## AKKUYU NGS'nı KURMAKTA OLAN ROSATOM ŞİRKETİNE EMAIL ILE SORDUĞUM AŞAĞIDAKİ SORUMA 04.06.2021 günü 2.Sayfadaki YANIT GELDİ

**Dear Sir** 

I looked over your descriptions of VVER 1200 for Akkuyu but I could not find an answer to my following question : Are the control rods planned for Akkuyu internally locked at a certain level that personnel can not be able to take them mechanically up, so that an accident similar to Tchernobyl can not happen? Thanks for your answer Dr.Yüksel ATAKAN Radiation physicist

Germany

## STATE ATOMIC ENERGY CORPORATION ROSATOM (Rosatom State Corporation)

B. Ordynka St., 24, Moscow, 119017 Phone (499) 949-45-35, fax (499) 949-46-79 E-mail: info@rosatom.ru OCPO 84695609, OGRN 107779903292926 INN 7706413348, PPC 997650001

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On <u>No. 15.05.2021</u> On consideration of the appeal

Atakan Yuksel Dr.

ybatakan3@gmail.com



In response to your request for the technical device of the VVER-1200 reactor for the Akkuyu nuclear power plant (akkuyu nuclear power plant), I say the following.

Akkuyu nuclear power plant is being built on the Russian project of the nuclear power plant-2006 with the VVER-1200 reactor plant, which belongs to the generation of reactors of the 3. The VVER-1200 reactor plant is the result of the evolutionary development and improvement of reactor plants with waterwater power reactors, the technical solutions of which have been tested during the construction and operation of power units within the existing nuclear power plants of Russia for more than 50 years.

The VVER-1200 reactor power plant differs significantly from its predecessors (VVER-1000) in terms of specifications and safety principles, taking into account the experience of accidents at the Chernobyl nuclear power plant and the Fukushima nuclear power plant.

The active zone of the VVER-1200 reactor plant, used in the Akkuyu nuclear power plant project, is designed in such a way that any changes in reactivity due to the reactiveness and reactivity effects in emergency states do not cause unmanageable growth of energy output in the active zone, which causes damage to heat-emitting elements.

The control and protection system is designed so that the emergency protection function is performed automatically in case of emergency situations. Emergency protection takes precedence over other types of protection and control commands, the emergency protection is brought to an end even in the case of the removal of the signal of the root cause of its triggering.

In order to prevent the erroneous actions of the personnel in triggering the emergency protection of the reactor:

Automation prohibits manual exposure to the controls for up to 30 minutes;

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- ensures the priority of automation actions before the commands of personnel, the need to enter a confirmation command to perform manual management of personnel, i.e. the team is served by two actions: the command to manage the object and the team to confirm its performance;

- Until the security equipment features are completed, local protections of this equipment and the operator's command are blocked from disabling it;

Automatic functional and group management is provided to reduce the number of staff actions.

I also inform that the Akkuyu nuclear power plant project was considered by the regulatory body of the Republic of Turkey, the Atomic Energy Agency (TAEK), which results in TAEK's license for the construction of the Akkuyu nuclear power plant.

Thank you for the appeal.

Division manager A.Yu Petrov