



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

July 6, 2016

MEMORANDUM TO: Sheena Whaley, Chief
Rulemaking and Project Management Branch
Division of Materials Safety, States, Tribal, and Rulemaking

FROM: John McKirgan, Chief, /RA/
Spent Fuel Licensing Branch
Division of Spent Fuel Management

SUBJECT: AREVA INC., STANDARDIZED NUHOMS® CASK SYSTEM,
REVISION 1 TO AMENDMENT NOS. 0 THROUGH 11 AND
AMENDMENT NO. 13, RULEMAKING (CAC NOS. L25049)

We have completed our technical reviews of the proposed revisions for Certificate of Compliance No. 1004, Amendment Nos. 0 through 11 and Amendment No. 13, the respective proposed technical specifications, and the preliminary safety evaluation report for the Standardized NUHOMS® (NUHOMS®) cask system. Vertical lines in the margin indicate the proposed changes to the certificates and technical specifications. We are forwarding these documents to you for inclusion in the proposed rulemaking package for this cask system.

1. Changes to 10 CFR 72.214 rule text (changes appear in bold):

Certificate Number: 1004.

Initial Certificate Effective Date: January 23, 1995, superseded by Initial Certificate, Revision 1, on [insert 75 days from date of FR publication].

Initial Certificate, Revision 1, Effective Date: [insert 75 days from date of FR publication].

Amendment Number 1, Revision No. 1, Effective Date: [insert 75 days from date of FR publication].

Amendment Number 2, Revision No. 1, Effective Date: [insert 75 days from date of FR publication].

Amendment Number 3, Revision No. 1, Effective Date: [insert 75 days from date of FR publication].

Amendment Number 4, Revision No. 1, Effective Date: [insert 75 days from date of FR publication].

Amendment Number 5, Revision No. 1, Effective Date: [insert 75 days from date of FR publication].

Amendment Number 6, Revision No. 1, Effective Date: [insert 75 days from date of FR publication].

Amendment Number 7, Revision No. 1, Effective Date: [insert 75 days from date of FR publication].

Amendment Number 8, Revision No. 1, Effective Date: [insert 75 days from date of FR publication].

Amendment Number 9, Revision No. 1, Effective Date: [insert 75 days from date of FR publication].

Amendment Number 10, Revision No. 1, Effective Date: [insert 75 days from date of FR publication].

Amendment Number 11, Revision No. 1, Effective Date: [insert 75 days from date of FR publication].

Amendment Number 12 Effective Date: Amendment not issued by the NRC.

Amendment Number 13, Revision No. 1, Effective Date: [insert 75 days from date of FR publication].

SAR Submitted by: Transnuclear, Inc.

SAR Title: Final Safety Analysis Report for the Standardized NUHOMS® Horizontal Modular Storage System for Irradiated Nuclear Fuel.

Docket Number: 72–1004.

Certificate Expiration Date: January 23, 2015.

Model Number: NUHOMS®–24P, –24PHB, –24PTH, –32PT, –32PTH1, –37PTH, –52B, –61BT, –61BTH, and –69BTH.

2. Use the following text for the purpose and scope of the amendment:

By application dated August 24, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15239A718), as supplemented on February 9, 2016 (ADAMS Accession Nos. ML16054A214 and ML16054A226), AREVA Inc., submitted an application for revision of Certificate of Compliance No. 1004, Amendment Nos. 0 through 11 and 13. The revision requested the following changes:

- Remove language in the technical specifications (TSs) that requires that a transfer cask (TC) containing a dry shielded canister (DSC) be returned to the spent fuel pool following a drop of over 15 inches, and
- Clarify language in the TSs that requires a transfer cask be returned to the spent fuel pool.

3. Discussion of Backfitting and Issue Finality

Because the NUHOMS® storage system was in use by licensees at the time AREVA submitted its revision requests, a discussion of backfitting and issue finality was prepared for use by your staff in drafting the *Federal Register* Notice for the direct final rule.

Issue finality restrictions applicable to nuclear power plants are found in 10 CFR Part 50 and Part 52. They are not applicable to independent spent fuel storage facilities that are regulated under 10 CFR Part 72. For this reason this issue is not addressed further by the staff in this CoC revision.

The NRC staff has determined that the backfit rule at 10 CFR 72.62 does not apply to this direct final rule. Therefore, a backfit analysis is not required. The direct final rule requested by AREVA revises Amendment Nos. 0 through 11 and Amendment No. 13 for CoC No. 1004 for the NUHOMS® storage system, as currently listed in 10 CFR 72.214, “List of Approved Spent Fuel Storage Casks.” Revision 1 to Amendment Nos. 0 through 11 and Amendment No. 13 to CoC No. 1004 provides a voluntary alternative to the current requirement that a loaded DSC must be returned to the spent fuel pool following a drop of over 15 inches. AREVA manufactured casks under existing CoC No. 1004, Amendment Nos. 0 through 11 and Amendment No. 13 and the certificates are being revised by this final rule. Because AREVA is the cask system vendor, and

the backfitting rule at 10 CFR 72.62 applies to general licensees, the rule does not apply to AREVA's request.

AREVA, however, requested these changes apply to the existing casks manufactured under Amendment Nos. 0 through 11 and Amendment No. 13. For this reason, the staff considered the effects that revising the CoCs and TS will have on general licensees currently using the casks. AREVA provided casks to general licensees at the Brunswick, Cooper, Davis-Besse, Duane Arnold, Fort Calhoun, R. E. Ginna, H. B. Robinson, Kewaunee, Limerick, Millstone, Monticello, Nine Mile Point, Oconee, Oyster Creek, Palisades, Point Beach, and Susquehanna reactor facilities, under amendments Nos. 0 through 11 and 13 to CoC No. 1004. Under 10 CFR 72.62, general licensees are entities that are protected from backfitting, absent the staff's determination that the protection of occupational or public health and safety warrants the backfit. General licensees are required by 10 CFR 72.212(b)(3), to ensure that each cask conforms to the terms, conditions, and specifications of a CoC, and that each cask is safely used at its site.

The general licensees affected by the revisions to CoC No. 1004 voluntarily committed in writing to implement the revised TSs (see ADAMS Accession No. ML16054A2260). The new TSs specifically provide a general licensee with an alternative to the current requirement that a loaded DSC be returned to the spent fuel pool following a drop of over 15 inches, or other reasons as stated in the TSs. The option to use an alternative method is not a required change and therefore does not constitute backfitting under 10 CFR 72.62. Accordingly, no backfit analysis has been prepared by the staff.

In this instance, the affected general licensees voluntarily indicated willingness to comply with the revised CoCs. In order to provide the general licensees adequate time to evaluate and implement modifications to the NUHOMS® storage system required by the revised CoC, a new condition is added to the CoC No. 1004. The condition provides general licensees 180 days from the effective date of Revision 1 to perform a 10 CFR 72.212 evaluation and to implement the changes authorized by the revision.

The proposed certificates and their technical specifications and preliminary safety evaluation report have been placed in ADAMS (see reference below which are in ADAMS Package No. ML16183A005) and will be available for your use in the rulemaking package. The Division of Spent Fuel Management will designate these documents as Official Agency Records after the Executive Director for Operations has approved the rulemaking. Please combine these with the forthcoming Amendment No. 14 to CoC 1004 into a single rulemaking.

The Office of the General Counsel has reviewed this memorandum with its referenced documents and has no legal objection to its contents.

Docket No.: 72-1004

ADAMS References: See Attached Sheet

CONTACT: Bernard White, DSFM/NMSS
(301) 415-6577

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Distribution:

NMSS r/f	SFST r/f	JCuadrado	ADAMS Package No.: ML16183A005		
OFC	DSFM	DSFM	DSFM	DSFM	DSFM
NAME	BWhite	WWheatley via email	BTripaithi via email	JChang via email	JWoodfield via email
DATE	4/22/16	5/16/16	4/25/16	4/25 /16	5/5 /16
OFC	DSFM	DSFM	OGC	DSFM	
NAME	JPiotter via email	PSilva via email	PJehle via email	JMcKirgan	
DATE	5/23/16	5/18/16	06/29/16	07/06/16	

Official Record Copy

ADAMS References

1. Memo to RPMB requesting Rulemaking (ML16183A010). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\Memo to RPMB requesting rulemaking for revision to CoC 1004 for Amds 0 through 11 and 13 ÷ NLO.docx)
2. Preliminary Certificate of compliance No. 1004, Amendment 0, Revision 1 (ML16183A012). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\Amendment 0\CoC1004 Amd 0 Revision 1.doc)
3. Preliminary Technical Specifications for CoC 1004, Amendment No. 0, Revision 1 (ML16183A016). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\ Amendment 0\CoC1004 Amd 0 Revision 1 Tech Spec.doc)
4. OGC Backfit and Issue Finality Worksheet for CoC No. 1004, Amendment Nos. 0 – 11 and Amendment 13, Revision 1 (ML16183A020) File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\OGC Backfit and Issue Finality worksheet for Revision 1 to CoC 1004 Amendments 0-11 and 13.doc)
5. Draft SER for Revision 1 to CoC 1004, Amendment Nos. 0-11 and Amendment No. 13, (ML16183A022). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\SER for CoC 1004 Revision to Amendments 0 – 11 and 13).
6. Preliminary Certificate of compliance No. 1004, Amendment 1, Revision 1 (ML16183A024). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\Amendment 1\CoC1004 Amd 1 Revision 1.doc)
7. Preliminary Technical Specifications for CoC 1004, Amendment No. 1, Revision 1 (ML16183A030). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\ Amendment 1\CoC1004 Amd 1 Revision 1 Tech Spec.doc)
8. Preliminary Certificate of compliance No. 1004, Amendment 2, Revision 1 (ML16183A041). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\Amendment 2\CoC1004 Amd 2 Revision 1.doc)
9. Preliminary Technical Specifications for CoC 1004,. Amendment No. 2, Revision 1 (ML16183A047). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\ Amendment 2\CoC1004 Amd 2 Revision 1 Tech Spec.doc)
10. Preliminary Certificate of compliance No. 1004, Amendment 3, Revision 1 (ML16183A055). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\Amendment 3\CoC1004 Amd 3 Revision 1.doc)
11. Preliminary Technical Specifications for CoC 1004, Amendment No. 3, Revision 1 (ML16183A086). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\ Amendment 3\CoC1004 Amd 3 Revision 1 Tech Spec.doc)
12. Preliminary Certificate of compliance No. 1004, Amendment 4, Revision 1 (ML16183A095). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\Amendment 4\CoC1004 Amd 4 Revision 1.doc)
13. Preliminary Technical Specifications for CoC 1004, Amendment No. 4, Revision 1 (ML16183A100). File located at (G:\SFST\Bernie White\Casework\NUHOMS

Revision\Proposed CoC, TS and SER\ Amendment 4\CoC1004 Amd 4 Revision 1 Tech Spec.doc)

14. Preliminary Certificate of compliance No. 1004, Amendment 5, Revision 1 (ML16183A116). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\Amendment 5\CoC1004 Amd 5 Revision 1.doc)
15. Preliminary Technical Specifications for CoC 1004, Amendment No. 5, Revision 1 (ML16183A121). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\ Amendment 5\CoC1004 Amd 5 Revision 1 Tech Spec.doc)
16. Preliminary Certificate of compliance No. 1004, Amendment 6, Revision 1 (ML16183A122). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\Amendment 6\CoC1004 Amd 6 Revision 1.doc)
17. Preliminary Technical Specifications for CoC 1004. Amendment No. 6, Revision 1 (ML16183A134). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\ Amendment 6\CoC1004 Amd 6 Revision 1 Tech Spec.doc)
18. Preliminary Certificate of compliance No. 1004, Amendment 7, Revision 1 (ML16183A137). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\Amendment 7\CoC1004 Amd 7 Revision 1.doc)
19. Preliminary Technical Specifications for CoC 1004, Amendment No. 7, Revision 1 (ML16183A141). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\ Amendment 7\CoC1004 Amd 7 Revision 1 Tech Spec.doc)
20. Preliminary Certificate of compliance No. 1004, Amendment 8, Revision 1 (ML16183A149). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\Amendment 8\CoC1004 Amd 8 Revision 1.doc)
21. Preliminary Technical Specifications for CoC 1004, Amendment No. 8, Revision 1 (ML16183A151). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\ Amendment 8\CoC1004 Amd 8 Revision 1 Tech Spec.doc)
22. Preliminary Certificate of compliance No. 1004, Amendment 9, Revision 1 (ML16183A202). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\Amendment 9\CoC1004 Amd 9 Revision 1.doc)
23. Preliminary Technical Specifications for CoC 1004, Amendment No. 9, Revision 1 (ML16183A205). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\ Amendment 9\CoC1004 Amd 9 Revision 1 Tech Spec.doc)
24. Preliminary Certificate of compliance No. 1004, Amendment 10, Revision 1 (ML16183A210). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\Amendment 10\CoC1004 Amd 10 Revision 1.doc)
25. Preliminary Technical Specifications for CoC 1004, Amendment No. 10, Revision 1 (ML16183A216). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\ Amendment 10\CoC1004 Amd 10 Revision 1 Tech Spec.doc)

26. Preliminary Certificate of compliance No. 1004, Amendment 11, Revision 1 (ML16183A225). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\Amendment 11\CoC1004 Amd 11 Revision 1.doc)
27. Preliminary Technical Specifications for CoC 1004, Amendment No. 11, Revision 1 (ML16183A228). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\ Amendment 11\CoC1004 Amd 11 Revision 1 Tech Spec.doc)
28. Preliminary Certificate of compliance No. 1004, Amendment 13, Revision 1 (ML16183A236). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\Amendment 13\CoC1004 Amd 13 Revision 1.doc)
29. Preliminary Technical Specifications for CoC 1004, Amendment No. 13, Revision 1 (ML16183A248). File located at (G:\SFST\Bernie White\Casework\NUHOMS Revision\Proposed CoC, TS and SER\ Amendment 13\CoC1004 Amd 13 Revision 1 Tech Spec.doc)