

### **Briefly about the activities of the last weeks**

On Wednesday, 4 October 2023, at 11:30 p.m., the Krško Nuclear Power Plant operators noticed increased leakage of the primary cooling circuit in the containment. A decision was made to shut down the power plant conservatively, even though the increased leakage represented approximately 20% of what was allowed according to the plant's Technical Specifications describing limiting conditions for operation. On a Friday morning, 6 October, the reactor was shut down. On Sunday, the exact location of the leak was identified on a segment of the connecting piping to the reactor vessel on a high-pressure safety injection system, which is one of the emergency core cooling systems.

Nuclear safety was not compromised during the event, as the leak was within the limits required for normal plant operation. There were no releases of radionuclides in the surrounding area. All safety systems were available. The equipment and personnel responded in compliance with the project basis and expectations.

Shortly after determining the damage to the pipe, the plant started repair in compliance with the regulations and the basic standard for repair and replacement of the primary system component. For the preparation and repair, the original plant designer and equipment supplier – Westinghouse was engaged with the support of domestic industry.

Non-destructive examinations were carried out on the leaking pipeline and similar ones on another line. Based on the results of the examination and the similarity of the two lines, the plant decided to replace the segments of both pipelines from the connection on the reactor vessel to the corresponding check valve. Preparations for the replacement of pipelines followed: procurement of materials, engagement of contractors, preparation of documentation, and training of personnel with emphasis on training welders to work in demanding conditions. From the beginning of the work, the authorized organizations of the SNSA were also involved in the supervision.

When all the conditions for a safe and high-quality pipeline replacement were met, we started removing the pipeline segments in the power plant; we prepared new segments at a local subcontractor and installed them. All work was done in cooperation with Westinghouse. When replacing both pipeline segments, we installed new materials that are identical to the original. All new welds were inspected with prescribed non-destructive methods.

The Krško NPP and the authorized organizations concluded that the replacement of pipeline segments on both safety injection lines was the optimal and most conservative measure. The plant sent to SNSA Analysis Report After Deviation and the supporting study. SNSA confirmed that the Krško NPP implemented all necessary and expected measures and thus fulfilled the prerequisites for safe plant operation.

Then, we moved 121 fuel elements from the spent fuel pool back into the reactor vessel and, per the procedures, continued preparations for restarting the power plant. The organizations authorized by SNSA gave a positive opinion of the start-up after independent monitoring of the activities.

In the weeks since the shutdown, the Krško NPP employees have completed all corrective work with professional and reliable partners; the power plant again produces electrical energy, which is distinguished by its low carbon content and competitive price.