CT-1226

1680 Bay Shore Drive
Cocoa Beach, FL 32931

17 March, 1981

Dr. C. P. Siess
Advisory Committee on Reactor Safeguards
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Dr. Siess:

In accordance with your request at the meeting on March 10, following are a few comments on the contemplated review of the NRC role in ensuring compliance with the regulations for packaging and transportation of radioactive materials. As discussed at the meeting, it is suggested that at least for the present the review should be limited to the matter of compliance, and not include the more controversial and more subjective matter of the possible justification for different regulatory requirements. Possible exceptions relate to weaknesses which your questioning revealed in control of intrastate carriers and in differences between agreement and non-agreement states.

An item for special consideration is specification containers for Type B quantities and for fissile material. These have not gone through the SAR process, nor the rigorous analysis performed by NRC for a Certificate of Compliance. It has been pointed out to DOT, DOE, and NRC in the past that the specifications for the 6M in particular will permit a container not in compliance with 10CFR Part 71. The economic impact of changing the specifications is not known; it is possible that only a small percentage of the 6M containers actually in use would be found deficient to a significant degree.

With respect to the demonstration of compliance now required of licensees, and the subsequent evaluation by NMSS, there is some question about the justified degree of sophistication and rigor. Although experience to date and studies which have been made indicate that present requirements for resistance to accident are reasonable, they are nevertheless somewhat arbitrary in nature. Also, for normal transport, the troublesome one foot upside-down drop of a cask is difficult to relate to reality. Safety in practice would probably be negligibly affected by specifying a 25 ft or a 35 ft drop instead of the 30 ft drop, or by specifying a 1400°F or 1600°F thermal environment instead of 1475°F. The intent of the regulations and the practical significance of the requirements would seem to have a bearing on the procedures for implementation.

I am uncertain whether or not it is intended that the review should include DOE and DOT. However, a fairly large percentage of the Type B shipments are made in DOE containers, and most of the incidents where radioactive material has escaped have been with Type A and LSA packages; these are subject to DOE and DOT regulations respectively, but not to NRC regulations.

Very truly yours,

John A. Langhaar