

nuclear news

A PUBLICATION OF THE AMERICAN NUCLEAR SOCIETY

JULY 1982/VOL. 25/NO. 9



L. Manning Muntzing
ANS President

Muntzing: Emphasis on excellence

Because of the relative youth of nuclear technology, the American Nuclear Society and the nuclear industry in general have been dominated by people who were originally educated to do "something else." The leaders of the industry until very recently have not been those with degrees in nuclear engineering or nuclear physics, but rather those who originally studied in some rather diverse areas—mechanical engineering, physics, chemistry, mathematics, even naval architecture and internal combustion engines. There were no nuclear engineering or nuclear physics degree programs for many years, and most people received their nuclear training "on the job," as the need arose.

In one of the more unusual variations on this tradition, L. Manning Muntzing went off to college in 1952 to study history. Today, 30 years later, he steps up to the presidency of the American Nuclear Society. In the intervening years, rapid changes in the world around him had a direct influence on the direction Muntzing's life would take. And when his career turned toward nuclear matters, he, like those others before him, received his training "on the job." The story of the metamorphosis from history major to engineering and scientific society president is a fascinating one.

Getting started

Although born in Harrisonburg, Va. ("because that's where the hospital was"), Lewis Manning Muntzing is a West Virginia boy. He was raised in the small town of Moorefield, W. Va., where from early in life he and his older brother, William, were exposed, through parental example, to ideals of community service and civic involvement. His father, H. Gus Muntzing, a lawyer, served for 18 years as a circuit court judge in the community. His mother, née Virginia Manning, has also exhibited leadership in civic affairs.

Today, the elder Muntzings, now in their seventies, remain active in their community. The judge is retired, but

he still devotes time to the Lion's Club, of which he once served as district governor. Mrs. Muntzing, among her many activities, has served as president of the West Virginia Woman's Club, and is presently a member of the Moorefield City Council. Brother William now lives and practices law in central Florida.

Manning Muntzing attended public schools in Moorefield and, after graduation in 1952, began studies at the University of North Carolina at Chapel Hill "for no particular reason," except that the school had a fine reputation and a good liberal arts program. He majored in history because, he says, he had always been fascinated by it. While in college, he became involved

Following graduation from UNC in 1956, Muntzing spent the next year at Princeton University's Woodrow Wilson School for Public and International Affairs. "I hadn't really planned to do that," he says, "but they offered me a scholarship and I didn't turn it down." While at Princeton, he became involved in a summer internship program, during which he was assigned to then Governor Cecil Underwood of West Virginia. What was an academic assignment the first year became a summer job thereafter. Even after he began studies at Harvard Law School, Muntzing returned each summer to work for Governor Underwood. "It was a fascinating experience," he recalls. "You learn a lot about politics when you are there with a governor." His assignment was to do "whatever the Governor needed done," and encompassed, among other things, writing speeches, setting up conferences, and traveling around the state on various assignments.

During one of those summers, in his travels through the state, Muntzing met the West Virginia state road commissioner, who, learning that the young law student was living in Boston during the year, mentioned that he had a niece, Nancy Snyder, also attending school in Boston, at the New England Conservatory of Music. The road commissioner gave Muntzing his niece's phone number and asked him to call her "in his spare time." But then, as the motion picture/television series "The Paper Chase" has made clear, Harvard law students *have* no spare time. (Muntzing did manage, however, to become president of the Young Republicans.) More than a year went by, and no call was made to Miss Snyder. Upon learning this,

the road commissioner suggested to his niece that she call Muntzing. Not as busy (or perhaps not as shy), she made the call. Within three weeks Muntzing and Nancy Snyder were engaged. They were married on June 20, 1959—West Virginia Day, appropriately enough, for Nan was also a West Virginia native. Then he, armed with a newly



At age 2, Manning with parents and older brother

in numerous student activities, serving as a member of the student legislature, chairman of what was called the Carolina Symposium on Public Affairs, and president of the Interdormitory Council. In addition, he worked on the college newspaper, the *Daily Tarheel*. He was elected to three honorary societies.

acquired *Juris Doctoris* from Harvard, and she, with a master's degree in music, set off together to start their careers and family.

Going to work

For his first job after earning his law degree, Muntzing went to Washington, D.C., and joined The Chesapeake and Potomac Telephone Companies. "There were four C&P companies," he explains, "one in the District of Columbia, one in Maryland, one in Virginia, and one in West Virginia." Between 1960 and 1971, he moved around the system, first working for one company, then another, until he was appointed general attorney for the Maryland company.

It was in 1971, while he was with the Maryland company, that he was asked by the U.S. Atomic Energy Commission to become its director of regulation. James Schlesinger had become AEC chairman, and William Doub an AEC commissioner in mid-1971, and together they had been looking over the staff positions. Just prior to his joining the AEC, Doub had been chairman of the Maryland Public Service Commission, before which Muntzing had often appeared, impressing Doub with his innovative approaches. Doub strongly recommended Muntzing to fill the director of regulation post.

Muntzing accepted the offer and, in retrospect, has no problem explaining the seeming incongruity of a communications lawyer becoming a regulator of a highly technical, unrelated field. "My expertise in the law is administrative law, which means that we deal with issues before government agencies such as public service commissions. I had practiced before the public service commissions in the District of Columbia, in West Virginia, and in Maryland, and I had some limited activity with the Federal Communications Commission, all in the communications field. But my expertise was administrative law, and I understood the principles of running hearings, preparing witnesses, writing briefs, arguing cases, and seeing that a particular point of view was presented before the agency. And then I handled appeals through the courts if that was necessary. Administrative law embraces not only these formal proceedings, but also informal activities that are important to pursue."

He explains that the peaceful uses of nuclear energy are all conducted in an administrative law context and that the process at the AEC was not much different from the administrative law context he was previously engaged in. "The technology was different, but the processes used to deal with it were very similar," he says.



Nan and Manning, June 20, 1959

Learning a new technology was a challenge, of course, but "not so difficult to handle as one might believe," says Muntzing. "If you understand the principles and the processes to be pursued, it is not too difficult to pick up the technology." He worked long hours for a long time, starting the day at six in the morning and going until ten at night or beyond.

The AEC years

In late 1971, when Muntzing joined the AEC, the agency was weathering some tough times. The Commission was still feeling the aftershocks of the Calvert Cliffs decision, in which the U.S. Court of Appeals charged that the AEC had made "a mockery" of the National Environmental Policy Act (NEPA) by adopting rules that "failed to satisfy the rigor demanded by NEPA." The AEC accepted the court decision—to the dismay of many in the nuclear industry—and began a new program of tougher rulemaking. In conjunction with these actions, AEC Chairman Schlesinger announced that, henceforth, it would not be the AEC's responsibility to fight the nuclear industry's "political, social, and commercial battles." Schlesinger envisaged a reduction in the AEC's "promotional" role, seeing the Commission in the fu-

ture as a "referee serving the public interest." Clearly, a change was imminent.

To Muntzing, his own duties at the AEC seemed clear: "From the beginning, our principal objectives were to develop a regulatory organization that was capable of existing as an independent regulatory agency. The Commission had decided that a reorganization was in order; it was just a question of when. It was my opinion that before such an independent agency could be established, the regulatory organization needed to be scientifically and technically excellent and capable, and its management system well directed and well planned, and its priorities and objectives clearly understood and defined.

"We did a number of things to prepare for that reorganization. First, we insisted on being ahead of rather than behind the technical problems. This meant, for example, that we decided to start on emergency core-cooling rule-making to solve that particular technical issue."

The ECCS hearings and the "as low as practicable" hearings that began soon after were precedent-setting events for the AEC. "It was difficult," Muntzing says of the ECCS effort, "but it was concluded satisfactorily and has, I think, stood the test of time, both technically and politically. In the regulatory arena, you not only must solve the technical problem; you must also convince the public that a good solution has been achieved." As for the second hearings, on numerical guidelines for the radioactivity of LWR effluents, Muntzing notes that toward the end of the process, the environmentalists withdrew, stating that they had confidence that the Commission staff would handle the matter correctly.

Another objective, Muntzing states, was shortening the licensing process so that all regulatory activities were completed by the time construction of a nuclear facility was concluded. "This was a sound objective 10 years ago, and it's a sound one today, although some of the repercussions of Diablo Canyon and Three Mile Island have made it rather difficult to achieve."

He continues: "We also tried to remove most of the licensing process from the critical time path of a nuclear facility. What we found was that it was taking about two years to plan and design a facility, and that it then took about two years for the Commission to review and make a decision, so that it was four years before a construction permit could be issued. If construction took six years, that meant that it took 10 years to design, license, and build a nuclear facility (and now it's more like 12 or 14 years). What we

wanted to do was take the two-year licensing time off the critical path—reducing it to about six months. Then, with standardization of nuclear facilities and pre-approved sites, we could also reduce the planning, design, and construction time. Our objective was a six- to eight-year critical path, a time period that was compatible with what it takes to build a comparable coal plant. We never managed to achieve this objective, however, and we never got the legislation we thought was necessary to implement it.”

Today, Muntzing believes, the NRC appears to be coming back to that objective, and he expresses the hope that licensing reform is forthcoming so that the regulatory process can be completed contemporaneously with the construction of the facility, and so that the time from conception to operation of a facility may be reduced to a time frame of six to eight years.

During his AEC years, Muntzing focused attention on the standards program, pushing hard for greater industry participation in the development of standards. Also during those years, new enforcement criteria for noncompliance were developed and applied. In recognition of his efforts, Muntzing was awarded the AEC's Distinguished Service Award in March 1974 and, in June of the same year, received the Arthur S. Flemming Award, given to honor the year's 10 outstanding young men and women in the federal government.

Moving forward

The efforts of the AEC commissioners and staff in preparing for a separate regulatory agency came to fruition in October 1974 when President Gerald Ford announced the reorganization of the AEC into the Nuclear Regulatory Commission and the Energy Research and Development Administration. Muntzing, having staffed much of what was now to be the NRC and having shaped it according to his own regulatory concepts, was a leading candidate for the position of chairman of the new agency. As things turned out, however, the appointment went to former astronaut William Anders. Muntzing declined to stay with the organization, stating, as reported in the February 1975 issue of NUCLEAR NEWS, “The new chairman and the Commission have got to build their own program in their own image.”

Muntzing left government service and went into private law practice, first as a partner with LeBoeuf, Lamb, Leiby, and MacRea, and ultimately as a partner in the firm of Doub and Muntzing, with offices in Washington, D.C. “We deal with problems in the energy field, particularly in the nuclear area,” he explains, “and we are con-

cerned about international issues as well as domestic issues.” Muntzing himself has primarily focused on international questions.

But his involvement has by no means been limited to international matters. For example, he was active in preparing some transition papers involving nuclear regulation for the Reagan Administration, and he feels that many of the principles enunciated are being followed today by the NRC. “A number of changes were needed,” he states, “and I think there has been a good response to the perceived problems and their possible solutions.”

Another area where he has worked is the GESMO (Generic Environmental Statement on Mixed Oxides) case, which he argued, with others, before the U.S. Court of Appeals. The court, he says, agreed in principle that while the NRC could delay the licensing process while various studies, such as the International Nuclear Fuel Cycle Evaluation (INFCE), were being conducted, the Commission must go forward with a licensing decision if an applicant so desires. That, he feels, was an important principle to establish, so that the Commission cannot arbitrarily terminate a proceeding or make no decision without justification or reason.

The above-mentioned INFCE exercise was another area where Muntzing played a role. “Unlike the rest of the countries,” he notes, “the United

States was participating without a contribution from the private sector. One of the things I was most interested in was seeing that the private sector was brought into communication with the U.S. government activities in INFCE. We accomplished that, and we were able, through our Society, the Atomic Industrial Forum, the Edison Electric Institute, the Electric Power Research Institute, and the American Nuclear Energy Council, to submit papers that took the private sector's views into account.”

The extent of Muntzing's international expertise is evident in the book *International Instruments for Nuclear Technology Transfer*, which he helped compile and edit. This book, published in 1978 by ANS, is a compilation of some of the treaties and bilateral and trilateral agreements that govern international nuclear technology transfer.

The Muntzings at home

Home for Muntzing and wife Nan is a large house in Potomac, Md., situated on a heavily wooded lot and shared with four daughters, one beagle, one fish, one guinea pig, one bird, and a horse. The house features oriental rugs in almost all the main rooms, and other oriental decorations as well. Prominent on the living room mantle are two jade carvings, mementos of Muntzing's recent trip to China.

Nan Snyder Muntzing, as already



Office visit: Nan and Manning Muntzing with AEC Chairman James Schlesinger, ca. 1972. Children, from left: Nancy, Catherine, Stuart, and Elizabeth

mentioned, is, like her husband, a native West Virginian. She was born and raised in the small town of Mt. Hope. Her father owned and operated a coal mine. "It was really a marvelous time," she recalls. "There were 55 Snyders in the town. So I grew up surrounded by family."

She attended public schools in Mt. Hope, spent two years at the University of Michigan, went abroad to study at the Conservatory of Zurich, and then went to the New England Conservatory of Music, from which she ultimately obtained her master's degree in music, specializing in voice.

She is active as a singer and performer. For the past nine years, she has been a soloist at the National Presbyterian Church in Washington (the Reagans' church). Through the church, she says, she has obtained quite a bit of concert work. She is also a soloist with the Washington Chamber Orchestra and the Harrisburg (Pa.) Symphony. Her real love, however, is musical comedy. "Church singing is a joy, and I've always had a church job—since I was ten. And I've been a paid soloist since I went to college. But it's a little stiff, sometimes. Musical comedy is just great fun. And it's fun being around musicians and actors in a show."

The four daughters range in age from 13 to 21. Catherine, the oldest, will be a senior this fall at Southern Methodist University, studying broadcast journalism. Elizabeth, 19, is a student at Washington College in Chestertown, Md. Nancy, 16, will be a junior in high school, and the youngest, Kimberly Stuart (she goes by Stuart, which has been known to cause some problems—in summer camp reservations, for example) will be in eighth grade.

The Muntzings enjoy the traveling that has become such a part of Manning's job, and the older girls have each accompanied him on an overseas trip. All in the family enjoy music, although none of the girls has shown any interest in music as a career (nor has any so far shown an inclination toward the legal profession).

ANS activities

Since joining the American Nuclear Society in 1976, Muntzing has thrown his considerable energies into many ANS activities, beginning with his being chosen general chairman of the 1976 International Conference on World Nuclear Power, cosponsored by ANS and the European Nuclear Society. At that same meeting (which constituted the ANS Winter Meeting), the International Advisory Committee was established. Its purpose was to advise on major international conferences



Family portrait, 1982 (l-r): Stuart, Nancy, Catherine, Elizabeth, Nan, and Manning

sponsored by technical societies throughout the world. Muntzing served as chairman of that committee from 1979 to 1981, and he believes that the efforts made by the committee have resulted in greater feeling for international cooperation among nuclear societies and may lead to even greater cooperation in due time.

He served on the ANS Board of Directors and on the Executive Committee from 1977 to 1980, and was also chosen to be chairman of the International Development Committee, which deals with the international activities of ANS. In addition, he chaired the Blue Ribbon Committee on Government Relations, which recommended the establishment of the Public Policy Committee, on which he has also served. In 1979, he acted as general chairman of the Executive Conference on International Nuclear Commerce, held in New Orleans.

Looking to the future

"We as a society," Muntzing notes, "have made significant contributions to the better understanding of nuclear science and technology. We have addressed problems and solved them; we have shared views in the technical

arena. As we look at the technology, we know both that it is sound and that it can be made better. What we have done is to deal with the tough scientific and technical questions, such as those on safety, and in an effective manner. The accident at Three Mile Island showed that additional safety issues need to be addressed, and this is being done. I think we all feel that as we evaluate the lessons learned, we will be able to make any changes that are needed. What we must ensure is that the changes we make produce a *real* contribution to safety, not just a cosmetic solution.

"It is important that we maintain an innovative, creative atmosphere, that we be positive with regard to scientific and technical achievements and possibilities, that we avoid lethargy, and that, above all else, we emphasize excellence in our profession and in our approach to problems."

During his tenure as Society president, Muntzing envisages working toward several concrete goals, both Society goals and professional goals for the membership. His goals for the Society as a whole include:

- Establishing long-range plans and priorities. A good beginning has been

achieved, he emphasizes, but now we must complete the work begun.

- Striving to increase the membership by about 10 percent a year, so that the Society will grow from its present 13 000 members to more than 20 000 in about five years.

- Restructuring the escalating dues and registration fees so that the financial burden on members is controlled and even possibly reduced. One way of controlling expenses, he suggests, is to improve the profitability of ANS publications.

- Supporting other activities, such as scholarship programs, public information efforts, and local section activities.

For the professional growth of the individual members, Muntzing has suggested several possible directions in which the Society could move:

- Providing continuing education opportunities for the membership, through such means as short courses held in conjunction with national and topical meetings.

- Showing greater concern for individual member needs—for example, as the changing qualifications for reactor operators evolve, the Society should consider how it can deal with the needs of that portion of the technical community.

- Working to pinpoint manpower needs, so that we can ensure that those positions that open up in the future will be filled by people who will bring excellence to the nuclear community.

In addition, he believes that we need a strong public education program, and we need to increase our efforts relating to various government activities. One area he cites concerns the recent waste hearings before the NRC, in which ANS participated. We need, he says, to show the same interest in the areas of safety goals, source term, and probabilistic risk assessment development.

Muntzing concludes: "I have a philosophical belief that it is important for industry, academia, and the government to build bridges that enable each of them to complement the work of the others. History is strewn with examples where this has not occurred, and where the result has been unfortunate. I hope the ANS can effectively be a part of scientific and technical discussions with the government so that the experience we bring to bear can be appreciated. It worries me when political decision-makers do not listen carefully to the scientific and technical community, and when the technical community does not pay attention to the problems that the political people must consider. We do not need two cultures, but rather a common cooperative effort."—*Nancy Zacha Godlewski*

Carlou Associates Inc

Answering your immediate needs for HUMAN FACTORS ENGINEERING

The experience of our personnel covers:

- Control room reviews for 31 plants, for 19 U.S. and Japanese utilities
- Study of the role of Human Factors Engineering (HFE) and Training in the Three Mile Island Accident (NUREG/CR 1270)
- Development of a Human Engineering Guide to Nuclear Power Plant Design
- Development of Human Factors Engineering Orientation Courses for plant engineering and operations personnel

For assistance in:

- control room reviews
- SPDS evaluation
- procedures review
- job design
- HFE orientation courses
- training system evaluation
- maintenance training development
- human reliability prediction
- human performance enhancement
- development of backfits

Contact: Dr. Thomas B. Malone or Dr. Mark Kirkpatrick

Carlou Associates

8315 Lee Highway

Fairfax, VA 22031 (703-241-7199)

Reader Service No. 49

Prepare for potential operating problems with detailed knowledge



Nuclear Power Experience documents operator error and equipment failure

- NPE is a single data base of industry experiences.
- Timely, accurate, comprehensive and on-going. Updated monthly.
- Easy retrieval of data through key word indexing and plant cross-referencing.

Nuclear Power Experience

P.O. Box 2612
Denver, Colorado 80201 U.S.A.
303/740-7100
Telex: 45-0244

A division of Petroleum Information Corporation
A subsidiary of A. C. Nielsen Company

Write for 6-page descriptive brochure

Reader Service No. 107