

Experience of Ukraine in Implementing of Rehabilitation Programs for Uranium Legacy Sites

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In Ukraine there are two former uranium processing facilities that are now classified as uranium legacy sites. These are the Production Association "Pridneprovsky Chemical Plant" and State Enterprise "Eastern Mining and Processing Plant".

The facilities associated with the former Production Association "Prydniprovsky Chemical Plant" (hereinafter referred to as "PCP") are located in the city of Kamenske (formerly Dniprodzerzhynsk) of the Dnepropetrovsk region. Historically, it was the most powerful mining and processing enterprise of the former USSR from 1949-1991. During the period of mining and processing at this site, approximately 42 million tons of radioactively contaminated uranium ore waste, uranium raw material residues and industrial waste was generated with a total activity of 3.14 10¹⁵ Bq. All wastes were placed in 9 tailings and storage facilities with a total area of 2.68 million m².

Rehabilitation measures at the former uranium facilities of "PCP" was approved by the Cabinet of Ministers of Ukraine. Rehabilitation activities were carried out within the framework of the State Targeted Environmental Programs the environmentally safe state in the period from 2003 to 2017.

On August 21, 2019 The Government of Ukraine approved the State Program (No. 756) on decommissioning former uranium objects of PA "PCP" into environmentally safe state and was determined to be protective of the public by The State Targeted Environmental Program of Priority Measures for Safeguarding the Objects and Site of the Former Uranium Production of the Production Association "The Prydniprovsky Chemical Plant" for 2019-2023.

The State Enterprise "Eastern Mining and Processing Plant" (SE "EMPP") is located in the city of Zhovti Vody of the Dnipropetrovsk region. SE "EMPP" has carried out mining and processing of uranium ores since 1951. The company currently supplies up to 40% of the uranium required for fueling the Ukrainian nuclear power plants. This State Enterprise consists three mines (Smolynska, Inhulka, Novokostyantynivska) and a hydrometallurgical plant. According to current life of mine calculations, uranium ore reserves will be exhausted by 2023 in the Vatutinske deposit. There is an issue about the closure of the mine Smolynska, which is working out this deposit.

For decommissioning of the mine Smolynska the Concept of The State Program State Targeted Environmental Program for The Decommissioning of Uranium facilities for 2020-2024. was developed. Currently the Concept is under consideration and approval stage with competent authorities.