

September 9, 1983

Dr. Akira Oyama, Commissioner
Nuclear Safety Commission
Science and Technology Agency
2-2-1, Kasumigaoka
Chiyoda-Ku, Tokyo 100
Japan

Dear Commissioner Oyama:

I will be in Japan soon in order to present a lecture on U.S. accident source term work at JAERI meetings in Tokyo on September 21 and at Tokai on September 22. It is also my intention to explore with JAERI possible mutual interests in research associated with the development and use of Probabilistic Risk Analysis (PRA).

I recall our pleasant and fruitful meeting with you here in Washington on April 6 of this year and it leads me to request a meeting with you on September 20 as part of my visit to Japan. I would like to discuss three topics with you and others who may be interested and available on that day.

I would certainly be pleased if I could meet even briefly with your Chairman, Dr. Hisonou. The subjects I wish to discuss are:

1. The development of a scientific basis for revised estimates of reactor accident source terms.
2. The evaluation of severe accidents in water reactors and changes in regulations.
3. The use of Probabilistic Risk Analysis in regulation.

I had the opportunity to talk to Dr. Y. Togo last week when he and I both spoke at the plenary session of the ARS conference in Cambridge, Massachusetts. I was interested in his presentation on the Japanese approach to dealing with severe accidents in the regulatory process. His paper and remarks increase my desire to discuss these matters with you. As you probably know, we in the U.S. are now engaged in deliberations on source term revisions, severe accident regulation and the use of PRA. I would like to put the following questions to you in our meeting:

- a. What are your views on how to obtain adequate scientific and public review of the technical work supporting source term revisions?
- b. Is the Japanese regulatory program considering the use of a formal probabilistic limit for accidents more severe than the Site Evaluation Accident (SEA)?
- c. Are you considering revision of the SEA source term assumptions to include a different fission product release mixture?
- d. Are you considering revision of the SEA source term assumptions to include thermal-hydraulic containment loadings of core melt as well as LOCA?
- e. Are you considering manual or automatic venting of containment at extreme conditions to minimize containment failure consequences.
- f. What criteria for acceptable safety level are you considering?

My apologies for the lateness of this request; I will be grateful if you can meet with me.

Sincerely,

Robert M. Bernero, Director
Accident Source Term Program Office
Office of Nuclear Regulatory Research

cc: Kenichi Murakami, NSRSTA
Gerard Helfrich, U.S. Embassy in Japan

ORGANIZATION CHART OF NUCLEAR SAFETY RESEARCH AT JAERI

(As of May 1, 1983)

