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International Atomic Energy Agency

(/)

IAEA Team in Uzbekistan Concludes Site and External Events Design (SEED) Review for the Country's First Nuclear Power Plant

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Tashkent, Uzbekistan



(https://www.iaea.org/sites/default/files/styles/hd_1920x1080/public/seedmissionuzbekistan.jpg?itok=1D2Qg3NT)

IAEA safety review team members and Uzatom experts inspect the meteorological station near the selected nuclear power plant site (Photo: Neil Harman, Jacobs)

An International Atomic Energy Agency (IAEA) team of experts has concluded a five-day mission to Uzbekistan to review the country's safety processes for evaluating the site of its first nuclear power plant (NPP).

The Site and External Events Design Review Service (SEED) mission, which took place from 16 to 20 January, was carried out at the request of the Government of Uzbekistan and hosted by the state agency for the development of nuclear energy Uzatom in the capital, Tashkent.

Uzbekistan is planning to construct the plant in the southeast of the country. In 2017 the country signed an agreement with the Russian Federation to construct two VVER-1200 pressurized water reactors. In 2019 Uzbekistan initiated the process to select the site and installed a monitoring station for data collection on seismological, hydrological, meteorological and environmental parameters.

SEED missions (<https://www-ns.iaea.org/reviews/issc-reviews.asp?s=7&l=54>) assist IAEA Member States at different stages in the development of a nuclear power programme. This includes reviewing site selection, site assessment and design of structures, systems and components, taking into consideration site specific external and internal hazards.

The SEED mission included the review of the site data collection methods and of identification of external hazards that need to be considered with reference to the construction of the VVER-1200 units. The conclusions of the previous SEED review mission on site selection in August 2021 were also considered.

“The team found that Uzbekistan has carried out an objective and safety-oriented site characterization process that emphasised the safety of workers, public and environment, in accordance with the IAEA Safety Standards,” said Ayhan Altinyollar, Team Leader for the review and Nuclear Safety Officer in the IAEA Department of Nuclear Safety and Security.

The mission team comprised five experts from France, Türkiye and the United Kingdom, as well as two IAEA staff members. They conducted interviews with senior staff from Uzatom and relevant technical agencies and made a one day visit to the selected site.

The extent and quality of data collection and site monitoring campaigns were noted by the IAEA team as an excellent basis for site development.

“The involvement of all relevant national agencies and competent ministries in the site evaluation guaranteed an effective mission,” said Paolo Contri, Section Head of the IAEA External Events Safety Section.

The team provided recommendations to support the optimization of the site evaluation process. In particular, the IAEA team recommended that Uzatom:

- Reorganize existing data and collect the additional data needed, according to guidelines provided in SSR-1 (</publications/13413/site-evaluation-for-nuclear-installations>), to implement a management system that covers all aspects of site evaluation: work organization, planning, independent verification and documentation.
- Identify and select feasible engineering measures to provide plant cooling and site protection from external events, with reference to the specific plant technology selected by the owner and the number of units.
- Finalize the Preliminary Safety Analysis Report by referencing all recently collected site-specific data, and the site characterization process report, to ensure well-informed decision making related to construction licensing, investments and safety assessment phases.

“We requested the IAEA SEED mission as an integral part of our development of a nuclear power programme that meets the highest international standards of safety,” said Jakhongir Abdurakhmanov, Head of the Construction Department of Nuclear Facilities at Uzatom. “The IAEA’s recommendations will ensure we implement these standards literally from the ground upwards in siting and constructing our first NPP.”

The final mission report will be delivered to the Government of Uzbekistan within three months.

More

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