

Apros[®] SA

Severe Accident Simulation

Ensure your operators capability to operate SAM systems

Apros[®] SA is a severe accident module that can be used together with Apros[®] Nuclear. It offers Apros[®] Nuclear the ability to continue simulation beyond design basis analysis.

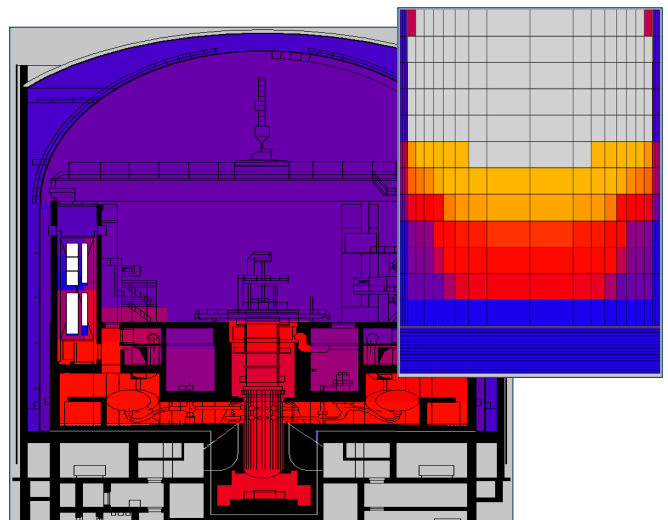
FEATURES

- Severe accident models integrated to comprehensive plant model
- Real-time simulation of severe accidents in VVER-440-type reactors
- Capability to calculate the most important severe accident phenomena regarding VVER-440
- Core degradation
- Corium pool modelling including relocation
- Heat transfer between core materials, reactor pressure vessel structures and the containment
- Oxidation of zirconium and hydrogen generation
- Hydrogen generation and transportation inside containment
- Flooding of the reactor pressure vessel
- Fission products transportation inside containment
- Radiation level calculation
- ... and of course all the phenomena you can already simulate with Apros[®] Nuclear

Apros[®] SA Applications

- Test and verify severe accident managements (SAM) strategies
- Train operators familiar with SAM
- Design and test operator HMI for SAM
- Training of the control room staff
- Class-room exercises for emergency personnel

The benefit of a real-time simulation is, that the accident scenario does not have to be precalculated and the accident develops purely based on the decisions by the personnel. The Apros[®] SA module also contains a graphical tool for presenting the development of the accident, which may be used for feedback sessions showing, how the situation was developing inside the reactor during the exercise.



Fortum, Nuclear and Thermal Power Division
Thermal Production and Power Solutions,
P.O.Box 100, 00048 Fortum, Finland, Tel. +358 10 45 11
www.fortum.com/powersolutions, www.apros.fi

For further information, please contact:
Sami Tuuri, Product Manager
sami.tuuri@fortum.com, Tel. +358 40 354 5604
Matti Paljakka, Key Account Manager
matti.paljakka@vtt.fi, Tel. +358 20 722 6423

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