

Analysis of Nuclear Power Plant Containment

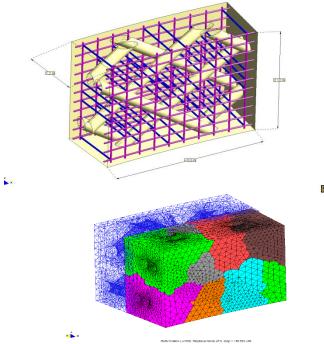
Challenge

Prediction of security of concrete containments which contain nuclear reactors. Possible prolongation of service life.

Three-dimensional non-linear time dependent coupled thermomechanical analysis on parallel computer was used.

Goals

- Estimate durability and integrity of containment.
- Estimate damaged zones and cracks in concrete.
- Compare results with in situ measurements.



Benefits

Numerical analysis is in good accordance with in situ measurements. No significant damaged zones and cracks were detected. Containment is able to serve safely for next several years.



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