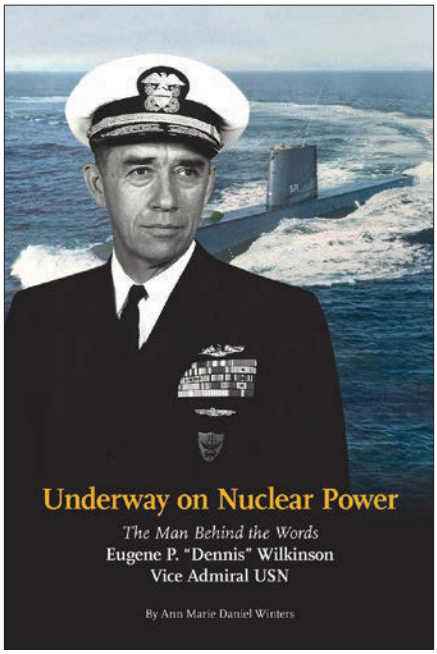
Splitting atoms for national defense: The inside story of Dennis Wilkinson



Underway on Nuclear Power—The Man Behind the Words: Eugene P. "Dennis" Wilkinson, Vice Admiral, USN, by Ann Marie Daniel Winters. La Grange Park, Ill.: American Nuclear Society (2016). 528 pp. $29.95.

Review by Eric P. Loewen

The hidden depths of any field of study are immense and diverse. What arrives at the surface of our knowledge often is not the entire story of the events leading to these discoveries. The story of the development of nuclear power, first for the U.S. Navy and then U.S. electricity consumers, usually appears as separate entities in history books, the only tie between them being the first commercial reactor in the United States, the Shippingport reactor in Pennsylvania. The question that hangs over the development of nuclear power is the finer details that occurred during laboratory development, and the split between civilian and military submarines versus nuclear surface ships.

Now, from Ann Winters comes a penetrating and detailed biography, focused on the behind-the-scenes storyline of the development of the nuclear navy. While very readable, Winters's book at the same time adds a new angle to the narrative by including the history of an extraordinary man named Eugene P. "Dennis" Wilkinson. In most books on nuclear propulsion, there is only a casual mention of Admiral Wilkinson. In *Underway on Nuclear Power—The Man Behind the Words: Eugene P. "Dennis" Wilkinson, Vice Admiral USN*, we see a figure of immense technical competence and the right moral courage for a leader (and the makings of an excellent poker player). When he was an early member of Hyman Rickover's team at Oak Ridge National Laboratory in 1948, he did not flinch when his numbers were different from those of national laboratories regarding initial core design (which were, in fact, wrong). The then Captain Rickover, in his inimitable words, used Wilkinson—"a poor dumb line officer" who could figure out the correct core design—to sway reactor construction away from the national labs to the large engineering/construction companies. This credibility later allowed Rickover to establish his own laboratories, Knolls Atomic Power Laboratory and Bettis Atomic Power Laboratory.

As Winters makes clear, Wilkinson was an integral part of the early Rickover machine, and he later became the first captain of the USS *Nautilus*. He threw out the lengthy "public affairs" language that the Navy wanted him to use when the first nuclear-powered submarine went to sea for a more concise message—words that would rival the decades-later words of Neil Armstrong's landing on the moon. His first message was simple: "Underway on nuclear power." A short time later, he became the first captain of the first nuclear-powered warship, the USS *Long Beach* (on which I served in the mid-1980s).

Yet it was after his naval career was over that his biggest contribution to the doctrine of nuclear safety and operation was accomplished. At first reluctant, he eventually stepped up to lead a new organization called the Institute of Nuclear Power Operations (INPO). His dogged insistence on excellence promoted vast improvements in the U.S. civilian reactor fleet. Wilkinson was the "fountainhead" of nuclear power operation policy. His most famous words may be "underway on nuclear power," but his real legacy lives on in the spirit of INPO.

There are so many splendid details within the pages of this book, and Wilkinson's "sea stories" carry the book along, as the author travels from a diesel-powered submarine hunting Japanese warships in World War II, to the new INPO offices in Atlanta, Ga. Ultimately, the reader will have a much better feel and understanding of the confluence between the military and civilian sides of nuclear development. This book is a must read for anyone new to nuclear as well as those well-acquainted with nuclear, to fill in the details we may have missed! NN

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