Memories of the Kemeny Commission

BY RONALD M. EYTCHISON

A Kemeny Commission member tells how the work of the commission influenced the safety of nuclear power plant operations.

AS THE 25TH anniversary of the accident at Three Mile Island-2 approaches, I would like to share some reflections on my experience as a staff member of the Kemeny Commission. The President's Commission on the Accident at Three Mile Island—better known by the name of its chairman, John Kemeny, who was a former associate of Albert Einstein and at the time of the accident, the president of Dartmouth College—was appointed by President Jimmy Carter in the days following the March 28, 1979, accident. What we did during the spring, summer, and fall of 1979 influenced the safety of nuclear operations after TMI; creation of the Institute of Nuclear Power Operations (INPO) was in large part responding to Kemeny Commission recommendations.

Many have wondered how a Navy guy got mixed up with Dr. John Kemeny's investigation. There were many times back in 1979 when I, too, wondered how I got mixed up with it.

The commission staff, as originally constituted, didn't include anyone involved with nuclear power. This was because of White House and commission concerns that the results of the investigation be credible. They didn't want anyone to claim the report had been tainted by the industry. The commission soon discovered, though, that a nuclear power plant accident couldn't be investigated solely by lawyers, public affairs specialists, and NASA engineers. So Dr. Kemeny turned to the secretary of defense for help from the Navy.

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I was then a captain completing three years as senior member of the Atlantic Fleet Nuclear Propulsion Examining Board—and I got elected. I came home from work one night in late April and the phone rang. It was the Vice Chief of Naval Operations, from whom I didn't get all that many calls. Adm. Robert Long told me, "Be in Washington tomorrow morning; don't bring any uniforms and plan to go by 'mister.'"

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When I reported to John Kemeny the next day, I learned that the commission had been functioning for about two weeks and was then being rounded out. Carolyn Lewis, of the Columbia University School of Journalism, was just coming on board as the 12th commissioner. President Carter had appointed some very able people to serve on the commission. They were prominent leaders from state government, industry, labor, academia, public affairs, public health, law, and the environment. A housewife from Middletown, Pa., was serving on behalf of the citizenry. Notably absent was anyone with experience in operating nuclear reactors.

Fortunately, two commission members—Pat Haggerty, former chairman of Texas Instruments, and Tom Pigford, chairman of the Department of Nuclear Engineering at the University of California, Berkeley—understood the problem from the management and technical standpoints. These particularly competent commissioners strongly influenced the outcome.

Dr. Kemeny had a very difficult task. The atmosphere was emotionally charged. Virtually everyone in the country had a predisposition regarding nuclear power one way or the other. Many agendas were brought to the table, some of which had the potential of having a severe impact on the future of nuclear power. Because of this and the generally poor record of presidential commissions, there was more than a little self-doubt about what could be accomplished.

When I joined the investigation, there seemed to be a general perception that because the accident had been initiated by a stuck-open power-operated relief valve (PORV), if the valve were redesigned, then the cause of the accident would be eliminated. Of greater concern to many was that the investigation should lead to restructuring of the Nuclear Regulatory Commission. For others, the prime thrust should be toward achieving a moratorium in reactor plant construction. There was little apparent concern for or understanding of the human factor in the accident—that safety of nuclear power depends so much on the knowledge, expertise, and attitudes of the people who operate the plants.

Because of the aversion to "nukes," when I showed up I learned the staff consisted of about one-third technical people, one-third legal, and one-third public affairs folks. Nearly all of my colleagues in the technical assessment group were engineers from NASA. Again, there was no one from the nuclear industry.

We were working against a deadline. The commission was obligated to deliver a report to President Carter in only six months. I gave thought to where I should start and where to put my efforts. I, too, had predispositions. Because of my Rickover upbringing,

I suspected the accident more likely had been the result of human error than simple equipment failure. And in my Navy experience, training deficiencies frequently had underlain human performance problems. I concluded that my work should focus on the role of people and training in the accident, rather than adding to a legion of studies of equipment performance. So I told Dr. Kemeny that I would assess the role of operator selection, training, qualification, and licensing as a contributor to the accident and endeavor to develop corrective recommendations. Because I didn't yet appreciate the magnitude of the task before us, I also committed to evaluate pertinent operating, abnormal, and casualty procedures, as well as to attempt to assess station management, as contributory factors. John said, "Fine." I asked him if we could bring in some others with operating experience. He responded with a powerful, Hungarian-accented, "No!"

I had to have help, so I went to the staff director, Dr. Bruce Lundin, also of NASA. I asked Bruce if maybe I could have some lawyers, of which there was no apparent shortage, to help with my part of the investigation. Bruce told me to help myself. I then selected four of Dartmouth's brightest—truly outstanding young people—and gave them a crash course in Nuclear 101. They took it all in and away we went—Washington, Middletown, and Lynchburg, home of Babcock & Wilcox. Our plan was to conduct paper reviews and interviews; take depositions at TMI, B&W, and the NRC; prepare the commission for hearings; and write the report. It seemed so straightforward and easy.

We had subpoena power—a mixed blessing. We could put anyone we wanted in the hot seat. Any document was ours for the asking. The problem was to maintain focus: See the right things, talk to the right people, and don't get overwhelmed. It also meant taking advantage of every opportunity.

On trips, we used to review documents en route and prepare our game plan for Middletown or Lynchburg. We had a big Chevy station wagon loaded to the gills with boxes of subpoenaed documents. The lawyers in the back would rummage through the boxes and we'd discuss what they found.

One trip, as we rolled down U.S. 29 toward B&W, an Ivy Leaguer handed me a document from the backseat. He thought it looked significant. My response when I read it was, "Dynamite!" I was looking at a desk memo from a B&W engineer commenting on an incident that had occurred at a plant called Davis-Besse. When we got to Lynchburg and pulled the string, it turned out an event quite similar to that at TMI had taken place in September 1977. The event had been duly reported by the licensee, but apparently nothing had happened in the way of follow-up. There was no effective system for operators to profit from the experience or mistakes of others. Our discovery of how the Davis-Besse experience was handled led to the commission's recommending systematic gathering, review, and analysis of operating experience.

Countless hours of poring through records, deposing operators at the Island, interviewing NRC licensing people, observing training at B&W, and witnessing public hearings made some powerful impressions. Many were negative. But we saw a lot that was positive, particularly efforts the industry was making to get its own act together.

An especially important event in that regard was a glimpse of Duke Power. One day Pat Haggerty dropped into my cubicle at 2100 M Street in Washington. He asked if I would accompany him and Arizona Gov. Bruce Babbitt on a trip to a place called Oconee and then to Charlotte, N.C., to meet with Bill Lee, chairman of Duke Power Company. Pat wanted to see a strong utility. He also wanted to learn more about what the nuclear industry was doing for itself. Of course, I accepted Pat's invitation. It turned out the trip was really very important to us because we not only got to see Duke Power's investment in training, but, more important, we learned from Bill what he and other industry leaders were doing to establish what would later be known as INPO.

The last couple of months were the hardest. Everything I'd seen and done had to be pondered and then transformed into a readable report with sound findings and meaningful recommendations. There were lots of very long days. As I mentioned, my part of the investigation supported the need for improved sharing of experience. My work directly supported other findings and recommendations in the Kemeny Commission report—namely, those that dealt with the industry's need to set and police its own standards, conduct independent evaluations, and establish an accredited training institution; for corporate management to be involved in nuclear operations; for improved emergency response; and so on. All these recommendations recognized that the industry had to set its own standards for excellence and then make sure they are met. It was clear to us that no amount of regulation can make that happen.

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I can say there were many times during those difficult six months when it looked as if things would unravel and all our efforts come to naught. But John Kemeny held things together. The outcome of this near-ordeal was to be so much better than we'd ever imagined during some of the darker hours. We finished on time! On the appointed day, October 26, the commission delivered its report to the President. Two months later, President Carter announced that he agreed fully with the spirit and intent of the Kemeny Commission's recommendations and requested that the NRC and nuclear industry comply.

Industry response was very positive. Creation of INPO to promote the highest levels of safety and reliability was a key step. Establishment of the National Academy for Nuclear Training was another major commitment. Every recommendation in the report was specifically addressed. We know that the Kemeny Commission influenced needed change. Indeed, it got a lot of credit for much of the improvement. But those of us who worked so hard to put the report together acknowledged that several key people in the business not only influenced our perception of the problems, but also our understanding of the solutions. Bill Lee was in the forefront.

I know the industry's response to the commission recommendations was a source of great satisfaction to Dr. Kemeny. On the 10th anniversary of the accident, and three years before his unexpected passing, John Kemeny wrote, "We felt that what we wrote was important. We now know that the Presidential Commission has made a difference."

Before I left Washington in November 1979, half a year after first showing up at 2100 M Street, I helped Admiral Rickover prepare his comments on the commission report. Then I went back to the Navy for the next 12 years and didn't pay much attention to what was going on in the commercial nuclear power world.

It has been very gratifying, as I have worked in the industry over the past decade, to see the improvements that have come out of the TMI experience. Painful as those six months of my living out of a suitcase were, from a vantage point a quarter-century down the road, they may have just been worth it NN