TH27 Thermal Hydraulics and Severe Accident Code Development and Application

The session will focus on the USNRC's efforts to address current issues in the thermal-hydraulics and severe accident arenas, including experimental and analytical tool development programs. In particular, USNRC's analytical and development efforts related to the TRAC/RELAP Advanced Computational Engine (TRACE) and the MELCOR code, as well as the USNRC's use of computational fluid dynamics (CFD) codes will be discussed.

Session Chair: Jennifer Uhle, Director, Division of Systems Analysis, NRC/RES

Speakers/Panelists:

Computational Fluid Dynamics (CFD) Best Practice Guidelines
Presentation View *Handout View*

Ghani Zigh, Senior Technical Advisor, NRC/RES

Recent Developments in SNAP and SNAP Animations
Presentation View *Handout View*

Chester Gingrich, Senior Reactor Systems Engineer, NRC/RES

TRACE and PARCS 3.0 - Coupled Thermal-Hydraulic and 3D Neutronic Applications
Presentation View *Handout View*

Nathanael Hudson, Reactor Systems Engineer, NRC/RES

Impact of Fuel Thermal Conductivity Models on Calculated Peak Cladding Temperature
Presentation View *Handout View*

Matthew Bernard, Reactor Systems Engineer, NRC/RES

MELCOR Development Activities and Recent Applications
Presentation View *Handout View*

Hossein Esmaili, Senior Systems Reactor Engineer, NRC/RES

Session Coordinator:

Antony Calvo, NRC/RES, tel: (301) 251-7677, e-mail: Antony.Calvo@nrc.gov