



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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July 6, 1979

The Honorable John Glenn, Chairman
Subcommittee on Energy, Nuclear
Proliferation and Federal Services
Committee on Governmental Affairs
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

This is in regard to your letter of May 31, 1979, suggesting the formation of an inter-agency group to review the crash-worthiness requirements for containers used to ship small quantities of plutonium by air.

On August 4, 1978, NRC certified to Congress that a safe shipping container for air transport of plutonium had been developed and tested and that the container would not rupture under crash and blast-testing equivalent to the crash and explosion of a high-flying aircraft. This certification was made in accordance with Public Law 94-79, enacted August 9, 1975, which prohibits the NRC from licensing any shipments of plutonium in any form other than within certain medical devices, by air transport whether exports, imports, or domestic shipments, except in certified containers. Before making the certification, the NRC evaluated the conditions that could be produced in aircraft accidents and developed qualification criteria for plutonium packages. As a result, the criteria address the requirements of P.L. 94-79 that testing be equivalent to the crash and explosion of a high-flying aircraft. The requirement of P.L. 94-79 for the container not to rupture is addressed in the criteria by specifying post-test acceptance standards equivalent to those of the International Atomic Energy Agency. The criteria also specify various engineering assessments to be made on plutonium package designs and require that certain operational controls be observed in transport. The operational controls are needed to prevent or mitigate certain accident conditions. The criteria, as well as the package design developed by the NRC to meet the criteria, were endorsed

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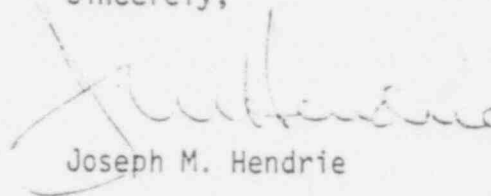
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by both the NRC Advisory Committee on Reactor Safeguards and the National Academy of Sciences.

On April 25, 1979, representatives of the Department of Energy (DOE), the Department of Transportation (DOT), and the Nuclear Regulatory Commission (NRC) met with your staff to discuss the IAEA sample shipment problem. Our representative pointed out that we are not aware of any new technical data which would support development of less stringent criteria for plutonium package certification under P.L. 94-79. Two alternatives were suggested at the meeting for solving the shipment problem. One alternative is to develop a small safeguards sample container that would meet the NRC qualification criteria for air transport of plutonium. The other alternative is to initiate legislative action to provide an exemption to Public Law 94-79 for the quantities of plutonium or types of shipments involved in the IAEA sample shipment program. We understood that DOE has agreed to initiate a program to develop a small safeguards container that would meet the NRC criteria. If this DOE program does not produce an appropriate container on a schedule consistent with the needs of the IAEA, we believe that the alternative involving legislative action should be pursued. Although we believe that certain very small quantities of plutonium could be exempted from the plutonium package requirements for air transport, not all the safeguards samples (up to 100 grams per shipment) could be exempted while still offering a level of public safety provided by Public Law 94-79.

I trust that this information is responsive to your request. If you have additional questions, please feel free to contact me.

Sincerely,



Joseph M. Hendrie

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