RULEBOOK ON CONDITIONS FOR OBTAINING LICENCE TO PERFORM NUCLEAR ACTIVITY

GENERAL PROVISIONS

Article 1

These Rules govern the following issues:

- 1. the documentation filed with the licence application for locating, designing, construction, trial run commissioning, trial run, operation, permanent termination and decommissioning of a nuclear facility;
- 2. the documentation filed for any change or modification during locating, designing, construction, trial run commissioning, trial run, operation, permanent termination and decommissioning of a nuclear facility;
- 3. the fulfilment of required nuclear safety measures pursuant to the nuclear safety report and other documentation for each and every nuclear activity.

Article 2

These Rules stipulate licensing conditions for performing nuclear activities.

The license application for performing nuclear activities shall be filed to the Serbian Radiation Protection and Nuclear Safety Agency, by a legal person who shall deliver required documentation with the application.

Article 3

Certain terms used in these Rules shall have the following meanings:

- 1. *nuclear safety report* means a document prepared by an investor or nuclear facility operator in order to obtain the approval to build the nuclear facility, or a document prepared by a licensee for performing a nuclear activity in the approval procedure for performing a nuclear activity;
- 2. *final nuclear safety report* means a document prepared by a nuclear facility operator in order to obtain the approval for trial run or the operation of the nuclear facility, or a document prepared by a licensee in order to obtain the approval for performing a nuclear activity;
- 3. *other documentation* means additional and reference documentation required for determining the fulfilment of nuclear safety measures;
- 4. *safety analysis* means a process to determine a nuclear facility safety by describing, analyzing and proving project design measures and installation operational procedures of a nuclear facility provided for accident prevention, or mitigation of its potential consequences;
- 5. expert evaluations and opinions about the nuclear safety report, final nuclear safety report and amendments and supplements to the final nuclear safety report are independent documents produced by authorized legal persons where they discuss, analyse and evaluate the status of the nuclear safety presented in the mentioned documents.

CONDITIONS FOR OBTAINING THE LICENCE TO PERFORM NUCLEAR ACTIVITY

Article 4

The licensee for performing a nuclear activity (hereinafter referred to as: licensee) has the primary responsibility for the safety of its nuclear facility.

The Serbian Radiation Protection and Nuclear Safety Agency (hereinafter referred to as: Agency) is responsible for checking the fulfilment of the conditions by the licensee.

Article 5

The licensee may only be a legal person registered for performing nuclear activities.

The licensee shall have employees who meet the conditions for working with nuclear materials.

The conditions to be met by the licensee for performing a nuclear activity are organizational, technical-technological and quality assurance conditions.

Article 6

The licensee shall be technically and technologically eligible to perform a nuclear activity.

The evidence that the licensee is technically and technologically eligible under Paragraph 1 hereof shall contain:

- 1. the list of facilities with characteristics, with the evidence of ownership or the right of use;
- 2. the list of equipment required for performing the activity and which meets the required technical conditions for use;
- 3. other evidence of technical and technological eligibility for performing a nuclear activity.

Article 7

A licensee shall:

- 1. take measures for conducting a comprehensive and systematic safety analysis prior to construction and using the nuclear facility, as well as for the entire period of its operation. This analysis shall be documented, regularly updated in terms of operational experiences and new knowledge in the area of safety and approved by the Agency;
- 2. take measures for conducting verification by means of analyses, trial runs and inspections in order to ensure that the physical condition of the nuclear facility as well as performing the operations in it is in line with the design, safety requirements and operational conditions and restrictions;
- 3. set up and implement an integrated quality management system in accordance with Article 60 of the Law. The control of the integrated quality system measures implementation shall be conducted pursuant to the Rulebook on the Performing Nuclear Activities.

The licensee shall undertake all measures to put in place and apply adequate procedures for:

- 1. valuation of all relevant location factors that may affect the nuclear facility safety during its operational life;
- 2. valuation of potential effects of nuclear facilities on the safety of individuals, population and the environment;
- 3. review of all relevant factors under Paragraphs 1 and 2 hereof when necessary in order to ensure continued acceptability of the nuclear facility from the safety aspect.

PERSON RESPONSIBLE FOR NUCLEAR SAFETY

Article 8

The licensee for nuclear activity undertakes to nominate a person responsible for nuclear safety (hereinafter referred to as: responsible person).

The responsible person shall meet the following conditions:

- 1. university degree acquired at university studies in technical or mathematics and natural sciences;
- 2. at least seven years of experience in the area of nuclear safety, following the finished studies;
 - 3. professional references in the area of nuclear safety.

As the evidence of the fulfilment of conditions under Paragraph 2 hereof, it is necessary to submit:

- 1. the certificate of acquired education;
- 2. the certificate of work experience and type of jobs the person has performed;
- 3. the information on published expert and scientific contributions, research and educational activities, information on expert papers, to deliver certificates of attendance at specialist conferences and other forms of education, as well as any other relevant certificates and statements of expertise in the area of nuclear safety.

LICENSING PROCEDURE

Article 9

In the licensing application for performing nuclear activities, the legal person shall state and attach:

- 1. the name of the nuclear activity for which it files the application (exportimport; nuclear material use and transport; exploitation of ores containing a nuclear material; locating, designing, construction, trial run, operation commissioning, use, permanent termination and decommissioning of nuclear facilities and the recovery of their locations; radioactive waste management);
- 2. certificates of specialist education, basic and additional qualification in the area of ionizing radiation protection and nuclear safety, and additional training in performing the professional activities for the employees who are to perform the stated nuclear activity;
 - 3. nuclear safety report for the stated nuclear activity;

- 4. opinion of the authority competent for the environmental protection on the environmental impact assessment for the nuclear facility;
- 5. evidence on the manner of providing funding for permanent termination and decommissioning of the nuclear facility in case of seeking the licence for locating, designing, construction, trial run commissioning, operation commissioning, use, termination and decommissioning of the nuclear facility (the evidence of founding a special-purpose financial fund with set payment schedule, an approved project design or signed contract with local or international institutions);
- 6. other documentation provided for under the Rulebook on Performing a Nuclear Activity.

Apart from the evidence stated under Paragraph 1 hereof, the application should also contain:

- 1. the name of the legal person;
- 2. the headquarters, phone number, fax and e-mail of the legal person;
- 3. the registration number and tax identification number of the legal person;
- 4. the decision on entry into the business register with the Business Registers Agency, or the decision of a competent court on entry into the court register;
 - 5. the information on organizational structure;
 - 6. the information on the person responsible for nuclear safety;
- 7. the list of the employees meeting the conditions for working with nuclear materials that should also include the information on professional qualification, education, work experience and information on professional education;
- 8. the approved version of Quality Manual for the integrated quality management system and the list of all documents of importance to the quality system including the employee professional training programme;
 - 9. the information on the previously issued relevant licence (if any).

The applicant for construction, trial run commissioning, trial operation, operation commissioning, use, permanent termination and decommissioning of a nuclear facility shall ensure that relevant financial funds are available when necessary in order to cover the costs of safe decommissioning including waste management as well.

The licensee shall provide relevant financial funding that cover the costs related to safe decommissioning including waste management as well.

The amount of financial funds to be made available for decommissioning activities is to correspond to the estimated value and shall be changed in case of increasing or decreasing the estimated value. The estimated value of decommissioning should be updated in line with a periodical overview of the decommissioning plan.

For the present facilities without provided financial funding for decommissioning, the provisions regarding decommissioning funding are to be met prior to renewing or extending the licence.

Article 10

Having checked the fulfilment of conditions under Article 8, the Agency shall issue the licence for performing a nuclear activity not later than within 90 days following the reception of the complete licence application.

The Agency may assemble an independent commission to evaluate the documentation or, if it deems necessary, seek assistance from the IAEA for the documentation assessment.

For extension or modification of the licence, the provisions under Article 8 hereof shall apply.

The check of the fulfilment of conditions includes verification by the Agency that the applicant owns:

- 1. an adequate organizational structure;
- 2. procedures, which take safety into account, for assessment and approval of changes (including interim changes) or changes with effect on:
 - 1) the safety of structures, systems and components;
 - 2) the project design;
 - 3) the safety analyses including methods and instructions;
 - 4) the operational restrictions and conditions;
 - 5) the procedures;
 - 6) the safety-related software and documentation;
 - 7) the management system;
 - 8) the safety management.
- 3. evidence of owning the liability insurance and other forms of financial security;
- 4. evidence of reliability of all employees who will be assigned to responsible or sensitive positions.

The applicant shall prepare and file to the Agency an application proving that the safety is the priority, i.e. that the safety level is the highest insofar as objectively possible, and that the safety will be maintained throughout the period of the nuclear activity.

The licensee is responsible for the safety of the nuclear facility or nuclear activity until the facility or activity is released from regulatory control by the Agency.

The applicant or licensee should have resources within its organization for understanding the design bases and safety analyses of nuclear facility, as well as restrictions and conditions under which it performs the activities.

The applicant or licensee shall conduct control of sub-contractors operations, understand the importance of the operations from the safety aspect and have the full responsibility for the implementation.

The applicant or licensee must be qualified for designing and have a formal and efficient relationship established with a design office or its proper substitute.

The applicant or licensee shall conduct regular and systematic safety assessment.

The applicant or licensee shall ensure the physical protection and security of the nuclear facility.

The applicant or licensee should prove in their licensing application that they have in place and that they will continue to provide:

- 1. adequate financial funding;
- 2. adequate human resources for safe construction, maintenance, operation and decommissioning of the nuclear facility, as well as that the regulatory requirements and nuclear safety requirements are met and will continue being met throughout the whole lifetime of the facility.

If the licensee for performing a nuclear activity intends to terminate the performance of the activity for which they have been issued the license, they need to file an application for termination the activity.

The Agency shall set the deadline and conditions for implementing adequate recovery measures at the location and facility, the facility surroundings, as well as the conditions under which the licensee will be released from the obligations regarding nuclear facility management.

The conditions under which the licence may cease to be valid are:

- 1. all responsibilities of the licensee based on the issued authorizations are met in a satisfactory manner and there are no reasonable expectations that the licensee will be responsible for anything remaining at the location;
- 2. the required institutional control has been established including the environmental monitoring;
 - 3. the final radiological status of the nuclear facility has been fully documented;
- 4. the radiological history of the employees and sub-contractors has been fully documented;
 - 5. the documentation is available to the public (except confidential information).

Article 12

The licensee is obliged to report to the Agency any change in the data about the fulfilment of conditions pursuant to which they have been granted the license for performing nuclear activities not later than 30 days following the change.

The Agency shall within 30 days following the reception of the notice or decision from a nuclear safety inspector decide on revoking the licensee for performing a nuclear activity.

The license shall be revoked if:

- 1. the license has expired, without seeking its extension;
- 2. the licensee has terminated the activity for which the license has been issued;
- 3. there has been a deviation from the licensing conditions in accordance with Paragraph 1 hereof.

The license includes:

- 1. a unique identification number;
- 2. a list of laws and rules as the basis for issuing the license, the official name of the Agency and the name of the government authorities to which the licensee is responsible for meeting the license conditions;
- 3. information on the legal person responsible for the licensed facility or activity;
- 4. a sufficiently detailed presentation of the nuclear facility, location and activity, including the clear layout (drawing) and description of location's borders and other layouts as necessary;
 - 5. the maximum allowed number of sources covered by the authorisation;
 - 6. the obligation to report to the Agency any changes of importance to safety;
- 7. licensee's obligation in terms of the facility safety and in terms of the safety of equipment, radioactive sources, employees, population and the environment;
- 8. conditions and restrictions (dose limits, discharge limits, intervention levels, licence term);

- 9. special additional authorizations which the licensee should be granted by the Agency;
 - 10. the reporting obligation towards the Agency concerning emergencies;
 - 11. the regular reporting obligation towards the Agency;
- 12. the obligation to retain the records including the time frame of such retention;
- 13. the manner and procedure for changing any information contained in the licence;
- 14. the list of documentation: the documentation prepared for filing the licensing application by the applicant as well as the documentation used by the Agency in the overview and assessment process;
 - 15. the connection to other licences;
 - 16. the procedure for revoking a licence or part of licence;
- 17. licensing conditions regarding the safety of a nuclear facility or a nuclear activity.

LOCATING A NUCLEAR FACILITY

Article 13

In order to enter a nuclear facility into the spatial and urbanistic plans, the investor or licensee shall prepare expert information about:

- 1. the natural characteristics of the area which may affect the safety of the nuclear facility;
- 2. the characteristics of industrial and other facilities in the area which may affect the safety of the nuclear facility;
- 3. the characteristics of the nuclear facility of importance to the assessment of its impact on the spatial planning and the environmental protection.

The investor or licensee shall prepare the expert information on technical and other issues of importance to the country security and defence and shall obtain the opinion of the Ministry of Defence on the matter.

The nuclear facility is introduced into the spatial and urbanistic plans based on the analysis of expert information under Paragraphs 1 and 2 hereof.

The investor or licensee is obliged to do assessment of the nuclear facility location by:

- 1. doing research into the characteristics of the location area;
- 2. analyzing the characteristics of the location area;
- 3. proposing the design bases for the nuclear facility and safety and security measures arising out of the analysed characteristics of the location area and selected project events;
 - 4. assessing the radiological impact of the nuclear facility on the environment.

The investor or nuclear facility operator undertakes to prove that the country security and defence conditions are met and to obtain the opinion of the Ministry of Defence on the matter.

Article 14

The research under Article 13 Paragraph 4 hereof includes:

1. geological, seismological, seismotectonical and geotechnical research (severe active faults, the possibility of faults in the location area, seismotectonic area

identification, determination of the design basis for a quake, sink and landslide, subsidence and cave-ins, karst formations, induced quakes, etc.);

- 2. hydrological research (project design flood, dry periods, ensuring the final heat sink in case of regular halt and in case of an accident, dispersion characteristics of surface and underground water);
- 3. meteorological research (severe weather conditions, average and extreme values of meteorological parameters, dispersion characteristics of atmosphere in case of short-term and long-term discharges of radioactive effluents);
- 4. extreme impacts of human activities in the location area (explosions of different origins, incidents with mobile or stationary facilities the consequences of which are discharges of toxic, corrosive, flammable or radioactive materials, fires, plane or ship crash into safety structures, etc.);
- 5. demographic and social-economic characteristics (population density, daily and seasonal migrations, population density estimation, analysis of possible evacuation from the zone for the planned evacuation, nutritional habits, etc.);
- 6. the use of the terrain and waters in the location area, particularly including the areas under special protection, special designation areas, environmentally sensitive zones, etc.;
- 7. research into other occurrences and parameters relevant for the location acceptability evaluation from the aspect of safety and security.

By the result analysis regarding the research into the location area characteristics under Paragraph 1 hereof, all the natural and artificial occurrences shall be established that may affect the safety and security of the nuclear facility, and which exist or may arise in the location area, at least during the working lifetime of the nuclear facility.

The occurrences under Paragraph 2 hereof shall be classified by the level of their severity, taking into account their intensity and frequency.

The volume and level of research under Paragraph 1 hereof, as well as the scope of analysis under Paragraph 2 hereof must be in proportion to the estimated radiation and other risk which may be caused by the selected project event.

The design bases for a specific nuclear facility are set based on the analysis of the consequences of external project events or their combinations, selected based on the classification under Paragraph 3 hereof.

Article 15

The radiological impact assessment under Article 13 Paragraph 4 hereof shall be given based on:

- 1. the research results under Article 14 hereof;
- 2. the paths of radioactive effluents spreading into the environment;
- 3. determining the critical routes of radioactive effluents spreading in the environment;
 - 4. determining the critical population group or the most exposed individual.

The restrictions arising out of the evaluation under Paragraph 1 hereof are design bases for the retention and treatment systems for radioactive effluents of the nuclear facility in operating conditions.

Article 16

The location of a near-surface disposal for radioactive waste disposal should also meet the following special conditions:

- 1. waterproof soil composition;
- 2. distance of the disposal layer from the ground water level;
- 3. flood protection;
- 4. absence of surface sources in the basic hydro geological area where disposal is located.

The conditions under Paragraph 1 hereof shall be provided for the period of 300 years as of commencing the use of the disposal.

Article 17

About the assessment results under Article 13 Paragraph 4 hereof, the investor or operator shall make a separate document which shall contain:

- 1. the information on the nature, type and main characteristics of the nuclear facility;
 - 2. geodesic and geographical data on the location;
- 3. design bases for the external project events and evidence on meeting the required nuclear facility safety;
- 4. the evaluations of radiation impact of the nuclear facility on the environment based on the set design bases for the retention and treatment systems for radioactive waste materials;
- 5. the data on population density and distribution in order to estimate the possibility of implementing the measures in case of an accident.

The document under Paragraph 1 hereof shall also contain the assessment results under Article 13 Paragraph 5 hereof regarding the country safety and defence with the previously obtained opinion of the Ministry of Defence.

The design bases under Paragraph 1 Item 3 hereof shall be stipulated in the approval for nuclear facility location.

NUCLEAR FACILITY DESIGN AND CONSTRUCTION

Article 18

The investor or nuclear facility operator undertakes to:

- 1. establish the internal project events based on the analysis of the technological processes in the nuclear facility;
 - 2. establish the design bases for the selected internal project events;
- 3. develop conceptual designs pursuant to design bases for the selected internal and external project events and their combinations;
- 4. check by analysis whether the design solutions for all established project events guarantee the required nuclear facility safety;
- 5. determine the operational conditions and restrictions for the nuclear facility operation, based on the analysis under Item 4 hereof.

The investor or operator shall define the safety and security elements of the project task for producing technical documents pursuant to the provisions under Paragraph 1 hereof.

The nuclear facility project shall determine the equipment and facilities required to ensure the security measures for the nuclear facility and nuclear materials.

The nuclear facility design shall contain the relevant process, safety and protection systems, nuclear security systems, retention systems for radioactive materials and other systems.

The systems under Paragraph 2 hereof shall be designed so as to ensure:

- 1. the required radiation protection and the level of radiation safety in operational conditions and in the project event conditions;
 - 2. the application of ergonomic principles;
 - 3. the required system and component quality;
- 4. operational reliability of systems for executing safety functions and back-up systems (physical separation, independence, reserves, versatility, single failure principle);
 - 5. the possibility of their maintenance, trial running, inspection and repair;
 - 6. protection against fire, explosion and projectiles;
 - 7. the required nuclear security measures;
 - 8. occupational safety;
- 9. the procedure of permanent termination of the nuclear facility and its decommissioning.

The nuclear facility design shall establish:

- 1. the selection and arrangement of components and systems containing a radioactive material, as well as the set-up of required protective screens;
- 2. the selection and arrangement of equipment in order to reduce the number of people professionally exposed to ionising radiation and the time of their exposure;
 - 3. systems for treatment and safe keeping of radioactive materials;
- 4. fixed and portable measuring equipment for the exposure level of people professionally exposed to ionising radiation and for intensity of radioactive effluent emissions:
- 5. instrumentation and regulation systems required for safe and secure operation;
 - 6. air conditioning and ventilation device;
 - 7. process and waste liquid treatment device.

Article 20

The design of a research nuclear reactor with power over 10 MW establishes the protection and safety systems, as well as retention systems for radioactive materials, as follows:

- 1. a control room with the required equipment and ventilation system allowing for the system management and monitoring of the system state in operational conditions and in accident conditions;
- 2. automated protection systems for work process halt and for activation of the safety systems in emergency operational conditions and in accident conditions;
 - 3. reactor halt systems and its standing-by in sub-critical condition;
 - 4. dissipation systems for residual heat in operational conditions;
- 5. a reactor cooling system in emergency operational conditions and in accident conditions;

- 6. power supply systems in emergency operational conditions and in accident conditions:
- 7. heat dissipation systems from structures, systems and components to the final heat-sink;
 - 8. additional control spot for safe halt of the reactor;
- 9. a protective reactor building with retention systems for radioactive materials and its isolation in accident conditions, ventilation and air-conditioning systems, as well as systems for concentration reduction of explosive substances;
- 10. systems for handling nuclear fuel and nuclear fuel storage, as well as for checking the damage of the fuel elements.

The design of a research nuclear reactor with power under 10 MW establishes the protection and safety systems for:

- 1. reactor halt;
- 2. reactor cooling;
- 3. storage of irradiated fuel elements.

Article 21

The design of a near-surface disposal for radioactive waste establishes the process systems and retention systems for radioactive materials as follows:

- 1. a treatment system for radioactive waste materials for final disposal;
- 2. a radioactive waste disposal, devised as a set of modular disposal units;
- 3. protection of each and every disposal unit.

The design of disposal units under Paragraph 1 hereof ensures the following:

- 1. consistency and impenetrability of the roofing material of the disposal units;
- 2. stability of disposed waste overlaid material and covered material of disposal units;
 - 3. drain around the disposal units, except for tunnel units;
 - 4. protective barriers.

Protective barriers ensure the required ionising radiation protection and prevent an accidental access to radioactive waste during operation or following the permanent close-down of the disposal.

The design of a near-surface radioactive waste disposal must be built so as to guarantee the required safety after the 5-year transitional period has expired from the covering of the last disposal unit and without any further active maintenance of the disposal.

Article 22

The licence application for building a nuclear facility shall be attached with:

- 1. nuclear safety report;
- 2. location approval;
- 3. technical documentation for construction including the construction approval;
- 4. other required documents.

CONDITIONS FOR TRIAL RUN COMMISSIONING AND TRIAL RUN OF A NUCLEAR FACILITY

Article 23

With the licence application for trial run, the nuclear facility operator shall deliver the following:

- 1. the final nuclear safety report, which contains the information from the nuclear safety report supplemented with the data on amendments and supplements arisen during the construction of the nuclear facility, as well as the expert evaluation and opinions on the report;
- 2. the results of successfully carried out pre-operational tests, which include: tests in line with the technical documentation for installation, liquids system test, cold and hot tests of strain of systems and components and functional and other tests provided for in the technical documentation;
- 3. the evidence of the quality of installed equipment and materials in line with the quality assurance programmes, standards, technical regulations and product and service quality codes;
- 4. the results of meteorological measurements performed at the location, as well as the results of measurements of ionising radiation levels in the surroundings of the nuclear facility caused by natural and artificial sources;
 - 5. the trial run programme;
- 6. the organigram of the plant and the information on jobs, tasks and responsibilities of people handling the systems relevant for the nuclear facility safety and security;
- 7. the information on professional qualifications of employees performing jobs and tasks in work process management and monitoring, in line with the regulations;
- 8. the information on the organization of the department and on the means for radiation protection;
- 9. the action plan for emergency situations, provided under the plan of measures of the nuclear facility operator and the national plan of measures determined by the Government of the Republic of Serbia;
 - 10. the operational conditions and restrictions in the trial run;
- 11. the plan and measures for physical protection of the nuclear facility and nuclear materials within, as well as other nuclear security measures in line with the regulations, the IAEA standards and the obligations based on the ratified international conventions and agreements.

Apart from the documentation under Paragraph 1 hereof, the nuclear facility operator undertakes, for some parts of the nuclear facility, systems or technological units required for implementing the trial run, to submit the operational permits and other required documents.

Article 24

The nuclear facility trial run programme shall contain:

- 1. the trial run objective and procedures, expected results, acceptance criteria and their importance to the proposed operational conditions and restrictions;
 - 2. the order of test phases;

- 3. the required technical and organizational measures to support safe trial run;
- 4. the trial run instructions;
- 5. the nuclear facility organization, that is, the roles, functions, responsibilities and authorisations of all employees.

The trial run of a research nuclear reactor shall be carried out in the following order:

- 1. filling the reactor with nuclear fuel;
- 2. reaching the first reactor criticality and trial run at low-power (up to 5% of nominal power);
 - 3. the reactor test at different power levels until reaching the nominal power;
 - 4. full power test.

The operational conditions and restrictions during the nuclear facility trial run shall include:

- 1. safety limits and setting of limit values of parameters for protection and regulation systems;
 - 2. minimum volume of required equipment during the operation;
- 3. minimum requirements regarding the number of employees performing jobs and tasks in work process management and monitoring;
- 4. the obligations of the nuclear facility operator regarding reporting, obtaining prior consents from governing bodies, review, etc. for all phases of the trial run;
- 5. the monitoring of the trial run conformity with the conditions and restrictions (periodical checks, tests, calibrations and inspection of safety systems, etc.).

The infeed of nuclear materials and radioactive materials into the work process of the nuclear facility is not allowed until the license is issued for the trial run of the facility.

The trial run programme under Paragraph 1 hereof and operational conditions and restrictions under Paragraph 3 hereof shall be established in the licence for the trial run of the nuclear facility.

The trial run of the nuclear facility shall last until it is established that the nuclear facility meets the conditions set out herein.

CONDITIONS FOR COMMISSIONING AND USE OF A NUCLEAR FACILITY

Article 25

With the license application for commissioning and use of a nuclear facility, the nuclear facility operator shall submit:

- 1. the final nuclear safety report with amendments and supplements arisen during the trial run, with expert evaluations and opinions on the amendments and supplements;
- 2. as built drawings (documentation on executed works, with all amendments and supplements);
 - 3. results of the tests of trial run:
- 4. the evidence of determined quality of structures, systems and components relevant for safety;
 - 5. the quality assurance plan for the nuclear facility installation;
 - 6. operational conditions and restrictions;

- 7. the list of working procedures, instructions and rules;
- 8. the list of programmes and instructions for maintenance and testing of systems and components relevant for safety;
- 9. the organigram of the plant and the information on jobs, tasks and responsibilities of people handling the systems relevant for the nuclear facility safety and security;
- 10. the systematic environmental radioactivity examination plan in the surroundings of the nuclear facility;
- 11. the information on the organization of the department and the means for ionising radiation protection;
 - 12. the action plan in case of an accident;
- 13. the evidence that the conditions for safe storage of radioactive waste have been provided;
- 14. the evidence that the conditions for safe storage of irradiated nuclear fuel have been provided;
- 15. the evidence of physical and technical protection of nuclear facilities and nuclear materials and other nuclear security measures.

The operational conditions and restrictions for the operation of a nuclear facility shall contain:

- 1. safety limits;
- 2. set limit values of safety systems parameters;
- 3. normal operational limits and conditions;
- 4. internal monitoring requirements;
- 5. the obligation of the nuclear facility operator regarding reporting, obtaining approvals from competent authorities and revision of all phases of the commissioning and use of the facility.

The nuclear facility operator shall make a proposal for the operational conditions and restrictions according to the provision of Paragraph 1 hereof, taking into account the supplements made based on the analysis of trial run results and project of performed works (documentation on performed works, with all amendments and supplements).

The people working on jobs and tasks in work process management in the nuclear facility and on jobs and tasks of control under the work process must be fully conversant with the content and objectives of operational conditions and restrictions.

Article 27

With the approval application for commissioning and use of a nuclear facility, the nuclear facility operator shall submit work instructions.

The work instructions for operational conditions include:

- 1. the commissioning of the nuclear facility systems;
- 2. the operation of the nuclear facility systems;
- 3. the halt of the nuclear facility systems;
- 4. undertaking the measures in emergency operational conditions;
- 5. the use of the nuclear facility in the circumstances of war in accordance with the excerpt from the Country Defence Plan.

The work instructions for accidental states include the procedures for:

- 1. diagnosing the accident and cause of accident;
- 2. removing the accident;
- 3. alleviating the consequences of the accident;

The work instructions for maintenance, supervision and other procedures include:

- 1. the procedure for equipment maintenance, repair, inspection and control;
- 2. the procedure for radioactive waste handling;
- 3. the procedure for controlling the level of ionising radiation in the nuclear facility and its surroundings;
- 4. the organization and ionising radiation protection measures in the nuclear facility and the first aid department;
- 5. the quality assurance programme for works and equipment for safe operation of the nuclear facility.

Any amendments and supplements to the work instruction affecting the nuclear facility safety shall be implemented according to the procedures for amendments and supplements to the nuclear safety report.

Article 28

When establishing the method for filling the units of near-surface disposal with radioactive materials, the following is taken into account:

- 1. the categories of radioactive materials according to the required classification;
 - 2. mechanical stability;
 - 3. the form and previous packaging.

In the disposals under Paragraph 1 hereof, the permanent disposal is not allowed of the radioactive waste which contains:

- 1. explosive, toxic, pathogen and pyrophoric substances, as well as the substances that produce gases and vapours;
- 2. radioactive mixed waste containing more than 1E+09 Bq/m3 alpha emitters with half-life longer than 30 years.

The protection of every disposal unit must be such as to allow for the control of ionising radiation level in the vicinity of every disposal unit during the disposal and after overlaying.

Every disposal unit following the filling is rehabilitated according to the project and the conditions determined in the construction approval.

Every disposal unit following the rehabilitation is equipped with geodesic markers.

Article 29

The operational conditions and restrictions under Article 25 hereof shall be determined in the approval for commissioning and use of a nuclear facility.

When filing the application for changing operational conditions and restrictions in the approval under Paragraph 1 hereof, the nuclear facility operator undertakes, in addition to the documentation provided herein, to deliver to the Agency expert evaluations of such changes.

The evaluations under Paragraph 2 hereof shall not be given by the people employed with the nuclear facility operator.

The nuclear facility operator shall, following the commissioning of the facility, adopt and implement the programme of measures and procedures providing the possibility of permanent termination of work of the facility and its decommissioning.

PERMANENT TERMINATION OF OPERATION OF THE NUCLEAR FACILITY

Article 31

The nuclear facility operator undertakes, before the permanent termination of the nuclear facility, to produce a permanent termination programme and a project proposing the phases and timelines for performing such works, taking into account radiation protection and radiation safety.

The programme under Paragraph 1 hereof in particular contains: the manner of resolving storage or disposal of radioactive waste, plan of examination of the level of radioactive contamination of the environment in the nuclear facility's location area and the environmental assessment after the permanent termination of operation.

The approval for permanent termination shall be issued if the programme for permanent termination of operation or other documentation ensures the required radiation safety.

The research nuclear reactor shall cease to be a nuclear facility when it has been released from a nuclear material.

If the operator of a near-surface disposal for radioactive waste materials intends to close down the disposal permanently, they previously have to produce a disposal closedown programme which contains the measures for:

- 1. accommodating the radioactive waste from interim storage facilities in the disposal and into the disposal units;
 - 2. decontamination of the radioactive waste treatment facility;
- 3. dismantling the equipment, tearing down the buildings or their rehabilitation otherwise:
- 4. producing a programme for maintaining and monitoring the disposal units and disposal drain system for the period of five years following the closedown of the disposal;
- 5. radiation protection for professionally exposed people at the disposal and the environmental protection.

The operator of a near-surface disposal for radioactive waste materials undertakes to deliver to the Agency the project of performed works, the records of disposed radioactive waste and geodetic survey of the location.

The operator of a near-surface disposal for radioactive waste materials undertakes to ensure its active maintenance for the period of five years following the overlaying of the disposal units.

The nuclear safety report, final nuclear safety report, amendments and supplements thereto, and additional and reference documentation must be composed so that:

- 1. they have the contents of each document, and for documents with several volumes, each volume must have the contents of the entire document;
 - 2. each document section is the complete thematic unit;
- 3. the information in drafts, diagrams and outlines are legible, and symbols and abbreviations are fully defined;
- 4. the revision of and supplements to the documents are made by replacing entire pages indicating the number and date of the controlled version;
- 5. the information in the documents may be supplemented, save that the supplements are complete units.

The nuclear safety report and other documentation required for determining the fulfilment of nuclear safety measures for nuclear facilities must have a form and contents as specified in Appendices 1, 2, 3 and 4, constituting integral parts hereto.

The form and content of the nuclear safety report for other nuclear activities shall be set out by the Agency in line with the effective international standards and the IAEA recommendations.

The amendments and supplements to the nuclear safety report and final nuclear safety report are made according to the procedures for amendments and supplements to the nuclear facility design which is an integral part of the work instructions for operational conditions and restrictions.

Along with the amendments and supplements under Paragraph 3 hereof, the impact assessment of the proposed or implemented amendments and supplements to the input data is presented as well as to the assessment and the conclusions in all parts of the nuclear safety report.

The document review and producing the amendments and supplements to the nuclear safety report and final nuclear safety report and other documents used as the basis for determining the fulfilment of the nuclear safety measures, as well as the expert evaluations of the documents, are done or given by applying the integrated quality management system.

Expert evaluations and opinions about the nuclear safety report and final nuclear safety report and amendments and supplements thereto are given section by section and relate to the completeness of the reports and performed analyses, as well as the quality of input data, methodology and results of applied safety analyses.

Article 33

At the request of the Agency, the licensee for performing a nuclear activity shall deliver to the Agency any additional and reference documentation for determining the fulfilment of nuclear safety measures.

The additional documentation under Paragraph 1 hereof contains:

- 1. calculations and other executive documents regarding the safety analysis, component integrity and radiation protection;
 - 2. concept designs and executive designs of the nuclear facility;
 - 3. progress reports.

Apart from the additional documentation under Paragraph 2 hereof, the additional documentation for the final nuclear safety report for the purpose of issuing the approval for trial run commissioning contains:

- 1. detailed designs and main designs of the nuclear facility;
- 2. calculations and other executive documents regarding the safety analysis, component integrity and radiation protection;
 - 3. amendments and supplements during construction;
 - 4. the procedures for and results of pre-operational testing;
 - 5. trial run procedures and results by trial run phases;
 - 6. operational procedures;
- 7. programme and procedures for components testing during the nuclear facility operation.

Apart from the additional documentation under Paragraphs 2 and 3 hereof, the additional documentation for the final nuclear safety report for the purpose of issuing the approval for commissioning and use of a nuclear facility contains:

- 1. amendments and supplements arisen during the trial run;
- 2. trial run results;
- 3. project of performed work.

The reference documentation under Paragraph 1 hereof contains:

- 1. the reports on related research work, development programmes and test programmes;
 - 2. strain analysis;
- 3. the documentation on schooling and professional training of people working in the nuclear facility;
 - 4. maintenance procedures for the nuclear facility components;
- 5. studies and investigation works regarding the nuclear facility environmental impact assessment;
 - 6. other documentation required for the nuclear facility safety evaluation.

The additional and reference documentation as well as other project documentation must be in agreement.

RECORDS ON ISSUED LICENSES

Article 34

The Agency keeps records on issued licenses (hereinafter referred to as: records). The records are entered with the following information:

- 1. the entry date and ordinal number;
- 2. the licensee name and head office, phone number, e-mail and web page;
- 3. the licensee registration number and tax identification number;
- 4. the number and date of issuing the decision on entry into the business register with the Business Registers Agency or the decision of a competent court on entry into the court register;
 - 5. the name of the person responsible for nuclear safety;
 - 6. the activity for which the licensee has been issued;
 - 7. the license term;
 - 8. the date of removal from the records.

The records are entered with all changes in the license information.

The Agency publishes the list of licensees on its web page.

TRANSITORY AND FINAL PROVISIONS

Article 35

These Rules shall come into force eight days following its publishing in the "Official Gazette of the Republic of Serbia"