

FOREWORD

This issue contains selected papers from the EPRI Workshop on Basic Two Phase Flow Modeling in Reactor Safety and Performance, which was held at Tampa, Florida from 27 February to 2 March 1979. The remaining papers and transcripts of all discussions are contained in an EPRI NP Report 78-143 edited by Y. Zvirin and R. B. Duffey.†

The objective of organizing this workshop were twofold: updating and providing a definitive review of various approaches to two-phase flow and heat transfer modelling and an attempt to identify or sense future directions.

The format chosen for the workshop was two or three rather short keynote addresses on selected major topics of two-phase flow, as reflected in the program. These progressed from basic modelling and phenomena, on to complex system codes. These presentations included reviews of the present status, mostly by authors of diverse approaches, and intended to stimulate lively discussions. The participants included mostly specialists representing not only various approaches but also different interests: theoreticians, experimentalists, code developers and users, people from utilities, industries, universities, national laboratories and government.

One conclusion which emerged from the discussions in the workshop is that there has been at least some lack of communication among various groups in particular, code developers and phenomenological analysts, and between experimentalists and theoreticians. It is hoped that the workshop served to bridge such gaps.

Another important aspect that was repeatedly alluded to during the discussions was the question: "How good is good enough", or what level of detail and sophistication we should try to achieve, both in theory and in experiment. A first step towards answering this question is to define and evaluate the sensitivities of models, and this was also reflected in the discussions.

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