

Theme Meeting on 'PWR Core Physics & Thermal Hydraulics Coupled Analysis'
March 18, 2009
AERB, Mumbai

In the light of construction of PWRs in India, it was felt that in-house Indian capability should be enhanced for the long-term fuel management, design of reload cores and accident analysis for these reactors. Existing tools in AERB in the field of reactor core physics and system thermal hydraulics were to be further improved. In this connection it was considered prudent to have a one day theme meeting on 'PWR Core Physics & Thermal Hydraulics Coupled Analysis' on 18th March 2009 at Niyamak Bhavan-B, AERB which was organised by SRI, Kalpakkam. The objective of the meeting was to discuss the indigenous capability developed for PWR core physics analysis and to plan the future activities.



On dias from left: Shri Ashok Chauhan, Shri S.K. Mehta, Dr. S.M. Lee and Dr. V. Jagannathan



Shri S.K. Sharma, Chairman, AERB addressing the delegates

Delegates from Bhabha Atomic Research Center, Nuclear Power Corporation of India Limited, Safety Research Institute and Atomic Energy Regulatory Board actively participated in this theme meeting.



Shri S.K. Mehta, Consultant, AERB



Dr. V. Jagannathan presenting India LWR programme

In the theme meeting main points addressed were status of code system development for physics analysis of PWR cores with hexagonal lattice, benchmark analysis using indigenous code system, core physics data requirements for severe accident analysis, in-core space-time kinetics code development and coupled analysis of core physics and thermal hydraulics.

Based on the presentations, panel discussion and interaction of participants, coupling of system thermal hydraulics code and TRIHEX-FA, coupling of 3-D space kinetics code and system thermal hydraulics code, development of physics code for square lattices and validation of coupled codes were identified as topics for further work in near future.