

I N T E R N A T I O N A L P R O G R A M S

C. Cooley, Chairman
F. Feates, Co-Chairman

OPENING REMARKS

Corwin L. Rickard
President
American Nuclear Society

Vice President
General Atomic Company
San Diego, California

It is a pleasure for me to share in the opening of this conference and to have the opportunity to stress the importance that the American Nuclear Society attaches to the discussions and information exchange that will occur here.

Before I refer to the waste management issues, I would like to first congratulate all the members of the nuclear community here for their part in helping to bring into being in a short period of 25 years a major new energy source...nuclear energy. I feel we should remind ourselves and the public at the beginning of every conference of the enormous good and accomplishments already made with nuclear energy.

The number of stations and megawatts of capacity operating, under construction, or on order is familiar to most of you. As of the end of last year, there were 76 plants with operating licenses having a total capacity of 57,032 MW(e). There are 81 reactors with a combined capacity of 89,228 MW(e) that have construction permits, and almost half of these are 50% or more down the way toward completion. There are 15 reactors on order that have a combined capacity of 17,482 MW(e).

Just those plants that are on line make up about 10% of U.S. generating capacity, and this share will grow over the next decade to 20% or more and provide a total installed nuclear power capacity of over 130,000 MW(e). This capacity is more than twice the total generating capacity existing in the U.S. in 1950. Thus, the capacity already in place is a major achievement, and the capacity under construction and planned is still a massive undertaking...and the country will be counting on us to achieve it. The economic recovery could very well depend on it.

Some 620 years of operating experience has been accumulated by U.S. commercial nuclear power plants to date and with a perfect record of public safety. The plants in operation, under construction, and on order, represent an aggregate investment of over \$100 billion and an investment commitment of at least twice that amount.

The U.S. program has proven that nuclear power is economic, a bargain compared to oil that should be used for higher value purposes, anyway, and nuclear is better than coal in most places. But we have also learned that nuclear is more complex and requires a more elaborate and technically sophisticated infrastructure to sustain it than we first imagined. The nuclear waste issues are part of it, and that is what we are here to discuss.

The nuclear energy community has been more responsible than any other industrial activity that I know of concerning the by-products of its operation, that is, the products of the fission process that we are presently calling nuclear waste.

The day may come when we find good uses for all of these fission products, and that is really the way that I expect in the far future that our nuclear waste problem will be solved. But until then, even though I don't like it, the common usage is to call them waste, and that is the subject of our conference.

The American Nuclear Society has been devoting a major fraction of its resources toward contributing to a resolution of the nuclear waste issue. In 1979, we issued a Public Policy Statement titled "High-Level Radioactive Waste Disposal." It has been circulated widely throughout the world with the help of the 52 local sections of the ANS. The summary of this policy statement reads as follows:

"The American Nuclear Society is concerned that the delay in constructing the first federal repository for nuclear waste disposal may impair the authorization of future nuclear power plants. Based upon various large-scale tests and engineering development in a 25-year research and development program, many prestigious studies in the past few years have concluded that safe disposal of nuclear wastes in a mined geologic repository is an acceptable approach.

"The American Nuclear Society believes that expeditious, forthright action is required on the part of the federal government to construct and place into operation a repository for permanent high-level waste disposal at the earliest possible time, as a part of a national nuclear waste disposal program."

The ANS formed an ad hoc committee and, with the help of the Pacific Legal Foundation, is participating in the Waste Confidence Rule Making. Our most recent submission was a Supplemental Statement in December of last year, in which we concluded as follows:

"In summary, ANS, based on its independent review of the record to date, respectfully submits that overwhelming evidence

has been placed before NRC that nuclear waste can be stored and disposed of safely. Recent policy statements by the President and DOE with respect to disposition of spent fuel and the disposal of HLW do not alter ANS' position or the application of existing technologies, techniques, and common engineering practices.

"As previously stated, ANS, based on the scientific and technical evidence, concludes that NRC must find that:

- 1) Spent nuclear fuel from licensed facilities can be disposed of in a safe and environmentally acceptable manner;
- 2) The federal government's plans for establishing geologic repositories are an effective and reasonable means for developing a safe and environmentally acceptable disposal system;
- 3) Spent nuclear fuel from licensed facilities can be stored in a safe and environmentally acceptable manner on-site or off-site until disposal facilities are available, and
- 4) Sufficient additional storage capacity for spent nuclear fuel from licensed facilities can be provided as needed."

The ANS also commented on the proposed rule 10 CFR Part 60 (Technical Criteria for Disposal of High-Level Radioactive Waste in Geological Repositories) in October of last year.

In addition, the Fuel Cycle and Waste Management Division of the ANS provided comments on the NRC proposed rule for Licensing Requirements for Land Disposal of Radioactive Waste in January of this year.

And finally, the ANS has as a major part of its Public Information program been doing its utmost to disseminate to the public and the government scientific, technical, and educational material on nuclear waste. Many of you at this conference have voluntarily and freely given of your time and effort for these ANS activities, and I know that it is greatly appreciated by the community.

Timely implementation of solutions to waste management and disposal needs has become more dependent on institutional considerations than on technical factors. Lack of a clear, specific government policy and accompanying legislative framework have made it impossible for industry to rationalize the uncertainties and for the responsible government agencies to foster a waste management infrastructure that can resolve present problems and effect equitable solutions.

The present Administration has announced its support for the nuclear power option and has instituted various initiatives to resolve regulatory, reprocessing, and waste storage and disposal problems. Enactment of a comprehensive waste management policy soon appears particularly promising, in view of progress that has been made in the Congress with several proposed Bills.

With this anticipated guidance and authority, I am confident that we can swiftly resolve the remaining waste management issues that are detrimental to the deployment of a strong nuclear power economy.

Now, even before you begin this conference, I want to offer congratulations for having it. I offer special congratulations to the organizers of the conference; to your general chairman, Roy Post; and to the technical program chairman, Morton Wacks. The sharing of information and the peer review of contributions to the solutions to the safe and effective management of nuclear waste are an important part of our professional duties, and I congratulate all who are participating in this very extensive conference.

I have taken particular note of the sessions that will be held on public communications. These will be important sessions and are in the finest tradition of the science and engineering professions in being responsible for sharing your knowledge with the public. It is conferences such as this that have provided for the unparalleled record of perfect public safety in handling radioactive waste that the nuclear community has achieved.