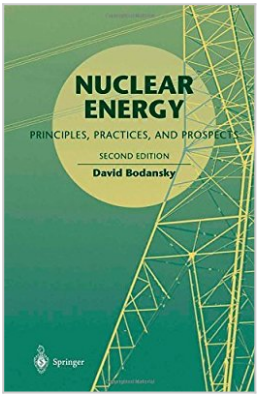

Nuclear Energy: Principles, Practices, and Prospects

By David Bodansky

Nuclear Energy: Principles, Practices, and Prospects By David Bodansky

This second edition represents an extensive revision of the ?rst edition, - though the motivation for the book and the intended audiences, as described inthepreviouspreface,remainthesame. Theoveralllengthhasbeenincreased substantially, with revised or expanded discussions of a number of topics, - cluding Yucca Mountain repository plans, new reactor designs, health e?ects of radiation, costs of electricity, and dangers from terrorism and weapons p- liferation. The overall status of nuclear power has changed rather little over the past eight years. Nuclear reactor construction remains at a very low ebb in much of the world, with the exception of Asia, while nuclear power's share of the electricity supply continues to be about 75% in France and 20% in the United States. However,therearesignsofaheightenedinterestinconsideringpossible nuclear growth. In the late 1990s, the U. S. Department of Energy began new programs to stimulate research and planning for future reactors, and many candidate designs are now contending—at least on paper—to be the next generation leaders. Outside the United States, the commercial development ofthePebbleBedModularReactorisbeingpursuedinSouthAfrica,aFrench- German consortium has won an order from Finlandfor the long-plannedEPR (European Pressurized Water Reactor), and new reactors have been built or planned in Asia. In an unanticipated positive development for nuclear energy, the capacity factor of U. S. reactors has increased dramatically in recent years, and most operating reactors now appear headed for 20-year license renewals.

Nuclear Energy: Principles, Practices, and Prospects

By David Bodansky

Nuclear Energy: Principles, Practices, and Prospects By David Bodansky

This second edition represents an extensive revision of the ?rst edition, - though the motivation for the book and the intended audiences, as described inthepreviouspreface,remainthesame. Theoveralllengthhasbeenincreased substantially, with revised or expanded discussions of a number of topics, - cluding Yucca Mountain repository plans, new reactor designs, health e?ects of radiation, costs of electricity, and dangers from terrorism and weapons p- liferation. The overall status of nuclear power has changed rather little over the past eight years. Nuclear reactor construction remains at a very low ebb in much of the world, with the exception of Asia, while nuclear power's share of the electricity supply continues to be about 75% in France and 20% in the United States. However,therearesignsofaheightenedinterestinconsideringpossible nuclear growth. In the late 1990s, the U. S. Department of Energy began new programs to stimulate research and planning for future reactors, and many candidate designs are now contending—at least on paper—to be the next generation leaders. Outside the United States, the commercial development ofthePebbleBedModularReactorisbeingpursuedinSouthAfrica,aFrench- German consortium has won an order from Finlandfor the long-plannedEPR (European Pressurized Water Reactor), and new reactors have been built or planned in Asia. In an unanticipated positive development for nuclear energy, the capacity factor of U. S. reactors has increased dramatically in recent years, and most operating reactors now appear headed for 20-year license renewals.

Nuclear Energy: Principles, Practices, and Prospects By David Bodansky Bibliography

- Rank: #1296247 in eBooks
- Published on: 2007-06-25
- Released on: 2007-06-25
- Format: Kindle eBook

Editorial Review

Review

"The material presented here is largely accessible to anyone interested in nuclear energy. This book is the best of its kind in providing a well-written survey of the science, technology, safety, and economics of the full range of nuclear issues, including power, waste, weapons, terrorism, biological effects, and the future of the nuclear industry. This book is highly recommended both for its content and its accuracy, and should be ready by everyone interested in our nuclear future."

-CHOICE

From the Back Cover

The world faces serious difficulties in obtaining the energy that will be needed in coming decades for a growing population, especially given the problem of climate change caused by fossil fuel use. This book presents a view of nuclear energy as an important carbon-free energy option. It discusses the nuclear fuel cycle, the types of reactors used today and proposed for the future, nuclear waste disposal, reactor accidents and reactor safety, nuclear weapon proliferation, and the cost of electric power. To provide background for these discussions, the book begins with chapters on the history of the development and use of nuclear energy, the health effects of ionizing radiation, and the basic physics principles of reactor operation.

The text has been rewritten and substantially expanded for this edition, to reflect changes that have taken place in the eight years since the publication of the first edition and to provide greater coverage of key topics. These include the Yucca Mountain repository plans, designs for next-generation reactors, weapons proliferation and terrorism threats, the potential of alternatives to nuclear energy, and controversies about low-level radiation.

Acclaim for the first edition:

"…The book provides a superb background for scientists and those in technical fields. It provides probably all the information that many people, including government policy makers, will ever need...[a] well-written and balanced book. This book is recommended for anyone who wants a broad technical background on nuclear energy."
-American Journal of Physics

Users Review

From reader reviews:

Jeffrey Thompson:

The book Nuclear Energy: Principles, Practices, and Prospects can give more knowledge and information about everything you want. Why must we leave a good thing like a book Nuclear Energy: Principles,

Practices, and Prospects? A number of you have a different opinion about publication. But one aim in which book can give many details for us. It is absolutely appropriate. Right now, try to closer with your book. Knowledge or data that you take for that, you could give for each other; you can share all of these. Book Nuclear Energy: Principles, Practices, and Prospects has simple shape however, you know: it has great and big function for you. You can appearance the enormous world by start and read a e-book. So it is very wonderful.

Angela Caves:

Do you certainly one of people who can't read satisfying if the sentence chained inside the straightway, hold on guys this kind of aren't like that. This Nuclear Energy: Principles, Practices, and Prospects book is readable simply by you who hate those perfect word style. You will find the info here are arrange for enjoyable looking at experience without leaving perhaps decrease the knowledge that want to provide to you. The writer involving Nuclear Energy: Principles, Practices, and Prospects content conveys the thought easily to understand by many people. The printed and e-book are not different in the articles but it just different available as it. So , do you nonetheless thinking Nuclear Energy: Principles, Practices, and Prospects is not loveable to be your top collection reading book?

Markus Walker:

Reading can called mind hangout, why? Because if you are reading a book mainly book entitled Nuclear Energy: Principles, Practices, and Prospects your brain will drift away trough every dimension, wandering in every single aspect that maybe unidentified for but surely will become your mind friends. Imaging each word written in a reserve then become one form conclusion and explanation that will maybe you never get ahead of. The Nuclear Energy: Principles, Practices, and Prospects giving you an additional experience more than blown away your thoughts but also giving you useful details for your better life on this era. So now let us explain to you the relaxing pattern at this point is your body and mind are going to be pleased when you are finished reading through it, like winning a game. Do you want to try this extraordinary paying spare time activity?

Rex Oswald:

Can you one of the book lovers? If so, do you ever feeling doubt when you find yourself in the book store? Try and pick one book that you never know the inside because don't assess book by its handle may doesn't work here is difficult job because you are frightened that the inside maybe not as fantastic as in the outside look likes. Maybe you answer is usually Nuclear Energy: Principles, Practices, and Prospects why because the great cover that make you consider about the content will not disappoint you actually. The inside or content will be fantastic as the outside or maybe cover. Your reading 6th sense will directly make suggestions to pick up this book.

Read Nuclear Energy: Principles, Practices, and Prospects By David Bodansky for online ebook

Nuclear Energy: Principles, Practices, and Prospects By David Bodansky Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Nuclear Energy: Principles, Practices, and Prospects By David Bodansky books to read online.

Online Nuclear Energy: Principles, Practices, and Prospects By David Bodansky ebook PDF download

Nuclear Energy: Principles, Practices, and Prospects By David Bodansky Doc

Nuclear Energy: Principles, Practices, and Prospects By David Bodansky Mobipocket

Nuclear Energy: Principles, Practices, and Prospects By David Bodansky EPub

8U1C5POAID4: Nuclear Energy: Principles, Practices, and Prospects By David Bodansky