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**Moisture separator reheaters installed at Akkuyu NPP Unit 1 (Türkiye)**

*The equipment of the new improved design is installed in the turbine hall of the Power Unit*

The installation of horizontal moisture separator reheaters (MSR) has been completed in the turbine hall of Akkuyu NPP Unit 1. The equipment is a part of the NPP steam turbine plant auxiliary systems. MSRs are used to maintain the parameters of temperature and humidity of the steam, which rotates the blades of the turbine rotors.

The MSR operating principle is based on centrifugal acceleration, which allows steam and water to be separated. When passing through the separator, the steam and water mixture moves in a circle. Large particles of water settle on the walls of the separator and partitions. Then they are removed through the drain nozzle. The internal parts in contact with wet steam are produced from ferritic stainless steel, which eliminates erosive and corrosive wear. The weight of each product is 317 tons, the length is 22 meters, the diameter is 4.5 meters.

Rosatom State Corporation has manufactured horizontal MSRs especially for Akkuyu NPP. Previously similar equipment was manufactured in Russia only in vertical design. The optimized MSR modification made it possible to combine two devices of traditional design in one case and thus their number was reduced from four to two. Also, Russian machine builders have reduced the metal consumption for separation reheaters production almost by half, while generally increasing their efficiency, reliability and cost-effectiveness.

*“The innovative horizontal layout of separation reheaters allowed us to reduce the time of their installation significantly. The equipment installation is an important stage in the turbine components assembly process followed by the installation of control and measuring devices and automation, as well as steam and pipelines, and then the preparation of the turbine plant for testing,”* said Akkuyu Nuclear JSC First Deputy Chief Executive Officer, Director of Akkuyu NPP under Construction Sergei Butckikh.

**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 III+ VVER reactors of Russian design. The capacity of each power unit is 1200 MW.

Russia continues a productive dialog with its foreign colleagues, developing cooperation with countries from all over the world and actively forming a multi-polar system of international relations. The implementation of major foreign energy projects also continues. Rosatom and its enterprises take active part in this work.