



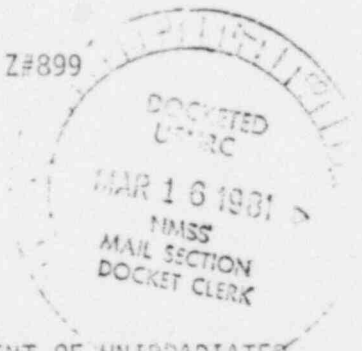
POR 71-6400

Department of Energy
Washington, D.C. 20585

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NR:DRS:DLA1f Z#899
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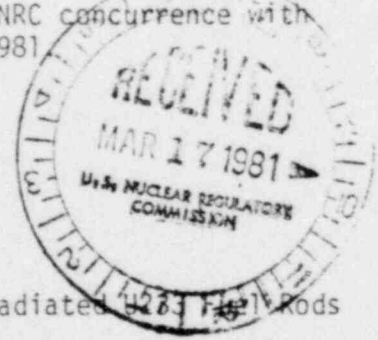
SUPER TIGER SHIPPING CONTAINER - SAFETY ANALYSIS REPORT FOR SHIPMENT OF UNIRRADIATED U233 FUEL RODS IN SUPER TIGER SHIPPING CONTAINER; REQUEST FOR NUCLEAR REGULATORY COMMISSION CONCURRENCE

The attached safety analysis report is forwarded for Nuclear Regulatory Commission (NRC) review and concurrence. The safety analysis report addresses the use of a specifically designed optional storage compartment for shipment of unirradiated U233 fuel rods in the Super Tiger Shipping Container.

The specifically designed storage compartment incorporates an array of 20 rectangular steel tubes welded together with boral neutron poison material laminated between the tubes and a steel gamma radiation shield welded around the perimeter. The storage compartment will be centered within the Super Tiger cavity by approximately 18" of polyurethane foam on the ends and all sides. Each tube will accommodate up to four rod transport boxes for a total of up to 80 boxes per shipment. The specifically designed storage compartment is designed to evenly distribute the weight to the Super Tiger chassis and is designed to withstand all accident loads without deformation. Approximately 40 kg U233 in the form of fuel rods can be transferred per shipment using the storage compartment without exceeding 10CFR71 normal transportation and accident requirements with respect to radiation or criticality control. Without the use of the storage compartment, the existing DOE Super Tiger certificate of compliance would limit individual shipments to approximately 300 gms U233.

Naval Reactors considers that the Super Tiger Shipping Container modified by use of the specifically designed storage compartment for shipment of unirradiated U233 fuel rods complies with Code of Federal Regulation requirements (10CFR71). A DOE Certificate of Compliance for the Super Tiger Shipping Container revised to allow use of the storage compartment is attached for information. NRC concurrence with the attached safety analysis report is requested by July 4, 1981.

W. P. ENGEL
Naval Reactors



- Enclosures:
- (1) Safety Analysis Report for Shipment of Unirradiated U233 Fuel Rods in Super Tiger Shipping Container
 - (2) DOE Certificate of Compliance USA/6400/BLF(DOE-NR), Revision 3 for Super Tiger Shipping Container

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