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**Rosatom's Mechanical Engineering Division has shipped equipment for the safety system of the Xudapu Nuclear Power Plant (China)**

*It is planned to complete the manufacture of equipment for new nuclear power plant units based on a Russian design in China by the end of the year*

**Petrozavodskmash Factory (Rosatom's Mechanical Engineering Division) shipped to Unit 4 of Xudapu NPP (China) an emergency core cooling system (ECCS) vessel designed for automatic liquid supply to the reactor (may be required in case of pressure drop in the primary circuit). The shipment ceremony became one of the central events of the celebration of the 65th anniversary of the factory’s foundation; the ceremony was attended by Artur Parfenchikov, Head of the Republic of Karelia, Andrey Nikipelov, Deputy General Director of the State Atomic Energy Corporation Rosatom for Machine Building and Industrial Solutions, and Igor Kotov, Head of Rosatom's Mechanical Engineering Division.**

”Petrozavodskmash makes a significant contribution to the economy and industrial development of Karelia. The plant is inextricably linked to the republic – it was founded on the 40th anniversary of Karelia. And in this anniversary year, we are honouring the factory's veterans, talking about its achievements and recognising its best employees. Today, Petrozavodskmash is one of Rosatom's key enterprises. The plant does not just operate, it creates new jobs and increases the tax base of our budget. Petrozavodskmash is one of the most modern and advanced enterprises in the nuclear industry. It is a plant where digital technologies are already part of everyday life. It is an interesting and promising place to work for our Karelian youth. This means that our industry and our republic have excellent opportunities for development and a bright future,” commented **Artur Parfenchikov**.

**Andrey Nikipelov** noted: ”Petrozavodskmash manufactures equipment that is unique to the industry and participates in all Rosatom projects for the construction of nuclear power plants. In the coming years, the company's workload will increase significantly. There is high demand for Russian nuclear technology around the world. Rosatom is the number one company in the construction of nuclear power plants abroad, and we continue to expand our technological presence. There are many tasks in Russia. In accordance with the new general plan for the location of power facilities, by 2042, our country's nuclear capacity will be increased by 38 units. Green nuclear energy will come to regions where it has not yet been available. Therefore, Petrozavodskmash's task for the coming years is to manufacture the equipment necessary for our projects quickly, efficiently and in large volumes.”

”To date, Rosatom's Mechanical Engineering Division specialists have manufactured 95% of the contracted equipment for four new power units under construction at the Tianwan and Xudapu nuclear power plants. Petrozavodskmash, in particular, has shipped the main circulation pipelines, main circulation pump housings, safety system equipment, and much more. By the end of 2025, the manufacture of all products involved in the operation of the ‘nuclear’ island will be completed. Rhythmic work and timely delivery confirm the status of machine builders as responsible suppliers to foreign partners and strengthen Rosatom's leading position in the global nuclear energy market,” said **Igor Kotov**.

In total, the safety system set for one NPP power unit includes four vessels. The fourth and last vessel from the set for Unit 4 will be shipped by the end of June 2025.

**For reference:**

**Сontainer of the emergency core cooling system (ECCS)** is a thick-walled cylindrical high-pressure vessel with two elliptical bottoms, made of double-layer clad steel. The weight of one container of ECCS is about 80 tonnes, and its diameter is more than three metres. The volume of each container is 60 cubic metres, which is equivalent to approximately five tanker trucks. ECCS containers are filled with an aqueous solution of boric acid – this liquid is automatically fed into the reactor to cool the core in the event of a pressure drop in the primary circuit.

**Rosatom's Mechanical Engineering Division** is Russia's largest energy engineering holding company in terms of production volume and revenue. It is a complete supplier of reactor island and machine room equipment for all Russian-designed nuclear power plants under construction, a manufacturer of equipment, and a developer and supplier of integrated solutions for energy, oil and gas, and other industries. It includes, for example, the Petrozavodskmash factory in Karelia, the largest machine-building site in the region (the enterprise specialises in the production of main circulation pumps, GCT pipe assemblies, emergency cooling system tanks and other equipment) and the Atommash factory in Volgodonsk, which manufactures complex equipment for virtually all nuclear construction projects in Russia and abroad. aem-group.ru

**Petrozavodskmash Factory** is the largest machine-building facility in the Republic of Karelia. The company manufactures first and second class safety equipment for nuclear power plant reactor rooms: main circulation pump unit (MCPU) housings, main circulation pipes, pressure compensators and steam generator manifolds, and nuclear reactor safety system tanks. The plant's equipment is used at the Novovoronezh, Leningrad, Rostov and Kursk nuclear power plants in Russia. Internationally, it is used at nuclear power plants in Belarus, India, Bangladesh, Turkey and China. In 2025, the plant will celebrate its 65th anniversary. Since 2010, the enterprise has been part of Rosatom's Mechanical Engineering Division and is a member of the Russian Engineering Union. Since then, the plant has manufactured more than 150 high-tech products with a total weight of 27,500 tonnes.

**The Xudapu NPP** is being built in China based on a Rosatom design. In 2019, a number of contracts were signed, including a general contract for the construction of power units No. 3 and No. 4 of the Xudapu NPP with VVER-1200 reactors, as well as a contract for the supply of nuclear fuel. In accordance with the contracts, the Russian side is designing the nuclear island of the power plant, supplying key equipment for both power units, and providing project support, installation supervision, and commissioning of the supplied equipment.

For the four power units under construction at the Tianwan and Xudapu NPPs in China, Karelian machine builders manufactured and shipped primary circuit manifolds, main circulation pump casing sets, main circulation pipelines, and safety system tanks. In 2023-2024, four VVER-1200 Generation 3+ reactors and 16 steam generators were shipped from the Atommash mechanical engineering factory for power units No. 7 and No. 8 of the Tianwan NPP and No. 3 and No. 4 of the Xudapu NPP.

Russia is actively developing cooperation with all interested countries. In particular, the State Atomic Energy Corporation Rosatom is actively cooperating with the People’s Republic of China in the field of nuclear energy in all key areas. The implementation of major international projects continues.