

May 31, 2001

Ms. Lynette Hendricks, Director  
Plant Support  
Nuclear Generation Division  
Nuclear Energy Institute  
1776 I Street, NW Suite 400  
Washington, DC 20006-3708

SUBJECT: STANDARD FORMAT AND CONTENT FOR TECHNICAL SPECIFICATIONS  
FOR 10 CFR PART 72 CASK CERTIFICATES OF COMPLIANCE

Dear Ms. Hendricks:

On December 21, 2000, the Nuclear Regulatory Commission (NRC) issued to the Nuclear Energy Institute (NEI) a set of Draft Standard Technical Specifications (STS) for dry cask storage systems. Issuance of this document followed significant interaction between the NRC and NEI in the form of submittals and public meetings. Following the NRC issuance of the Draft STS, on March 5, 2001, NEI submitted comments on the NRC STS. The NRC has reviewed the NEI comments and modified the STS as appropriate and developed a set of Final STS. The Final STS are provided in Enclosure 1. The enclosure is also being prepared to be published as a NUREG report.

With regard to the March 5, 2001, comments, the staff found them useful and incorporated the majority of the recommendations into the Final STS. We have addressed those comments that requested clarification and those comments that were not accepted.

Comment 2.A indicated that the basis for each parameter for the fuel contents would be helpful. The staff has provided the bases for each parameter and included it as Enclosure 2.

Comment 3.A included a number of points which we have incorporated into the STS. There is one remaining comment which stated that some of the limiting conditions for operation (LCOs) include a note stating that portions of the LCOs may be moved to programs, however, the bases or criteria for such a relocation was not provided. Our intent with the note is to allow relocation of the noted items if an acceptable program or methodology is provided in the Final Safety Analysis Report (FSAR). For example, if an applicant wants to relocate the surface dose limits from the technical specifications (TS) to the FSAR, an acceptable program or methodology for calculating the surface dose limits for the limiting fuel needs to be described in the FSAR.

Comment 3.E.5 recommends, in part, removal of the requirement to verify dissolved boron concentration four hours prior to commencing fuel loading operations. The comment did not include a technical rationale for removing the requirement. As a result, although we accepted the remainder of the comment, the staff believes it is important to obtain a dissolved boron concentration measurement just prior to loading fuel into the canister and did not accept this comment.

Comment 4.0 recommended that the criticality control, materials, and structural performance design features be removed from the TS because they are inappropriate for TS. The staff disagrees that these items are inappropriate because design features are specifically called out in 10 CFR 72.44. Items like fuel cell spacing or assembly pitch have regularly been included in cask TS and are included in reactor TS as well. Additionally, no specific technical rationale was provided by NEI as to why these items are inappropriate. As a result, the staff continues to believe that these design features are the most important to safe dry cask storage and did not accept this recommendation.

Comment 5.0 recommended that the reference to 10 CFR 72.44(d) be removed from the administrative controls section of the TS because these requirements do not apply to general licensees. The staff agrees and has modified the administrative controls to reference either 10 CFR 72.44(d) or 72.126 which is applicable to general licensees.

We appreciate the efforts you and your team members have expended on this important task. We believe that the enclosed STS is a much improved and simpler to use set of specifications that maintain safety while providing appropriate latitude to license and certificate holders when implementing the 10 CFR 72.48 change process. Additionally, we feel that use of the enclosed STS will reduce unnecessary burden while increasing efficiency and maintaining an adequate level of safety. We recognize that after both the industry and the NRC gain some experience using the STS additional efficiencies may be identified and revisions to the STS may be necessary in the future. These STS are an important first step in gaining that experience. If you have any questions please contact me or Mr. Christopher Jackson of my staff at 301-415-2947.

Sincerely,  
**/RA/ original signed by /s/**  
 E. William Brach, Director  
 Spent Fuel Project Office  
 Office of Nuclear Material Safety  
 and Safeguards

- Enclosures: 1. STANDARD TECHNICAL SPECIFICATIONS  
 2. BASIS FOR CONTROLLED CONTENTS PARAMETERS

TAC No.: L20679

DISTRIBUTION:

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G:\NEI\Standard Technical Specifications\Final CoC for STS May 2001.wpd

G:\NEI\Standard Technical Specifications\Final STS may 2001.wpd

C:\Final NRC STS cover letter.wpd

<b>OFC:</b>	SFPO	SFPO	SFPO	SFPO	SFPO
<b>NAME:</b>	CJackson	EZiegler	CWithee	JGuttmann	NOsgood
<b>DATE:</b>	05/15/01	05/16/01	05/16/01	05/30/01	05/30/01
<b>OFC:</b>	OGC	SFPO	SFPO	SFPO	
<b>NAME:</b>	STreby	WHodges	CMiller	EWBrach	
<b>DATE:</b>	05/29/01	05/30/01	05/31/01	05/31/01	

## BASIS FOR TECHNICAL SPECIFICATION CONTROLLED CONTENTS PARAMETERS

The importance of each fuel and contents parameter was determined by considering its impact on the safety performance of the cask. The parameters included are those items which have a significant impact on the ability to meet the storage goals and have a significant effect on safety. Parameters which are important to each of the storage goals are included in the STS. The following gives the storage goals and the STS parameters that relate to that goal (some parameters are important to more than one goal).

## Criticality Safety

- Fissile Isotopes
- Maximum Initial Planar Average Enrichment
- Fuel Class (with number of fuel rods and water holes)

## Minimize Dose (source term determination)

- Maximum Assembly Average Burnup (gamma and neutron source)
- Minimum Cooling Time (gamma and neutron source)
- Minimum Assembly Average Enrichment (neutron source)
- Cladding Material (gamma source)
- Non-Fuel Hardware (gamma source)

## Retrievability

- Cladding Material (determine thermal limits)
- Maximum Decay Heat per Storage Location (determine rate of temperature rise and maximum temperature level)
- Maximum Assembly Average Burnup (thermal source term)
- Minimum Cooling Time (thermal source term)
- Minimum Assembly Average Enrichment (thermal source term)
- Fuel Condition

## Confinement

- Maximum Weight per Storage Location (determine cask's accident performance)
- Fuel Condition (releasable concentration)

ROUTING AND TRANSMITTAL SLIP

Date: June 4, 2001

NAME	INITIALS	DATE
CJackson		
EZiegler		
CWithee		
JGuttman		
NOsgood		
STreby		
WHodges		
CMiller		
EWBrach		

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ACTION: \_\_\_\_\_ APPROVAL: \_\_\_\_\_ FOR YOUR INFO: \_\_\_\_\_  
 NOTE & RETURN: \_\_\_\_\_ PREPARE REPLY: \_\_\_\_\_ COORDINATION: \_\_\_\_\_

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EDO/NMSS TICKET NO(s):  
 DUE TO DIVISION:  
 DUE TO NMSS:  
 DUE TO EDO:

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MEMORANDUM/LETTER TO: Ms. Lynette Hendricks

FROM: W. Brach

SUBJECT: STANDARD FORMAT AND CONTENT FOR TECHNICAL SPECIFICATIONS FOR  
 10 CFR PART 72 CASK CERTIFICATES OF COMPLIANCE

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REMARKS: Note Files for Certificate and Technical Specifications are below.  
 G:\NEI\Standard Technical Specifications\Final CoC for STS May 2001.wpd  
 G:\NEI\Standard Technical Specifications\Final STS may 2001.wpd

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ORIGINATOR: CJackson PHONE: 301-415-2947  
 SECRETARY: PHONE: 301-415-

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