

1997

Nuclear Power from Underseas to Outer Space

Jon Greene

John W. Simpson

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Recommended Citation

Greene, Jon and Simpson, John W. (1997) "Nuclear Power from Underseas to Outer Space," *Naval War College Review*: Vol. 50 : No. 2 , Article 29.

Available at: <https://digital-commons.usnwc.edu/nwc-review/vol50/iss2/29>

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Simpson, John W. *Nuclear Power from Underseas to Outer Space*. La Grange Park, Ill.: American Nuclear Society, 1995. 467pp. (No price given)

In this book, John W. Simpson delivers a valuable, if flawed, history of the development of various segments of the nuclear industry. Simpson's singular perspective comes from his experience as a member of the Westinghouse teams that participated in research at Oak Ridge National Laboratories and also developed reactor plants for application in naval propulsion, commercial power generation, and space propulsion. *Nuclear Power* begins with a series of largely anecdotal chapters that chronicle early efforts to develop workable nuclear plants. He focuses on Westinghouse's role in development of naval, power, and space applications of nuclear reactors, after which he adds two chapters covering other nuclear activities the company pursued. In a largely autobiographical manner, Simpson celebrates Westinghouse's (and his own) string of remarkable successes in the field. He laboriously pays tribute to the army of engineers, scientists, technicians, bureaucrats, and managers that played a role in these activities, mentioning over 350 names. The work continues with four chapters devoted to the technical aspects of these applications of nuclear power.

The strength of Simpson's effort lies in his unique perspective. As a pivotal player in the development of these technologies, he provides an insider's view of the events and captures the energy and enthusiasm of the early years of nuclear power. His technical pedigree is unquestionable, and he speaks with authority on nuclear technology. Additionally, Simpson reveals some interesting anecdotes,

especially concerning Admiral H.G. Rickover.

Unfortunately, Simpson's unique and valuable story is marred by a poor presentation. While a blurb on the dust cover states that *Nuclear Power* "can be understood by those without a technical background," this reviewer must disagree. The book is filled with technical jargon, and without at least some exposure to nuclear engineering the reader is likely to get lost in references to "metastable gamma phase alloy," "capture cross section," and "negative temperature coefficient of reactivity." Moreover, while Simpson's conclusions could be supported by a good deal of evidence, he makes little effort to do so, despite the fact that his statements would be considered controversial by the general public. He asserts that nuclear power is safe, that the waste problem is manageable, and even that "cancer can be both cured and prevented within ten years and almost certainly within a few decades." These assertions may be true, but Simpson's spartan, four-page conclusion offers little evidence in their support. Perhaps most of all, *Nuclear Power* is in need of some hard-nosed editing. A mislabeled photograph, nearly identical paragraphs only pages apart, similarly named sections juxtaposed within a single chapter, a tedious litany of names, and a confusing narrative style all distract the reader from an appreciation of the unique history that lies beneath.

It seems that this work is Simpson's attempt to pay tribute to the many people that contributed to these technological achievements. He may well have achieved this objective; unfortunately, his focus makes this work inaccessible for a wider audience. Technical terminology,

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structural flaws, and Simpson's failure to use his experience and knowledge to mount a convincing argument for his conclusion make this work of value only to technically qualified readers with a

personal interest in, or doing research on, Westinghouse's nuclear activities.

JON GREENE
Commander, U.S. Navy

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Contacting the Editorial Offices

By mail: Code 32, Naval War College, 686 Cushing Rd., Newport, R.I., 02841-1207

By fax: 401-841-3579/6224

DSN exchange: 948, all lines

Editor or Circulation: 401-841-2236, press@usnwc.edu

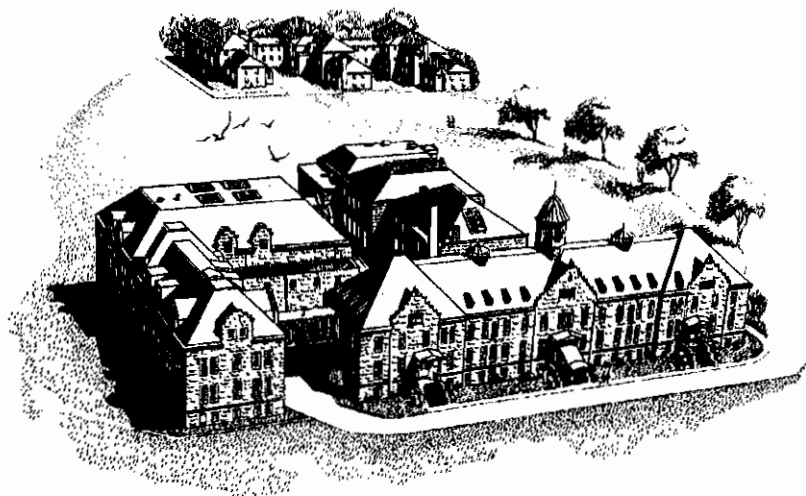
Managing editor: 401-841-4552, boyerp@usnwc.edu

Newport Papers, books (associate editor): 401-841-6583, goodricp@usnwc.edu

Book reviews (associate editor): 401-841-6584, winklerp@usnwc.edu

For other Naval War College offices: 401-841-3089

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The Naval War College campus as it was—
Luce, Mahan, and Pringle halls, and Sims Hall in the background.