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**Concreting of turbine set foundation completed at Akkuyu NPP Unit 3 (Türkiye)**

*The high-tech turbine set system is designed to convert steam energy into mechanical energy that turns the turbine and generator rotor to generate power*

Russian and Turkish builders of the Akkuyu NPP (being constructed by Rosatom in Türkiye) have completed concreting the foundation of the turbine set of the third power unit.

The robust foundation is able to withstand and evenly distribute the heavy loads generated during turbine operation. A spatial reinforcement frame with dimensions of 58.2 meters by 20.4 meters and a height of 5.3 meters was constructed to erect this unique structure. It consists of horizontal and vertical high-strength steel rods with diameters ranging from 8 to 36 mm, connected to each other by threaded couplers. Due to the high processability and convenience of working with the couplers, it was possible to achieve a significant reduction in installation time and labor costs.

In total, over 307 tons of reinforcement steel was placed in the foundation. In addition, the foundation structure incorporates process penetrations and embedded parts weighing a total of 70 tons. For comparison, an electric train consisting of a locomotive and five cars weighs about 300 tons.

"Using the continuous concreting technique, 2220 cubic meters of high-strength self-compacting concrete was placed in the foundation structure of a complex geometric shape. The design maturing period will be 56 days. During this time there will be monitoring and steam curing, especially important to ensure high quality of the massive foundation structure," said Sergei Butсkikh, Chief Executive Officer of Akkuyu Nuclear JSC.

After the concrete slab has reached its design strength, Akkuyu NPP engineers will start full-scale work on the installation of the turbine-generator plant.

**For reference:**

Akkuyu NPP is the first nuclear power plant being built in the Republic of Türkiye. The Akkuyu NPP project includes four power units equipped with Generation 3+ VVER reactors of Russian design. The capacity of each power unit will be 1200 MW. Akkuyu NPP is the first project in the global nuclear industry being implemented according to the Build-Own-Operate model.