safety, together with plans of the deep geological repository and an inventory of radioactive waste stored therein.

<sup>3</sup> For as long as the deep geological repository remains subject to nuclear energy legislation, the operating company may only be liquidated with the prior consent of the Department.

#### **Art. 39 Monitoring period and closure**

<sup>1</sup> The owner of a deep geological repository is obliged to submit an updated project for the monitoring period and a project for the eventual closure if:

- a. the emplacement of radioactive waste has been completed;
- b. the operating licence has been withdrawn or has expired in accordance with Article 68 paragraph 1 letters a or b, and the Department has ruled that a project must be submitted.

<sup>2</sup> Upon expiry of the monitoring period, the Federal Council shall order the closure of the repository, if the permanent protection of humans and the environment is ensured.

<sup>3</sup> After the repository has been closed in accordance with the applicable regulations, the Federal Council may stipulate that it must be monitored for a further limited period of time.

<sup>4</sup> After the repository has been closed in accordance with the applicable regulations, or upon expiry of the additional monitoring period, the Federal Council shall declare that the disposal installation is no longer subject to the provisions of nuclear energy legislation. The Confederation may implement further-reaching measures, in particular environmental monitoring.

#### **Art. 40** Protection of a deep geological repository

<sup>1</sup> The protection zone is the underground area in which intervention could interfere with the safety of the repository. The Federal Council shall specify the criteria for the protection zone.

<sup>2</sup> Anyone intending to carry out deep drilling, construct shafts, carry out explosions or other activities that affect a designated protection zone is required to apply to an authority designated by the Federal Council for a licence.

<sup>3</sup> The authority designated by the Federal Council shall enter a provisional registration of the protection zone with the relevant land registry following the issue of a general licence and a definitive entry following the issue of an operating licence. The cantonal authorities shall enter into the land register those plots of land affected by the designation of a protection zone which are not recorded in the land register. Plots of land for which no official survey has been carried out, shall be duly surveyed (initial or repeat survey). The Federal Council shall regulate this procedure.

<sup>4</sup> The cantonal authorities are responsible for ensuring that the protection zone is registered in the structure and land use plan.

<sup>5</sup> In the event that the repository should not be constructed or put into operation, the authority designated by the Federal Council shall revoke the provisional protection zone and request the relevant land registry to delete the entry from the land register. The cantonal authorities are responsible for ensuring that the structure and land use plan are amended accordingly.

<sup>6</sup> The Federal Council is responsible for ensuring that all records concerning the repository, the waste stored therein and the designated protection zone are duly preserved and that associated findings are retained in a suitable manner. It may pass on corresponding data to other countries or international organisations.

<sup>7</sup> The Federal Council stipulates that the repository be permanently marked.

#### **Art. 41** Submission and use of geological data

<sup>1</sup> Raw data and findings obtained from geological investigations and during the construction of a deep geological repository shall be submitted to the Confederation on request free of charge.



<sup>2</sup> The Federal Council shall regulate access to and use of this data, and in so doing shall protect the interests of the owners of the data.

## **Chapter 6    Procedures and Supervision**

### **Section 1    General Licence**

#### **Art. 42**            Application procedure

Applications for a general licence must be submitted to the Swiss Federal Office of Energy the (Federal Office), together with all necessary documentation. The Federal Office then examines the application and requests any further information that may be required.

#### **Art. 43**            Expert reports and advisory opinions

<sup>1</sup> The Federal Office shall obtain the necessary expert reports on the following aspects:

- a.    protection of humans and the environment;
- b.    disposal of radioactive waste.

<sup>2</sup> It shall then requests the cantonal authorities and government expert bodies to comment on the application and expert reports within three months. Other deadlines may apply for the associated environmental impact report. The Federal Office may extend the deadline if the situation requires.

<sup>3</sup> The conciliation procedure within the Federal Administration is based on the provisions of Article 62*b* of the Federal Act of 21 March 1997<sup>11</sup> on the Organisation of the Government and the Administration (GAOA).

#### **Art. 44**            Involvement of the canton in which the installation is to be located

The Department shall involve the canton in which the installation is to be located as well as the cantons and countries whose borders lie in the immediate vicinity of the planned location before making a decision on the general licence. The concerns of the canton in which the installation is to be located as well as those of the cantons and countries whose borders lie in the immediate vicinity must be taken into account, provided this does not place unreasonable limitations on the project.

#### **Art. 45**            Publication and public inspection

<sup>1</sup> The application and advisory opinions of the cantons and relevant authorities, as well as all associated expert reports, shall be made available for public inspection for a period of three months.

<sup>2</sup> Notice of the public inspection shall be published in the official gazette of each canton and commune concerned, as well as in the Swiss Federal Gazette.

<sup>11</sup> SR 172.010

**Art. 46**      Objections and appeals

<sup>1</sup> Well-founded objections to the granting of a general licence must be submitted in writing to the Federal Office within three months of publication. The Federal Council may extend the deadline by a maximum of three months upon receipt of a justified application. There are no costs associated with objections, nor is there any entitlement to compensation of parties.

<sup>2</sup> Anyone classified as party in accordance with the provisions of the Federal Administrative Procedure Act of 20 December 1968<sup>12</sup> (APA) may file an appeal with the Federal Office within three months of publication. Communes may seek to safeguard their interests by lodging an appeal. Otherwise the provisions of the APA apply.

<sup>3</sup> Parties resident abroad must provide an address in Switzerland for notification purposes. Failure to do so may result in non-notification or non-publication in the Swiss Federal Gazette.

**Art. 47**      Advisory opinions on objections and appeals

<sup>1</sup> The Federal Office shall invite cantonal authorities, specialised institutions and recognised experts to submit advisory opinions on objections and appeals for the attention of the Federal Council.

<sup>2</sup> The settlement of differences within the Federal Administration is based on the provisions of Article 62*b* GAOA<sup>13</sup>.

**Art. 48**      Ruling on applications

<sup>1</sup> The Federal Council shall be responsible for ruling on all applications, objections and appeals.

<sup>2</sup> It shall submit its rulings to the Federal Assembly for approval.

<sup>3</sup> If the Federal Council should decide not to grant a general licence, and the Federal Assembly fails to approve this ruling, the Federal Assembly shall instruct the Federal Council to grant the general licence together with any conditions that the Federal Assembly may have attached to it, and to re-submit its decision to the Federal Assembly for approval.

<sup>4</sup> Resolutions by the Federal Assembly concerning the approval of general licences are subject to optional referendum.

<sup>12</sup> SR 172.021

<sup>13</sup> SR 172.010

## Section 2 Construction Licences for Nuclear Installations and Licences for Geological Investigations

### Art. 49 General provisions

<sup>1</sup> The procedures governing construction licences for nuclear installations and licences for geological investigations are based on the provisions of this Act, the APA<sup>14</sup> and the Compulsory Purchase Act of 20 June 1930<sup>15</sup> (CPA).

<sup>2</sup> The granting of a licence encompasses all requirements in accordance with federal legislation.

<sup>3</sup> Cantonal licences and plans are not required. Cantonal legislation must be taken into account, insofar as this does not unduly compromise the project.

<sup>4</sup> The Department shall consult the canton in which the installation is located before it grants a licence. If the canton should reject the application, but the Department nonetheless issues the licence, the canton shall be entitled to file an appeal.

<sup>5</sup> A nuclear installation also encompasses all exploitation and installation sites associated with its construction and operation. Geological investigations and deep geological repositories also include sites for the use or storage of excavated, extracted and demolition material that are directly related to the project in spatial and functional respects.

### Art. 50 Application procedure

Applications must be submitted to the Federal Office, together with all necessary documentation. The Federal Office then examines the application and requests any further information that may be required.

### Art. 51 Compulsory purchase rights

For the applicant, compulsory purchase rights apply as follows:

- a. for the construction, operation and decommissioning of a nuclear installation for which a general licence is required;
- b. for geological studies that require a licence;
- c. for the construction of exploitation and installation sites that are directly associated with projects in accordance with letters a and b;
- d. for sites for the use or storage of excavated, extracted and demolition material that are directly related to the project in spatial and functional respects.

<sup>14</sup> SR 172.021

<sup>15</sup> SR 711

**Art. 52** Marking boundaries and erecting profile frames

<sup>1</sup> Before the application is made available for public inspection, the applicant must make the changes that the planned installation or planned geological studies will have on the site and its surroundings clearly visible by marking the boundaries and, in the case of buildings, erecting profile frames.

<sup>2</sup> Any objections to the marked boundaries or erected profiles must be submitted to the Federal Office immediately, or in any case no later than the expiry of the inspection deadline.

**Art. 53** Consultation, publication and public inspection

<sup>1</sup> After receiving an application, the Federal Office shall forward it to the cantonal authorities concerned and request them to submit an advisory opinion within three months. The Federal Office may extend the deadline in certain justified circumstances.

<sup>2</sup> The application shall be published in the official gazette of each canton and commune concerned, as well as in the Swiss Federal Gazette, and made available for public inspection for a period of 30 days.

<sup>3</sup> Upon publication of the notice of public inspection, the compulsory purchase order in accordance with Articles 42 to 44 of the CPA<sup>16</sup> is deemed to have been served.

**Art. 54** Personal notification

In accordance with Article 31 of the CPA<sup>17</sup>, the applicant shall personally notify the person or persons entitled to compensation of the rights subject to compulsory purchase, no later than the notice of public inspection of the application.

**Art. 55** Objections

<sup>1</sup> Anyone deemed to be party in accordance with the provisions of the APA<sup>18</sup> or CPA<sup>19</sup> may file an objection with the Federal Office during the public notification period. Persons who do not file an objection are excluded from any future proceedings.

<sup>2</sup> Likewise, all objections to compulsory purchase and any claims for compensation or payment in kind must be filed within the public inspection period. Any subsequent objections and claims may be filed with the Federal Office in accordance with Articles 39–41 of the CPA.

<sup>3</sup> The communes concerned may seek to safeguard their interests by filing an objection

<sup>4</sup> Article 46 paragraph 3 applies with regard to parties resident abroad.

<sup>16</sup> SR 711

<sup>17</sup> SR 711

<sup>18</sup> SR 172.021

<sup>19</sup> SR 711

**Art. 56** Conciliation procedure within the Federal Administration

The conciliation procedure within the Federal Administration is based on the provisions of Article 62*b* GAOA<sup>20</sup>.

**Art. 57** Ruling on appeals

When it grants the necessary licence, the Department simultaneously rules on all claims and appeals associated with compulsory purchase rights.

**Art. 58** Assessment procedure, premature occupancy

<sup>1</sup> After the licensing procedure has been concluded, an assessment procedure shall be carried out before the Compulsory Purchase Tribunal (insofar as this may be necessary), in accordance with the provisions of the CPA<sup>21</sup>. The Compulsory Purchase Tribunal may only deal with claims that have already been filed, subject to the provisions of Article 38 of the CPA.

<sup>2</sup> The Federal Office shall submit all approved plans, the compulsory purchase plan, the land acquisition table and the filed claims to the Chairman of the Compulsory Purchase Tribunal.

<sup>3</sup> The Chairman of the Compulsory Purchase Tribunal may approve premature occupancy on the basis of an enforceable licence ruling. For this purpose it shall be assumed that the expropriator would suffer significant disadvantages if premature occupancy were to be denied. Otherwise the provisions of Article 76 of the CPA apply.

**Art. 59** Claims associated with compulsory purchase rights based on the protection zone

<sup>1</sup> In the event that any restrictions on the use of property should arise in association with the definition of the protection zone that would be equivalent to compulsory purchase, these shall be compensated in full. The circumstances at the time at which the property restrictions came into effect apply for the purpose of assessing the amount of compensation to be paid.

<sup>2</sup> It is the owner of the deep geological repository who shall be obliged to pay compensation.

<sup>3</sup> The party affected by the property restriction shall file their claims with the owner of the repository in writing within five years following definitive registration (Art. 40 para. 3). In the event that any claims should be contested in full or in part, settlement shall be made in accordance with the provisions of Articles 57–75 of the CPA<sup>22</sup>.

<sup>4</sup> Only claims already filed may be dealt with in this procedure. Appeals and claims relating to property restrictions filed at a later date shall be excluded.

<sup>20</sup> SR 172.010

<sup>21</sup> SR 711

<sup>22</sup> SR 711

<sup>5</sup> Compensation shall become interest-bearing with effect from the date on which the property restrictions came into effect.

**Art. 60** Involvement of the cantons in the disposal of excavated, extracted and demolition material

<sup>1</sup> In the event that geological investigations and the construction of a deep geological repository should result in significant volumes of excavated, extracted or demolition material that cannot be used or stored in the immediate vicinity of the site, the authorities of the canton concerned shall designate sites necessary for the disposal of that material.

<sup>2</sup> In the event that the canton concerned has not granted a licence, or that the licence issued has not entered into force at the time the construction licence for carrying out geological investigations is granted, the Department may designate an interim storage site and attach conditions and requirements governing its use. The provisions governing procedures as specified in this section apply. The canton concerned shall designate sites for the disposal of the material within a period of five years.

### **Section 3 Operating Licence for Nuclear Installations, Decommissioning of Nuclear Installations and Closure of Deep Geological Repositories**

**Art. 61** Operating licence for nuclear installations

The procedure for obtaining an operating licence for a nuclear installation is regulated in Article 49 paragraphs 1–4, Article 50, Article 51 and Articles 53–59.

**Art. 62** Decommissioning of nuclear installations

The procedure for decommissioning nuclear installations is regulated in Article 49 paragraphs 1–4 and Articles 50–58 and 60.

**Art. 63** Closure of a deep geological repository

The procedure for the closure of a deep geological repository is regulated in Article 49 paragraphs 1–4 and Articles 50, 53 and 55.

### **Section 4 Other Rulings, including Permits**

**Art. 64**

<sup>1</sup> For rulings in accordance with this Act other than those governed by sections 1 to 3 of this chapter, the provisions of the APA<sup>23</sup> apply.

<sup>23</sup> SR 172.021

<sup>2</sup> Article 46 paragraph 3 applies with respect to parties who are resident abroad.

<sup>3</sup> Only the applicant shall have party status in the procedure governing permits from the supervisory authorities.

## **Section 5      Amendment, Transfer, Withdrawal and Expiry of Rulings**

### **Art. 65            Amendment**

<sup>1</sup> After completion of the procedure for the granting of a general licence, an amendment is required:

- a. for a change of purpose or scope of activities of a nuclear installation that requires a general licence (this does not include decommissioning or closure);
- b. for a comprehensive upgrading of a nuclear power plant in order to extend its service life, especially if the reactor vessel is to be replaced.

<sup>2</sup> After the respective issuing procedure has been completed, an amendment to a licence or order is required in the event of any significant deviations from the original construction licence, operating licence, and licence for carrying out geological investigations, and orders regarding decommissioning and closure.

<sup>3</sup> In the event of amendments that do not deviate significantly from the respective licence or order as cited in paragraph 2, but which may have an influence on nuclear safety or security, the holder is required to obtain a permit from the supervisory authorities.

<sup>4</sup> All other amendments must be reported to the supervisory authorities.

<sup>5</sup> In case of doubt:

- a. the Federal Council shall decide whether an amendment to a general licence is necessary;
- b. the Department shall decide whether an amendment to a licence or order is required as cited in paragraph 2;
- c. the supervisory authorities shall decide whether a permit is required.

### **Art. 66            Transfer**

<sup>1</sup> The licensing authority may transfer a licence to a new holder if the latter meets the specified requirements.

<sup>2</sup> A general licence for a nuclear power plant may be transferred if the previous holder has also secured the financing of decommissioning and disposal in accordance with the duration of operation.

<sup>3</sup> The Federal Council is responsible for the transfer of a general licence. Before doing so, it shall first request the authorities of the canton in which the installation is located to submit an advisory opinion.

<sup>4</sup> When a general licence is thus transferred, the construction licence and operating licence shall be transferred with it. Construction licences and operating licences may not be transferred separately.

<sup>5</sup> In the procedure governing the transfer of a general licence, only the applicant and the previous licence holder shall have the status of party. The provisions of the APA<sup>24</sup> apply.

<sup>6</sup> Licences for handling nuclear goods and radioactive waste are non-transferable.

#### **Art. 67**            Withdrawal

<sup>1</sup> The licensing authority shall withdraw a licence if:

- a. the prerequisites for granting it are not, or are no longer, met;
- b. the licence holder fails to comply with a ruling or ordered measure despite having been reminded to do so.

<sup>2</sup> The Federal Council shall be responsible for decisions concerning the withdrawal of a general licence.

<sup>3</sup> The decision of the Federal Council shall be subject to approval by the Federal Assembly.

<sup>4</sup> The withdrawal of the general licence also entails the withdrawal of the construction licence and of the operating licence.

<sup>5</sup> The provisions of the APA<sup>25</sup> apply to the withdrawal of a general licence.

#### **Art. 68**            Expiry

<sup>1</sup> The licence expires when:

- a. the period of validity cited therein has elapsed;
- b. the licence holder notifies the licensing authority that it wishes to renounce the licence;
- c. the Department or the Federal Council declare (in accordance with Article 39 paragraph 4) that the site is no longer subject to the provisions of nuclear energy legislation.

<sup>2</sup> A general licence shall expire if an application for a construction licence is not submitted within the stated period. A construction licence shall expire if construction work is not commenced within the stated period.

<sup>3</sup> When a general licence expires, the construction licence and operating licence shall expire with it.

<sup>24</sup> SR 172.021

<sup>25</sup> SR 172.021



**Art. 69** Applicability of licence provisions

<sup>1</sup> The provisions included in an operating licence that are required to maintain the security of a nuclear installation both while it is operational and after it has ceased operation shall remain in effect after withdrawal or expiry of the licence, until such time as arrangements have been completed regarding decommissioning and sealing.

<sup>2</sup> Paragraph 1 applies analogously to the withdrawal and expiry of a licence in accordance with Article 20 paragraph 3.

**Section 6** Supervision**Art. 70** Supervisory authorities

<sup>1</sup> The supervisory authorities are:

- a. where nuclear safety and security are concerned, the Swiss Federal Nuclear Safety Inspectorate<sup>26</sup> (ENSI) in accordance with the Federal Act of 22 June 2007<sup>27</sup> on the Swiss Federal Nuclear Safety Inspectorate;
- b. other agencies to be designated by the Federal Council.<sup>28</sup>

<sup>2</sup> These shall not be bound on technical matters by directives, and must be formally separated from the licensing authorities.

**Art. 71**<sup>29</sup> Federal Nuclear Safety Commission

<sup>1</sup> The Federal Council shall appoint the Federal Nuclear Safety Commission (NSC); this commission comprises five to nine members. The Federal Council shall determine the requirements as regards the independence of the members.<sup>30</sup>

<sup>2</sup> The NSC performs the following advisory tasks on behalf of ENSI, the Department and the Federal Council:

- a. examination of fundamental issues concerning nuclear safety;
- b. participation in legislative work in the field of nuclear safety.

<sup>3</sup> On behalf of the Federal Council and the Department, it may report on ENSI's expert opinions. It shall accordingly draft the reports required by the Federal Council, the Department or the Federal Office.

<sup>26</sup> The title of this administrative unit was amended in application of Art. 16 para. 3 of the Publications Ordinance of 17 Nov. 2004 (AS **2004** 4937). This amendment was made throughout the text.

<sup>27</sup> SR **732.2**

<sup>28</sup> Amended by Art. 25 No 2 of the FA of 22 June 2007 on the Swiss Federal Nuclear Safety Inspectorate, in force since 1 Jan. 2009 (AS **2007** 5635; BBl **2006** 8831).

<sup>29</sup> Amended by Art. 25 No 2 of the FA of 22 June 2007 on the Swiss Federal Nuclear Safety Inspectorate, in force since 1 Jan. 2008 (AS **2007** 5635; BBl **2006** 8831).

<sup>30</sup> Amended by No I of the O of 27 Nov. 2019 (Increase in the Number of Members of the Federal Nuclear Safety Commission), in force since 1 Jan. 2020 (AS **2019** 4211).

**Art. 72** Duties and powers of supervisory authorities

<sup>1</sup> The supervisory authorities shall examine submitted projects and ensure that licence holders and owners of nuclear goods meet their obligations in accordance with the provisions of this Act.

<sup>2</sup> They shall order all necessary and reasonable measures aimed at preserving nuclear safety and security.

<sup>3</sup> In the event of an immediate threat, they may impose immediate measures that deviate from the issued licence or ruling.

<sup>4</sup> If necessary they may seize nuclear goods or radioactive waste and eliminate sources of threat at the cost of the owner.

<sup>5</sup> They may call on the intervention of cantonal and communal police forces, as well as the investigation bodies of the customs administration. If there is evidence that offences against the provisions of this Act may have been committed, the supervisory authorities may call on the intervention of the relevant federal police authority. Border controls are the responsibility of the customs authorities.

<sup>6</sup> The supervisory authorities shall keep detailed records of nuclear materials and radioactive waste in Swiss nuclear installations. These records shall also encompass nuclear materials and radioactive waste abroad, insofar as they are in the possession of Swiss licence holders. They shall provide information about their location, intended use, processing and storage.

**Art. 73** Obligation to provide information, submit documentation, grant access

<sup>1</sup> Insofar as is required for the enforcement of this Act, its implementation provisions or rulings based thereon, the supervisory authorities shall be provided with all information and documentation they may need in order to make comprehensive assessments or carry out effective controls.

<sup>2</sup> The supervisory authorities are empowered to enter all plots of land, buildings and installations of persons obliged to provide information and any sites on which geological investigations are being carried out in accordance with Article 35, without prior notification, and may install monitoring devices and seals, collect material and soil samples, and inspect all relevant documentation. They may confiscate any incriminating material.

**Art. 74** Provision of information to the general public

<sup>1</sup> The relevant authorities shall regularly inform the general public about the condition of nuclear installations and any matters pertaining to nuclear goods and radioactive waste.

<sup>2</sup> They shall inform the general public of any special occurrences.

<sup>3</sup> Manufacturing and business secrecy shall be duly observed.

**Art. 74a**<sup>31</sup> Reporting on developments in nuclear technology

The Federal Council shall report regularly to the Federal Assembly on developments in nuclear technology.

**Art. 75** Data protection

<sup>1</sup> Licensing and supervisory authorities may process personal data within the scope of the declared purpose of this Act.

<sup>2</sup> With regard to highly sensitive personal data, processing shall be restricted to administrative proceedings or criminal prosecution and sanctions. Other highly sensitive personal data may be processed if this is deemed essential for dealing with a specific case.

<sup>3</sup> Data may be stored electronically.

**Section 7** ...**Art. 76**<sup>32</sup>**Chapter 7 Securing of Financing for Decommissioning and Disposal****Art. 77** Decommissioning Fund and Waste Disposal Fund

<sup>1</sup> The purpose of the Decommissioning Fund is to secure the necessary financial resources for the decommissioning and dismantling of obsolete nuclear installations and for the disposal of the resulting waste material (decommissioning costs).

<sup>2</sup> The purpose of the Waste Disposal Fund is to secure the financing of the disposal of radioactive waste and spent fuel elements after the installations have been decommissioned (disposal costs).

<sup>3</sup> Owners of nuclear installations are obliged to pay contributions into the Decommissioning Fund and the Waste Disposal Fund. The Federal Council may exempt owners of installations with low decommissioning and disposal costs from the obligation to pay contributions into these funds.

**Art. 78** Entitlements

<sup>1</sup> The entitlement of each owner obliged to pay contributions into these funds shall be equivalent to the amount paid in, including capital earnings and after deduction of costs. Entitlements may not be sold, pledged, seized or incorporated into bankruptcy estate.

<sup>31</sup> Inserted by Annex No II 7 of the Energy Act of 30 Sept. 2016, in force since 1 Jan. 2018 (AS 2017 6839; BBl 2013 7561).

<sup>32</sup> Repealed by Annex No 70 of the Federal Administrative Court Act of 17 June 2005, with effect from 1 Jan. 2007 (AS 2006 2197 1069; BBl 2001 4202).

<sup>2</sup> In the event that the entitlements on the part of a contributing owner should exceed the amount paid in by same, the surplus shall be refunded within one year after calculation of the closing statement.

<sup>3</sup> If a nuclear installation is adopted from a bankruptcy estate, the entitlements due from the two funds shall be transferred to the new owner, who shall then be obliged to pay the contributions owed to the fund by the bankrupt company.

<sup>4</sup> If a company is removed from the commercial register after completion of bankruptcy proceedings and with the consent of the Department, and if the installation is not taken over by another company, the contributions already paid in shall become the property of the two funds, who shall use the amounts concerned to finance the decommissioning and disposal operations of the installation concerned. The Federal Council shall decide how any resulting surplus is to be used.

**Art. 79** Services performed by the funds

<sup>1</sup> In the event that the entitlement on the part of a contributing party should not suffice to cover the costs, the party concerned shall cover the remaining costs from its own financial resources.

<sup>2</sup> In the event that the party concerned provides evidence that its own financial resources are insufficient, the Decommissioning Fund or Disposal Fund shall cover the remaining costs from its overall resources. This shall also apply in the case cited in Article 78 paragraph 4.

<sup>3</sup> The Disposal Fund shall cover costs incurred by the Confederation in association with disposal requirements in accordance with Article 33 paragraph 1 letter b, from the contributions that the contributing party has paid into the fund. In the event that these contributions should not suffice, the fund shall cover the remaining costs from its overall resources.

**Art. 80** Obligation to pay additional contributions

<sup>1</sup> In the event that the payments by a fund in favour of a beneficiary should exceed its entitlement, the beneficiary shall repay the difference to the fund, together with interest at normal market rates.

<sup>2</sup> If the beneficiary is unable to effect repayment within a period specified by the Federal Council, the other contributing parties and beneficiaries of the fund concerned shall cover the difference through additional payments in proportion to their contributions.

<sup>3</sup> An obligation to pay additional contributions shall also apply:

- a. in the case of Article 78 paragraph 4, if the contributions that have become the property of the fund should not suffice to cover the decommissioning or disposal costs;
- b. in the case of Article 79 paragraph 3, if the party responsible for disposal fails to repay the difference to the fund.

<sup>4</sup> In the event that additional payments to cover shortages of funds should be deemed unreasonable by the parties concerned, the Federal Assembly shall decide whether, and to what extent, the Confederation shall contribute towards the uncovered costs.

**Art. 81** Legal form and organisational structure of the two funds

<sup>1</sup> The funds have their own legal personality, and are subject to the supervision of the Confederation.

<sup>2</sup> The Federal Council appoints an administrative commission for each fund as executive body. The two commissions specify the contributions to be paid to their respective funds, and the benefits and services to be provided.

<sup>3</sup> If necessary, the funds may grant advances to one another or the Confederation may grant advances to either fund or both funds; interest on these loans shall be based on normal market rates.

<sup>4</sup> Both funds are exempt from all direct federal, cantonal and communal taxes.

<sup>5</sup> The Federal Council shall regulate the details of the two funds; it specifies the basis for calculating the contributions, and defines the principles of their investment policy. It may also amalgamate the funds.

**Art. 82** Securing the financing of other disposal activities

<sup>1</sup> In accordance with Article 669 of the Code of Obligations<sup>33</sup>, and based on the calculations of disposal costs by the Disposal Fund, owners of nuclear installations are required to establish reserves for disposal costs that arise prior to decommissioning.

<sup>2</sup> Furthermore, owners are required to:

- a. submit their reserves plan to the authority designated by the Federal Council for approval;
- b. describe the assets in the reserves that are earmarked for covering disposal costs;
- c. submit an auditors' report to the authority designated by the Federal Council concerning compliance with the reserves plan and the use of earmarked reserves.

<sup>3</sup> The auditors shall inspect the long-term financial and investment plans and verify whether the financial resources are available that are required to cover disposal costs prior to decommissioning and whether the allocations of funds to reserves have been carried out in accordance with the reserves plan.

## Chapter 8 Fees, Compensation, Support Measures

### Art. 83 Charges and supervision fees collected by the Confederation

<sup>1</sup> The relevant federal authorities shall collect fees from applicants for licences and from owners of nuclear installations, nuclear goods and radioactive waste, and shall request remuneration of costs, in particular for:

- a. the granting, transfer, amendment, modification and withdrawal of licences;
- b. the preparation of expert reports;
- c. supervisory activities;
- d. Research and development activities carried out by the Confederation or on its behalf within the scope of supervisory duties for specific nuclear installations.

<sup>2</sup> The relevant federal authorities shall, in addition, collect an annual fee from owners of nuclear installations to cover the costs of supervisory activities that cannot be charged to specific nuclear installations. The amount concerned shall be calculated on the basis of the average costs over the past five years, and shall be charged to each nuclear installation in proportion to the chargeable services provided.

<sup>3</sup> The Federal Council shall regulate this procedure.

### Art. 84 Cantonal fees

The cantonal authorities may collect fees from owners of nuclear installations, nuclear goods and radioactive waste, and request remuneration of costs, in particular for:

- a. the planning and implementation of emergency measures;
- b. the protection provided by the police for nuclear installations and for the transport of nuclear materials and radioactive waste;
- c. the training of security guards;
- d. surveys of plots of land in the protection zone, their recording in the land register and entries in the land register.

### Art. 85 Compensation for cantonal sovereignty

<sup>1</sup> In the event that cantonal sovereignty should be affected as the result of geological investigations in accordance with Article 35, deep geological repositories or protection zones, the licence holder shall compensate the canton concerned in full.

<sup>2</sup> Full compensation in accordance with paragraph 1 above shall also be paid if claims are made on cantonal water rights as the result of the construction of a nuclear power plant.

<sup>3</sup> In case of dispute, the Compulsory Purchase Tribunal shall specify the amount of compensation to be paid in proceedings in accordance with Articles 57–75 and 77–86 of the CPA<sup>34</sup>.

**Art. 86** Promotion of research and training of specialised personnel

<sup>1</sup> The Confederation may promote applied research into the peaceful use of nuclear energy, especially into the safety of nuclear installations and into nuclear waste disposal.

<sup>2</sup> It may support the education of specialised personnel, or carry out its own training programmes.

<sup>3</sup> As a rule, private individuals are only entitled to receive financial assistance if they bear at least 50 per cent of the costs.

**Art. 87** Contributions to international organisations and participation in international projects

The Confederation may contribute to international organisations and participate in international projects connected with the peaceful use of nuclear energy, and in particular the non-proliferation of nuclear arms, safety, public health and environmental protection.

**Chapter 9 Criminal Provisions**<sup>35</sup>

**Art. 88** Failure to observe safety and security measures

<sup>1</sup> Any person who wilfully commits any of the following offences shall be liable to a term of imprisonment or a fine not exceeding 500,000 Swiss francs:

- a. manufacturing or supplying faulty components of a nuclear installation that are important in terms of nuclear safety or security;
- b. damaging, removing, rendering unusable, using in an improper manner or putting out of operation an installation in a nuclear installation that is important in terms of nuclear safety or security, or failing to install or render such an installation ready for operation;
- c. failing to observe protective measures that are important in terms of nuclear safety or security when handling nuclear materials or radioactive waste.

<sup>2</sup> Any person who by committing the foregoing offences knowingly endangers the life or health of a number of humans, or causes damage to property of significant value, shall be liable to a term of penal servitude, which may also be combined with a fine not exceeding 500,000 Swiss francs.

<sup>34</sup> SR 711

<sup>35</sup> From 1 Jan. 2007, the penalties and prescriptive periods must be interpreted and/or recalculated in application of Art. 333 paras. 2–6 of the Swiss Criminal Code (SR 311.0) amended in accordance with the FA of 13 Dec. 2002 (AS 2006 3459; BBl 1999 1979).

<sup>3</sup> If the offender has acted negligently, he shall be liable to a term of imprisonment or a fine not exceeding 100,000 Swiss francs.

**Art. 89** Offences involving nuclear goods and radioactive waste

<sup>1</sup> Any person who wilfully commits any of the following offences shall be liable to a term of imprisonment or a fine not exceeding 1 million Swiss francs:

- a. handling nuclear goods or radioactive waste without holding the necessary licence, or failing to comply with the conditions or requirements stipulated in a licence;
- b. when applying for a licence, providing essential information that is incomplete or false, or using an application that has been completed by a third party;
- c.<sup>36</sup> failing to declare or incorrectly declaring nuclear goods or radioactive waste when importing, exporting or conveying such matter in transit;
- d. actively or passively supplying, transferring or brokering nuclear goods or radioactive waste to another end-user or destination than the one named in the licence;
- e. supplying a person with nuclear goods or radioactive waste even though it is known or has to be assumed that the person concerned will directly or indirectly pass them on unlawfully to an end-user;
- f. participating in the financing of an illegal transaction with nuclear goods or radioactive waste, or mediating in the financing of such a transaction.

<sup>2</sup> In serious cases, the penalty shall be a term of penal servitude not exceeding ten years. This penalty may also be combined with a fine not exceeding 5 million Swiss francs.

<sup>3</sup> If the offender has acted negligently, he shall be liable to a term of imprisonment not exceeding six months, or a fine not exceeding 100,000 Swiss francs.

**Art. 90** Failure to fulfil the licence obligations for nuclear installations

<sup>1</sup> Any person who wilfully commits any of the following offences shall be liable to a term of imprisonment or a fine not exceeding 500,000 Swiss francs:

- a. constructing or operating a nuclear installation without a licence;
- b. failing to fulfil the obligations arising from an operating licence for a nuclear installation (Articles 22 and 38), decommissioning obligations (Article 26) or the obligations associated with the disposal of radioactive waste and the sealing of a deep geological repository (Article 31 and Article 39, paragraphs 1 and 2);
- c. carrying out operations that affect the protection zone of a deep geological repository, without holding the necessary licence;

<sup>36</sup> Amended by Annex No 13 of the Customs Act of 18 March 2005, in force since 1 May 2007 (AS 2007 1411; BBl 2004 567).



- d. carrying out an activity that requires a permit, without first obtaining the necessary permit.

<sup>2</sup> If the offender has acted negligently, he shall be liable to a term of imprisonment not exceeding six months, or a fine not exceeding 100,000 Swiss francs.

<sup>3</sup> Any person who wilfully or negligently carries out other activities that are subject to the granting of a licence in accordance with the provisions of this Act or an implementing ordinance, but who does not hold the requisite licence, shall be liable to a term of imprisonment not exceeding six months or a fine not exceeding 100,000 Swiss francs.

#### **Art. 91** Breach of secrecy

<sup>1</sup> Any person who wilfully commits any of the following offences shall be liable to a term of imprisonment or a fine not exceeding 500,000 Swiss francs:

- a. obtaining details of secret facts or precautionary measures aimed at protecting nuclear installations, nuclear materials or radioactive waste against intervention by third parties or the effects of armed conflicts, in order to make them known, or make them accessible to unauthorised parties, or to use the information thus obtained themselves in an unauthorised manner;
- b. making such facts or measures known or making them accessible to unauthorised parties.

<sup>2</sup> If the offender has acted negligently, he shall be liable to a term of imprisonment not exceeding six months or a fine not exceeding 100,000 Swiss francs.

#### **Art. 92** Surrendering ownership

<sup>1</sup> Any person who wilfully surrenders ownership of nuclear materials or radioactive waste without the necessary authorisation to do so shall be liable to a term of imprisonment or a fine not exceeding 100,000 Swiss francs.

<sup>2</sup> If the offender has acted negligently, he shall be liable to a term of imprisonment not exceeding six months or a fine.

#### **Art. 93** Contraventions

<sup>1</sup> Any person who wilfully commits any of the following contraventions shall be liable to a term of imprisonment or a fine not exceeding 100,000 Swiss francs:

- a. refusing to provide information, submit documentation or permit access to business premises or inspection of documentation in accordance with Article 73, or giving false information in this regard;
- b. failing to comply with a reporting obligation, an auditing and accounting obligation or an obligation to keep records in accordance with this Act, or infringing against an implementing ordinance;
- c. infringing in any other way a provision of this Act or of an implementing regulation if the contravention thereof is declared to be an offence, or against

a ruling if infringement thereof is declared punishable by law, where no unlawful behaviour is involved in accordance with another criminal offence.

<sup>2</sup> Attempts and aiding and abetting shall also be offences.

<sup>3</sup> If the offender has acted negligently, he shall be liable to a fine not exceeding 40,000 Swiss francs.

**Art. 94** Offences in commercial enterprises

For offences in accordance with this Act, Article 6 of the Federal Act of 22 March 1974<sup>37</sup> on Administrative Criminal Law applies.

**Art. 95** Offences committed abroad, involvement in offences committed abroad

<sup>1</sup> A Swiss citizen who commits a felony or misdemeanour in accordance with Articles 89 and 91 abroad shall be punishable by law even if the act is not subject to prosecution in the country concerned.

<sup>2</sup> If a participant in an offence committed abroad has acted within Switzerland, the provisions of the Swiss Criminal Code apply provided the main act is punishable by law in Switzerland, irrespective of the law in the country in which the main act was committed.

**Art. 96** Prescription of contraventions

The prescriptive period for contraventions is five years. This period may not be extended by more than half as the result of interruptions.

**Art. 97**<sup>38</sup> Confiscation of objects

A court may order the confiscation of objects, without consideration as to the liability of a given person to prosecution, if no guarantee is provided that the objects will be used for lawful purposes. Objects thus confiscated, and any proceeds from the use or disposal thereof, shall become the property of the Confederation subject to the Federal Act of 19 March 2004<sup>39</sup> on the Division of Confiscated Assets.

**Art. 98**<sup>40</sup> Confiscation of assets or substitute claims

Any confiscated assets or substitute claims shall become the property of the Confederation subject to the Federal Act of 19 March 2004<sup>41</sup> on the Division of Confiscated Assets.

<sup>37</sup> SR 313.0

<sup>38</sup> Amended by Annex No 4 of the FA of 19 March 2004 on the Division of Confiscated Assets, in force since 1 Aug. 2004 as Art. 36*b* of the Atomic Energy Act of 23 Dec. 1959 (AS 2004 3503; BBl 2002 441).

<sup>39</sup> SR 312.4

<sup>40</sup> Amended by Annex No 4 of the FA of 19 March 2004 on the Division of Confiscated Assets, in force since 1 Aug. 2004 as Art. 36*b* of the Atomic Energy Act of 23 Dec. 1959 (AS 2004 3503; BBl 2002 441).

**Art. 99** Relationship to the Criminal Code

Seizure of goods and assets under Articles 97 and 98 above shall also be subject to the provisions of Articles 58 and 59 of the Swiss Criminal Code<sup>42</sup>.

**Art. 100** Jurisdiction, obligation to report to the Office of the Attorney General

<sup>1</sup> The prosecution and adjudication of felonies and misdemeanours in accordance with Articles 88 to 92 above shall be subject to the jurisdiction of the Federal Criminal Court.

<sup>2</sup> Contraventions in accordance with Article 93 shall be prosecuted and adjudicated by the Federal Office. These proceedings shall be subject to the provisions of the Federal Act of 22 March 1974<sup>43</sup> on Administrative Criminal Law.

<sup>3</sup> Licensing and supervisory authorities, cantonal and communal police and customs authorities are obliged to notify the Office of the Attorney General about any offences committed against this Act that may come to their attention in the course of their services and activities or in any other way.

**Chapter 10 Final Provisions****Art. 101** Enforcement

<sup>1</sup> The Federal Council shall specify the provisions governing the enforcement of this Act.

<sup>2</sup> It may assign the specification of regulations to the Department or subordinate authorities, taking due account of the importance thereof.

<sup>3</sup> The authority designated by the Federal Council shall maintain a centralised service that procures, processes and passes on data insofar as this is necessary for the enforcement of this Act, the RPA<sup>44</sup>, the prevention of illegal activities and the prosecution of offenders.<sup>45</sup>

<sup>4</sup> The licensing and supervisory authorities shall maintain official secrecy and take all precautionary measures to prevent economic espionage.

<sup>5</sup> The Federal Council may call on the cantonal authorities to assist with the enforcement of this Act.

<sup>6</sup> Within the scope of its own competencies, the enforcement authority may call on third parties to assist with the enforcement of this Act, in particular for carrying out examinations and inspections.

<sup>41</sup> SR 312.4. At present Art. 69 and 70.

<sup>42</sup> SR 311.0

<sup>43</sup> SR 313.0

<sup>44</sup> SR 814.50

<sup>45</sup> Amended by Annex No II 10 of the Intelligence Service Act of 25 Sept. 2015, in force since 1 Sept. 2017 (AS 2017 4095; BBl 2014 2105).

**Art. 102** Administrative assistance in Switzerland

The relevant federal authorities and cantonal and communal police may exchange data among themselves and with the supervisory authorities, insofar as this is necessary for the enforcement of this Act.

**Art. 103** International administrative assistance

<sup>1</sup> The federal authorities responsible for enforcement, control, prevention of illegal acts or prosecution of offenders may work together with the relevant authorities of other countries and international organisations and committees and co-ordinate the procurement of data, insofar as this is necessary for the enforcement of this Act or of equivalent foreign legislation, and the foreign authorities or international organisations or committees are obliged to observe official secrecy or are bound to an equivalent secrecy obligation.

<sup>2</sup> They may specifically request foreign authorities and international organisations or committees to supply the necessary data. For this purpose, they may provide data concerning:

- a. the nature, quantity, destination and intended place of use, intended purpose and recipient of nuclear goods and radioactive waste;
- b. people who are involved in the manufacture, supply, brokerage or financing of nuclear goods and radioactive waste;
- c. financing of associated transactions;
- d. accidents and occurrences of significance in terms of safety.

<sup>3</sup> If the foreign country concerned has signed a reciprocal rights agreement with Switzerland, the relevant federal authorities may supply it with data in accordance with paragraph 2 at their own discretion or upon request, as long as the foreign authority or authorities guarantee that the data:

- a. will only be used for purposes in keeping with the provisions of this Act, and;
- b. will only be used in criminal proceedings if they have subsequently been procured in accordance with the provisions of international legal assistance.

<sup>4</sup> They may also provide international organisations or committees with data under the same conditions as those cited in paragraph 3 above, though here the requirement of reciprocal rights may be waived.

<sup>5</sup> The above clauses shall remain subject to the provisions governing mutual international assistance in criminal matters.

**Art. 104** International agreements

<sup>1</sup> The Federal Council may conclude bilateral international agreements concerning:

- a. the handling of nuclear goods and radioactive waste;
- b. security and control measures for nuclear goods and radioactive waste;

- c. exchange of information regarding the construction and operation of nuclear installations.

<sup>2</sup> Within the scope of approved credits, it may conclude agreements concerning participation in international projects in accordance with Article 87.

**Art. 105** Repeal and amendment of current legislation

The repeal and amendment of current legislation is regulated in the Annex.

**Art. 106** Transitional provisions

<sup>1</sup> Nuclear installations that require a general licence in accordance with the provisions of this Act, and which are already in operation, may continue to be operated without the corresponding licence as long as no changes are made that require an amendment of the general licence in accordance with Article 65 paragraph 1.

<sup>1bis</sup> The granting of general licences for modifications to existing nuclear power plants is prohibited.<sup>46</sup>

<sup>2</sup> Owners of existing nuclear power plants are required to demonstrate within a period of ten years that arrangements for the management of radioactive waste arising from these plants is assured, if the Federal Council does not already deem this assurance to have been provided. The Federal Council may extend this deadline by five years in justified circumstances.

<sup>3</sup> An operating licence for an existing nuclear power plant may be transferred to a new owner without a general licence. Article 13 paragraph 2, Article 31 paragraph 3 and Article 66 paragraph 2 apply analogously.

<sup>4</sup> ...<sup>47</sup>

**Art. 107** Referendum and commencement

<sup>1</sup> This Act is subject to an optional referendum.

<sup>2</sup> The Federal Council shall publish this Act in the Swiss Federal Gazette if the two popular initiatives, “Moratorium Plus” and “Electricity without Atomic Energy” are withdrawn or have been rejected.

<sup>3</sup> The Federal Council shall determine the date on which this Act comes into force.

Commencement date: 1 February 2005<sup>48</sup>  
with the exception of Number II/6 of the Annex: 1 January 2005<sup>49</sup>.

<sup>46</sup> Inserted by Annex No II 7 of the Energy Act of 30 Sept. 2016, in force since 1 Jan. 2018 (AS 2017 6839; BBl 2013 7561).

<sup>47</sup> Repealed by Annex No II 7 of the Energy Act of 30 Sept. 2016, with effect from 1 Jan. 2018 (AS 2017 6839; BBl 2013 7561).

<sup>48</sup> O of 10 Nov. 2004 (AS 2004 5391).

<sup>49</sup> FCD of 10 Nov. 2004.

*Annex*  
(Art. 105)

## Repeal and Amendment of Current Legislation

### I

The following shall be repealed:

1. Atomic Energy Act of 23 December 1959<sup>50</sup>
2. Federal Decree of 6 October 1978<sup>51</sup> on the Atomic Energy Act

### II

The following Acts shall be amended as indicated:

...<sup>52</sup>

<sup>50</sup> [AS 1960 541, 1983 1886 Art. 36 No 2, 1987 544, 1993 901 Annex No 9, 1994 1933 Art. 48 No 1, 1995 4954, 2002 3673 Art. 17 No 3, 2004 3503 Annex No 4]

<sup>51</sup> [AS 1979 816, 2001 283]

<sup>52</sup> The amendments may be consulted under AS 2004 4719.