

CROATIA

Act on Nuclear Safety*

adopted on 15 October 2003

promulgated on 21 October 2003

I. GENERAL PROVISIONS

Article 1

This Act regulates safety and protective measures governing the use of nuclear materials and specified equipment and the performance of nuclear activities, and establishes the State Office for Nuclear Safety.

Definitions

Article 2

For the purpose of this Act, the following terms shall have the meanings indicated:

Batch: a portion of nuclear material regarded as a unit for record-keeping purposes at a key measurement point, and whose composition and quantity are defined by a single set of specifications or measurements.

Batch data: the total mass of each element of nuclear material, as well as the isotope composition in the case of plutonium and uranium.

Controlled area: an area in which safety and protective measures are applied in connection with a nuclear activity.

Depleted uranium: uranium containing a lower amount of the isotope ^{235}U than natural uranium, i.e. less than 0.72%.

Disposal: permanent storage of radioactive waste originating in the nuclear fuel cycle in a waste deposit facility, with no intention of further use.

* Unofficial translation kindly provided by the Croatian authorities.

Enriched uranium: uranium enriched in the isotopes ^{235}U or ^{233}U , that is, uranium containing isotopes ^{235}U or ^{233}U , or both, in such an amount that the ratio of the sum of these isotopes to isotope ^{238}U is greater than the ratio of isotope ^{235}U to isotope ^{238}U found in nature.

Enrichment: the proportion of the combined weight of ^{233}U and ^{235}U to the weight of the given uranium in total.

Fission: the splitting of an atomic nucleus into two roughly identical nuclei, which move at a high velocity after being split, emitting several fast neutrons and gamma radiation.

INES scale: a categorisation of nuclear events, incidents and accidents as defined by the International Atomic Energy Agency.

Material balance area: an area inside or outside a facility where a nuclear activity is performed, in which it is possible, at a given time (when necessary), to carry out a physical inventory of the nuclear material and, at any time, to determine the quantity of such material transferred into or out of the area.

Nuclear accident: an event or series of events arising as the result of an unusual event at a facility where a nuclear activity is performed, with a high degree of danger that radioactivity will spread outside the controlled area. According to the INES scale, a nuclear accident ranges from level 4 to level 7.

Nuclear activities: the production, processing, use, storage, disposal, transport, import, export, possession or other handling of nuclear material or specified equipment.

Nuclear fuel cycle: this comprises all activities connected with the production of nuclear energy, including: finding raw materials and producing nuclear fuel, using nuclear fuel in a nuclear reactor, terminating the work of a nuclear reactor and decommissioning it, disposing of radioactive waste originating from nuclear installations, and all research performed in connection with these activities.

Nuclear incident: an event or series of events arising as the result of an unusual event at a facility where a nuclear activity is performed, with a low degree of danger that radioactivity will spread outside the controlled area. According to the INES scale, a nuclear incident ranges from level 1 to level 3.

Nuclear material: source material or special fissile material subject to a system of controls and protective measures.

Nuclear material user: a legal entity whose activities include the production, processing, use, possession or storage of nuclear material, or which is the holder of a licence to perform a nuclear activity.

Physical inventory: the sum total of all measured or estimated quantities of nuclear material in batches that is available at a given time within a particular material balance area.

Source material includes:

- a. uranium containing the mixture of isotopes occurring in nature;
- b. uranium depleted in the isotope ^{235}U ;

- c. thorium;
- d. any of the foregoing in the form of a metal, alloy, chemical compound or concentrate;
- e. any other material containing one or more of the foregoing in a concentration determined by the state administration body with jurisdiction over nuclear safety.

The term “source material” does not pertain to ores and ore residues.

Special fissile material is material on which fission may be carried out, including:

- a. ^{239}Pu ;
- b. ^{233}U ;
- c. uranium enriched in the isotopes ^{235}U or ^{233}U ;
- d. any other material containing one or more of the foregoing;
- e. other kinds of fissile material as determined by the state administration body with jurisdiction over nuclear safety.

Specified equipment: equipment and non-nuclear material which is used in peaceful nuclear activities, but may also be employed to produce nuclear weapons. These are referred to as dual-purpose commodities, and are listed in Annex II of the Protocol Additional to the Agreement between the Republic of Croatia and the International Atomic Energy Agency for the Application of Safeguards signed in connection with the Treaty on the Non-Proliferation of Nuclear Weapons (Official Gazette – International Treaties, No. 7/00).

Specified equipment user: a legal entity whose activities include the production, processing, use, possession or storage of specified equipment, or which is the holder of a licence to perform a nuclear activity.

Storage: the keeping of nuclear material and other materials originating in the nuclear fuel cycle in a facility which ensures their safety and protection, with the possibility of further use.

Storage facility: a facility suitable for storing nuclear material and other materials originating in the nuclear fuel cycle.

Unusual event: an event in connection with nuclear activities which is caused by unforeseen circumstances, and which may, as a result, expose workers performing a nuclear activity or the local population to increased radiation levels, or radioactively contaminate the environment.

Waste disposal facility: a facility suitable for the disposal of radioactive waste originating in the nuclear fuel cycle.

II. NUCLEAR SAFETY

Article 3

A nuclear material or specified equipment user must grant due priority to safety and protective measures in performing a nuclear activity. To this end, the nuclear material or specified equipment user must secure the appropriate financial resources and a sufficient number of qualified staff.

The nuclear material or specified equipment user shall be solely responsible for safety and protection in performing a nuclear activity.

Performing a nuclear activity

Article 4

A legal entity that intends to perform any kind of nuclear activity must declare its intention and submit an application for the issue of a licence to perform a nuclear activity.

A legal entity under the preceding paragraph of this article must declare its intention to perform a nuclear activity to the state administration body with jurisdiction over nuclear safety within the period defined by the ordinance prior to submitting an application for the issue of a licence to perform a nuclear activity.

A legal entity must submit its application for the issue of a licence to perform a nuclear activity to the state administration body with jurisdiction over nuclear safety, except in the case of an application for the issue of a permit to transport nuclear material and an application for the issue of a licence to import or export nuclear material or specified equipment.

An application for the issue of a permit to transport nuclear material shall be submitted to the state administration body with jurisdiction over the transport of radioactive material, while the state administration body with jurisdiction over nuclear safety shall give its consent during the permit approval procedure.

Article 5

A legal entity may perform a nuclear activity only if, based on an application for the issue of a licence to perform a nuclear activity, the state administration body with jurisdiction over nuclear safety has issued a decision in favour of granting a licence to perform a nuclear activity.

The decision of the state administration body with jurisdiction over nuclear safety under the preceding paragraph of this article shall be final. An administrative appeal may be lodged against this decision.

Article 6

A nuclear material or specified equipment user must declare its intention to import or export nuclear material to the state administration body with jurisdiction over nuclear safety no later than 30 days prior to the planned import or export of nuclear material or specified equipment.

A legal entity must submit an application for the issue of a licence to import or export nuclear material or specified equipment to the state administration body with jurisdiction over trade, while the state administration body with jurisdiction over nuclear safety shall give its consent during the licence approval procedure.

Article 7

A list of nuclear materials, nuclear activities and specified equipment, the procedure for declaring an intention to perform nuclear activities and submitting an application for the issue of a licence to perform such activities, and the form and content of official forms shall be set forth in the ordinance.

Conditions for nuclear safety and protection

Article 8

In the process of determining the siting, planning, construction, operation and decommissioning of a facility in which a nuclear activity is to be performed, the conditions for nuclear safety and protection set forth in this Act and in conventions and other international agreements ratified by the Republic of Croatia, as well as international recommendations and standards in the area of nuclear safety, must be met.

Conditions for nuclear safety and protection with regard to the siting, planning, construction, operation and decommissioning of a facility in which a nuclear activity is to be performed shall be set forth in the ordinance, having first obtained the consent of the minister with jurisdiction over spatial planning and construction and the minister with jurisdiction over health care.

Article 9

The state administration body with jurisdiction over nuclear safety shall establish special conditions for nuclear safety and protection during the procedure for issuing siting permits, building permits, and permits for decommissioning facilities in which a nuclear activity is performed.

A building permit for the construction of a facility in which a nuclear activity is to be performed or a permit for decommissioning this facility cannot be issued without confirmation from the state administration body with jurisdiction over nuclear safety that the principal project or preliminary design is in accordance with the special conditions under paragraph 1 of this Article and with the provisions of Article 8 of this Act.

Quality assurance

Article 10

In determining the siting, planning, construction, operation and decommissioning of a facility in which a nuclear activity is to be performed, work having an impact on nuclear safety must be carried out in accordance with quality assurance (QA) requirements.

The aforementioned requirements are defined by international recommendations and standards in the area of quality assurance for nuclear activities.

**Monitoring radioactivity in the vicinity of a facility
where a nuclear activity is performed**

Article 11

A nuclear material user shall be obliged to carry out an appropriate examination of the content of radioactive matter in the vicinity of a facility in which a nuclear activity is performed, within a timeframe and in a manner conforming to state regulations and international recommendations and standards in the area of nuclear safety.

The programme for the aforementioned examination shall be approved by the state administration body with jurisdiction over nuclear safety.

**Staff qualifications in a facility
where a nuclear activity is performed**

Article 12

Work related to the management of the production process or supervision of this process in a facility where a nuclear activity is performed may be assigned to workers who meet special requirements regarding professional qualifications and supplementary training, as defined by state regulations and international recommendations and standards in the area of nuclear safety.

Record-keeping

Article 13

A nuclear material user must keep records on all of its nuclear material.

Article 14

The obligation to keep records on nuclear material shall commence at the moment when possession of the nuclear material is assumed, and shall cease when the nuclear material:

- is exhausted;
- becomes diluted to such an extent that it is no longer usable for any nuclear activity;
- changes users (is transferred to another user, sold, exported, etc.).

Article 15

Records on nuclear material shall be kept separately for each material balance area and each nuclear material batch.

The material balance area shall be established by the state administration body with jurisdiction over nuclear safety.

The nuclear material user may not transfer nuclear material into a facility before the state administration body with jurisdiction over nuclear safety has established the material balance area for that facility.

Article 16

The nuclear material user must submit a report for each material balance area, based on its nuclear material records, to the state administration body with jurisdiction over nuclear safety within the deadlines set forth in the ordinance.

A physical inventory report that contains each batch separately, identifying the material and giving the batch data, should be annexed to the material balance report.

Article 17

The state administration body with jurisdiction over nuclear safety shall maintain a register of nuclear activities, a register of nuclear material, and a register of specified equipment in the Republic of Croatia.

The method by which records on nuclear material are to be kept, the manner in which the nuclear material user is to report to the state administration body with jurisdiction over nuclear safety, and the method by which the state administration body with jurisdiction over nuclear safety is to maintain the register of nuclear activities, the register of nuclear material, and the register of specified equipment shall be set forth in the ordinance.

Procedure in the event of a nuclear incident or accident

Article 18

A nuclear material user in a facility in which a nuclear activity is performed shall be obliged to develop a plan and programme for measures to be taken in the event of a nuclear incident or nuclear accident, which must be approved by the state administration body with jurisdiction over nuclear safety.

The plan and programme under paragraph 1 of this Article shall also include the obligation to verify the proper functioning of individual parts (units) within specified deadlines.

Technical Support Centre

Article 19

The purpose of the Technical Support Centre shall be to prepare and implement the necessary expert and technical activities of the Republic of Croatia's national programme for preparedness and response in the event of a threat of a nuclear accident at nuclear power plants, especially in neighbouring countries.

In the event of a nuclear accident, the goal of the Technical Support Centre shall be to offer expert assistance to the Republic of Croatia's crisis response organisation, in particular the state administration body functioning as the executive organisation in crisis situations.

Article 20

The tasks and duties of the Technical Support Centre shall include the following in particular:

- gathering data and information on nuclear accidents;
- co-operating with corresponding centres in other countries;
- analysing and assessing the potential consequences of a nuclear accident; and
- providing substantial expert evaluations on which to base decisions regarding measures for protecting and saving the population.

Article 21

The Technical Support Centre shall operate as an organisational unit of the state administration body with jurisdiction over nuclear safety.

Besides employees of the state administration body with jurisdiction over nuclear safety, experts from other state administration bodies or expert organisations shall be appointed to the Technical Support Centre, with the approval of the heads of such bodies or organisations.

III. STATE OFFICE FOR NUCLEAR SAFETY

Article 22

The State Office for Nuclear Safety, as the state administration body with jurisdiction over nuclear safety, is hereby established.

For the purpose of implementing measures for nuclear safety and protection, the State Office for Nuclear Safety shall:

1. issue licences to perform nuclear activities in connection with nuclear material or specified equipment;
2. conduct independent safety analyses and issue decisions or certificates regarding the siting, planning, construction, operation and decommissioning of a facility in which a nuclear activity is to be performed;
3. keep records on the licences, approvals, decisions and certificates which it has issued within the scope of its authority;
4. carry out administrative supervision of the implementation of this Act and regulations adopted on the basis of this Act;

5. carry out inspections to ensure the implementation of the provisions of this Act and regulations adopted on the basis of this Act;
6. ensure expert assistance in implementing the national plan and programme for procedures in the event of a nuclear accident, via the work of the Technical Support Centre;
7. ensure expert assistance in activities for preventing illicit trafficking in nuclear material to state administration bodies with jurisdiction over such activities;
8. monitor safety conditions at nuclear power plants in the region and carry out assessments of the threat of nuclear accidents there, especially the Krško Nuclear Power Plant in Slovenia and the Paks Nuclear Power Plant in Hungary;
9. fulfil the obligations which the Republic of Croatia has assumed through international conventions and bilateral agreements concerning nuclear safety and the application of protective measures aimed at the non-proliferation of nuclear weapons;
10. co-operate with international and domestic organisations and associations in the area of nuclear safety, and appoint its own expert representatives to take part in the work of such organisations and associations or to monitor their work;
11. co-ordinate technical cooperation with the International Atomic Energy Agency for all participants from the Republic of Croatia;
12. stimulate and support research and development activities in accordance with the demands and requirements of the development of nuclear safety in the Republic of Croatia;
13. issue instructions for implementing international recommendations and standards in the area of nuclear safety and protection;
14. carry out other activities under its jurisdiction based on this Act, regulations adopted on the basis of this Act, and other regulations.

Article 23

The State Office for Nuclear Safety shall be headed by a director.

The director shall be appointed by the government of the Republic of Croatia.

Expert Organisations

Article 24

Certain kinds of work in the area of nuclear safety may also be performed by expert organisations that satisfy special conditions for individual activities, based on international recommendations and standards in the area of nuclear safety.

Special conditions for the aforementioned individual activities shall be defined by the director of the State Office for Nuclear Safety.

Council for Nuclear Safety

Article 25

The Council for Nuclear Safety (hereinafter referred to as “the Council”), an advisory body of the Croatian Parliament, shall be established to assess the state of nuclear safety in the Republic of Croatia.

The Council shall carry out the following activities:

1. give its opinion on proposed subordinate legislation to be adopted based on the provisions of this Act, as well as other subordinate legislation necessary for its implementation;
2. submit proposals and opinions to the Croatian Parliament regarding:
 - the development strategy for nuclear safety;
 - the organisation of nuclear safety in the Republic of Croatia;
 - international cooperation in the area of nuclear safety, in particular accession to and implementation of international treaties in this area;
 - other aspects of nuclear safety in the Republic of Croatia.
3. submit annual reports on the state of nuclear safety in the Republic of Croatia to the Croatian Parliament.

The Council shall have five members, one of whom shall be its president.

The president and other members of the Council shall be appointed and dismissed from office by the Croatian Parliament, based on nominations by the Government of the Republic of Croatia. Members of the Council shall be chosen from among experts in the area of nuclear safety.

The vice-president of the Council shall be nominated by its president and chosen by a majority of Council members.

The Council’s work shall be regulated by its rules of procedure.

Expert and technical work for the Council shall be performed by the State Office for Nuclear Safety.

IV. FINANCIAL RESOURCES

Financing by a legal entity

Article 26

Financial resources for the implementation of safety and protective measures in performing nuclear activities shall be secured by the legal entities obliged to implement such measures under this Act.

The director of the State Office for Nuclear Safety shall prescribe the amount and manner of payment of costs for the licences and approvals issued by the State Office for Nuclear Safety, including the costs of any additional independent safety analyses.

Costs under paragraph 2 of this article shall be borne by the applicant.

V. SUPERVISION

Article 27

Administrative supervision of the implementation of this Act and regulations adopted on the basis of this Act shall be carried out by the State Office for Nuclear Safety.

Article 28

Inspections based on this Act shall be carried out by inspectors from the State Office for Nuclear Safety (hereinafter referred to as “nuclear safety inspectors”).

The work of nuclear safety inspectors may be performed solely by persons who have attained the 7th level of education in technical or natural sciences.

Nuclear safety inspectors are appointed by the director of the State Office for Nuclear Safety.

Should it be ascertained during an inspection that this Act or another regulation adopted on the basis of this Act has been violated, a nuclear safety inspector shall, by means of a decision:

1. temporarily or permanently prohibit the performance of a nuclear activity in connection with nuclear material or specified equipment;
2. prohibit workers who do not meet the conditions for working with nuclear material from performing their duties;
3. prohibit the handling of nuclear material or specified equipment if this is not in accordance with the regulations.

In the cases specified in items 1 and 3, the decision by the nuclear safety inspector under paragraph 4 of this Article shall also define the further treatment and handling of nuclear material or specified equipment, at the expense of the holder of the licence to perform a nuclear activity.

The decision by the nuclear safety inspector under paragraph 4 of this Article shall be final. An administrative appeal may be lodged against this decision.

Supervision related to radiological safety, pressurised containers, and fire prevention in facilities in which a nuclear activity is performed shall be carried out by nuclear safety inspectors in cooperation with the state administration bodies having jurisdiction over such activities.

VI. PENALTIES

Article 29

A monetary fine in an amount ranging from HRK 10 000 to 50 000 shall be applied as a penalty for the following violations:

- failure by a legal entity to declare its intention of performing nuclear activities (Article 4, paragraph 1);
- failure by a nuclear material or specified equipment user to keep records on all of its nuclear material (Article 13);
- failure by a nuclear material or specified equipment user to submit a report for each material balance area, based on its nuclear material records, to the state administration body with jurisdiction over nuclear safety (Article 16, paragraph 1).

In the case of the violations specified under paragraph 1 of this Article, the responsible person of the legal entity or the nuclear material or specified equipment user shall also be penalised by a monetary fine in an amount ranging from HRK 1 000 to 5 000.

Article 30

A monetary fine in an amount ranging from HRK 30 000 to 70 000 shall be applied as a penalty for a violation where a nuclear material user, in a facility where a nuclear activity is performed:

- does not carry out an appropriate examination of the content of radioactive matter in the vicinity of the said facility, within a timeframe and in a manner conforming to state regulations and international recommendations and standards in the area of nuclear safety (Article 11, paragraph 1);
- employs workers who do not meet special requirements regarding professional qualifications and supplementary training, as defined by state regulations and international recommendations and standards in the area of nuclear safety, for work related to the management of the production process or supervision of this process in the facility in which a nuclear activity is performed (Article 12);
- transfers nuclear material into the facility before the state administration body with jurisdiction over nuclear safety has established the material balance area for that facility (Article 15, paragraph 3);
- has not developed a plan and programme for measures to be taken in the event of a nuclear incident or nuclear accident, which must be approved by the state administration body with jurisdiction over nuclear safety (Article 18, paragraph 1).

In the case of the violations specified under paragraph 1 of this Article, the responsible person of the nuclear material user in the facility where a nuclear activity is performed shall also be penalised by a monetary fine in an amount ranging from HRK 3 000 to 7 000.

Article 31

A monetary fine in an amount ranging from HRK 50 000 to 100 000 shall be applied as a penalty for the following violations:

- failure by a nuclear material or specified equipment user to implement safety and protective measures in performing nuclear activities (Article 3);
- performance of a nuclear activity by a legal entity even though the state administration body with jurisdiction over nuclear safety has not issued a decision in favour of granting a licence to perform a nuclear activity (Article 5).

In the case of the violations specified under paragraph 1 of this Article, the responsible person of the nuclear material or specified equipment user or legal entity shall also be penalised by a monetary fine in an amount ranging from HRK 5 000 to 10 000.

VII. TRANSITIONAL AND FINAL PROVISIONS

Article 32

Until such time as the State Office for Nuclear Safety begins its work, activities relating to nuclear safety and cooperation with the International Atomic Energy Agency shall be carried out by the Ministry of the Economy.

When the State Office for Nuclear Safety begins its work, it shall take over responsibility for activities relating to nuclear safety and cooperation with the International Atomic Energy Agency from the Ministry of the Economy.

In proportion to the work it has assumed, the State Office for Nuclear Safety shall also take over equipment, archives and other documentation, material supplies, financial resources, and rights and obligations from the Ministry of the Economy within a period of 60 days following the date on which the State Office for Nuclear Safety begins its work.

Article 33

The State Office for Nuclear Safety shall take over civil servants and employees from the Ministry of the Economy in proportion to the work it has assumed.

Until a decision is reached regarding the allocation of duties, based on the Rules of Internal Order of the State Office for Nuclear Safety, civil servants and employees shall retain all the rights and obligations deriving from civil service according to decisions valid hitherto.

Article 34

The Ministry of the Economy shall undertake preparations for the State Office for Nuclear Safety to begin its work within one year of the date on which this Act enters into force.

The State Office for Nuclear Safety shall begin its work no later than 1 January 2005.

Article 35

The regulations under Articles 4, 7, 8, 16 and 17 and the special conditions under Article 24 hereof shall be adopted by the director of the State Office for Nuclear Safety within one year of the date on which the State Office for Nuclear Safety begins its work.

Until such time as the regulations under paragraph 1 of this Article enter into force, the regulations adopted on the basis of the acts under Article 36 of this Act shall apply.

Article 36.

The Act on Measures for Protection against Ionising Radiation and Safety in the Use of Nuclear Facilities and Installations (Official Gazette, No. 18/81) and the Act on Protection against Ionising Radiation and Special Safety Measures in Using Nuclear Energy (Official Gazette, No. 53/91) shall cease to be valid as of the date on which this Act enters into force.

Entry into force

Article 37

This Act shall enter into force on the eighth day following its date of publication in the Official Gazette.