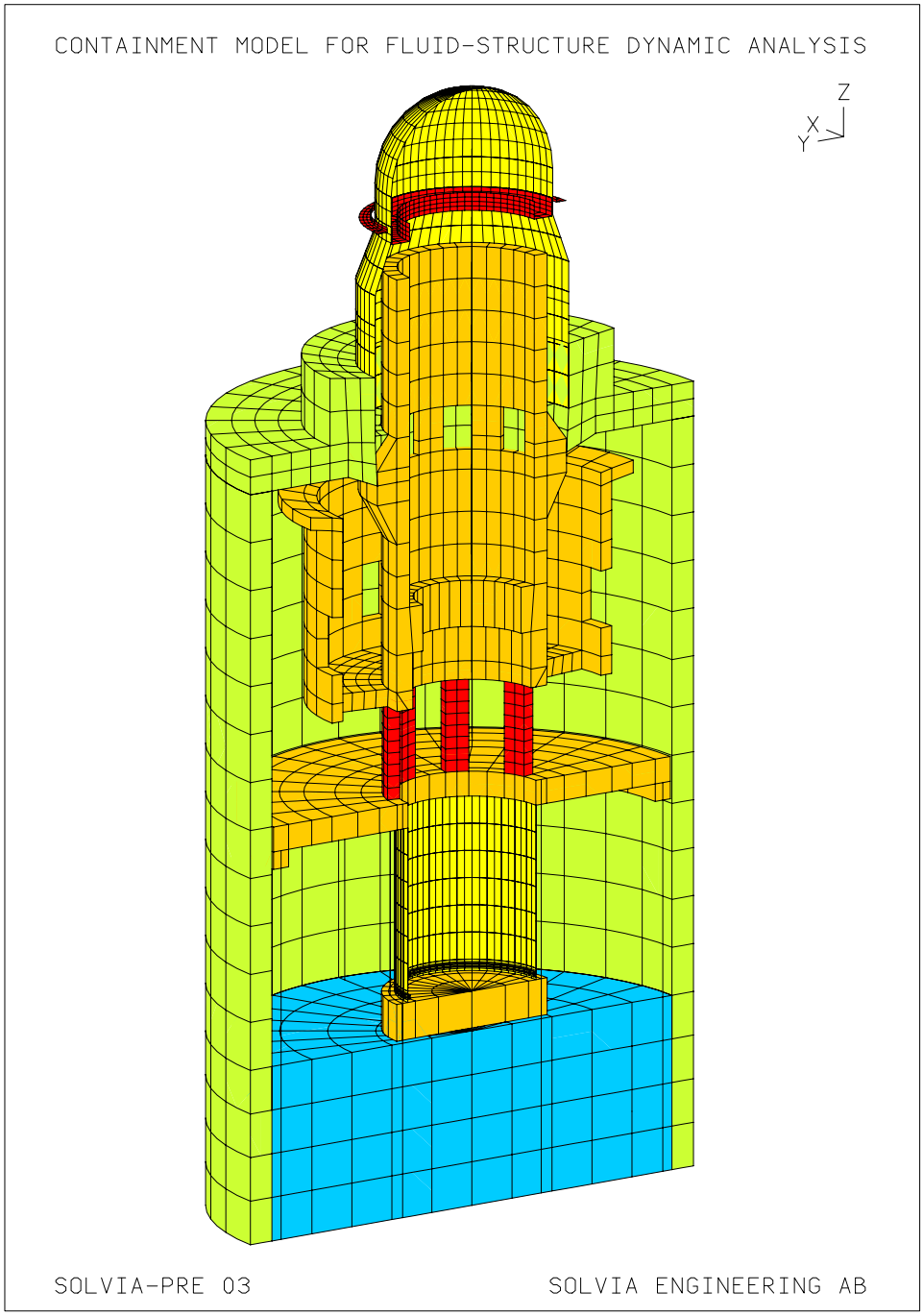
Examples of Capabilities in the SOLVIA® Finite Element System

Containment Model for Fluid-Structure Dynamic Analysis



The containment structure with the reactor pedestal, columns, the diaphragm slab and the radiation shield walls around the recirculation loops and the reactor pressure vessel is modeled by SOLID, SHELL and BEAM elements. The condensation pool is modeled by the new FLUID element to provide for dynamic interaction effects between the pool water and the containment wall. The FLUID element can also model the propagation of pressure waves. The pedestal supports the reactor but the reactor model is not shown in the above figure. The containment model with the reactor can be used for analysis of the response due to dynamic loads such as earthquakes, pressure pulsations in the condensation pool and postulated extreme loadings.

SOLVIA Engineering AB

engineering@solvia.se www.solvia.com

Phone: +46 21-144050

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