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**Lower part of inner containment dome installed at Tianwan NPP Unit 8**

*This important production stage precedes the commencement of installation of the main equipment at Unit 8*

The lower part of the inner containment dome has been installed in design position at Unit 8 of Tianwan NPP, which is under construction in China under the Russian VVER-1200 design. Large metal structures were pre-assembled on the ground on a separate stand. The total weight of the structure was 375.5 tons.

“Installation of the dome on the reactor building is one of the key milestones on the construction site. This is an important event that has been implemented at Unit 8. In the nearest months, the reactor containment will be installed and concreted, and installation of the main equipment of the reactor compartment will start – the reactor vessel, the steam generators and the reactor coolant pipeline,” said Alexey Bannik, Vice President for Projects in China and Prospective Projects of Atomstroyexport JSC.

Further, the specialists will assembly and install the upper part of the dome into the design position and perform welding operations to connect the metal structures of the lower and the upper tiers. After the completion of installation works of the dome, the builders will continue concreting of the containment.

**For reference:**

The reactor building is the main building at the NPP, where the nuclear steam supply system and its emergency cooldown systems are located. Use of the double containment in the design ensures the maximum exclusion of impact of accidental releases of radioactive products to the environment. This is a reinforced concrete structure protecting the reactor plant from external impacts and capable of sustaining an earthquake, tsunami or hurricane.

The outer containment serves as physical protection from external impacts for an inner containment. The inner containment is made of pre-stressed reinforced concrete and contains a cylindrical part and a hemispherical dome. The internal surface of the containment is lined with metal, which ensures leak-tightness of the inner containment in all operating modes of the NPS, including emergency ones. The inner containment is one of the key localizing safety systems.

Tianwan NPP is the largest project of economic cooperation between Russia and China. Currently, two power units are being built according to the Russian design with reactor plant VVER-1200. The four units of the Russian VVER-1000 design which have been built earlier, are successfully operating and supplying millions of kilowatts of energy to the country's power grid. On June 8, 2018, the Intergovernmental Protocol and the frame contract for construction of TNPP Units 7&8 with VVER-1200 reactors were signed in Beijing. From the Russian party, the contract was signed by the Rosatom State Corporation Engineering Division, and from the Chinese party – by CNNC companies. In accordance with these documents, the Russian side has designed the nuclear island and it will supply the key nuclear island equipment for both units. The following executive contracts were signed as well: the technical design contract for Units 7&8 and the general contract for Units 7&8. In accordance with the signed contracts, the Engineering Division is involved in designing and delivery of nuclear island documentation and equipment and provision of associated services (such as designer supervision, installation supervision, adjustment supervision). The works on construction of Units 7&8 started on May 19, 2021.

The Rosatom State Corporation Engineering Division unites the leading companies of the nuclear industry, namely: Atomstroyexport JSC (Moscow, Nizhny Novgorod, branches in Russia and abroad), Joint Design Institute – Atomenergoproekt JSC (Moscow, Nizhny Novgorod, St. Petersburg branches – design institutes, branches in Russia and abroad, R&D branches) and subsidiary construction organizations. The Engineering Division ranks first in the world by the order portfolio and the number of NPPs constructed simultaneously across the world. About 80% of the Division’s revenues originate from foreign projects. The Engineering Division implements construction projects for high-power NPPs in Russia and across the world, renders a full range of EPC, EP, EPC(M) services including project management and design activities, and develops Multi-D technologies for the management of complex engineering facilities. The Division relies on the achievements of the Russian nuclear industry and innovative state-of-the-art technologies. [www.ase-ec.ru](http://www.ase-ec.ru/).