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

June 15, 2020

MEMORANDUM TO: Christopher Regan, Deputy Director
Division of Fuel Management, NMSS

FROM: Pierre Saverot, Project Manager **R/A**
Storage and Transportation Licensing Branch
Division of Fuel Management, NMSS

SUBJECT: SUMMARY OF JUNE 10, 2020 MEETING WITH DAHER NUCLEAR TECHNOLOGIES

Background

On June 10, 2020, a Category 1 public meeting was held by video conference between the U.S. Nuclear Regulatory Commission (NRC) staff and representatives from Daher Nuclear Technologies GmbH (DNT) to discuss the licensing approach for a new UF_6 package design, DN30-X, for enrichments between 10% and 20%.

The June 10, 2020 meeting was noticed on April 27, 2020 (ML20118C770). The meeting attendance list and public presentation are provided as Enclosure Nos. 1 and 2, respectively.

Discussion

Recent industry developments such as initiatives for Accident Tolerant Fuel, DOE-NNSA tritium production project, fuel for small modular reactors, as well as high assay low-enriched uranium projects, drive up the need for transportation of UF_6 enriched above 5%, i.e., between 10% and 20%, thus the need for a new UF_6 package design. DNT presented two licensing options they were considering.

One possible licensing approach would be to request an exemption from 10 CFR 71.55 (g)(4) regarding the enrichment limitation to not more than 5% U^{235}. Staff clarified that a licensee can seek an exemption from the regulations. In this approach, each licensee would have to request the exemption. Staff explained that alternatively, for relief from this regulatory requirement to be applied generically to the certificate of compliance, any entity could petition for a rulemaking to seek a change to the regulations. Staff explained that each approach may have schedule implications. Should the exemption option be pursued, the licensee would also need the U.S Department of Transportation (DOT) to issue a special permit for domestic transport.

DNT then discussed the second licensing approach, i.e., the design of a new cylinder derived from the ANSI N14.1 30B cylinder but with added criticality control rods. During the meeting it was noted that ANSI N14.1 is incorporated into DOT regulations, while not specifically cited in NRC regulations.

DNT said that (i) the 30B-X cylinder will have dimensions and maximum gross weight identical to those of the standard 30B cylinder, (ii) the valve and plug will also be identical to those of the standard 30B cylinder, (iii) the washing/cleaning will be similar to the 30B cylinder (by using water) although a longer washing time is expected due to larger internal surface area. Four DN30-X will be transported on a flat rack, i.e., 6400 kg for a DN30-10 package or 5000 kg for a DN30-20 package.

The structural and criticality evaluations of the DN30-X package were discussed during the proprietary session. DNT will be requesting a second pre-application meeting before any submittal later this year or early next year. Staff made no regulatory commitment during the meeting.

Docket No. 71-9388
EPID - L-2020-NEW-0003

Enclosures:
1. Meeting Attendees
2. Presentation

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DATE	06/15/2020		06/15/2020		06/15/2020		

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Meeting Between DAHER NUCLEAR TECHNOLOGIES (DNT)
and the
Nuclear Regulatory Commission
June 10, 2020
Meeting Attendees

NRC/NMSS/DSFM

Pierre Saverot
Andrew Barto
Yong Kim
John McKirgan
Richard Chang
Tom Boyce
Bernard White

DNT

Yara van Wijk
Maik Hennebach
Franz Hilbert
Sebastian Fels

DOT

Richard Boyle
Mike Conroy

URENCO

Ben Hall
Wyatt Patchett
David Fletcher
Joel Kruehler

PUBLIC

Peter Vescovi (ORANO)

Enclosure 1