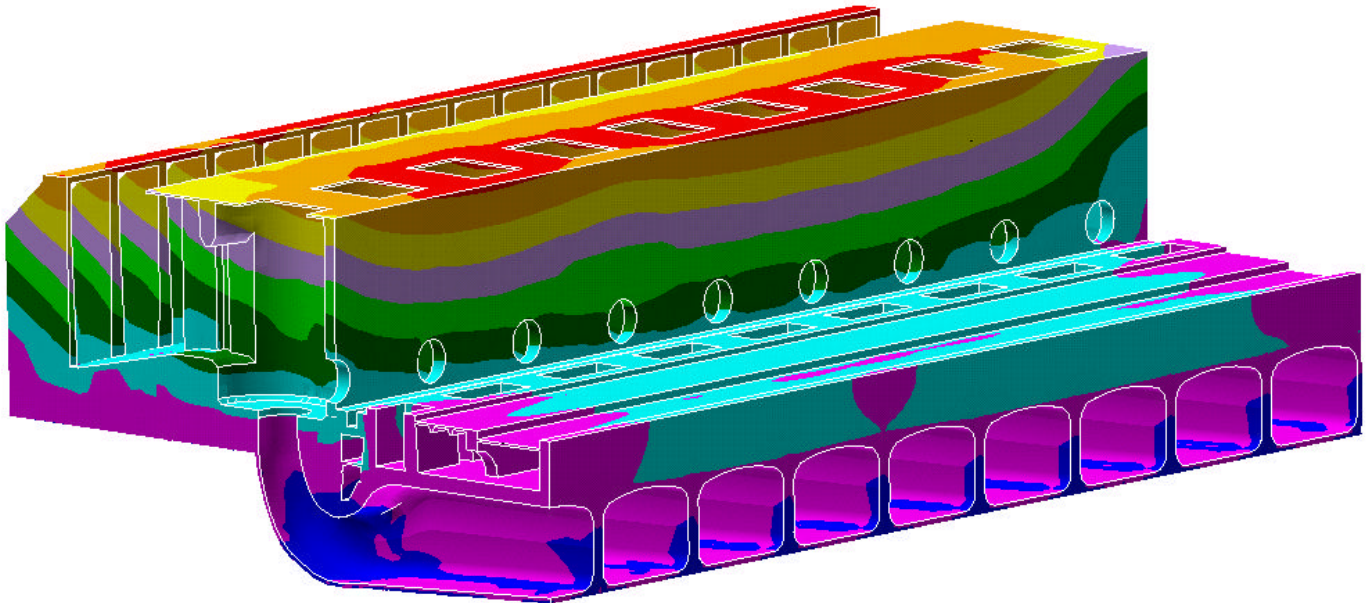
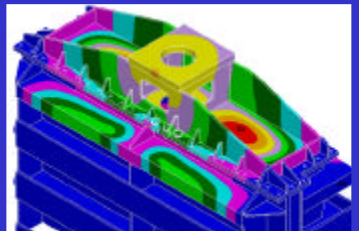
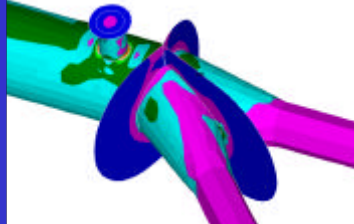
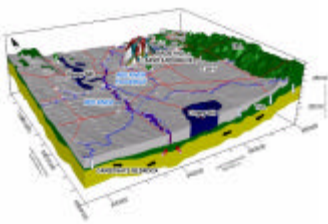


# Numerical Modeling



*Pointe du Bois GS powerhouse AAR model*



KGS Group provides a variety of services in the use of numerical and physical models to solve complex engineering problems. Structural finite element analysis includes dynamic and static strains, stresses, deflections, and response, both two- and three-dimensional modeling, machinery and foundation interaction, and AAR growth simulation of concrete structures.

In addition to having access to facilities for physical modeling of hydraulic structures and water passages, KGS Group also has the capability of performing steady state and dynamic numerical analysis of open channel profiles (multi-dimensional), hydrodynamic simulation of flow, sediment transport processes in rivers and streams, hydrology, channel / reservoir routing, design of de-sanding facilities, and river ice conditions.

Geotechnical modeling capabilities include two- and three-dimensional rock and soil stability, foundation interaction, seepage, and groundwater flow analyses.