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Your letter No./dated	Our ref.	Contact person	Bratislava
5913/2018/19.09.2018	9704/2018 -1.7/hp-Zs	Ing. H. Ponecová	22 October 2018
4889/2018/30.07.2018	54127/2017	0259562520	
4339/2018/17.07.2018			
778/2017/ 07. 02. 2017			
7783/2016/16. 12. 2016			

Re

“Nuclear Power Plant WWER 4 x 440 MW Project 3, SO 800/1-02 Reactor Building II. MGB, Room No. 407 Storage of fresh fuel” – Binding Opinion

The Ministry of Environment of the Slovak Republic, Department of Environmental Impact Assessment as the central authority of public administration in environmental care, pursuant to Sections 1 and 2 of the Act No. 525/2003 Coll. on public administration of environmental care and on amendments to certain laws as amended, and as the competent authority pursuant to Section 3 (k) and Section 54 par. 2 (a) of Act No. 24/2006 Coll. on environmental impact assessment and on amendments to certain laws as amended (the “Act on Impact Assessment”) pursuant to Section 38 par. 4 of Act on Impact Assessment, issues the following

B i n d i n g O p i n i o n :

Based on the submitted documentation

- Announcement of the Nuclear Regulatory Authority of the Slovak Republic (hereinafter the “ÚJD SR”) on initiation of the proceedings for an early use of the structure, authorization for the commissioning of the nuclear installation, authorization for the management of nuclear materials in the nuclear installation, and authorization for the management of radioactive waste and spent nuclear fuel (letter No. 7783/2016 dated 16 December 2016);
- Copy of the application from the operator of nuclear installation, Slovenské elektrárne, a. s., Mlynské Nivy 47, 821 09 Bratislava 2, (BIC: 35829052) (the “SE, a. s.”), with its seat at Bratislava, regarding • permit for an early use of the structure; • authorization for the management of radioactive waste and spent nuclear fuel; • authorization for the management of nuclear materials in the nuclear installation; • authorization for the commissioning of part of the installation MO 3&4, (letter No. SE/2016/077759 dated 12 December 2016) (posted on the website of ÚJD SR:

[https://www.ujd.gov.sk/ujd/www1.nsf/0/DC943B6E39B44A2CC125808E00312D65/\\$FILE/Ziadost_MO34_2016.pdf](https://www.ujd.gov.sk/ujd/www1.nsf/0/DC943B6E39B44A2CC125808E00312D65/$FILE/Ziadost_MO34_2016.pdf));

- Notification of ÚJD SR on the extension of the time limit for the decision in the proceeding for an early use of the structure, authorization for the commissioning of nuclear installation, authorization for the management of nuclear materials in the nuclear installation, and the authorization for the management of radioactive waste and spent nuclear fuel in the nuclear installation MO 3&4, (letter No. 778/2017 dated 07 February 2017);
- ÚJD SR Decision No.: 334/2017 dated 23 August 2017, by which pursuant to Section 29 par. 1 of Act No. 71/1967 Coll. on administrative proceeding (the Administrative Procedure Code) as amended, and pursuant to Section 8 par. 7 of Act No. 541/2004 Coll. on peaceful use of nuclear energy and on amendments to certain laws as amended (the “Atomic Act”) it interrupted the administrative proceedings related to the authorizations for:
 - I. The management of nuclear materials in the nuclear installation Nuclear Power Plant Mochovce, Project 3 (hereinafter the “MO 3&4”), in the scope of handling and storage of fresh nuclear fuel in the fresh fuel node, r. No. A407 pursuant to Section 5 par. 3) (g) of the Atomic Act (the “Administrative Proceeding No. 1.1”);
 - II. Commissioning of nuclear installation of MO 3&4 pursuant to Section 5 par. 3 (b) of the Atomic Act in the scope of handling and storage of fresh nuclear fuel in the fresh fuel node SO 800/1-02 Reactor Building II. MGB (the “Administrative Proceeding No. 1.2”);
 - III. An early use of the structure Nuclear Power Plant Mochovce VVER 4x440 MW Project 3 pursuant to Section 83 of Act No. 50/1976 Coll. on spatial planning and building regulations (the Building Act) as amended (the “Building Act”), and pursuant to Section 5 par. 3 (b) of the Atomic Act and Section 19 par. of the Atomic Act, in the scope of handling and storage of fresh nuclear fuel in the fresh fuel node (the “Administrative Proceeding No. 1.3”);
 - IV. The management of radioactive waste and spent nuclear fuel pursuant to Section 5 par. 3 (f) of the Atomic Act in the scope of objects and facilities for the operation of Unit 3 and in the scope of objects and facilities common for Units 3&4, serving for operation of Unit 3, including the fresh fuel node (the “Administrative Proceeding No. 2.1”);
 - V. The commissioning of nuclear installation pursuant to Section 5 par. 3 (b) of the Atomic Act in the scope of objects and facilities for the operation of Unit 3, and in the scope of objects and facilities common for Units 3&4., serving for operation of Unit 3 (the “Administrative Proceeding No. 2.2”);
 - VI. An early use of the structure pursuant to Section 83 of the Building Act, and pursuant to Section 5 par. 3 (b) of the Atomic Act and Section 19 par. 3 of the Atomic Act in the scope of objects and facilities for operation of Unit 3, and in the scope of objects and facilities common for Units 3&4, serving for operation of the Unit (the “Administrative Proceeding No. 2.3”);
 - VII. The management of radioactive waste and spent nuclear fuel pursuant to Section 5 par. 3 (f) of the Atomic Act in the scope of objects and facilities for the operation of Unit 4, and in the scope of objects and facilities common for Units 3&4, serving for operation of Unit 4 (the “Administrative Proceeding No. 3.1”);
 - VIII. The commissioning of nuclear facility pursuant to Section 5 par. 3 (b) of the Atomic Act in the scope of objects and facilities for the operation of the Unit, and in the scope of objects and facilities common for Units 3&4, serving for operation of Unit 4 (the “Administrative Proceeding No. 3.2”);
 - IX. An early use of the structure pursuant to Section 83 of the Building Act and pursuant to Section 5 par. 3 (b) of the Atomic Act, and Section 19 par. 3 of the Atomic Act in

the scope of objects and facilities for the operation of Unit 4, and in the scope of objects and facilities common for Units 3&4, serving for operation of the Unit (the “Administrative Proceeding No. 3.3”);

- Notice of the ÚJD SR on the continuation of the administrative proceeding in the case of authorization for the management of nuclear material in the fresh fuel node (the “Administrative Proceeding No. 1.1), the commissioning of nuclear installation in the scope of storage and handling of fresh fuel in the fresh fuel node (the “Administrative Proceeding No. 1.2), and permit for an early use of the structure for the fresh fuel node in the scope of storage and handling of fresh nuclear fuel in the nuclear installation of MO 3&4 (the “Administrative Proceeding No. 1.3) by letter No. 4339/2018 dated 17 July 2018;
- Announcement of the ÚJD SR on initiation of the proceeding for an early use of the structure “Nuclear Power Plant Mochovce WWER 4x440 MW Project 3, building object – SO 800/1-02 Reactor Building II. Main Generating Block (MGB), Room No. 407 Fresh Fuel Storage“ and an invitation for an oral hearing (letter No. 4889/2018 dated 30 July 2018);
- Notice of the ÚJD SR on the continuation of the administrative proceeding in the case of authorization for the management of radioactive waste and spent nuclear fuel (the “Administrative Proceeding Nos. 2.1 and 3.1), and the commissioning of the nuclear installation MO 3&4 consisting of Unit 3 and Unit 4 in Mochovce (the “Administrative Proceeding Nos. 2.2 and 3.2) by letter No. 5913/2018 dated 19 September 2018;
- List of documents for the administrative proceeding at ÚJD SR under No. 3720-2016, consisting of 37 points and is attached to the SE’s application concerning the commissioning of MO 3&4 and related authorizations (delivered by e-mail from ÚJD SR dated 24 May 2017);
- Document – Evaluation of the method of incorporating conditions identified in the Final Opinion of MoEnv SR “**Nuclear Power Plant Mochovce WWER 4 x 440 MW, project 3**“ at the cadastral area of municipalities Nový Tekov and Kalná nad Hronom, issued under No.: 395/2010-3.4/hp dated 28 April 2010. The Final Opinion contained 35 recommended conditions. From this list those fulfilled and evaluated were the relevant conditions for the given activity. (Document PNM 34481619, prepared by: Ing. Mariana Mančíková, Ing. Bronislava Uhnáková, Ing. Arpád Ács, verified by Mgr. Jozef Belaň), sent to MoEnv SR with ÚJD SR letter No. 4889/2018 dated 30 July 2018. Fulfilment of recommended conditions from the Final Opinion was verified by ÚJD SR during the scheduled on-site inspection at MO 3&4;
- Document – Fulfilment of the binding conditions from the ÚJD SR Decision No.: 246/2008 for the building permit to change construction before completion of MO 3&4 and fulfilment of binding conditions for the ÚJD SR Decision No.: 266/2008 to approve modifications of safety related nuclear facilities of MO 3&4, was annexed to the document PNM 34481619. Fulfilment of conditions of the ÚJD SR Decision No. 246/2008 was demonstrated by reference to the numbers of filings, which SE, a.s. submitted gradually to ÚJD SR to demonstrate fulfilment of individual conditions from the Decision in question. Fulfilment of the conditions of the ÚJD SR Decision No. 267/2008 was addressed by SE, a. s. in cooperation with VUJE, a. s., Okružná 5, 918 64 Trnava. VUJE, a. s., provided also the preparation, realization and evaluation of tests of physical and energy start-up of all Units of VVER-440 type in the Czech Republic and the Slovak Republic at the nuclear power plants Bohunice, Dukovany and Mochovce. VUJE, a. s., provides training of staff of nuclear power stations. It operates a training centre for the staff of nuclear power plants, providing theoretical and simulator training,

provides for granting the relevant licenses and certificates. The fulfilment of the binding conditions for the above-mentioned Decision was also assessed by the ÚJD SR experts (delivered to the MoEnv SR by the licensing authority, ÚJD SR with letter No. 7783/2016 dated 16 December 2016 together with a CD and additionally delivered to the MoEnv SR by the operator, Slovenské elektrárne, a. s., b an e-mail of 4 September 2018);

- Supporting documents for the decision in the Administrative Proceeding for the fresh fuel node (the Administrative Proceedings No. 1.1, 1.2 and 1.3), published on the website of ÚJD SR (<https://www.ujd.gov.sk/ujd/www1.nsf/viewByKeyMenu/Sk-xx-06-08-10>). Annexes 1, 2 and 3 to the supporting documents for the decision in the administrative proceedings Nos. 1.1, 1.2 and 1.3 show the method of removal of the deficiencies in the documentation related to the above stated administrative proceedings. Published on the website <https://www.ujd.gov.sk/ujd/www1.nsf/viewByKeyMenu/Sk-xx-06-08-07> and <https://www.ujd.gov.sk/ujd/www1.nsf/viewByKeyMenu/Sk-xx-06-08-08>;
- Supporting documents for the decision in the Administrative Proceeding for Unit 3 (the Administrative Proceedings Nos. 2.1 and 2.2) and in the administrative proceedings for Unit 4 (the Administrative Proceedings Nos. 3.1 and 3.2), published on the ÚJD SR websites (<https://www.ujd.gov.sk/ujd/www1.nsf/viewByKeyMenu/Sk-xx-06-08-13>). Annexes to the documentation for the decision in the administrative proceedings Nos. 2.1, 2.2, 3.1 and 3.2 show the method of removal of the deficiencies in the documentation supporting the administrative proceedings;
- Part of the project – accompanying report “Revision of the basic design for the MO 3&4“ contract No.: 16-4905-30-001 EGP 5091-F-072358 S041100001T prepared in 2007-2008 by ÚJV Rež, a. s., ENERGOPROJEKT PRAHA division, Husinec-Rež, No. 130, 250 68 Rež and the project “Safety and revision concept at the power plant Mochovce“, prepared by ÚJV Rež, a. s., Husinec-Rež, No. 130, 250 68 NoRež in 2009;

It can be stated that the petition for the proceeding concerning:

- A) The authorization for the management of nuclear material in the nuclear installation pursuant to Section 5 par. 3 (g) of the Atomic Act, in the scope of handling and storage of fresh nuclear fuel in the fresh fuel node (the Administrative proceeding No. 1.1);
- B) The authorization for the commissioning of the nuclear installation pursuant to Section 5 par. 3 (b) of the Atomic Act, in the scope of fresh fuel node in the scope of storage and handling of fresh nuclear fuel in the object SO 800/1-02 Reactor Building II. MGB (the Administrative proceeding No. 1.2);
- C) Permit for an early use of the structure pursuant to Section 83 of the Building Act, and pursuant to Section 5 par. 3 (b) and Section 19 par. 3 of the Atomic Act, for the fresh fuel node in the scope of storage and handling of fresh nuclear fuel in the object SO 800/1-02 Reactor Building II.MGB in the room No. 407 Storage of fresh fuel (the Administrative proceeding No. 1.3)

is conceptually in accordance with the Impacts Assessment Act, with the Final Opinion issued by the MoEnv SR No.: 395/2010–3.4/hp dated 28 April 2010, and its conditions.

Reasoning:

The Ministry of Environment of the Slovak Republic, Department of Environmental Impacts Assessment (the “MoEnv SR“) received ÚJD SR’s letter No. 4339/2018 dated 17 July 2018 notifying the continuation in the administrative proceeding concerning the authorization for the management of nuclear material in the fresh fuel node, commissioning of nuclear installation in the scope of storage and handling of fresh fuel in the fresh fuel node

and permit for an early use of the structure for the fresh fuel node in the scope of storage and handling of fresh nuclear fuel for Unit 3 and Unit 4 in the nuclear installation in Mochovce. The above concerns the **“Nuclear Power Plant WWER 4 x 440 MW Project 3. SO 800/1-02 Reactor Building II. MGB, Room No. 407 Storage of fresh fuel”**.

ÚJD SR as the competent building authority pursuant to Section 4 par. 1 (j) of the Atomic Act, and pursuant to Section 121 par. 2 (e) of the Building Act announced in accordance with Section 18 of the Administrative Procedure Code initiation of the proceeding for an early use of the structure by a public notice.

At the same time, ÚJD SR ordered proceeding with letter No. 7783/2016 dated 16 December 2016 in accordance with Section 80 of the Building Act on the initiative of the operator of the nuclear installation, SE, a. s., filed at ÚJD SR by letter No.: SE/2016/077759 dated 12 December 2016 a petition for a decision on early use of the part of the structure **“Nuclear Power Plant Mochovce VVER 4x440 MW Project 3”**.

The MoEnv SR, as the competent authority according to the Act on Impacts Assessment, conducted for the operator of nuclear installation, SE, a. s. with the emphasis on nuclear safety and environmental protection, a process pursuant to the Act on Impacts Assessment, which was concluded with a Final Opinion on the proposed activity: **“Nuclear Power Plant Mochovce WWER 4 x 440 MW Project 3”**, issued by MoEnv SR under No. 395/2010-3.4/hp dated 28 April 2010.

In the operative part of the Final Opinion No. 395/2010-3.4/hp dated 28 April 2010, after considering the expected both positive and negative impacts of the proposed activity on the environment, taking into account the opinions and positions from the stakeholders, **recommended** the alternative, where the proposed activity is the commissioning and operation of a nuclear facility at the Nuclear Power Plants Mochovce, consisting of two VVER type reactors of V 213 with the power 2 x 440 MW, to produce electricity.

The rated thermal output of assessed reactors of MO 3&4 is unchanged compared to the original design and will reach 2 x 1,375 MWt.

The efficiency of the MO 3&4 reactors under assessment increased as a result of installation of new components (turbines and other technological parts) in the secondary circuit of each unit of MO 3&4 from the original 31.7 % to 33.9 %. The components of the primary circuit of the nuclear installation will not change compared to the original design. The overall electric output of the reactors will reach 2 x 471 MWe (the original output without the modifications made on the secondary side was 2 x 436 MWe).

Compared to the original solution, the project will reduce the release of heat to the environment by approximately 7 %, prolong the life of nuclear fuel, reduce the production of radioactive waste, as well as the amount of radioactive substances released into the environment.

Representative of the nuclear facility operator, SE, a. s., delivered on 12 December 2016 to the licensing authority, ÚJD SR, an application for authorization for the commissioning of nuclear facility, Mochovce Units 3&4. At the same time the operator, SE, a. s., applied for a permit for an early use of the structure, an authorization for the management of radioactive waste and spent nuclear fuel, and for an authorization for the management of nuclear materials in the nuclear facility. The application was supported by the relevant documentation containing 377 attachments.

ÚJD SR initiated administrative proceeding related to issue of relevant authorizations (the Administrative proceeding No. 3720 – 2016), and informed the public administration

authorities concerned. ÚJD SR also informed all potential parties about this fact (the public, interested in joining the proceedings) through a public notice.

Following the preliminary review of the documentation in question, the time limit for issuing a decision was extended.

The documentation, from which ÚJD SR excluded sensitive information, was made available to the public from 16 March 2017 until 30 June 2017. The parties utilized the possibility to consult the file and sent their comments on the documentation within the given deadline, by 31 July 2017.

Following a preliminary review, ÚJD SR conducted the evaluation of the content of the submitted documentation. ÚJD SR assessed, in particular the compliance of the content of the documentation with the legislative requirements. When assessing the documentation, ÚJD SR proceeded in close cooperation with the applicant – SE, a. s.

The assessment resulted in comments by ÚJD SR on the documentation, including material comments from the parties, which the applicant must remove, or must complete its filing.

For the above reason, ÚJD SR issued on 28 August 2017 its Decision No. 334/wy2017, which interrupted the administrative proceedings to issue authorizations connected with the completion of Mochovce NPP, Units 3&4. Interruption of the administrative proceeding concerning the preparations for the commissioning of a nuclear installation of EMO 3&4 in August 2017 was a step, by which the Authority responded to deficiencies in the submitted documentation and the insufficient state of preparedness of the nuclear installation to perform the required tests. SE, a. s., is gradually submitting the required documentation with the removed deficiencies. The requirements for adequate preparedness together with the dates for their latest achievement, are defined in the ÚJD SR Decision No. 334/2018.

- Slovenské elektrárne, a. s. has gradually removed the deficiencies in its filing in administrative proceedings Nos. 1.1, 1.2 and 1.3. On 22 June 2018, SE delivered a letter to ÚJD SR, in which it completed its filing related to the application for authorizations in the following administrative proceedings: for the management of nuclear materials in the nuclear installation Nuclear Power Plant Mochovce, Project 3, in the scope of handling and storage of fresh nuclear fuel in the fresh fuel node, R. No. A407 pursuant to Section 5 par. 3 (g) of the Atomic Act (the Administrative proceeding No. 1.1),
- For the commissioning of nuclear installation in the scope of handling and storage of fresh nuclear fuel in the fresh fuel node, R. No. A407 pursuant to Section 5 par. 3 (b) of the Atomic Act (the Administrative proceedings No. 1.2),
- For an early use of the structure, Nuclear Power Plant Mochovce, Project 3, pursuant to Section 83 of the Building Act, and pursuant to Section 5 par. 3 (b) and Section 19 par. 3 of the Act for parts of the structure in the scope of handling and storage of fresh nuclear fuel in the fresh fuel node (the Administrative proceedings No. 1.3).

ÚJD SR reviewed the submitted documentation and stated that SE, a. s. fulfilled all the requirements from the ÚJD SR Decision No. 334/2017, and that the administrative proceedings continue from 22 June 2018.

The substance of the proposed administrative proceeding is based on the following facts:

The purpose of the proposed activity is the commissioning and operation of the nuclear installation and the fresh fuel node in the premises of Nuclear Power Plants Mochovce, consisting of two VVER reactors, type V 213 with a power of 2 x 440 MW, with

the aim to produce electricity. The Nuclear Power Plant Mochovce, project 3, will have two independently functioning units, both of which will consist of nuclear and conventional parts.

The commissioning starts with loading of nuclear fuel.

The electricity generation process at the Mochovce NPP has three main heat transfer cycles:

1. In the first cycle, the heat generated from the fuel is used for steam production. Part of the power plant that performs this function, is known as the **Primary circuit**. It consists of a reactor, reactor cooling system and several auxiliary and safety systems. Heat is produced by fission of uranium cores in the fuel, which is in the form of uranium oxide. The moderator for neutrons for the fission reaction is demineralized water with diluted boric acid. This water also serves as primary coolant. The cooling reactor medium passes through the core, removes heat from the fuel, and then enters to one of the six main cooling loops (primary circuit). The temperature of the cooling medium (chemically treated water) of the reactor is approx. 297°C at the output from the core. To prevent boiling, it is maintained at the pressure of 12.26 MPa through pressurizer connected to one of the cooling loops. The heated coolant from the primary circuit passes to heat exchange tubes of the steam generator. These tubes are surrounded by water from the secondary circuit, which is heated and produces steam. In this way, the heat is removed from the primary coolant to the secondary circuit without mixing the two liquids. The primary coolant is then returned to the core using the main circulating pumps.
2. In the second cycle, the steam is used to drive the turbines that are connected to the generators generating electricity, this part of the power plant is known as the **Secondary circuit**. It consists of several water and steam systems and two steam turbines for each reactor block. Demineralized water (the secondary circuit water) is pumped from condensers of turbines to steam generators, where it is circulated around the pipes, through which the reactor coolant circulates. Heat passing through the walls of the pipes brings the water of the secondary circuit to the boil and produces steam at the temperature of approx. 260 °C and pressure of about 4.6 MPa. This steam concentrates in the main steam collector. The steam from the main steam collector passes through piping to turbines, where it delivers approximately one third of its energy to rotate the turbines and the connected power generators. The steam then condenses in the condensers of the turbines, which are cooled by circulating cooling water, to which it transfers the remaining two thirds of the thermal energy gained. Each steam turbine generator generates power at a voltage of 15.75 kV. A small part of the energy produced serves to drive the equipment, and the rest goes to the grid. The power output is solved by connecting the generator with the main transformer (15.75/420 kV). The power of each of the Units 3&4 is fed by a single air power line 400 kV to Veľký Ďur substation. The power consumption for each unit is normally provided by two auxiliary transformers (15.75/6.3 kV), which are connected on the higher voltage side to a separate bus and on the lower voltage side to 6.3 kV bus of the power distribution system of the power plant.
3. In the third cycle or circuit, the remaining energy transferred to steam is removed by cooling, the part associated with this process is called the **Cooling water cycle** (or the heat removal circuit), where the heat exchange takes place in cooling towers with natural circulation. The heated water from the turbine condensers is directed to these cooling towers. There are four cooling towers per each reactor dual-unit. All pumps for the circulating cooling water for cooling the condensers of the two units, are

located in the central pumping station. The steam system of the condenser in the secondary circuit is cooled by a heat recovery circuit, containing the treated water.

Water is taken from the reservoir of the Hron river near Veľké Kozmálovce, about 5 km from Mochovce.

Fresh water, which is supposed to make-up the losses from the cooling circuit mainly due to evaporation and less due to bleeding of the circuit, flows through the pumping station into two storage tanks, each having a volume of 6,000 m³. From the tanks the water flows by gravity through two pipes for treatment and then it is used to make-up the circulating cooling water circuit.

There is also the service water system, which is used to cool important consumers. The service water is cooled by wet cooling towers with forced circulation. There are three service water systems (200 % redundancy).

In order to keep the reactor in safe shutdown condition, and to prevent uncontrolled leakage of radioactive substances into the environment there are safety systems, and the following critical safety functions must be taken care of:

- Maintaining the reactor in a subcritical state;
- Cooling of the core;
- Ultimate heat removal;
- Integrity of the reactor cooling system;
- Integrity of the hermetic zone;
- Stock of coolant.

Reactors of Units 3&4 will also be equipped with protection and control system to reduce the thermal output of the reactor when reaching the specified conditions.

For the first commissioning, the fuel used will be fuel with enrichment 1.6, 2.4 and 3.6% ²³⁵U. For the future operation of MO 3&4 it is expected to use gadolinium fuel with enrichment 4.87% ²³⁵U.

The VVER 440 reactor, Model V213, the core contains 312 fuel assemblies and 37 control rods.

Each fuel assembly (FA) consists of 126 fuel rods and central channel for measurements.

Each control assembly (CR) has three functions – emergency, control and compensating, and consisting of fuel and absorption part. By inserting them into/pulling them out of the core and by changing the concentration of boric acid in the reactor coolant, the fission chain reaction is controlled.

Fresh nuclear fuel is transported by special train. Each wagon carries eight containers, each containing four fuel assemblies. On arrival at the plant the fuel is transferred to the **fresh fuel node**, which is a fresh fuel storage and is designed to handle the fresh nuclear fuel. The fresh fuel storage is located under the reactor hall in the main generating block. Transport operations are provided by crane with a load capacity of 3.2 t, which covers the whole area of the fresh fuel storage. It is equipped with micro-trolley and micro-lift with manually operated grips that are hooked on the crane (hook for the storage container, hook for the fuel assembly, hook for the absorption part of CR, a hook for the hermetic case). The storage facility for fresh nuclear fuel is designed for handling and storage of transport containers with fresh fuel, absorption parts of CR. Hermetic cases are designed to transport damaged fuel assemblies. Transport containers are tilted to vertical position. Three anti-seismic preparations are used to secure them against fall, maximum in four layers, with a maximal number of 56 transport containers of fresh nuclear fuel. The transport containers are turned into a vertical position on a tilting device. The container is placed on a frame of the tilting rig, secured and by rotating the frame by 90° it gets into vertical position. In this position, the containers are opened and

the fresh nuclear fuel is taken out step by step. After removal from the transport container, the fresh nuclear fuel is subjected to an intake inspection. The inspection is carried out on a stand for fuel cell geometry check, which is attached to the service platform of the fresh fuel storage. If there is any pollution of the fresh nuclear fuel, it must be cleaned using cotton pad saturated with alcohol. Handling with absorption parts of CR is performed in a similar way as with fuel assemblies. To MO 3&4 they are transported in the same containers and are stored and controlled in the same way.

Fuel assemblies intended to be loaded to the reactor, are transported to stackers placed on a rotary table. The rotary table allows convenient transfer of stackers from the crane's reach from the fresh fuel storage below the transport opening in the reactor hall, which is within the reach of the crane in the reactor hall. On the plate of the rotary table it is possible to place 6 stackers, each with a capacity of 30, of which a maximum of two contain hermetic cases.

In the fresh fuel storage there are two storage grids, each with a capacity of 60 places. By fitting cells into the storage grids with inserts, these can be used to store fuel assemblies, fuel parts and absorption parts of control rods. There are also 40 stands for inspection of the absorption parts. The transport container is also used to export the absorption parts of control rods and in a shielded transport container the spent fuel assemblies. Any handling of fresh nuclear fuel outside the container must be carried out in a clean, dry, enclosed area that cannot be flooded, in the fresh fuel storage.

The MoEnv SR has taken into account the different level of detail of the documentation submitted for the purposes of environmental impact assessment under the Act on Impacts Assessment, and documentation for the purposes of this procedure, in relation to the assessment of the compliance of the activity in question with the Impact Assessment Act, while it can be stated that the petition for a building permit from the conceptual point of view is in compliance with the Impacts Assessment Act.

Changes in the details of the construction and design solution do not affect the subject of the proposed activity, they only represent a more detailed solution corresponding to the documentation in the details of the solution, they do not represent any interference with the natural environment or the landscape that would change the natural and physical aspects of the site. As a follow up to the submitted application for building permit, in the preparatory phase and also in the phase of permitted operation the conditions defined in the above mentioned final opinion will be met adequately.

Within the assessment of the project in question in accordance with Section 38 par. 4 of Act on Impacts Assessment, no such facts were found that would be a reason for reassessment of the project in question pursuant to Section 18 par. 1, and par. 2 of the Impacts Assessment Act.

The correctness and completeness of the written evaluation of meeting the conditions defined in the Final Opinion is the responsibility of the party, which initiated the administrative procedure.

This binding opinion issued for **Slovenské elektrárne, a. s., Mlynské Nivy 47, 821 09 Bratislava 2, (BIC: 35829052)** pursuant to Section 38 par. 4 (d) of the Act on Impacts Assessment, is related to the administrative proceeding in connection with the implementation of the change in accordance with the Building Act and the Atomic Act on the issue of authorizations for the management of nuclear materials in the nuclear installation MO 3&4 in

the scope of handling and storage of fresh nuclear fuel in the fresh fuel node, R. No. A407, authorization for the commissioning and the permit for an early use of the structure MO 3&4 part of the structure in the scope of handling and storage of fresh nuclear fuel in the fresh fuel node, located within the premises of Nuclear Power Plants Mochovce, which is located in the cadastral area of municipalities Nový Tekov and Kalná nad Hronom, district Levice, does not replace other opinions or statements by the competent authorities concerned under special regulations.

Yours truly,

Ing. Roman Skorka
Division Director