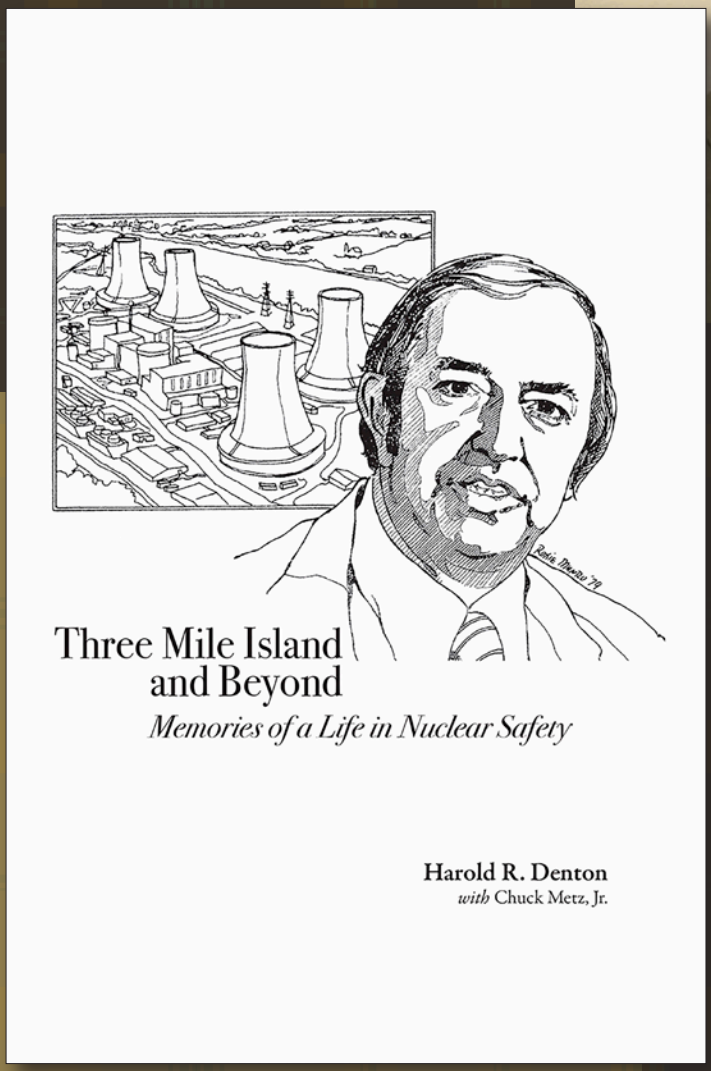
Metz on Harold Denton:



Pictured above: Chuck Metz Jr.

Memories of a life in nuclear safety

Chuck Metz Jr. discusses his collaboration with Harold Denton, whose memoir interweaves a retelling of the Three Mile Island accident events with stories of his career-long advocacy for nuclear safety.

As seen in the July 2021 issue of **Nuclear**News

A number of years ago, historian and writer Chuck Metz Jr. was at the Bush's Visitor Center in Tennessee's Great Smoky Mountains when he ran into former Nuclear Regulatory Commission official Harold Denton and his wife. Metz was at the visitor center, which opened in 2010 and is now a tourist hotspot, because, as he explained to the Dentons at the time, he had overseen the development of its on-site museum and had written a companion coffee-table history book.

The chance meeting turned into a friendship and a fruitful collaboration. Denton, who in 1979 was the public spokesperson for the NRC as the Three Mile Island-2 accident unfolded, had been working on his memoir, but he was stuck. He asked Metz for help with the organization and compilation of his notes. "I was about to retire," Metz said, "but I thought that exploring the nuclear world might be an interesting change of pace."

Denton passed away in 2017, but by then Metz had spent many hours with his fast friend and was able to complete the memoir, *Three Mile Island and Beyond: Memories of a Life in Nuclear Safety*, which was published recently by ANS. Metz shared some of his thoughts about Denton and the book with *Nuclear News*. The interview was conducted by *NN*'s David Strutz.

The TMI accident has been widely researched and written about over the years. What makes this book different? What was the motivation behind writing it?

The book is different, of course, because it is the first to relate the perspective of one of the key players involved in resolving the accident. Harold oversaw the NRC's response to the accident and its subsequent cleanup efforts. As the director of the NRC's Office of Nuclear Reactor Regulation, he had the technical expertise to oversee the accident's resolution. His role as President Jimmy Carter's personal representative provided him the platform to relay those efforts to a national audience. Harold became the face that Americans saw on their televisions, and his open and reassuring manner played a significant role in allaying fears regarding TMI.

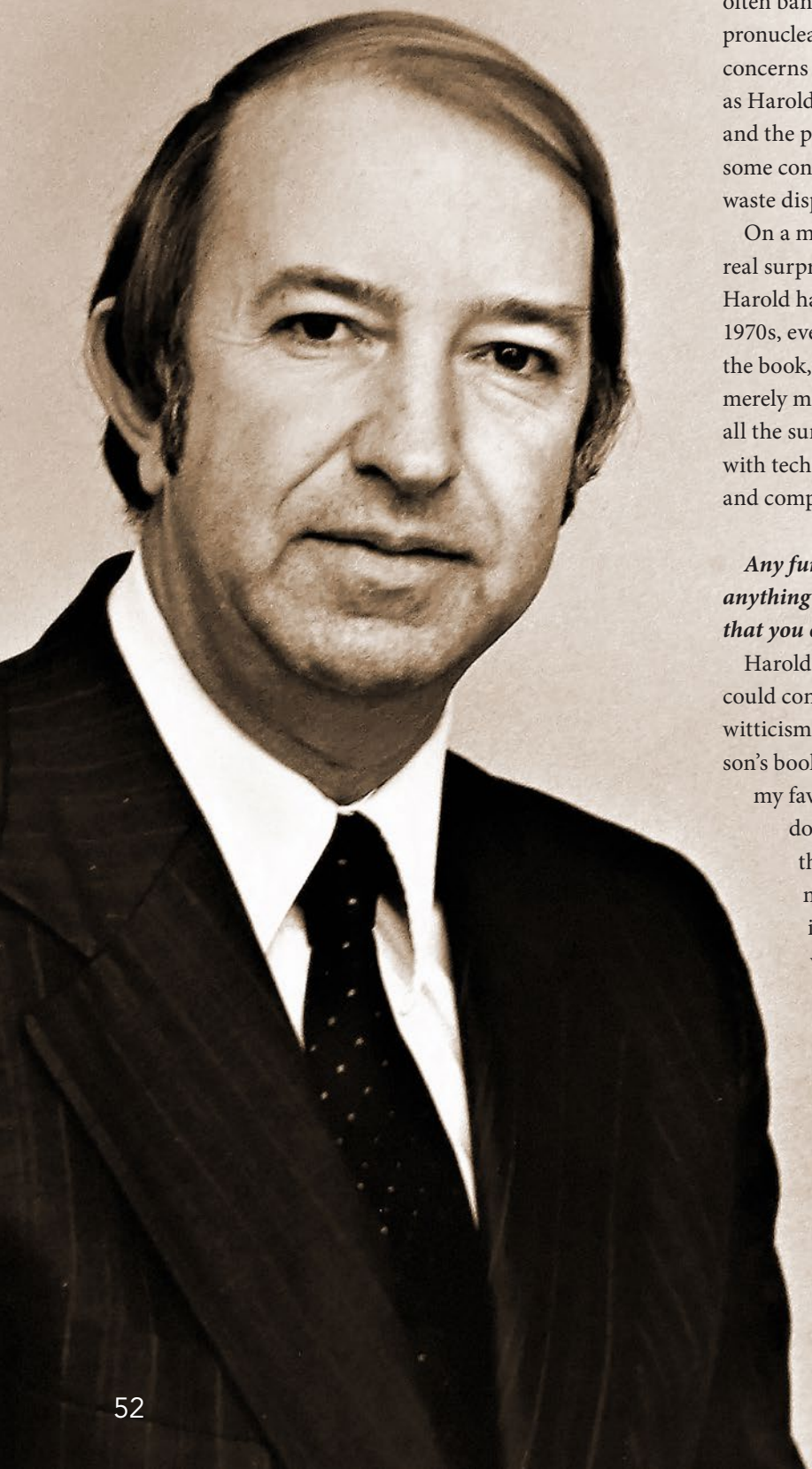
How would you describe this book? It seems to be part history, part memoir.

If I had to define one thing about Harold, it's that he was passionate about nuclear safety. He was adamant that if the United States was going to use nuclear energy, then the technology would be kept safe on his watch. That passion drove his career before, during, and after TMI. Since, as he said many times, his name will always be linked with the TMI accident, the book had to provide the relevant history around it. But excellent histories, such as Sam Walker's *Three Mile Island: A Nuclear Crisis in Historical Perspective*, already exist, and so there was no need to recapitulate that work. As I looked at a book framework to both tell the TMI story and relate Harold's larger safety message, I decided it worked best to weave alternating history chapters from his perspective with correlating portions of his safety message.

Who would you suggest read this book? Is it suitable for nonnuclear folks?

Harold spoke, of course, to his peers in the nuclear industry and was very involved in his profession. The book should certainly appeal to nuclear industry professionals. But Harold also had a passion, and a gift, for explaining the technical to nonnuclear audiences. This was evident during the TMI accident when he spoke to fearful television audiences on a national scale. And it carried over during the decades after the accident when he spoke extensively to audiences around the world.

Continued



What is the most surprising thing you learned researching this book?

I suppose it is the breadth of the nuclear energy industry and the many details involved in its operation. That's a rather broad answer, but like most laypeople, I think, I knew virtually nothing about the field. But because I'm science-focused, "trusting the science," as is so often bandied about these days, it is easy for me. I lean pronuclear, but only because the science is sound. Any concerns I might have would revolve around the people, as Harold so eloquently states—operators, human error, and the possibility of laxity and corner cutting. I also have some concerns around our inability to fully resolve the waste disposal issues.

On a more granular note, one thing I learned that was a real surprise to me is that there are floating nuclear plants. Harold had to deal with FNP technology back in the mid-1970s, even testifying about them in Congress. As said in the book, FNP technology "never really went away but has merely moved forward in time, and now we must deal with all the surrounding complexities." I find that need to deal with technology and safety across generations important and compelling.

Any funny anecdotes working with Harold? Did anything (funny or not) not make it into the book that you or Harold wished could have?

Harold had a wonderfully wry sense of humor. He could come across with some of the driest and wryest witticisms. His story around owning Fidel Castro's son's books, found in a store in Nevada, was one of my favorites. [Castro's son Fidel Junior held a doctorate in nuclear physics and was head of the Cuban nuclear regulatory agency.] But my favorite memory perhaps is a mental image rather than an anecdote. Harold would come to my house in the early days before he became ill, and he would sit in a rocking chair in my living room to relate his stories. We don't keep our house really cool, but Harold was always cold, so he would wrap himself up in a blue "Snuggie" I had. That image is both humorous and a very fond memory.

Left: Denton, around the time of the TMI accident.

Next page: Denton in 2014 at a gathering marking the 35th anniversary of the TMI accident.

Harold of course knew President Carter because of the TMI accident, and the president had some training in nuclear physics. Did Harold relate to you any stories about his interactions with Carter?

Harold had a good relationship with the president. He said, "I was fortunate reporting to President Carter and Governor Thornburgh, and I can't think of anyone else I would rather have had on this accident management team." He enjoyed that Carter could readily understand the physics issues around TMI and that he wasn't above making suggestions.

I found the stories around Carter's trip to visit the TMI site during the accident most interesting. Harold worried about the president's impressions during that trip—that the site hadn't been cleaned up enough and that the president might lose some confidence. And of course, the infamous radiation dosimeter incident, where the president and first lady had been given dosimeters that already had been used and thus showed some exposure. They hadn't really taken any radiation, which was a relief to all. Harold found that mistake so embarrassing.

And as said in the book, Harold was both surprised and humbled at the trust and free rein that Carter gave him to manage the accident. Harold was always amazed that he had the ability to get whatever he needed done without a lot of red tape.

TMI-1 closed just last year, and TMI-2 has recently been transferred to new ownership for final decommissioning. What do you think Harold would think about that? And about the wider state of the nuclear power industry right now?

He would not be surprised. As he came to the end of his career, Harold often wondered if the nuclear energy option would survive. Economics, public opinion, politics—there were so many challenges facing it. He discusses them throughout the memoir. At times he would become a little pessimistic about the industry's future, but I believe he hoped it would endure.

What is the biggest takeaway or lesson discussed in the book?

Nuclear energy is neither good nor bad in a moral sense. It is science, and as such, can be utilized if sound technologies are developed and good operative procedures are followed. Harold always considered himself neither for nor against the nuclear energy option. But he always insisted that if a nation was determined it was going to use nuclear energy, then that use had to be as safe as humanly possible. He spent his career advocating for nuclear safety. This book goes into extensive detail regarding his nuclear safety reflections and is as highly relevant to the nuclear discussion today as during TMI, Chernobyl, or Fukushima.

What was the biggest challenge in writing the book?

I was one of those nonnuclear folks that Harold was so passionate about reaching. Although my own layperson's passion revolves around science in all fields, it took a great deal of learning to become familiar with the esoteric nuclear energy field. But I had faced a similar, though less arcane, situation when I wrote my history of Bush Brothers & Company. I learned more than I ever would have thought about beans! The same goes for nuclear. That's what makes writing so attractive, this learning about widely varying subjects.

Is there anything I didn't ask that is interesting or important that readers should know about?

Harold truly was as humble as he was so widely perceived to be, a true "man without guile," as I've said. His reflections around the many subjects he touches upon throughout his book are as relevant to the nuclear energy discussion today as they were during his career. He was both technically competent and a passionate advocate about nuclear safety, and it is telling that even antinuclear advocates respected and easily talked with him.