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**Rooppur NPP Team Received Training in Handling Nuclear Fuel for VVER Reactors**

*The team completed their training at a Rosatom research institute*

The Bangladeshi personnel of the Rooppur NPP, currently under construction in the People’s Republic of Bangladesh, received training at a Rosatom research institute in Troitsk (Russia). Top experts from the Department of Theoretical Physics, Computational Mathematics, and Advanced Engineering, contracted by Rosatom’s Fuel Division, instructed Bangladeshi engineers for three weeks on handling VVER reactor nuclear fuel and utilizing advanced computer analysis tools.

In particular, the nuclear engineers studied the RTOP-CA code, which simulates the loss of integrity of fuel rods and the release of fission products into the primary circuit of the VVER reactor. The knowledge and skills acquired will help the Rooppur NPP team understand the interrelated physical processes and the behavior of nuclear fuel under abnormal conditions.

"An important aspect of any international NPP project is initial and further personnel training. One of the further training areas is using advanced computer simulation tools. The training program provides a comprehensive study in this area. It includes theoretical lectures, reading the technical documents, and practical tasks to control the fuel rod integrity," noted Kirill Ilyin, General Director at the Rosatom research institute in Troitsk.

After the training, the Bangladeshi teams passed their final exams and received RTOP-CA user certificates.

"The training sessions for the Rooppur NPP personnel provided by the Rosatom Research Institute experts, are a great opportunity to boost our competences. The training included both theoretical and practical studies. The lectures, assignments, and tutorials were concise, easy to understand, and directly related to our jobs. Rosatom experts have an in-depth understanding of the processes and are highly competent. They readily answered our questions and provided detailed explanations. Last but not least: on weekends, we attended amazing guided tours organized by the host. We had the opportunity to get to know Moscow and the history and culture of Russia. We visited the Atom Museum at the Russian National Expo, the Kremlin, the Armory, the Tsvetnoy Boulevard Circus, and other landmarks of the Russian capital. I would like to express our gratitude to the institute’s team. They put a lot of effort into making our studies as effective and memorable as possible!" said Mohammad Shorif Uddin, head of the Fuel Rod Jacket Spectrometry and Monitoring, Rooppur NPP.

**For reference:**

The RTOP-CA (Reactor Fuel – Coolant Activity) code has been developed under a contract with TVEL for in-process monitoring of fuel rod jackets. The code predicts the activity of fission products in the primary circuit coolant of VVER reactors and the behavior of fuel rods in case of jacket loss of integrity. In 2009, the RTOP-CA code received certification from the Center for Nuclear and Radiation Safety, Federal Environmental, Industrial and Nuclear Supervision Service. In 2021, the code received a new certificate which extended its scope of application for VVER-1200/1300 reactors. In 2021, the Akkuyu NPP team (Turkey) received training in using the RTOP-CA code.

Rooppur is a nuclear power plant under construction in the Republic of Bangladesh. The construction site is on the east bank of the Padma River, 160 km from Dhaka, Bangladesh’s capital city. The Rooppur NPP is a Russian project. The plant will have two power units with VVER-1200 reactors, an electrical capacity of 1200 MW each. The reactor life cycle is 60 years and can be extended for another 20 years.

Rosatom provides regular training for the Rooppur NPP operating personnel. About 1,500 Bangladeshi engineers will participate in training sessions and internships at Rosatom facilities. To date, about 800 have already received the training at the Rosatom Technical Academy.

Russia is actively fostering cooperation with every nation interested. Many large-scale international projects are in progress. Rosatom and its enterprises are active contributors to these activities.