Research applicable to other reactor types receives only limited attention. Seven papers on LMFBR studies are included and only one paper on gas-cooled reactors is presented. Obviously, the coverage on these areas cannot be considered comprehensive.

This volume will be a useful reference for those working with, or wishing to learn about, the thermohydraulic problems associated with LWR safety. While most individuals will probably not wish to add this text to their personal library, the book is certainly recommended for acquisition by the library of any organization or educational institution with programs in the nuclear area.

Dr. Weisman is professor of nuclear engineering at the University of Cincinnati. Prior to joining the university in 1968, Weisman spent 18 years in industry. His last industrial position was manager of thermal and hydraulic analysis for the Westinghouse PWR Division. Dr. Weisman is author of numerous papers on heat transfer and fluid flow subjects but is perhaps best known as the coauthor of the American Nuclear Society monograph Thermal Analysis of Pressurized Water Reactors, *2nd ed., 1979.*

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Reviewer	Emin Yilmaz

The book is part of *Soviet Technology Reviews, Section-A*. Articles in this volume are primarily written by power engineers working in branches of the USSR Academy of Sciences and Ministry of Energy. The book in general is a review of work done and planned to be done in the United Electrical Power System (UEPS) of the Soviet Union. Therefore a more appropriate title for the book would have been *Power Systems.* Material given in the book is very general and is applicable to all types of power plants. About 85% of the material is devoted to UEPS, whereas nuclear related material is less than ~3%. Although there are (a) several figures with no units, (b) several figures and tables not well formatted and hard to follow, (c) several sentences hard to understand or not understandable at all, (d) a lot of repetition throughout the book, (e) some disagreed information, and (f) some material not quite up to date, in general, the book is well written and easy to read and understand. The book contains valuable information for those who are interested in electrical power distribution systems and multipurpose power plants (mainly heat and electric production).

In Chap. 1 a brief outline of current trends in energy production in the Soviet Union is presented. Chapter 2 is mainly devoted to the UEPS of the Soviet Union. The present structure and characteristics of the system and operating conditions of the electrical power plants in the system are presented and discussed with respect to the initial planning, operations, and automatic control. A review of nontraditional energy sources and systems (mostly magnetohydrodynamic, geothermal, and solar) are given in Chap. 3. In Chap. 4, mathematical models for the development and operation of electrical power systems are discussed without going into details. Equations given are simplified and easy to understand. Several optimization techniques are given for the operation of UEPS. The last chapter is a review of district heating plants and centralized heating in the Soviet Union. Technical and economic foundations of district heating and centralized heat supply as well as the methods of studying thermal energy sources and heat networks are presented.

Emin Yilmaz is a visiting professor of nuclear engineering at the University of Oklahoma on leave from the Middle East Technical University, Ankara, Turkey. He obtained his PhD degree in nuclear engineering from the University of Michigan in 1974. His BS and MS degrees are from M.E.T.U. in mechanical engineering. When on leave, he spent four months at the construction of Karachi Nuclear Power Plant (1970), three months at IRALCO Aluminum Plant (1979), four months at the University of Illinois (1982), and about a year and a half at the University of Oklahoma. His main interests are in the areas of two-phase flow, nuclear reactor safety, and nuclear power systems.