Nuclear Energy Act
(NEA)

of 21 March 2003 (Status as of 1 January 2022)

The Federal Assembly of the Swiss Confederation
on the basis of Article 90 of the Federal Constitution[1],
and having considered the Federal Council dispatch of 28 February 2001[2],
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

[1] 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[3] (RPA).

[2] 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
1 SR **101**
2 BBl **2001** 2665
3 SR **814.50**

3 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

[1] 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.

[2] Long-term impacts on genetic material must be taken into account.

[3] 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

[1] 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.

[2] 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.

[3] 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.

[4] The Federal Council shall stipulate which preventive and protective measures are required.

Chapter 3 Nuclear Goods

Art. 6 Licensing obligation

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

2 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.

3 Licences shall be valid for a limited period only.

4 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[4];

d. the required insurance cover exists in accordance with the Nuclear Energy Liability Act of 18 March 1983[5];

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

1 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.

2 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.

4 SR **946.231**
5 SR **732.44**

3 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[6] Reprocessing

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

2 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

1 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.

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

3 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

1 Anyone intending to construct or operate a nuclear installation requires a general licence issued by the Federal Council. Article 12*a* is reserved.[7]

2 No legal entitlement exists with respect to the granting of a general licence.

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

6 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).

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