



STRATEGY

OF THE STATE OFFICE FOR NUCLEAR SAFETY

FOR 2021 - 2023

The Strategy of the State Office for Nuclear Safety is a binding document for all employees of the Office. The valid version of the Strategy is available on the Intranet pages of the Office so that all employees of the Office could consult it.

Strategy of the State Office for Nuclear Safety

The Strategy of SÚJB is defined to ensure the long-term, organised and controlled management of the Office in the implementation of its mission and vision upon the declared values in the time horizon of three years. It is drawn up and updated in line with the accepted national strategic documents (State Energy Policy, National Action Plan for the Development of Nuclear Energy Sector in the Czech Republic) and the annually established Priorities of SÚJB with respect to the available resources.



Strategic Axes

- **Construction of new units**

In 2021, the administrative proceedings will be completed regarding the permit for the **siting of new nuclear installations** – DUKOVANY NPP II. The topic of preparation for the construction of new nuclear units in Dukovany is one of the main priorities of the Office. This issue is closely linked to the issue of security of or increase in human resources of the Office.

It will be necessary to start the preparation of a comprehensive set of criteria for the future assessment of ensuring an adequate level of nuclear safety of the selected design and the preparation of further phases of the life cycle of nuclear installations. The associated solution to international issues, including emphasis on bilateral activities, cannot be disregarded either.

- **Consistent implementation of atomic legislation and evaluation of its effectiveness**

Sufficiently long time has passed since 1 January 2017, when the new Atomic Act entered into force, to evaluate the currently applicable Atomic Act. The State Office for Nuclear Safety will focus on **evaluating its effectiveness and potential weaknesses** and, if necessary, will start work on amendments to both the Act and subordinate legislation. In parallel, the creation of follow-up Safety Guides and Recommendations, the issuance of consistent and comprehensible opinions and the active dissemination of the principles of atomic law among the general and professional public will continue.

- **Addressing the recruitment of new employees and the introduction of knowledge management system**

The long-term development of human resources is based on the **clearly defined competences of the Office's employees** which must be linked to the current operational programmes or plans of regulated entities with as high as possible degree of the Office's anticipation and which are complemented upon the obtained national and international experience in the field. Competences related to the performance of professional activities are reflected in the so-called competence maps. Regular updating of the competence map will not only capture the current situation in the provision of individual competences, but it will be possible to formulate a plan thereupon for transition from the current state to the future state in the medium term (one to three years) to eliminate the risk of potential decline and identify the future needs of the professions for the relevant competence. Identification of the necessary professions for the relevant competence is only one of the prerequisites for addressing the recruitment of new employees. Another necessary prerequisite is the real possibility of getting the required employees to cooperate.

Although the Office will involve external resources providing technical support to ensure the relevant competences, the main emphasis will remain on the Office's employees working in the scheme under the Civil Service Act. The central topic of the following years is coping with the limits of the Civil Service Act, in particular financial limits, when recruiting new employees coming from the commercial sphere with an incomparably higher salary than the Office can offer them.

The main effort will be to find opportunities for both adequate financial valuation and non-financial benefits such as employee satisfaction, open communication, friendly approach and awareness of socially important work for a trustworthy employer.

- **Preparation for the EU Council Presidency of the Czech Republic (CZ PRES 2022)**

The task of the Office will be to **ensure the presidency of the Working Party on Atomic Questions**. It will be necessary to plan, determine the programme and manage the meetings of the AQG (Atomic Questions Group). The professional departments will provide expert background and support within the scope of their competence. SÚJB employees included in the Central Register will participate in educational events intended to prepare for CZ PRES 2022. It will be necessary to communicate and cooperate with the state authorities concerned, EU institution and representatives of EU Member States in the preparation and exercise of the Presidency. It will be necessary to participate in the preparation of documents for the meetings of various formations and authorities. During the time of CZ PRES, it will be necessary to organise an “attaché trip” of the representatives of the Member States to the Czech Republic. After the end of CZ PRES, it will be necessary to provide support to the next Swedish Presidency.

- **Preparation for independent expert assessments of the regulatory system in the field of peaceful utilisation of nuclear energy and ionising radiation and cooperation in expert assessment of the preparation and implementation of the national framework and the national programme in the field of spent fuel and radioactive waste management**

In accordance with the international commitments of the Czech Republic, SÚJB enables and fully cooperates in the **implementation of an independent (international) assessment of the Office’s activities** focused on the quality of all aspects of state regulatory activity in the field covered by SÚJB under the Atomic Act, in particular state administration in nuclear safety, radiation protection, radiation extraordinary event management or transport of radioactive materials. The so-called missions assess the quality of not only the national regulatory framework and its compliance with EU requirements or Safety Standards of the International Atomic Energy Agency (IAEA) in ensuring nuclear safety and radiation protection, but also human resources management, including long-term strategic planning, competence mapping and further education and training of employees. As part of its activities, the Office systematically prepares for these missions so that the documents and information provided to the members of expert missions enable an objective assessment of the current situation and the evaluation of the long-term plans of the Office. The conclusions and recommendations of these expert missions will then be reflected in the Action Plan and are implemented in a way leading to further strengthening and increasing the effectiveness of the regulatory system in the Czech Republic.

In connection with the requirement of Article 14(3) of Council Directive 2011/70/EURATOM of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste, the Czech Republic shall periodically, at least every 10 years, arrange for international audit of national programme of radioactive waste management, including its implementation, and the activity of regulatory authority. Although the preparation and implementation of the national framework and the national programme in the field of spent fuel and radioactive waste management do not fall directly within the competence of SÚJB, the

Office will cooperate closely with the Ministry of Industry and Trade and the Administration of Radioactive Waste Repositories on the preparation and implementation of international audit.

- **Active communication with the public**

In order to obtain and maintain the position of the widely respected and credible office, it is necessary to take the **active communication with the public** into consideration. In communication, it is necessary to use the mixture of communication tools, which are chosen according to the nature of the recipient of information. Social networks are playing an increasingly important role. All provided information must be timely, concise, accurate and well-balanced, presented in a recognizable visual form to enable the public to quickly identify the Office as a clear and transparent communication partner.

The determined strategic axes represent the long-term objectives of the Office; they are analysed in more detail and complemented in the strategic plans of individual sections. Apart from the below strategic plans of individual sections, SÚJB will seek to draw up and implement the concept of the safety culture, including the announcement of the programme for increasing the safety culture within the Office. In the context of the efforts to guarantee the drawing-up of the regulations in line with the IAEA standards, the work on creating the database for monitoring the implementation of international requirements will continue.

Radiation Protection Section

The scope of activities and the diversity of areas regulated by the Radiation Protection Section are enormous.

Towards the end of 2019, SÚJB registered almost 10,000 legal entities in the Czech Republic which are the holders of licences to handle the ionising radiation sources (IR) or persons registered to handle simple ionising radiation sources. In total, more than 6,000 sealed sources of ionising radiation and around 15,000 radiation generators are registered. A total of 150,000 minor sources are estimated to be used in the Czech Republic territory. In the field of protection against the radiation of natural sources of radiation, the Office performs the administrative activity for over 5,000 entities. The regulation of natural radiation also concerns all residential houses, buildings for use by schools, school facilities, social and health services during long-term stays of natural persons. There can be up to several tens of thousands of such workplaces.

Radiation protection is a multidisciplinary area requiring cooperation with many ministries and authorities across the entire state administration. Very close cooperation is required with the Ministry of Health in the field of control of exposure to ionising radiation sources used in medical exposure; with the Ministry of Agriculture in the field of control of food and water contamination by radioactive substances; with the Ministry of Interior in ensuring cooperation in the field of security of ionising radiation sources and in case of their loss, misuse or finding of an orphan source and in the field of preparation for the management of radiation accident. Furthermore, with the Ministry of Defence in ensuring the joint exercise of state administration over sources of ionising radiation used in military operations - in particular in military medical facilities providing health care to the civilian population; with the Ministry of the Environment and the Ministry of Industry and Trade in applying the requirements of the Atomic Act for the operators of metal scrap yards and management of waste containing radionuclides and waste released from NORM type workplaces. Cooperation is taking place with the Office for Standards, Metrology and Testing in the field of setting out metrology requirements for radiation sources. The cooperation agreement is also concluded with the Czech Mining Authority for the purpose of a uniform procedure for regulation at workplaces which are mining works and at which the Office regulates exposure to natural sources.

SÚJB also coordinates the monitoring of the radiation situation on national territory and has concluded contracts with other ministries and organisations for this purpose.

The National Action Plan for Control of Public Exposure to Radon will be implemented in cooperation with the Ministry of Industry and Trade, the Ministry of the Environment, the Ministry of Regional Development, the Ministry of Finance, the Ministry of Agriculture, the Ministry of Health, and regional authorities. The named ministries participate mainly in informing and educating the public and professional groups in the field of protection against radon exposure and in the development of methods and technologies for reducing this exposure.

The Radiation Protection Section also cooperates with a number of professional companies, associations and societies. For example, cooperation in the development of national radiological standards. The inspectors of the Radiation Protection Section continuously organise a large

number of professional events intended for licence holders, expert and non-expert audience, for the components of the Integrated Rescue System, crisis departments of regions with a defined emergency planning zone, and professional societies. These events are related to the current efforts of SÚJB to approach and explain the principles of radiation protection so that they are understood and interpreted correctly and in line with the latest scientific findings. Due to the fact that some radiation protection practices are based on probabilistic phenomena and statistical methods, and the basic principles of radiation protection are related to many non-technical fields, such as medicine, biology, economics as well as ethics and philosophy, it is not always easy for the non-expert audience to understand and interpret these practices correctly.

All the above-mentioned cooperation will continue to be maintained and developed in order to fulfil its purpose to the maximum and effective extent.

The area of assessment of the properties of ionising radiation sources and optimisation during medical exposure remains the priority for the area of radiation protection. The development of technology in this area is huge and expert support in this area is absolutely essential. Special attention will be paid to the types of medical exposure which are linked to a higher radiation exposure of patients, the introduction of the system of classification, recording and especially prevention of the radiological events, monitoring and assessment of so-called non-medical exposure of persons, creation of diagnostic reference levels in workplaces of interventional radiology, cardiology, nuclear medicine, etc.

Communication with the public is of no small importance in the future. Given the current knowledge from the emergency management, in particular accident at the Fukushima Nuclear Power Plant, it is necessary to pay more attention to communication, awareness and education of the public in the field of radiation protection. With the development of new information technologies and social networks, there is also a new risk of disseminating non-expert and technically incorrect interpretations of published information and events. The Office will therefore continue the ongoing efforts to explain, to answer openly all questions from the public, to respond actively to any events and phenomena related to radioactivity and, in particular, to prevent the dissemination of misinformation, especially in the field of biological effects of ionising radiation. Here, it is necessary to cooperate with experts in the field - communication, sociology, IT.

Radiation protection also has its clearly defined competences in the field of utilisation of nuclear energy. For existing nuclear installations, attention will continue to be paid to the issue of providing radiation protection in supplier work. It is still necessary to pay increased attention to maintaining and improving the level of safety culture and to work with the feedback tools more. A clear objective in this field is to maintain the current high level of radiation protection, to continuously reduce the risk of radiation emergency and, if any occurs, to minimise the impact on human health and life and the environment. There is a continuing significant need for scientific and research support in this field.

Licensing of the construction of a new nuclear unit is an equally technically demanding and time-consuming activity, which requires preparation in advance, monitoring of current international development in the field and, in particular, preparation of skilled workers for the licensing process itself.

In the uranium industry, attention continues to be paid to the supervision over the remediation of chemical mining and completion of rehabilitation of areas after the liquidation of the chemical treatment plant and quarry Hamr in the Stráž pod Ralskem location. Increased attention will be paid to the operation of the chemical treatment plant after the end of mining in the Dolní Rožínka location. The supervision over utilisation of heaps after the uranium mining for obtaining the separated aggregate will continue, mainly in the Příbram area.

Equally important is the area of securing the used sources of ionising radiation to avoid their abuse, the disposal of sources of ionising radiation not used for a long time as well as handling of so-called orphan sources.

In the field of natural resources, it will be necessary, using the results of research tasks and expert support, to prepare the procedures of the newly implemented surveillance in workplaces with radon in the buildings located in the increased radon risk areas, to consistently apply new requirements for radon concentration measurements in the buildings designed for the long-term stay of children and for providing the health and social services related to the long-term stay of people, to implement the creation of the National Radon Database. The relevant information will continue to be provided and explained to the building owners, designers and constructors using modern information technologies.

In the area of radiation extraordinary event management, the priority is to ensure the effective application of the National Radiation Emergency Plan in practice, active participation in the preparation, implementation and evaluation of other ZONE exercises organized in the emergency planning zone of the Dukovany and Temelín Nuclear Power Plants.

Nuclear Safety Section

The mission of the section is the exercise of state administration over the nuclear safety of the entire life cycle of nuclear installations, including technical safety and security of these installations. Especially in case of the nuclear power plants, we talk about the most difficult technical facilities. The administrative activities of the section, therefore, include a wide range of specialised activities in a number of technical fields.

The regulated nuclear installations are the nuclear power plants, research reactors, low and medium active radioactive waste repositories and other facilities for the management of radioactive waste and spent nuclear fuel. Inspectors of the section also supervise the activities of organisations which provide the holders of licences to operate the nuclear installations with the activities related to the utilisation of nuclear energy, especially the maintenance and checks during outages and the supplies for nuclear power plants which are important from the nuclear safety viewpoint.

For more than 7 years, inspectors of the Nuclear Safety Section have been systematically focusing on assessing the level of safety culture, in particular for the operator of nuclear power plants, ČEZ, a. s., and its suppliers. They will continue in this assessment in the future, as well as in the detailed assessment of non-conformity management system and feedback system for regulated entities.

In the period 2016 - 2020, in addition to the new Atomic Act, all subsequent implementing legislation and the vast majority of safety guides were issued. Attention will therefore be paid to completing the remaining guides. It will be necessary to continue explaining, but also controlling compliance with the requirements set out in the newly issued documents. In order to ensure an adequate depth of inspection activities, efforts will be internally made towards the regulated entities to make more effective use of a graded approach in all activities of the section. In the preparation and planning of inspection and assessment activities in nuclear power plants, the responsibility for inspection activity and its assessment for individual thematic areas will be specified in more detail.

The strategic objectives of the state administration over nuclear safety in the area of operated nuclear power plants - Dukovany NPP and Temelín NPP - are the continuous assessments and inspections aimed at proper fulfilment of obligations imposed by the Atomic Act and its implementing legislation with emphasis on applying the latest knowledge of science, technology and proper operational practice. This is also related to the assessment of the proper fulfilment of the conditions specified in the issued licences for the operation of these nuclear installations. For the Temelín NPP, it is the prospect of preparation for extended operation beyond the design life.

The strategic objective in the field of research nuclear facilities with nuclear reactor will be, in particular, the implementation of the licensing procedure for the construction of new nuclear facility - VR-2 subcritical assembly. Furthermore, the continuation of the assessment of the proper fulfilment of the conditions specified in the issued licences for the operation of nuclear research facilities. For all these facilities, assessments and inspections will continue aimed at the

proper fulfilment of the obligations imposed by the Atomic Act and its implementing legislation and the application of the latest knowledge of science and technology in practice.

In 2021, the administrative proceedings will be completed regarding the permit for the siting of new nuclear installations – DUKOVANY NPP II. The topic of preparation for the construction of new nuclear units in Dukovany is one of the main priorities of the section. It will be necessary to start the preparation of a comprehensive set of criteria for the future assessment of ensuring an adequate level of nuclear safety of the selected design and the follow-up phases of the life cycle of nuclear installations. This issue is closely linked to the issue of security of or increase in human resources.

A long-term strategic objective in the field of radioactive waste management is the development of deep geological repository for spent nuclear fuel and radioactive waste, which cannot be stored in already operated storage facilities. In the scope of its competence, SÚJB has professionally participated in the process of reducing the number of potential deep geological repository sites from nine to four. In the period of 2021-2025, the Office will be similarly involved in the selection of one main and one backup deep geological repository sites. Other priorities will be: work related to the operation, reconstruction and closure of existing storage facilities, type approval of transport and storage containers, assessment and approval of decommissioning plans for nuclear installations and permits for the transport of radioactive and fissile materials.

The big issue of the future years will continue to be providing of the competent human resources. The Civil Service Act does not create suitable conditions for obtaining or adequate training of the specialists who are needed for ensuring state administration. Therefore, the establishment of a team of specialists will continue in SÚJB and the National Radiation Protection Institute (SÚRO) which will be able to ensure comprehensive supervision over all nuclear facilities in the Czech Republic.

Management & Technical Support Section

In the field of chemical weapons, Decree No. 459/2020 Coll., was adopted in 2020, implementing the amended Act No. 19/1997 Coll., on Some Measures Concerning Chemical Weapons Prohibition (the amendment was published under number 336/2020 Coll.). Both the Act and the implementing Decree shall come into force on 1 January 2021. Special attention will be paid to the proper application of these regulations, including communication with the public concerned, whether in the form of direct consultations or seminars or lectures.

In the field of non-proliferation of weapons of mass destruction, the provision of competent human resources will be an important task for the future years. Therefore, it will be very important to create suitable conditions for obtaining adequate specialists within the individual divisions of the department, who are needed for ensuring state administration. At the same time, it will be necessary to continue to increase professional qualification of all staff within the Nuclear Non-Proliferation Division, who will be able to comprehensively inspect all affected facilities in the Czech Republic falling under relevant international agreements.

Another priority within the Nuclear Non-Proliferation Division will be the exercise of state supervision over nuclear items and the control of compliance with the obligations arising from handling of these items, including authorisation of their export or import.

The long-term strategic objective in the field of nuclear materials management is to ensure the maintenance of the state system of accounting for and control of nuclear materials and data and information in accordance with international agreements binding on the Czech Republic, and to ensure international cooperation in the application of safeguards on nuclear materials and in the field of international control regimes. Within the Management & Technical Support Section, it is planned to develop a SW tool for the preparation of declarations and reports, which will meet the requirements of the Digital Czechia platform in the future.

An important task will be to assess the correctness and effectiveness of atomic legislation, both internally and externally. If necessary, measures will be proposed to remedy the weaknesses identified, either at the application level or at the level of possible amendment to positive law.

In connection with the preparation for CZ PRES 2022, the employees concerned shall complete training focused on the functioning of EU institutions, communication and negotiation skills. It will be necessary to intensify communication with the countries holding the Presidency before and after CZ PRES and the EC and to agree with them on a “joint trio programme” in the areas falling within the scope of SÚJB. During the period of CZ PRES itself, it will be necessary to provide staff, experts and logistics to cover the meetings of the Working Group on Atomic Questions and to plan and implement an “attaché trip” of diplomats from other Member States to the Czech Republic.

The IT and Record Management System Division must ensure the management and development of the ICT environment in accordance with the Cyber Security Act and other applicable legislation and the secure and continuous operation of all SÚJB software and hardware means that provide basic functions of the Office, i.e. in the areas of central data storage systems, central server

systems, central security systems, central applications, and communications.

For all employees, the division will promote increased cyber skills and security awareness of the risks of using ICT as one of the key prerequisites for maintaining a secure ICT environment within SÚJB.

Another important task of the division in the future years is the implementation of all requirements set out in legislation or government resolutions in the field of eGovernment.

Last but not least, it is the development of Registers, File Service and other information systems operated by the Office in accordance with current legislation and the needs of SÚJB.

The main priority in the field of communication with the public is to adapt the form of information to modern communication tools, in particular social networks. The information provided by the Office must be not only factually correct, but also user-friendly and comprehensible, which is related to increasing emphasis on the visual form of communication.