

KONČAR’s Long-Term Operational and Maintenance Support at the Krško Nuclear Power Plant

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KONČAR – Electrical Industry Inc. has maintained an enduring presence in the nuclear energy sector for more than 40 years, with long-term involvement in maintenance and service activities at the Krško Nuclear Power Plant (NEK). Our cooperation focuses on delivering preventive and corrective maintenance activities on key electrical machinery that underpin the reliability and operational readiness of one of the region’s most important low-carbon power generation facilities.

Within this partnership, KONČAR has been engaged in the regular maintenance of NEK’s main generator, two auxiliary diesel generators, and 36 high-voltage motors according to the plant’s 18-month outage schedule. These activities are integral to supporting safe, dependable operation within a highly regulated nuclear environment.

KONČAR’s scope of work encompasses scheduled inspections, comprehensive diagnostics, mechanical and electrical refurbishment, component repair and replacement, performance testing and verification in accordance with applicable technical and quality assurance standards. Activities are executed both on-site during planned outages and supported by specialized workshop capabilities, ensuring traceability, rigorous documentation and compliance with safety requirements. Through decades of cooperation, KONČAR has built in-depth technical knowledge of maintenance of large rotating electrical machines operating in nuclear power applications, as well as robust processes for outage planning, rapid fault response and long-term asset management.

In addition to site-specific activities at NEK, KONČAR’s experience in the nuclear sector extends globally. To date, the company has delivered 78 high-voltage synchronous generators and asynchronous motors to nuclear power plants worldwide, demonstrating its capability to meet stringent performance and quality requirements for critical power generation equipment.

This presentation will provide an overview of KONČAR’s operational and maintenance framework at the Krško Nuclear Power Plant, highlight practical experience and technical practices applied in a nuclear environment, and underline the importance of reliable industrial partnerships in supporting safe and stable long-term nuclear power plant operation.

Keywords: *nuclear power plant, main generator, auxiliary diesel generators, high-voltage motors, operation and maintenance, reliability*