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**PRESS RELEASE July 11, 2023**

**Nuclear equipment for Xudapu NPS has been shipped by AEM-Technologies Atommash**

AEM-Technologies Atommash is a production site of AEM-Technologies, included in mechanical engineering division of Atomenergomash that belongs to Rosatom State Corporation. Atommash has manufactured and shipped a set of equipment – nuclear reactor and four steam generators for Unit 3 of Xudapu nuclear station currently under construction in China.

Total weight of the item is 1.700 tons. The equipment will be shipped by combined method: motor transport to deliver the cargo to a specialized plant terminal. Once moved on a barge, the items will go along the waterways to the Port of Saint Petersburg, and then they will be delivered by sea to China.

“Production of equipment for four power units in the People's Republic of China is one of the key projects of strategic partnership development in the energy sector of Russia and China. It is personally monitored by Aleksey Yevgenyevich Likhachev, General Director of Rosatom State Corporation. In April this year, the first set of equipment was shipped, including the reactor and four steam generators for Unit 7 of Tianwan NPS, while today we have shipped the set of equipment for Unit 3 of Xudapu NPS. In 2024, equipment will be shipped for the next two power units of these power stations. The pace is high, but Atomenergomash will ensure it, while maintaining the highest level of products quality and safety”, noted Igor Kotov, General Director of Atomenergomash JSC.

The reactor is a vertical cylindrical vessel with elliptical bottom, with the reactor core and internals located inside. At the top, the equipment is tightly closed with a cover with drives of machines and regulating and protection devices, nozzles for output of cables and sensors of in-core instrumentation system, installed on it. The reactor vessel is about 13 meters long, 4.5 meters in diameter, and weighs 320 tons.

At all stages of the production cycle, the basic priority is given to the production quality and safety issues in process of subsequent operation. Comprehensive quality management is implemented from the very start of production of a metallurgical blank and until the date of shipping a finished item to a Customer. All forged blanks are subjected to incoming inspection, which, besides visual inspection, measurements and check of accompanying documentation, also includes ultrasonic test of base metal in scope of 100 %.

Apart from visual and dimensional inspection, each welded joint is subjected to several types of non-destructive inspections: dye penetrant test, ultrasonic test, while all circumferential welds of the reactor are subjected to radiographic test. Several tests are carried out after each operation that affect the structural changes in metal, for example, heat treatment. Such tests are carried out to verify compliance of mechanical properties with the regulatory documentation requirements.

Steam generator is a heat exchange device that is included in the reactor unit. The device is approximately 14 meters long, more than 4 meters in diameter, and weighs 35 tons. The set of equipment for one NPS unit includes four steam generators.

Russia consistently develops international trade and economic relations, emphasizing cooperation with friendly countries. Despite external constraints, the domestic economy is increasing its export potential, supplying goods, services, and raw materials all over the world. Atomenergomash JSC takes active part in such activities.

Xudapu NPS is located in Liaoning province, PRC. Power Units 3 and 4 are being constructed under NPS-2006 project and meet the modern IAEA safety requirements. Design and construction of the facility is carried out by the Machine Engineering Division of Rosatom State Corporation. Atommash is currently in the process of manufacturing the reactor vessel with internals, cover, and upper unit and a set of steam generators for Unit 4 of Xudapu NPS.

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*AEM-Technologies, JSC is the largest company in the structure of Atomenergomash JSC, the mechanical engineering division of Rosatom State Corporation. It is one of the leading Russian manufacturers in the field of power engineering and the only industrial complex in Russia with a full production cycle: from in-house production of metallurgical blanks to finished high-tech oversize products with the possibility of shipment anywhere in the world.*

*Atomenergomash JSC is a mechanical engineering division of Rosatom State Corporation, one of the leading power engineering companies in Russia in terms of production volume and revenue. The holding is a complete supplier of reactor island and turbine hall equipment for all Russian-designed NPPs under construction, a manufacturer of equipment for LNG projects, waste-to-energy plants, a developer and supplier of integrated solutions for the power industry, oil and gas complex, shipbuilding and other industries.  Our technologies and equipment support about 20 % of the world's nuclear power plants. The company unites leading research, engineering, and production enterprises in Russia and abroad. It is a member of the Russian Engineering Union. Official website* [*www.aem-group.ru*](http://www.aem-group.ru)

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