

SUpport to SAfety ANalysis of Hydrogen and Fuel Cell Technologies

Varification	Sopport to Sajety Analysis of Hydrogen und Fuer Cen Technologies  Sonsitivity Studios (Crid and Darameter consitivity)
Verification type	Sensitivity Studies (Grid and Parameter sensitivity)
Database reference	SEN-7
Topic / Application	Nuclear safety
Physics	Hydrogen release
	Stratification
	Spray cooling
	Thermal-hydraulics
Summary	Primarily concerned with validation of complex multiphase flows with heat
Description	transfer, but with some sensitivity analysis of CFD simulation.  Sensitivity variables included 2D to 3D representation; grid refinement,
Description	turbulence modelling, and timestep.
	Howayar no formal varification work is undertaken, and both the physical
	However no formal verification work is undertaken, and both the physical phenomena and flowfields are very complex so it is challenging to transfer
	learning to distrinct applications.
Case Title	CMFD SIMULATION OF ERCOSAM PANDA SPRAY TESTS PE1 AND PE2
Authors	Filippov et a, Nuclear Safety Institute of Russian Academy of Sciences (IBRAE RAN)
Year	
Online reference	
Case image	
	Coarse and fine meshes for PANDA model
Governing equations	
Results	Study indicated weak dependence of results on meshing.

The SUSANA project is co-funded by the European Commission within the  $7^{\text{th}}$  Framework Program

Grant agreement no.: FCH-JU-325386