Book Review

Power Production — What are the Risks?

By J H Fremlin, published by Adam Hilger, 2nd edn , 1989, 347 pp , price £9 95 (paper), £29 50 (hard)

A consideration of the choice between different primary power sources naturally carries implications about the demand for energy storage. For example, any significant commitment to renewable sources (sun, wind, wave etc.), where demand is usually out of phase with supply in a seasonal sense, will require a local storage system in order to achieve maximum effectiveness. Also power supplies that derive from predominantly nuclear sources could require 'load levelling' schemes of energy storage in order to 'average out' the diurnal cycle of peaks and troughs in demand Hence this book, which examines the risks involved in the various means of power generation, is a valuable aid in the process of predicting energy futures including the likely requirements for chemical methods of energy storage which define the technical area of interest for this Journal

All too often the debate over the choice between primary sources of power is presented in an incomplete manner for the purposes of 'proving' a pre-adopted point of view Professor Fremlin champions the cause of a complete and balanced analysis of all aspects of the risks involved in the choice. This objectivity is sustained throughout his treatment of the subject so that his ultimate stand, that fossil fuel sources must be protected and that nuclear power and the renewable sources of energy both have roles to play in any viable future, will be generally respected for its integrity.

The book presents thought-provoking comparisons between risks deriving from the 'high tech' activities of power generation and the risks associated with everyday aspects of life that are so familiar as to be widely disregarded The arguments are presented in readily assimilable terms backed up with statistical data so that each point may be tested

In this second edition of the book (originally published in 1985) new aspects of the debate have been incorporated. Account is taken of the nuclear accident at Chernobyl, of consequences of acid rain formation and of the so-called greenhouse effect All of these factors have been thoroughly assessed so that the comparative validity of the work is sustained.

A minor disappointment is that a consideration of the role of fuel cells has not been included Perhaps in a future edition .

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It would be entirely inappropriate to end these remarks on a negative note however, so it is important to sum up by saying that this is a thoroughly readable book by a respected expert in the field and is recommended reading for anyone with even a passing interest in the subject.

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