

STUDY ON THE DEVELOPMENT OF LRB AND EQS SEISMIC ISOLATION DEVICES FOR APR1400

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ABSTRACT

Recently, as the frequency and magnitude of earthquakes have been increased, interest in the seismic performance improvement of nuclear power plants has been increasing. The seismic performance of a nuclear power plants can be improved by increasing the ground acceleration during seismic resistance design and by applying seismic isolation devices. If the ground acceleration is designed to be large, seismic qualification of many devices and structures have to be performed, which increases the time and cost. However, if a seismic isolation system is installed in the existing seismic resistance design nuclear structures, the cost of redesign and seismic qualification can be reduced compared to the seismic resistance design. For this purpose, it is developed the LRB(Lead Rubber Bearing) and EQS(Eradi-Quake System) seismic isolators for the export type nuclear power plant in Korea and verified various performance.