



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

January 2, 2020

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

FROM: Kristina L. Banovac, Project Manager */RA/*
Storage and Transportation Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

SUBJECT: SUMMARY OF NOVEMBER 20, 2019, MEETING WITH
WESTINGHOUSE ELECTRIC COMPANY, LLC TO DISCUSS THE
UPCOMING SUBMITTAL OF THE APPLICATION FOR RENEWAL OF
THE STORAGE CERTIFICATE OF COMPLIANCE NO. 1026 FOR THE
FUELSOLUTIONS™ SPENT FUEL MANAGEMENT SYSTEM
(CAC/EPID NOS. 001028/L-2019-LRM-0071)

Background

On November 20, 2019, a meeting was held between representatives of Westinghouse Electric Company, LLC (Westinghouse) and the U.S. Nuclear Regulatory Commission (NRC) to discuss the upcoming submittal of the application for renewal of the storage Certificate of Compliance (CoC) No. 1026 for the FuelSolutions™ Spent Fuel Management System. The meeting was noticed on November 5, 2019 (ADAMS Accession No. ML19310E116). The list of meeting attendees is provided in Enclosure 1.

Discussion

The meeting discussion followed the meeting agenda, which is provided in Enclosure 2. Westinghouse's presentation is provided in Enclosure 3. Westinghouse acquired the intellectual property for the FuelSolutions™ Spent Fuel Management System from EnergySolutions and requested transfer of the CoC 1026 on September 13, 2019. Westinghouse assumed the responsibilities as the CoC holder and is planning to apply for renewal of CoC 1026. Westinghouse provided information on the FuelSolutions™ system design and noted there are seven systems currently in storage at the Big Rock Point Independent Spent Fuel Storage Installation (ISFSI). Westinghouse provided an overview of the planned CoC renewal application, including the scoping evaluation, aging management review, time-limited aging analyses (TLAAs), and aging management programs (AMPs). Westinghouse also provided information on the pre-application inspections that were conducted in July 2019.

CONTACT: Kristina Banovac, NMSS/DFM
(301) 415-7116

The current CoC expiration date is February 15, 2021, and the timely renewal due date for the renewal application is January 2021. Westinghouse plans to submit the CoC renewal application in September 2020 and plans to request a 40-year renewal period for the CoC.

The following items were discussed between Westinghouse and NRC representatives during the meeting:

- Westinghouse clarified a few aspects of the CoC 1026 design bases:
 - the system loaded with greater than Class C (GTCC) waste at the Big Rock Point ISFSI is not part of the CoC 1026 and is out of scope for the renewal;
 - the liquid neutron shield in the transfer cask is demineralized water, and the transfer cask can be used in a vertical or horizontal position;
 - in the storage cask, the aluminum heat shield is the innermost layer, followed by the steel liner, then the concrete.
- The NRC staff noted that the CoC renewal application should reference the applicable design-basis analyses in the CoC 1026 final safety analysis report (FSAR) to support the scoping evaluation. The application should be clear on what auxiliary equipment is not considered part of the CoC 1026 design bases (e.g., support equipment under Big Rock Point Part 50 licensing bases). Westinghouse should also consider what structures, systems, and components (SSCs) may scope in to the renewal under scoping criterion 2 (i.e., SSCs are classified as not important to safety but, according to the design bases, their failure could prevent fulfillment of a function that is important to safety).
- Westinghouse clarified that the ISFSI storage pad is classified as not important to safety in the CoC 1026 FSAR. However, the Big Rock Point ISFSI storage pad was classified as important to safety, category B, for the purposes of procurement of the materials and testing for the pad pour. The NRC staff noted that the application should be clear on the scoping of the pad, including how the pad is considered in the design-basis analyses in the FSAR and whether the failure of the pad could impact retrievability.
- The NRC staff asked whether the high emissivity coating on the transfer cask is credited for heat removal in the design bases, and it noted that the application should be clear on whether the coating supports the safety function of heat removal and whether the coating is considered in-scope for the renewal.
- Westinghouse noted that in addition to the pre-submittal cask inspection conducted in July 2019, Entergy conducts borescope inspections of the first-loaded storage system at the Big Rock Point ISFSI through the inlet and outlet vents every 5-years, as well as the external surfaces of the first-loaded cask and the transport cask. Entergy conducts annual external inspections of the transfer cask, all storage casks, and the entire storage pad at the Big Rock Point ISFSI. Entergy also conducts quarterly and annual beta/gamma radiation surveys and an annual neutron survey, in addition to the thermoluminescent dosimeters at the ISFSI fence and the radiological environmental monitoring program. The NRC staff noted that the CoC renewal application should include a summary of relevant operating experience, including the results of previous inspections, the July 2019 pre-submittal inspection, and the radiation surveys.
- The NRC staff noted that any identified TLAA in the renewal application should have a time-based calculation or analysis in the existing design bases for the CoC. If the analysis

is not in the existing design bases, it may not necessarily be considered a TLAA, but can be used as a supporting analysis in the renewal application (e.g., used in the aging management review to justify the exclusion of an aging effect or SSC subcomponent from the scope of an AMP). The NRC staff also noted that the applicant should review the CoC 1026 FSAR for all time-based references (e.g., design life) and update the references in the proposed FSAR supplement to be included in the renewal application.

- The NRC staff noted that for the planned AMPs on (a) loss of fracture toughness and ductility of fuel basket support rod, and (b) loss of pre-load of fuel basket bolts, Westinghouse should consider whether an analysis or other justification could be provided to support that an AMP is not necessary for these aging mechanisms.
- Westinghouse noted that the CoC 1026 currently has four approved amendments, but Entergy only uses one amendment for the systems at the Big Rock Point ISFSI. Westinghouse is considering whether to request renewal of all the CoC amendments. The NRC staff noted that the CoC renewal application should summarize the differences in each amendment, in terms of the design or materials changes and how those changes affect the aging management review.
- In terms of renewal license conditions limiting the use of an SSC based on age or time in service, the NRC staff referred Westinghouse to the age-limited conditions included in the renewals for the North Anna and Three Mile Island, Unit 2 ISFSI licenses.
- The NRC staff asked how the FSAR is maintained for the CoC. Westinghouse noted that the FSAR is maintained in accordance with 10 CFR 72.248, including biennial updates. In addition, there are separate FSARs for each major component of the system (e.g., W21 canister, W74 canister, W100 transfer cask, and W150 storage cask). The NRC staff also inquired if the biennial updates to the FSAR only included page changes or if the entire FSAR was submitted in the biennial updates. The NRC staff noted that if only page changes have been submitted in past biennial updates, Westinghouse may submit the current version of the FSAR (even if outside the biennial submittal window) to reflect the current design bases to support the CoC renewal application.
- The NRC staff noted that the renewal application should include any proposed changes to the FSAR, including a summary of the AMPs. Westinghouse may refer to the current guidance in NEI 14-03, Revision 2, and recent renewal applications regarding the level of detail to be included in the AMP summary (e.g., scope, parameters monitored and inspected, detection of aging effects, and acceptance criteria).
- The NRC staff clarified that as long as the renewal application is timely per the 10 CFR 72.240(b) provision (i.e., submitted not less than 30 days before the expiration date of the CoC), the CoC will not expire until the NRC makes a decision on the renewal. The NRC staff noted that it is expecting to have several renewal applications in-house at the same time as the CoC 1026 renewal application. The NRC staff noted that it can discuss with Westinghouse the planned schedule for the review of the renewal application as the time of submittal approaches. Also, the NRC staff will communicate its review schedule in the acceptance letter on the renewal application.

After Westinghouse and NRC representatives completed their discussion, the meeting was opened to public comments or questions. There were no public comments or questions.

Action Items/Next Steps

Westinghouse plans to submit the CoC renewal application in September 2020.

Docket No. 72-1026

CAC/EPID Nos. 001028/L-2019-LRM-0071

Enclosures:

1. Meeting Attendees
2. Agenda
3. Handout – Westinghouse Presentation on CoC 1026 Renewal

SUBJECT: SUMMARY OF NOVEMBER 20, 2019, MEETING WITH WESTINGHOUSE ELECTRIC COMPANY, LLC TO DISCUSS THE UPCOMING SUBMITTAL OF THE APPLICATION FOR RENEWAL OF THE STORAGE CERTIFICATE OF COMPLIANCE NO. 1026 FOR THE FUELSOLUTIONS™ SPENT FUEL MANAGEMENT SYSTEM (CAC/EPID NOS. 001028/L-2019-LRM-0071)

DOCUMENT DATE: January 2, 2020

DISTRIBUTION:

| | | | |
|----------------|----------------------|-----------------|--------------|
| NMSS/DFM r/f | RidsOpaMail Resource | | |
| CMarkley, NMSS | MRahimi, NMSS | JWise, NMSS | JChang, NMSS |
| JIreland, NMSS | CKenny, NMSS | JBorowsky, NMSS | ZLi, NMSS |
| MLearn, R-III | NFields, R-III | | |

G:\SFST\FuelSolutions (CoC 1026)\CoC Renewal\11-20-19 pre-app meeting\11-20-19 CoC 1026 renewal meeting summary.docx

ADAMS Accession Package No.: ML20002A279 (Pkg) ML20002A280 (Memo)

| | | | |
|---------------|------------|------------|------------|
| OFFICE | NMSS/DFM | NMSS/DFM | NMSS/DFM |
| NAME | KBanovac | SFigueroa | DDoyle |
| DATE | 12/30/2019 | 12/31/2019 | 01/02/2020 |

OFFICIAL RECORD COPY

MEETING ATTENDEES

Meeting with Westinghouse Electric Company, LLC to discuss the upcoming submittal of the application for renewal of the storage Certificate of Compliance (CoC) No. 1026 for the FuelSolutions™ Spent Fuel Management System

November 20, 2019, 9:00 a.m. – 11:00 a.m.

| | |
|--|-------------------|
| Kristina Banovac | NRC/NMSS/DFM/STL |
| Daniel Doyle | NRC/NMSS/DFM/STL |
| Christopher Markley (via teleconference) | NRC/NMSS/DFM/STL |
| John Wise | NRC/NMSS/DFM/MSB |
| JoAnn Ireland | NRC/NMSS/DFM/CTCF |
| Joe Borowsky | NRC/NMSS/DFM/CTCF |
| Caylee Kenny (via teleconference) | NRC/NMSS/DFM/CTCF |
| Jimmy Chang (via teleconference) | NRC/NMSS/DFM/CTCF |
| Zhian Li | NRC/NMSS/DFM/NARA |
| Nicole Fields (via teleconference) | NRC/Region III |
| Matt Learn (via teleconference) | NRC/Region III |
| Robert Quinn | Westinghouse |
| Jennifer Meneely | Westinghouse |
| Donald Wayne Lewis | Westinghouse |
| John Pfabe (via teleconference) | Westinghouse |
| Michael Holmes (via teleconference) | Westinghouse |
| Timothy Horan | Entergy |
| Suzanne Leblang | Entergy |
| Carlyn Greene (via teleconference) | UxC |

MEETING AGENDA

Meeting with Westinghouse Electric Company, LLC (Westinghouse)

November 20, 2019

9:00 a.m. – 11:00 a.m. (Eastern Standard Time)

One White Flint North Building, Room O-10B4

Purpose: Meeting with Westinghouse to discuss the upcoming submittal of the application for renewal of the storage Certificate of Compliance No. 1026 for the FuelSolutions™ Spent Fuel Management System.

Agenda:

- Welcome, introductions, and meeting objectives
- Westinghouse presentation and discussion
- Public questions or comments
- Wrap-up and closing remarks
- Meeting adjourned

HANDOUTS