



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

September 7, 2018

MEMORANDUM TO: Kimyata Morgan-Butler, Chief
Materials Rulemaking and Project Management Branch
Division of Rulemaking

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

SUBJECT: USER NEED FOR RULEMAKING FOR AMENDMENT NOS. 7 AND 8
TO THE NAC INTERNATIONAL NAC-MPC STORAGE SYSTEM

The following information is being provided to request rulemaking support for the following Division of Spent Fuel Management certification activity to amend Title 10, *Code of Federal Regulations* (10 CFR) Part 72:

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

Certificate Number: 1025.

Initial Certificate Effective Date: April 10, 2000.

Amendment Number 1 Effective Date: November 13, 2001.

Amendment Number 2 Effective Date: May 29, 2002.

Amendment Number 3 Effective Date: October 1, 2003.

Amendment Number 4 Effective Date: October 27, 2004.

Amendment Number 5 Effective Date: July 24, 2007.

Amendment Number 6 Effective Date: October 4, 2010.

Amendment Number 7 Effective Date: TBD

Amendment Number 8 Effective Date: TBD

SAR Submitted by: NAC International, Inc.

SAR Title: Final Safety Analysis Report for the NAC Multi-Purpose Canister System (NAC-MPC System).

Docket Number: 72-1025.

Certificate Expiration Date: April 10, 2020.

Model Number: NAC-MPC.

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

Siva P. Lingam, NMSS/DSFM
(301) 415-1564

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

Amendment No. 7

On November 14, 2017 (see Agencywide Documents Access and Management System (ADAMS) Accession No. ML17326A128), as supplemented on February 12, 2018 (see ADAMS Accession No. ML18045A440), NAC International (NAC) submitted an application to amend the NAC-MPC Storage System. NAC requested the following changes:

- Modify the definition for OPERABLE under Technical Specification (TS) A 1.1, “Definitions” deleting reference to Multi-Purpose Canister – La Crosse Boiling Water Reactor (MPC-LACBWR);
- Revise the note under ACTIONS of TS Limited Condition for Operation (LCO) 3.1.6, item TS A 3.1.6, “CONCRETE CASK Heat Removal System” to include that LCO 3.1.6 is not applicable to the MPC-LACBWR CANISTER. Revise SURVEILLANCE under Surveillance Requirement (SR) 3.1.6.1 by deleting “and the MPC-LACBWR CANISTER.” Further, add a footnote SR 3.1.6.1 stating, “SR 3.1.6.1 is not applicable to the MPC-LACBWR CANISTER. Convective cooling is not required for the MPC-LACBWR CANISTER;” and
- Revise TS A 5.3 under A 5.0, “ADMINISTRATIVE CONTROLS AND PROGRAMS” to delete the requirement for a response surveillance following off-normal, accident or natural phenomena events since it is covered by existing LCO SRs and frequencies.

Specific changes to the TS are listed below:

- Definition for OPERABLE under TS A 1.1 was modified to delete reference to MPC-LACBWR;
- Note under ACTIONS of TS LCO 3.1.6 was revised to include that LCO 3.1.6 is not applicable to the MPC-LACBWR CANISTER. Further, a footnote was added to TS SR 3.1.6.1 stating, “SR 3.1.6.1 is not applicable to the MPC-LACBWR CANISTER. Convective cooling is not required for the MPC-LACBWR CANISTER.”
- TS A 5.3 was revised to delete the requirement for a response surveillance following off-normal, accident or natural phenomena events;
- Item 1.c of TS LCO 3.1.1 had been revised from the original licensing basis heat load of 4.5 kW to 2.8 kW to keep the concrete overpack temperatures below the allowable limits for all storage conditions, without the need for convective cooling.
- Foot Note No. 6, “Maximum CANISTER decay heat ≤ 2.8 kW,” was added to Table B2-8 for “Heat Load (watts),” and
- TS LCO 3.1.2 was revised from “----below 10 torr----” to “----at or below 10 torr----,” to maintain consistency with the NOTE under “ACTIONS.”

Amendment No. 8

On February 28, 2018 (ADAMS Accession No. ML18059A784), NAC submitted an application to amend the NAC-MPC Storage System. NAC requested the following changes:

- Revise TS No. A 3.1.6, “CONCRETE CASK Heat Removal System” to change Condition A from “LCO not met” to read : CONCRETE CASK heat removal system inoperable,” add new LCO REQUIRED ACTION A.1 “Ensure adequate heat removal to prevent exceeding short-term temperature limits” with an Immediate COMPLETION

TIME, and renumber old A.1 to A.2 "Restore CONCRETE CASK Heat Removal System to OPERABLE status;"

- Revise renumbered LCO REQUIRED ACTION A.2 COMPLETION TIME from 8 hours to 25 days;
- Revise TS No. A 3.1.6 CONDITION B from "Required Action and associated Completion Time not met" to "Required Action A.1 or A.2 and associated Completion Time not met;"
- Delete TS No. A 3.1.6 LCO REQUIRED ACTION B.1 "Perform SR 3.1.6.1," and renumber old B.2.1 and B.2.2 to B.1 and B.2, respectively;
- Revise renumbered LCO REQUIRED ACTIONS B.1 and B.2 COMPLETION TIMES from 12 hours to 5 days;
- Revise TS No. A 3.2.2, "CONCRETE CASK Average Surface Dose Rates" APPLICABILITY from "Prior to or at the beginning of STORAGE OPERATIONS" to "Prior to STORAGE OPERATIONS;" and
- Delete TS No. A 5.3, "Surveillance After an Off-Normal, Accident, or Natural Phenomena Event" in its entirety as response surveillance is covered by existing LCO SRs and frequencies.

Specific changes to the TS are listed below:

- TS No. A 3.1.6, "CONCRETE CASK Heat Removal System" Condition A was revised from "LCO [Limiting Condition for Operation] not met" to "CONCRETE CASK heat removal system inoperable." New LCO REQUIRED ACTION A.1 "Ensure adequate heat removal to prevent exceeding short-term temperature limits" with an Immediate COMPLETION TIME was added. Further, A.1 in the TS was renumbered to A.2 "Restore CONCRETE CASK Heat Removal System to OPERABLE status;"
 - The renumbered LCO REQUIRED ACTION A.2 COMPLETION TIME was revised from 8 hours to 25 days;
 - TS No. A 3.1.6 CONDITION B was revised from "Required Action and associated Completion Time not met" to "Required Action A.1 or A.2 and associated Completion Time not met;"
 - TS No. A 3.1.6 LCO REQUIRED ACTION B.1 "Perform SR [Surveillance Requirement] 3.1.6.1" was deleted. B.2.1 and B.2.2 in the TS were renumbered to B.1 and B.2, respectively;
 - The renumbered LCO REQUIRED ACTIONS B.1 and B.2 COMPLETION TIMES were revised from 12 hours to 5 days;
 - TS No. A 3.2.2, "CONCRETE CASK Average Surface Dose Rates" APPLICABILITY was revised from "Prior to or at the beginning of STORAGE OPERATIONS" to "Prior to STORAGE OPERATIONS;" and
 - TS No. A 5.3, "Surveillance After an Off-Normal, Accident, or Natural Phenomena Event" was deleted in its entirety as response surveillance is in principle, covered by existing LCO SRs and frequencies.
3. The proposed CoCs and TS, and preliminary safety evaluation reports (SERs) have been placed in ADAMS (see references below) and are available for your use in the rulemaking package. DSFM will designate these documents as Official Agency Records after the Executive Director for Operations has approved the rulemaking package (ADAMS Package No. ML18255A021).

The proposed TS Appendix A for Amendment No. 8 has incorporated the changes requested in Amendment No. 7, however, revision bars have been placed for Amendment No. 8 changes only.

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

Docket No. 72-1025

Enclosures:

1. Proposed CoC No. 1025, Amendment No. 7 (ML18255A024)
2. Proposed TS Appendices A and B for Amendment No. 7 (ML18255A022)
3. Preliminary SER for Amendment No. 7 (ML18255A026)
4. Proposed CoC No. 1025, Amendment No. 8 (ML18255A025)
5. Proposed TS Appendices A and B for Amendment No. 8 (ML18255A023)
6. Preliminary SER for Amendment No. 8 (ML18255A027)

SUBJECT: USER NEED FOR RULEMAKING FOR AMENDMENT NOS. 7 AND 8
TO THE NAC INTERNATIONAL NAC-MPC STORAGE SYSTEM,
DOCUMENT DATE: September 7, 2018

DISTRIBUTION:

DSFM r/f DMarcano

Amendments 7 and 8

Memo ADAMS Accession No. ML18255A028

Amendment 7

Package Accession No. ML18255A021

CoC ADAMS Accession No. ML18255A024

TS Appendices A and B Accession No. ML18255A022

SER Accession No. ML18255A026

Amendment 8

Package Accession No. ML18255A021

CoC ADAMS Accession No. ML18255A025

TS Appendices A and B Accession No. ML18255A023

SER Accession No. ML18255A027

G:\SFST\NAC\MPC\Amendment 7\Amendment 7 (L-2017-LLA-0404)\Rulemaking Memo NAC-MPC
Amendments 7 and 8.docx

G:\SFST\NAC\MPC\Amendment 7\Amendment 7 (L-2017-LLA-0404)\Preliminary CoC 1025 Amd 7.doc

G:\SFST\NAC\MPC\Amendment 8\Amendment 7 (L-2017-LLA-0404)\Preliminary Amendment 7 TS
Appendix A (and Appx B).doc

G:\SFST\NAC\MPC\Amendment 8\Amendment 7 (L-2017-LLA-0404)\Preliminary SER – NAC-MPC
Amendment 7.docx

G:\SFST\NAC\MPC\Amendment 8\Amendment 8 (L-2018-LLA-0059)\Preliminary CoC 1025 Amd 8.doc

G:\SFST\NAC\MPC\Amendment 8\Amendment 8 (L-2018-LLA-0059)\Preliminary Amendment 8 TS
Appendix A (and Appx B).doc

G:\SFST\NAC\MPC\Amendment 8\Amendment 8 (L-2018-LLA-0059)\Preliminary SER – NAC-MPC
Amendment 8.docx

OFC	DSFM	DSFM	DSFM	DSFM	DSFM
NAME	SLingam	BWhite	WWheatley via email	RRodriguez via email	JPiotter via email
DATE	6/25/18	6/27/18	6/28/18	7/10/18	7/16/18
OFC	DSFM	DSFM	OGC (NLO)	DSFM	
NAME	YDiaz- Sanabria via email	TTate via email (ZLi for)	LClark via email	JMcKirgan	
DATE	7/16/18	7/3/18	9/5/18	9/7/18	

OFFICIAL RECORD COPY