

## FOREWORD

One of the fundamental steps for a successful reactor core thermohydraulic design is the capability to predict, reliably and accurately, the temperature distribution in the core assemblies. A detailed knowledge of the assembly and fuel pin thermohydraulic behaviour in the steady state and transient conditions is an indispensable prerequisite to safe and stable operation of the reactor. Considerable experimental and theoretical studies on various aspects of LMFR core thermohydraulics are necessary to acquire such knowledge.

During the last decade, there have been substantial advances in fast reactor core thermohydraulic design and operation in several countries with fast reactor programmes (notably in France, the Russian Federation, Japan, the United Kingdom, Germany and the United States of America). Chief among these has been the demonstration of reliable operation of reactor cores at a high burnup.

During the last years, some additional countries such as China, India and the Republic of Korea have launched new fast reactor programmes. International exchange of information and experience on LMFR development including core thermohydraulic design is becoming of increasing importance to these countries. It is with this focus that the IAEA convened the Technical Committee on "Methods and Codes for Calculations of Thermohydraulic Parameters for Fuel, Absorber Pins and Assemblies of LMFR's with Traditional and Burner Cores".

This meeting, which included participants from seven countries, brought together a group of international experts to review and discuss the thermohydraulic advances and design approaches providing a reliable, safe and robust reactor core, as well as to exchange the experience accumulated in different countries of using the codes for thermohydraulic calculations and to discuss the issues requiring further research and development. A total of thirty technical papers were presented by the meeting participants.

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