

Evaluation of Design Process Capacity Based on SPC

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Design document is the output of design process, so the design quality and design document quality is determined on the design process capacity. The control of design process is the key stage to assure the design quality and the design document quality. The design document verification process is the key stage to make sure the design output satisfy the request of design input, so the design quality is determined on the design document verification process capacity.

Based on SPC and typical quality characteristic index, the evaluation of design document verification process capacity was discussed. In this paper, analysis control chart was used to reject the abnormal factors so that the design process was adjusted to the state in statistical control, and the process capacity index was used to quantificationally evaluate and adjust the technical steady state, controllable control chart was applied to real time monitoring the process and quantificationally analysis for the process quality, and early warning for abnormal factors.

This method was applied in the Nuclear Power Plant Project, design process capacity was quantificationally analyzed, and abnormal factors were early warned, so as to take corrective actions back to controlled state.