

DUKE ENERGY CAROLINAS, LLC

William States Lee III Nuclear Station, Units 1 & 2

NEW FUEL SHIPPING PLAN

Revision 0

New Fuel Shipping Plan

1. Scope of New Fuel Shipping Plan

The reactor licensee on occasion may have to arrange for shipment of new fuel assemblies to the fuel manufacturer. Such shipments are infrequent and would require the reactor licensee to be subject to the regulations in 10 CFR 73.67 (Ref. 5.1), as clarified by guidance provided in NRC Regulatory Issue Summary (RIS) 2005-22 (Ref. 5.2). In lieu of the reactor licensee developing and submitting its own transportation security plan, arrangements may be made for a special nuclear material (SNM) qualified licensee to accept delivery of the fuel at the reactor licensee's site and for the SNM qualified licensee to perform the return shipment under its transportation security plan (TSP).

This New Fuel Shipping Plan summarizes the procedures and the written agreement the reactor licensee shall have in place prior to a shipment of new fuel back to the fuel manufacturer. A written agreement acknowledges the responsibility of the reactor licensee and the SNM qualified licensee.

2. Definitions

In this plan the following definitions apply:

- 2.1 New fuel assembly - a group of fuel rods containing pellets of fissionable material that has not been irradiated in the nuclear reactor core.
- 2.2 In-transit physical protection - protection provided by a licensee in accordance with a transportation security plan for special nuclear material that meets the requirements of 10 CFR 73.67(g)(3).
- 2.3 SNM qualified licensee - an entity that is licensed pursuant to the regulations in 10 CFR Part 70 to transport, deliver to a carrier, or take delivery of a single shipment and has received NRC approval of a Transportation Security Plan (TSP) addressing the physical protection of special nuclear material in transit pursuant to 10 CFR 73.67(c).
- 2.4 Receiver - the SNM qualified licensee that receives delivery of new fuel assemblies returned from the reactor licensee.

3. Reactor Licensee Responsibility

- 3.1 The reactor licensee shall have a written agreement in place that arranges for the physical protection of special nuclear material in transit to and from the reactor licensee's facility that meets the requirements of 10 CFR 73.67(g)(3).

The in-transit physical protection starts at the free on board (F.O.B.) point at which the new fuel is delivered to a carrier for transport. The agreement shall

include acknowledgement by the SNM qualified licensee that its TSP includes in-transit physical protection from the reactor licensee's site to the receiver's facility.

- 3.2 Reactor licensee procedures shall provide guidance regarding advance notification to the receiver of the new fuel shipment, confirmation the receiver is ready to accept shipment, performance of container integrity checks, and placement of tamper-safing devices prior to the commencement of planned shipment in accordance with 10 CFR 73.67(g)(1).
- 3.3 When the reactor licensee receives SNM from a shipper, procedures shall include inspections for the container integrity and tamper-safing devices and notifications to the shipper as required by 10 CFR 73.67(g)(2).

4. Documentation

The records created as a result of this plan activity shall be retained in accordance with reactor licensee records administration and applicable requirements of 10 CFR 73.67(g). Records that would be created and retained under this plan, in the event of new fuel return shipments, include:

- Written agreements between the reactor licensee and the shipper/receiver for in-transit physical protection of the new fuel shipment,
- Documentation of advance notifications and receipt,
- Documentation of container integrity and tamper-safing device checks, and
- Copies of superseded response procedure materials.

5. References

- 5.1 10 CFR 73.67 – Licensee fixed site and in-transit requirements for the physical protection of special nuclear material of moderate and low strategic significance
- 5.2 NRC Regulatory Issue Summary (RIS) 2005-22 Requirements for the Transportation of Special Nuclear Material of Moderate and Low Strategic Significance: 10 CFR Part 73 vs. Regulatory Guide 5.59 (1983)