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Subject: FW: Storage of Fuel in Canisters after transport
Date: Wednesday, August 30, 2017 4:53:11 AM

Mr. Tripp

I believe that the proposed Draft Regulatory Guide-3053 – “Nuclear Criticality Safety Standards for Nuclear Materials Outside Reactor Cores,” should address the following issue:

In accordance with the DOT-NRC MOU from 1979, NRC regulations do not contain any requirements for Storage in Transit and the associated Criticality Controls, since DOT 49 CFR 173 regulations regarding Criticality Safety Index and package separation, apply while the package is in transit.

Once the consignment is delivered to the reactor site, it is no longer in transit, even if it has not yet been placed in the approved new fuel storage location, i.e., the new fuel racks.

When fuel is in shipment, criticality safety is addressed by 49 CFR 173 which imposes a Criticality Safety Index and limitations on the spacing between consignments.

10 CFR 71 does not consider criticality controls during “Storage In Transit,” therefore, there are no criticality controls applied when multiple shipments of new fuel staged on the reactor site awaiting placement in the new fuel racks.

There is some operating experience that indicates that some reactor sites have received multiple shipments of new fuel without placing them in the approved new fuel racks.

From Federal Register/Vol. 69, No. 16 / Monday, January 26, 2004/Rules and Regulations DOT requirements restrict accumulation of packages during transport, based on summing the packages' CSI or TI, including during storage incident to transport. In light of the division of regulatory responsibilities explained in the NRC-DOT Memorandum of Understanding (44 FR 38690; July 2, 1979), the NRC exemptions for carriers in transit in 10 CFR 70.12, and DOT's proposed 49 CFR 173.457 (67 FR 21384; April 30, 2002), the NRC staff believes that storage in transit provisions proposed in §§ 71.59(c)(1), 71.22(d)(3), and 71.23(d)(3) are unwarranted. The NRC has deleted the phrase "or stored incident to transport" from these sections.

NUREG/CR-6713 “Regulatory Analysis of Major Revision of 10 CFR Part 71 – Final Rule”, dated 2004, states:

DOT's regulations in 49 CFR Parts 171 through 180 (often called the “Hazmat Regulations”) address packaging, shipper and carrier responsibilities, documentation, and radioactivity limits. In

contrast, NRC's regulations are primarily concerned with special packaging requirements for large quantities of radioactive materials. A Memorandum of Understanding (MOU) published July 2, 1979 (44 FR 38690) specifies the roles of DOT and NRC in the regulation of the transportation of radioactive materials. The MOU outlines that DOT is responsible for regulating safety in transportation of all hazardous materials, including radioactive materials, whereas the NRC is responsible for regulating safety in receipt, possession, use, and transfer of byproduct, source, and special nuclear materials.

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