



## ENVIRONMENTAL PROTECTION AGENCY

Budgetary institution, A. Juozapavičiaus g. 9, LT-09311 Vilnius, tel.8 70662008, e-mail [aaa@gamta.lt](mailto:aaa@gamta.lt), <http://aaa.lrv.lt>.  
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### DECISION

#### ON THE DISMANTLING AND DECONTAMINATION OF EQUIPMENT IN WORK AREAS R1 AND R2 OF THE IGNALINA NUCLEAR POWER PLANT UNIT 2 (PROJECT 2102)

##### 1. Organizer of planned economic activities

State Enterprise Ignalina Nuclear Power Plant, Elektrinės str. 4, K47, Drūkšinių k., LT-31152 Visaginas. Telephone (8 386) 28254, fax (8 386) 24387, e-mail [Zagarskij@iae.lt](mailto:Zagarskij@iae.lt).

##### 2. Author of environmental impact assessment documents

State Enterprise Ignalina Nuclear Power Plant, Elektrinės str. 4, K47, Drūkšinių k., LT-31152 Visaginas. Telephone (8 386) 28137, fax (8 386) 24387, e-mail [MedvedevO@iae.lt](mailto:MedvedevO@iae.lt).

##### 3. Name of the planned economic activity

Dismantling and decontamination of equipment for work areas R1 and R2 of INPP Energy Unit 2 (project 2102).

The planned economic activity (hereinafter referred to as ‘the PEA’) corresponds to the activities referred to in point 3.2 of Annex 1 to the Law of the Republic of Lithuania on the assessment of the environmental impact of planned economic activities (in the version of the Law until 31 October 2017) (‘the EIA Law’), namely the installation of nuclear power plants or other nuclear reactors and the dismantling or closure of such plants or reactors, for which an environmental impact assessment (hereinafter ‘EIA’) must be carried out in accordance with Article 3(2)(1) of the EIA Law.

##### 4. Location of the planned economic activity

The Ignalina Nuclear Power Plant (hereinafter referred to as the INPP) is located in the north-eastern part of Lithuania, on the shore of Drūkšiai lake, approximately 140 km from the Lithuanian capital Vilnius, close to the state borders with Belarus and Latvia (approximately 8 and 4 km respectively), at Utena district, Visaginas m. sav., Drūkšiniai village, Elektrinės str. 4. According to the detailed plan of land plots of State Enterprise Ignalinos Nuclear Power Plant approved by Order No ÁV-460 of 19 May 2010 of the Municipality of Visaginas approving the detailed plan, the area used for the purposes of the INPP is 419.1762 ha.

##### 5. Description of the planned economic activity

During the dismantling and decontamination of equipment for reactor R1 and R2 for power unit 2 (hereinafter referred to as ‘I’ and ‘D’), the PFA will run from 2022 to 2028.

##### *Information on the main stages and technological processes of the PEA*

The main milestones of the project 2102 are:

- preparatory works, including the organisation of pre-treatment sites and transport routes;
- dismantling and decontamination of equipment;
- fragmentation and packaging of dismantled equipment;
- dosimetric measurements of dismantled facilities, workplaces and packaging of solid radioactive waste (CRAs) are required;
- Transport of CRA waste packaging to the final destination of the waste;
- final works, including radiation monitoring in working area premises after completion of work.

The dismantling facility in zone R1 includes reactor ducts, upper strokes, steam and water communication pipelines, technological channel integrity control systems (ICVCS) pipelines, control and protection systems and reflector cooling channel top water communication, upper gas communications, L and D sch. water supply and drain pipelines, thermal element treatments, servo drives of control and protection systems, flatbed units, separating grilles, heat cell bushings, cable tracks, steam and exhaust piping and upgraded steam and exhaust system, piping support suspension systems.

Dismantling object in zone R2 — lower strokes, lower water communications (WWC) piping, heat transfer leakage system pipelines, control and protection systems lower water communication, lower gas communications, reactor metal structures drainage pipelines, thermal element strokes, cable tracks, steam and gas exhaust pipelines, piping support suspension systems for pipelines.

The dismantling and decontamination of the work areas of the BMK-1500 reactor R1 and R2 involves several aggregated phases, each of which is characterised by a number of basic works:

- dismantling and decontamination of preparatory operations in R1 and R2 zones;
- dismantling and decontamination of steam and exhaust pipelines and a modernised steam and gas exhaust system;
- Dismantling and decontamination of technological channels, control and security systems in R1 and R2 zones;
- disassembly and deactivation of top communications of steam and water communications, control and protection systems and reflector cooling channel, upper tract stands in R1 zone;
- dismantling and decontamination of communications of lower water communications, lower control and protection systems, reactor bottom R2 area.

The mass of the equipment to be dismantled is shown in the table below:

I'm sorry. No	Material	Mass t	% of total quantity
1	Concrete (mixture of iron, barium serpentine concrete and cast iron powder)	466,28	21,28
2	Carbon steel	370,07	17,44
3	Stainless steel	1024,52	48,29
4	Non-ferrous metals	131,74	6,21
5	Cables	6,05	0,29
6	Graphite	123,12	5,8
	Total:	2121,8	100

The equipment will be disassembled using the disassembly, mechanical and thermal cutting method. The choice of the method of dismantling used depends on the material of the equipment and the specific dismantling conditions.

During mechanical cutting, tools such as angle grinders, hydraulic shears, battery shears, pneumatic pipe cutters, other standard locksmith tools that do not generate harmful gases and aerosols produce insignificant quantities can be used. During thermal cutting, gas and flame cutting can be used when cutting equipment from carbon steel, and plasma cutting can be used for cutting equipment from stainless steel. The gas and flame cutting equipment available at the INPP allows you to cut both manual and automatic mode with remote control, which is especially important for workstations with high dose power. The main raw material for gas cutting and flame cutting of dismantling equipment are oxygen (5 855 m<sup>3</sup>) and acetylene (958 m<sup>3</sup>), supplied in high pressure cylinders.

The possibility of using remotely controlled machines to dismantle radionuclide-contaminated equipment as one of the possible dismantling tools under project 2102 is not excluded during the PEA.

In order to ensure the efficiency and safety of the planned works, the maximum use will be made of qualified personnel of INPP units with experience and knowledge in the operation and repair work of the equipment being dismantled (when it was still in service), as well as trained personnel with experience in carrying out equipment I and D works under other projects in previous years.

The equipment will be disassembled with the highest possible number of units in order to reduce the time spent by workers in the power zone of the increased dose; fragmentation will be carried out at pre-treatment sites.

#### *Information on the nearest residential areas*

A sanitary protection zone ('SAZ') has been established around the site of the INPP within a radius of 3 km. SAZ has no permanent residents and economic activity is restricted. The nearest residential house is located about 3.5 km from the PEA location to the southwest.

#### *Information on waste generation and management*

All waste resulting from the dismantling and decontamination of R1 and R2 work areas shall be

treated as radioactive waste. Dismantling and decontamination operations generate primary waste (disassembly waste) and secondary waste. 'Primary waste' means equipment and components thereof which are dismantled. 'Secondary waste' means equipment, tools, materials and media used or produced in the course of dismantling and decontamination operations and which are to be recovered.

Primary waste (disassembly waste) resulting from the dismantling and decontamination of R1 and R2 work areas is solid waste. Secondary waste resulting from the dismantling and decontamination of R1 and R2 work areas is waste in solid, liquid and gaseous form (including aerosols).

Dismantling and decontamination of the R1 and R2 work areas will result in radioactive waste of classes -, -, C, C, D-, The planned mass of primary radioactive waste by class before pretreatment is given in the following table:

<b>Waste class</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>Graphite D</b>	<b>D, E metal</b>
Amount of waste (t)	1593,4	174,3	0,8	123,1	230,2

Radioactive waste management activities entail significant material costs related to the need to use special packaging, treatment methods and the organisation of disposal. Therefore, the technological project (TP) will provide for the decontamination of waste in the pre-treatment phase. The methods chosen by TP for the decontamination of Class B and C waste will allow the part of this waste to be reclassified into Class A, which will save material resources and reduce the negative impact on the environment. The possibility of decontamination of radioactive waste and its determination in the TP shall be carried out on the basis of the results of the analysis of the methods of decontamination of selected samples and the analysis of economic feasibility.

Wastes the decontamination of which is inappropriate or impracticable will continue to be treated according to their classes:

Class a waste — disposal of short-lived very low radioactive waste Landfill (project 19);

'Waste' of classes and C — treatment and intermediate storage in KATSK (project 3.4) followed by a transfer to a surface disposal facility (project 25);

Class D graphite waste — treatment and intermediate storage in building 158/2 (project 38);

- Metal waste classes — treatment and intermediate storage in KATSK (project 3.4).

In addition to primary waste, the dismantling and decontamination of work areas in Unit 2 R1 and R2 generates secondary waste which will not be decontaminated.

The secondary waste resulting from the dismantling and decontamination of equipment in reactor R1 and R2 in reactor 2 is made up of solid, liquid and gaseous waste (including aerosols).

Solid secondary wastes are:

- cutting and decontamination waste — slag, metal shavings and sawdust, dust, etc.;
- used cutting elements — abrasive discs, blades;
- used deactivation device shots;
- filtering elements;
- personal protective equipment used;
- temporary transport polyethylene packaging and floor coverings, replaceable sanitary lock mats, STOP tapes and other consumables used.

Liquid radioactive waste (SRA) is generated mainly by decontamination of workstations, decontamination of dismantled installations and cooling of diamond wire by cutting equipment. Using drainage pipelines, the SRA will be discharged into the existing IAE specific drainage system and will be diverted to the liquid radioactive waste recycling facility. "Gaseous secondary waste" means welding gases and aerosols (including radioactive) produced during dismantling, crushing and decontamination.

Preliminary estimates of the amount of secondary waste are detailed in Table 3.3-1 of the EIA report and will be revised in the context of the preparation of the TP. The total amount of secondary waste is expected to be: solid 97.49 t, liquid 4 287.25 t, gas 0.336 t.

*Information on the generation of waste water and the impact of the PEA on water*

Surface water and artesian water are used to ensure the production of INPP. The source of surface water is Lake Dmokšiai. The water of Drūkšiai lake is used to cool technological equipment. Artesic water is supplied by VĮ Visagino energija at Ignalina NPP, which operates the complex of water facilities in

Visaginas m. Artesic water is used for technological processes involving the use of water of special quality, as well as for the domestic needs of employees (drinking water, water for hygiene purposes).

Surface water will not be used for the dismantling and decontamination of work areas of the R1 and R2 energy unit 2. Only artesian water will be used for technological purposes and for the sanitary and hygienic needs of personnel. As the planned activities will be carried out by the INPP personnel, the water consumption for technological purposes will not be significant, no changes to the quality of the water used are foreseen due to the planned activity.

Industrial waste water from dismantling and decontamination works is expected to be collected and treated as liquid radioactive waste by pumping it into the INPP liquid radioactive waste treatment facility in order to completely prevent the release of radionuclides into the environment. Domestic waste water is intended to be transferred to VĮ Visagino Energija wastewater treatment plant by means of an existing runway.

Surface effluents from the INPP area to the environment (Drūkšiai lake) are discharged through surface sewage channels, which are equipped with mechanical oil containment facilities. Against this background, the negative impact of PEAs on groundwater and surface waters is not expected.

*Information on the potential impact of the PEA on ambient air*

In the case of PEAs, ambient air pollutants will arise from the dismantling and decontamination of equipment, as well as from the operation of transport transporting materials for dismantling and decontamination. Mechanical cutting, gas cutting, flame and plasma cutting will be used to carry out dismantling and fragmentation of the equipment. Pollutants from mechanical cutting — particulate matter (aerosol dust), gas cutting and flame cutting, plasma gases (nitrogen and carbon oxides) and welding aerosols. The main cutting method for the R1 and R2 working areas of the reactor unit 2 will be mechanical for works I and D. The pollutants generated by the planned economic activity will be emitted into the ambient atmosphere by technological ventilation systems through a stationary source 002-101/2 past vent pipe. The discharge flow from the 101/2 tube (source of discharge 002) is ~ 1 200 000 m<sup>3</sup>/h. The means of preventing environmental pollution of the road is the treatment of technological ventilation systems. Cleaning of exhaust air from these treatment plants is carried out with high efficiency aerosol filters FAST-3500-M, FAST-3500-Dmark. These filters are specifically designed for cleaning the air in production rooms, as well as for the cleaning of radioactive and toxic aerosols of various origins from releases into the atmosphere. Filter cleaning efficiency for aerosols with particle size  $(0.1 \div 0.2) \cdot 10^{-6}$  m is  $99.95 \div 99.995$  %. These filters almost completely contain the release of aerosols (radioactive and non-radioactive) from the contaminated area into the environment.

156.3 kg (CO, NO<sub>x</sub>, aerosols) of which 0.181 kg of aerosols will be emitted into the atmosphere by project (4.5 years) during the entire dismantling period. Each year there will be 34.74 kg of pollutants, of which 0.0404 kg will be aerosols. The EIA report concludes that the concentration of air pollutants in ambient air, taking into account background pollution, will not exceed the air pollution limit values set in accordance with the normative documentation requirements (Table 4.2.2-8 of the EIA Report).

*Information on radiological effects of PEA*

The main sources of airborne radioactive material during the dismantling and decontamination of facilities are technological operations that produce aerosols (gas and mechanical cutting of dismantling facilities). The maximum annual effective dose of the representant due to dismantling and decontamination works under project 2102 is expected to be 7.47E-09 Sv, representing 0.0075 % of the annual restricted dose of 0.1 mSv. The dose will be 3.36E-08 Sv for the entire duration of the project's 2102 activity period due to the potential effects of radioactive releases. The planned design solutions include the concept of various barriers, localising, intercepting and collecting airborne radioactivity in order to prevent any substantial radioactive releases into the production environment and/or atmosphere. Based on the data in Tables 4.2.3 to 7 and 4.2.3 to 8 of the EIA Report, it can be argued that the planned economic activities of reactor R1 and R2 work zones I and D will not have a significant impact on the magnitude and doses of radionuclides released by INPP.

*Information on the impact of PEA on soil and subsoil*

The PEA will be of a temporary nature, the dismantling and decontamination of the equipment of reactor R1 and R2 in the power unit 2 will be carried out in such a way that the soil will not be polluted under normal operating conditions using the proposed technologies, i.e. the following factors do not foresee any effect on the soil:

- the planned activities will not result in any land work that would have an impact on the soil, i.e. there will be no physical impact on the soil;
- all planned economic activities will be carried out in the building of blocks A2 and V2;
- liquid waste is discharged into an existing drainage system and discharged to existing treatment plants;
- the solid waste generated before shipment will be packaged in accordance with the requirements for safe waste transportation for the relevant waste class;
- vehicles used for the transport of waste move on paved roads and load waste containers on paved sites.

During the works of the work areas I and D of the R1 and R2 reactor unit 2, there are no plans for construction works, dismantling of existing buildings, removal and transfer of soil, therefore no radiological or non-radiological effects on the geological structure of the land are foreseen.

*Information on the impact of PEA on biodiversity*

The planned economic activities will be carried out on the site of the INPP industrial site, where no species of flora and fauna protected under the relevant Lithuanian and European Union legislation are identified, and the implementation of the project will have no impact on biodiversity outside the INPP industrial site.

*Information on the impact of the PEA on the landscape and cultural heritage sites*

Due to the PEA, during the dismantling and decontamination of work areas of the 2nd Energy Unit R1 and R2, no works are foreseen for the dismantling (destruction), reconstruction of buildings, and no works outside the INPP site are foreseen, therefore there will be no impact on the landscape of the site, as well as on the landscape outside the site, including Visaginas.

The cultural heritage site, which is closest to the territory of the INPP, is Stabatiškės manor site, which is about 1 km away from the PEA site. Other important cultural heritage objects — Čeberakai, Pasamanė (called Church Hill), Rimšes, Švėgždžiūnai mounds, Lapušiškės, Sausalis (called Žuvėdrų tombs) graystones, etc. are somewhat remote from the INPP. The PEA will be carried out within the boundaries of the INPP industrial site, therefore no impact on cultural heritage objects is foreseen.

*Information on the impact of PEA on the socio-economic environment*

The PEA will be carried out on the INPP site with the help of INPP staff. INPP is the necessary workforce resource with appropriate qualifications. The EIA report provides information that no significant impacts on the socio-economic environment due to the PEA are expected.

*Information on the impact of PEA on public health*

A public health impact assessment was carried out during the environmental impact assessment. The EIA report analysed the potential impact on the health of INPP workers and the public, and assessed occupational risk factors potentially affecting INPP workers. The use of collective and personal protective equipment is envisaged to avoid possible exposure to harmful and hazardous factors. Depending on the risk factors, personal protective equipment will be selected and adapted. Given the nature of the PEA, the EIA report assessed the following public health factors: radiological effects, ambient air pollution and risks to workers.

According to the results of the assessment carried out, the total dose value of the exposure of the reactants during the entire duration of works for reactor R1 and R2 work areas I and D for unit 2 will be  $3.36E-08$  Sv, the maximum annual dose for the exposure of the representants will be  $7.47E-09$  Sv. The estimated effect is very slight compared to the representant-restricted annual effective dose of 0.2 mSv.

According to the information provided in the EIA report, there is no need to change the limits of the existing SAZ due to the implementation of the PEA.

*Information about PEA monitoring*

Environmental monitoring is carried out in the territory of the industrial site of the INPP, within the boundaries of the sanitary protection zone and 30 km of surveillance zone. Environmental monitoring by INPP includes monitoring of environmental chemical status and monitoring of environmental radiological status. Monitoring of environmental chemical status controls chemical emissions and discharges from INPP to ambient air and waters, including greenhouse gases, water quality of the refrigerant, groundwater of INPP industrial sites and other facilities, surface (rain) effluents from the INPP industrial site into the environment.

Monitoring of environmental radiological status includes monitoring of INPP water discharges and

emissions, radionuclide activity in environmental facilities, doses of critical population exposure, meteorological parameters, monitoring of radionuclides from all INPP buildings and installations from sources of discharges and discharges.

There are also individual dosimetric controls of workers, workplace monitoring in accordance with the annual monitoring programme for the INPP workers and workplaces and the monitoring schedule for radiation protection at INPP. The monitoring of exposure of workers and workplaces shall be carried out in order to assess the effectiveness of radiation protection measures, ensuring safe working conditions from the point of view of radiation protection, taking into account the results of systematic measurements of the equivalent dose, air and surface radioactive contamination and the effective dose of workers, and to maintain the permissible doses of INPP personnel at a minimum level.

Individual monitoring of external exposure of personnel in 101/2 past. Dismantling and decontamination of unit 2 reactor R1 and R2 operating area equipment will be performed in RADOS system thermoluminescent dosimeters (basic dosimeter), KDT-02M TLD-500K dosimeters (emergency control), individual electronic direct reading dosimeters RAD-62, DMC-2000, EPD-Mk2, EPD-N2 (operational control).

Individual monitoring of internal exposure of personnel in the context of 101/2 past. Unit 2 reactor R1 and R2 work area equipment I and D, will be performed by a gamma spectrometry system of the AccuScan 2260-G2KG human radiation calculator.

#### *Information on the risk analysis carried out*

According to the risk assessment carried out by the PEA in the EIA report, no significant PEA risks due to emergencies and situations are foreseen. The scope of the EIA includes a risk analysis, analysis of possible accident scenarios, their causes and consequences. Each scenario is assigned a level of risk and measures to prevent and mitigate potential accidents, which include compliance with applicable safety requirements, the use of personal protective equipment, training and coaching and other technical and organisational measures.

### **6. Description of the measures envisaged to prevent, reduce, offset or eliminate adverse effects on the environment:**

6.1. The section of the EIA report entitled 'Selection and classification of risks in the context of the PEA' provides for the following measures:

- Compliance with the current occupational safety and health requirements of INPP;
- Use of personal protective equipment;
- Training and coaching of staff;
- Installation of warning signs and fencing areas;
- Use of slag traps, fire alarms;
- Audible and visual alarms of the mobile filter device;
- Radiological monitoring of working areas;
- Performance of air radiation monitoring in working areas;
- Installation of HEPA filter ventilation and air purification systems, etc.

6.2. In order to reduce the impact of PEAs on ambient air and public health, the EIA Report foresees that air pollutants during cutting will be cleaned with mobile filters, as well as existing high-efficiency aerosol filters installed in the ventilation system.

6.3. In order to reduce the potential radiological impact on the environment and public health, the EIA report provides for chemical and electrochemical decontamination of facilities.

6.4. In order to prevent the release of radionuclides into the environment, industrial waste water will be recycled as potentially radioactive waste water by pumping it to the INPP liquid radioactive waste recycling facility.

6.5. The EIA report provides for monitoring of actual radioactive releases into ambient air as well as workplace exposure.

### **6.6. significance of the impact of planned economic activities on Natura 2000 sites in the European ecological network**

The PFA is not related to the Natura 2000 sites of the European ecological network and its surroundings, since the location of the PFA is approximately 0.4 km away from the nearest area of importance for the conservation of habitats (hereinafter referred to as BAST) and the areas important for the conservation of birds — Lake Drūkšiai (code LTZAR0029, LTZARB003). The implementation of the

PEA will not lead to changes in the amount of waste water discharged into the environment, and the PFA will not have a thermal impact on the lake Drūkšiai. For these reasons, the Natura 2000 sites of the European ecological network will not be affected by the PEA.

#### **7. The conclusions of the EIA entities are as follows:**

7.1. The State Nuclear Power Safety Inspectorate, by letter No 22.1-299 of 12 April 2021 on the coordination of the Environmental Impact Report of Project 2102, informed that it agrees with the revised EIA report of the PEA “Dismantling and decontamination of the equipment in work zones R1 and R2 of Ignalina NPP 2” and concludes that the PEA is possible from a nuclear safety point of view.

7.2. By letter No (9-11-14.3.3-E)2-142272 of 21 December 2020 of the National Public Health Centre under the Ministry of Health, Utena approved the EIA report.

7.3. By letter No (1.28E)2-4059 of 4 December 2020 on the environmental impact assessment of planned economic activities (project 2102), the Radiation Protection Centre concluded that the PEA is possible.

7.4. By letter No 9.4-2584 of 17 December 2020 on the environmental impact assessment of planned economic activities (project 2102), the Fire and Rescue Department of the Ministry of the Interior approved the EIA report and the PEA.

7.5. By letter No (1.29-P)2P-320 of 7 December 2020, Panevėžys-Utena territorial division of the Department of Cultural Heritage under the Ministry of Culture approved the EIA report and the PEA.

7.6. Visaginas Municipal Administration approved the EIA report and the PEA by letter No (4.17E)-5379“On the environmental impact assessment of the planned economic activity (project 2102)” of 2 December 2020.

#### **8. Information and participation of the public**

Information about the public’s public introduction to the EIA report was published on the notice board of Visaginas municipal administration and on the website <http://www.visaginas.lt> (28 September 2020), the Republican newspaper Lietuvos rytas (24 September 2020), the INPP website <http://www.iae.lt>. The EIA report was made available in Visaginas Municipal Administration, INPP Information Centre and website [www.iae.lt](http://www.iae.lt). The public meeting on the EIA report was held remotely on 6/11/2020 through Microsoft TEAMS corporate platform. The meeting was attended by representatives of the drafter of EIA documents, the organiser of the planned economic activity, and the public. A brief report on the environmental impact assessment of the planned economic activity was submitted to the representatives of the public concerned. Following the notification, the representatives of the public concerned asked questions concerning certain clarifications relating to the technology of carrying out the works envisaged in the scope of the PEA, the scope of the works envisaged, the arrangements for the management of radioactive waste arising from the INPP, the impact on the population of the INPP region, etc. The representatives of the INPP provided the relevant answers and explanations to the questions asked. The drafter of the EIA documents registered and evaluated the proposals and comments submitted by the public concerned before the meeting, during the meeting and after the meeting, and prepared the minutes of the meeting.

On 18 May 2021, the Environmental Protection Agency published an EIA report to the public on its website <https://aaa.lrv.lt/> in the Reference Fields > Environmental Impact Assessment (EIA). No proposals for an EIA report were received from the public concerned within the deadline. Prior to the decision, the EIA participants did not provide information on possible irregularities in the identification, characterisation and assessment of the potential environmental impact of the PEA or in the context of EIA procedures.

#### **9. Cross-border consultation**

The PEA is listed in point 2 (b) of Annex 1 to the United Nations Economic Commission for Europe Convention on Environmental Impact Assessment in a Transboundary Context (‘the Espoo Convention’) as likely to have significant adverse transboundary effects on the environment.

In accordance with the Espoo Convention, the provisions of the EIA Law and other national legislation, the Ministry of the Environment, by letter No (10)-D8-110 of 26 May 2021, submitted to the Republic of Belarus, the Republic of Poland and the Republic of Latvia a non-technical summary of the environmental impact assessment of the planned economic activity — the dismantling and decontamination of equipment in work areas R1 and R2 of the State Enterprise Ignalina Nuclear Power Plant 2 (project 2102, phase 1) — requesting them to submit their opinion on the possible transboundary effects and their wish to participate in the transboundary environmental impact assessment.

In its letter ref. DOOŠ.TSOŠ.442.12.2021.ZM.5 of 24 June 2021, the Republic of Poland stated that

Poland did not and does not see the need to participate in cross-border environmental assessment procedures for the information submitted.

By letter No 5-01/653 of 1 July 2021, the Latvian State Environmental Protection Bureau submitted proposals for the summary of the EIA report prepared by the Ignalina Nuclear Power Plant. By letter ref. (10)-D8(E)-5652 of 6 September 2021, the Ministry of the Environment provided the Republic of Latvia with additional information relating to the environmental impact assessment of the PFA. By letter No 5-01/882 of 5 October 2020, the Latvian State Environmental Protection Bureau concluded that the State affected by the environmental impact, the Republic of Latvia, informs the State causing the impact — the Republic of Lithuania — of the end of the transboundary consultations on the PEA.

The Ministry of Natural Resources and Environmental Protection of the Republic of Belarus submitted 14 comments and proposals regarding the PEA EIA of the Ignalina Nuclear Power Plant by letter ref. 11-1/189-ТН0 of 30 June 2021. By letter ref. (10)-D8(E)-5653 of 6 September 2021, the Ministry of the Environment provided the Republic of Belarus with additional information relating to the environmental impact assessment of the PFA. The Ministry of Natural Resources and Environmental Protection of the Republic of Belarus submitted 11 additional comments and proposals regarding the PEA EIA of the Ignalina Nuclear Power Plant by letter No 11-1-1/9-ТН0 of 12 January 2022. By letter ref. (10)-D8(E)-5653 of 22 April 2022, the Ministry of the Environment provided the Republic of Belarus with additional information relating to the environmental impact assessment of the PFA, noting that the answers to the questions submitted by Belarus and all the information submitted make it possible to conclude that no significant transboundary effects are foreseen and that no transboundary environmental impact assessment procedures are necessary under the Espoo Convention.

The information and correspondence provided by the organiser of the planned economic activity can be found on the Ministry of the Environment website <http://am.lrv.lt> □ EN □ Activities □ Environmental Impact Assessment □ Environmental Impact Assessment in a Transboundary Context □ Dismantling and decontamination of equipment from the INPP Unit 2 Reactor working areas R1 and R2.

#### **10. The conditions set out in the Decision:**

10.1. In accordance with the procedure laid down in the Description of the Procedure for informing the public and participating in the environmental impact assessment process of the planned economic activity, approved by Order No D1-370 of the Minister for the Environment of the Republic of Lithuania of 15 July 2005 approving the procedure for informing the public and participating in the environmental impact assessment process of the planned economic activity, the developer of the PEA shall inform the public of the decision taken on the possibilities of the PFA.

10.2. The design for dismantling and decontamination of installations must include measures to ensure the safety of the work during dismantling and decontamination, as provided for in the EIA report.

10.3. The PFA customer must ensure radiation control of all waste water from the controlled area (including sewage from sanitary units).

10.4. Given that in the EIA report radionuclide activity has been assessed in the air based on the assumption that the aerosol filter cleaning efficiency will be 99.95 %, the PEA developer must ensure that this efficiency is achieved during their operation or the radionuclide activity reported in the EIA report does not exceed the calculated level.

10.5. The PEA developer must, at its own expense, implement the measures provided for in the EIA report to prevent, reduce, compensate or eliminate adverse effects on the environment.

#### **11. The main reasons for the decision are:**

11.1. The EIA environmental impact assessment entities that examined the EIA report and presented their conclusions supported the EIA report and did not object to the possibilities of the PEA.

11.2. The EIA rapporteur duly informed the public about the PEA in accordance with the requirements of the Public Information Procedure. The originator of the EIA documents assessed the proposals and comments submitted by the public concerned.

11.3. According to the information provided in the EIA report, the implementation of the PEA will not result in significant adverse effects on environmental air, water, soil and subsoil, protected areas and biodiversity, landscapes, cultural heritage sites, public health and interactions between those environmental components, by means of measures to reduce environmental impacts and the conditions set out in paragraph 10 of the Decision.

11.4. Potential radiological effects on environmental components outside the INPP industrial site

due to radioactive releases into the environment are expected to be negligible. The PFA will also not adversely affect the current radiological situation at the INPP site and will not have a negative impact on workers.

11.5. Following cross-border consultations with the Republic of Poland, the Republic of Latvia and the Republic of Belarus on the possible transboundary environmental impact assessment of the PEA, it is concluded that the planned economic activities will have no impact on the socio-economic or natural environmental components of neighbouring countries (Poland, Belarus, Latvia) and on the health of the population of these countries.

11.6. According to the information provided in the EIA report, waste management complies with the requirements of the Law on Radioactive Waste Management of the Republic of Lithuania, the Law on Waste Management of the Republic of Lithuania and other legislation regulating waste management.

11.7. INPP has many years of experience in previous dismantling and decontamination projects (B9-1, B9-0, B9-2, B9-5, B9-1(2)) and has a sufficient number of qualified personnel with experience in carrying out hazardous radiation works.

11.8. INPP's existing procedures governing organisational and technical measures for carrying out hazardous radiological work, as well as the dosimetric control system, ensure the radiation protection of workers.

11.9. According to the risk assessment carried out by the PEA in the EIA report, no significant PEA risks due to emergencies and situations are foreseen. The scope of the EIA includes a risk analysis, analysis of possible accident scenarios, their causes and consequences. Each scenario is assigned a level of risk and measures to prevent and mitigate potential accidents, which include compliance with applicable safety requirements, the use of personal protective equipment, training and coaching and other technical and organisational measures.

## **12. Nature of the decision:**

Having regard to the above considerations and in accordance with Article 10(1)(2) of the Law on Environmental Impact Assessment of planned economic activities, a decision shall be adopted: the planned economic activity — dismantling and decontamination of the work areas of Unit 2 of Ignalina Nuclear Power Plant R1 and R2 (project 2102) — is permitted according to the prepared EIA report.

The decision on the environmental impact of the planned economic activity is taken on the basis of the submitted EIA report, which was published on the Environmental Protection Agency's website <http://aaa.lrv.lt> in the Reference Fields  *Environmental Impact Assessment (EIA)*  2021  *Information on the EIA reports received for the planned economic activity in 2021* and is an integral part of this decision.

You have the right to appeal against this decision to the Lithuanian Administrative Disputes Commission (Vilniaus g. 27, 01402 Vilnius) in accordance with the procedure laid down in the Law on the Procedure for Pre-trial Settlement of Administrative Disputes of the Republic of Lithuania or to the Vilnius Regional Administrative Court (Žygimantų str. 2, 01102 Vilnius) in accordance with the procedure laid down in the Law on Administrative Proceedings of the Republic of Lithuania within one month of its publication or service.

Director

Milda Račienė

## DETAILED METADATA

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