



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

September 24, 2019

MEMORANDUM TO: Christopher M. Regan, Deputy Director
Division of Spent Fuel Management
Office of Nuclear Material Safety
and Safeguards

FROM: Pierre Saverot, Project Manager **/RA/**
Spent Fuel Licensing Branch
Division of Spent Fuel Management
Office of Nuclear Material Safety
and Safeguards

SUBJECT: SUMMARY OF SEPTEMBER 10, 2019 MEETING WITH
SAVANNAH RIVER NUCLEAR SOLUTIONS

Background

On September 10, 2019, a Category 1 public meeting was held at the U.S. Nuclear Regulatory Commission (NRC) headquarters in Rockville, MD, between the NRC staff and representatives from Savannah River Nuclear Solutions (SRNS) to discuss the licensing steps of a future Type B Fissile package. The September 10, 2019, meeting was noticed on August 28, 2019 (Agencywide Documents Access and Management System Accession No. ML19240A430).

The meeting attendance list is provided as an Enclosure.

Discussion

SRNS requested this meeting to inquire in general about what could be expected from the staff during the licensing process and the corresponding technical review for an application for a new Type B fissile package.

SRNS stated that this new package, smaller than a 10-gallon drum, is similar to a U.S. Department of Energy (DOE) certified Type AF package with a containment vessel that is also certified, although with different dimensions. Full scale testing will be performed for the qualification of this package. Staff reminded SRNS to evaluate whether a 30-foot drop test, at a shallow angle orientation, could result in a lid separation that could then adversely affect the criticality evaluation and the assessment of an array of damaged packages. Staff reminded SRNS to provide the technical characteristics of the test pad in the application. SRNS asked about the use of either propane or jet fuel during the fire test and staff responded that only the test conditions matter.

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In particular, staff reminded SRNS that the initial conditions for the fire hypothetical accident conditions should be the calculated steady-state normal conditions temperatures of the package (with 38°C ambient and with insolation). Also, Regulatory Guide 7.9, "Standard format and content of Part 71 applications for approval of packaging for radioactive material," states that for the initial conditions, "The thermal evaluation should consider the effects of the drop, crush (if applicable), and puncture tests on the package. This section should identify initial conditions, and justify that they are most unfavorable, including initial ambient temperature, insolation, internal pressure, decay heat, etc."

Staff noted that the application shall be self-sustaining and minimize references to other safety analysis reports. Staff explained the licensing process, with a request for supplemental information and a maximum of two requests for additional information, and estimated that a certificate could be issued within 12 to 18 months of the application being accepted for review. As far as licensing costs are concerned, staff said that the review costs could hover around twice those of the Model No. 9979 package (already approved by DOE and with minimal changes compared to its original approval). Staff explained the revalidation process per International Atomic Energy Agency (IAEA) regulations, and has no objection to see IAEA regulations being mentioned in the application although the review will be made according to Title 10 of the *Code of Federal Regulations* Part 71.

A member of the public asked about the contents of this new package and SRNS explained that, since no contract had been signed yet, it was too early to say anything except that this would not be for a DOE project.

Staff made no regulatory commitment during the meeting.

Enclosure:
Meeting Attendees

SUBJECT: SUMMARY OF SEPTEMBER 10, 2019 MEETING WITH SAVANNAH RIVER
NUCLEAR SOLUTIONS, DOCUMENT DATE: September 24, 2019

DISTRIBUTION: SFST r/f, M. Layton,

ADimitriadis, RI

BBonser, RII

MKunowski, RIII

GWarnick, RIV

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ADAMS No.: ML19266A480

OFC:	SFM	E	SFM	C	SFM
NAME:	PSaverot		SFigueroa		JMcKirgan
DATE:	09/11/2019		09/19/2019		09/24/2019

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**Meeting Between Savannah River Nuclear Solutions
and the
Nuclear Regulatory Commission
September 10, 2019
Meeting Attendees**

NRC/NMSS/DSFM

Pierre Saverot
Bernie White

SRNS

Kurt Eberl
Chris Cable

SAVANNAH RIVER SITE WATCH

Tom Clements