



Quality and Safety Assurance – Priority Task at Nuclear Power Projects Implementation

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Quality and safety assurance at implementation of nuclear power engineering projects is important and difficult task for realization. Many problems arise during this process, when many companies from different countries participate, with various kinds of activities and services provided.

The scope of activities necessary for quality and safety assurance is therefore quite expanded and diverse.

In order to increase the safety and reliability of Kozloduy NPP Plc (KNPP) Units 5 & 6, as well as to bring the units in conformity with the newest international requirements for quality and safety in the field of nuclear energy, a program for their modernization on the basis of different technical studies and assessments was implemented. The Units 5 & 6 Modernization Program of Kozloduy Nuclear Power Plant was composed of 212 modifications aimed to improve the safety, operability, and reliability of the Units. The Program was realized by stages during yearly planned out-

ages since year 2002 to 2007, without additional outages.

A major Program objective was to extend the units life time in at least 15 Years, under a continuous, safe, and reliable operation.

The Modernization Program of Units 5 and 6 of the Bulgarian Nuclear Power Plant in Kozloduy was the first and for the time being the only one in the world, program in the field of nuclear power engineering, by which the full scope of recommendations for improvement of the Kozloduy NPP units was applied.

The main goal of the National Electric Company, which is the Employer for the construction of new nuclear facility in Bulgaria, is after completion of all activities regarding construction of Belene NPP the plant to meet or exceed the requirements of the respective national and international quality and safety codes and standards, as well as the IAEA guidelines, as they are established.

The objective of this report is to describe different aspects of the quality assurance according to the requirements of quality and safety standards at implementation of complex energy projects. Experience is shared on the basis of implementation of the Units 5&6 Modernization Program of Kozloduy NPP and the project "Construction of Belene NPP". Examples are given related to the definite quality improvement goals achievement in case of participation of big multinational and international companies.

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