

SUpport to SAfety ANalysis of Hydrogen and Fuel Cell Technologies

Verification type	Code Verification
Database reference	CV-2
Topic / Application	Code Verification
	Mass balance
Physics	Fires
	Energy conservation
Summary	Verifying that the basic FDS algorithm is energy conserving
Description	This simple test case is to ensure that the heat added to a flowfield (via a fire with a Heat Release Rate), equals the increase in
	temperature – with adiabatic walls.
Case Title	The Heat from a Fire (energy_budget)
Authors	Randall McDermott, Kevin McGrattan, Simo Hostikka, Jason Floyd
Year	2010
Online reference	NIST Special Publication 1018-5
Case image	1400
Commission	Example of the energy budget balance from FDS test case.
Governing equations	Refer to document.
Results	