

## The Cure for Chemical Effects on Generic Safety Issue at Kori Unit1

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Nuclear power plant which take charge more than half of domestic energy, and nuclear reactor safety was kept by the containment building of that. Specially, the ECCS(Emergency Core Cooling System) is designed to protect the NPP from severe accident.

US NRC(Nuclear Regulatory Commission) is giving guideline through GSI-191 about safety reevaluation and improvement for ECCS . NRC point out this item at issue by Generic Letter 04-01. At GL04-01,the chemical effects on ECCS was hot issue.

In connection with this, domestic research has achieved in KHNP's NETEC, and is accommodating NRC's methodology.

In this study, the chemical effects on ECCS is introduced. I wish to present solution way that can improve ECCS's performance through the method of the computer chemical simulation and the experiments. Specially, domestic study has progressed, and now, at Kori Unit1 (NPP) in 2006.

According to the study results, I wish to introduce the improvement methodology to reduce the chemical effects at ECCS. The methodology include ECCS screen extension, the replacement of buffering agents, and the chemical precipitation simulation by using computer.