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THE MINISTRY OF ENVIRONMENT OF THE REPUBLIC OF LITHUANIA

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Ministry of Natural Resources and
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10 Kollektornaya Street, Minsk
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**REGARDING THE REPORT ON RADIATION AND ENVIRONMENTAL MONITORING
IN THE AREA OF THE BELARUSIAN NUCLEAR POWER PLANT (2021)**

Referring to the letter of the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus of 26 August 2022, No. 11-1-1/4125, we are hereby sending our comments and proposals for the Report on Radiation and Environmental Monitoring in the Area of the Belarusian Nuclear Power Plant (2021) (hereinafter referred to as the Report):

1. The Report states that “the results of radiation monitoring in 2021 showed that the exposure rate at the observation points and at the posts of the automated radiation monitoring located near the Belarusian NPP construction site were in the range of 0.05-0.12 $\mu\text{Sv/h}$, which corresponds to the background values of this parameter.” However, there is no information about the locations of the observation points/monitoring posts and the methods of the measurements (manual, automatic, continuous). Additionally, we are of the opinion that the measurement data should be publicly available, preferably in real-time format.

2. The Report should contain information about the wind speeds and wind directions as measured by the nearest meteorological station for a statistically reliable period (e.g. the last 10 years).

3. The Report should contain information about extreme, anomalous and dangerous hydrological and meteorological phenomena in the area around Ostrovets and on the Neris (Viliya) River.

4. On page 42 (section 6.6. Seismological monitoring) the Report states that “the magnitude range of the registered earthquakes in the vicinity of the NPP is $M=1.1-2.9$, which does not exceed the seismotectonic potential of the earthquake areas, where their epicenters are located.” However, it is not clear what is the seismotectonic potential of the earthquake areas and does it differ from location to location? The concept of the seismotectonic potential should be more clearly explained.

5. It is stated on the same page 42 that “the maximum acceleration and the maximum intensity data was obtained for a remote earthquake of 6.2 magnitude in Greece on March 3, 2021, which amounted to 0.0511 cm/sec^2 ($0.51 \times 10^{-4}g$) and 1.0, respectively.” However, it is not clear how the maximum acceleration was converted to maximum intensity. The conversion procedure should be described.

6. Section 6.6 of the Report contains information about distant, regional and nearby earthquakes and man-made seismic events (explosions). However, the maps of the epicentres of seismic events should be also provided, especially for the nearby earthquakes ($R = 30\text{-}300 \text{ km}$).

7. The Report should contain a map with the locations of groundwater monitoring stations for the groundwater status assessment.

8. The Graph of the dependence of the groundwater level on the amount of precipitation (Graph 8.8) of the Report does not clearly show the variation of the groundwater level because of the same scale used for all the wells.

9. The Report should contain a table, summarizing the data on groundwater chemical monitoring results, namely the average, minimum and maximum values derived from the year 2021 monitoring results and the same values derived from the monitoring results before the construction of Belarusian NPP, which would serve as reference values for the groundwater monitoring data assessment.

Vice-minister
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