CoC Condition/TS Identifier: TS-5.1 (Form #55) Revision 3 (changes made and tracked)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement		TS 5.1: Procedures	
			(as currently listed in Proposed Amendment 15 TS)
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Feat	ures	No
Appendix A - Inspections, Tests, and Evaluations		Νο	
	Section 1 Definitions, Use and Application		Νο
	Section 2	A1	No
	Approved Contents (Selection Criteria)	A2	No
A una con dise D		A3	No
Appendix B. Technical Specifications	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	Νο
		L2	Νο
		L3	No
	Section 4 Administrative Controls		Yes, for the first paragraph, although the bulleted items are not necessary, per the Evaluation Summary at the end of this form.
Risk Insight**: Will removing this	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		No
requirement from the CoC/TS result in	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?		No
	the margin of safety for ISFSI or cask operation?		No

Requirement	TS 5.1: Procedures
	(as currently listed in Proposed Amendment 15 TS)
Evaluation Summary	Procedures are required by § 72.150, Instructions, procedures, and drawings, as follows: § 72.150 Instructions, procedures, and drawings. The licensee, applicant for a license, certificate holder, and applicant for a CoC shall prescribe activities affecting quality by documented instructions, procedures, or drawings of a type appropriate to the circumstances and shall require that these instructions, procedures, and drawings be followed. The instructions, procedures, and drawings must include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. The first paragraph provides an overarching requirement that procedures of the nature described shall be generated. This paragraph will remain and will be in TS Section 4 Administrative Controls.
	The bullet items listed in this TS are mostly specifically required to be part of the Subpart G Quality Assurance Program, or are required by other regulations, or are required by other TS. Therefore these bullets serve no safety purpose, are redundant to other more direct requirements, and therefore they should be removed from TS and not relocated to anywhere. The two paragraphs following the bullets, regarding the fuel removal procedure, are covered
	Operating Systems chapters of the UFSAR for each respective DSC. However, to ensure clarity, the language from these paragraphs which is not currently in the UFSAR is being added to each operating procedure chapter.

CoC Condition/TS Identifier: TS-5.1.1 (Form #56) Revision 0 (no NRC questions – no changes made)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement			TS 5.1.1: DSC Loading, Unloading and Preparation Program
			(as currently listed in Proposed Amendment 15 TS)
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Featu	res	Νο
Appendix A - Inspec Evaluations	tions, Tests, and		No
Section 1 Definitions, Use and Application			Νο
	Section 2	A1	No
	Approved Contents (Selection Criteria)	A2	No
Appendix B.		A3	No
Technical Specifications	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	Νο
		L2	Νο
		L3	Νο
	Section 4 Administrative Controls		No
Risk Insight**: Will removing this requirement from the CoC/TS result in	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		Νο
	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?		No
	the margin of safety for ISFSI or cask operation?		Νο

	TS 5.1.1: DSC Loading, Unloading and
Requirement	Preparation Program
	(as currently listed in Proposed Amendment 15
	TS)
	All of these provisions are covered by other TS or
	by regulation.
	The program described in the first persons is
	generally required by 8 72 150 Instructions
	procedures, and drawings. The first paragraph
	refers to several TS and the UFSAR commitments.
	The UFSAR operations chapters call out the TS
	related to operational steps. The TS themselves
	must be accounted for in procedures and
	complied with. Therefore this TS paragraph does
	not serve any safety purpose and can be
Evaluation Summary	removed from the licensing basis.
	The second paragraph is redundant to TS 3.1.1.
	The clear intent of TS 3.1.1 is to limit the
	oxidation of the fuel. The UFSAR operations
	chapters call out TS 3.1.1 for any water removal
	from the DSCs. Therefore this TS paragraph does
	not serve any safety purpose and can be
	removed from the licensing basis.
	The activities that would be covered by the third
	paragraph are LCOs, which have as standard
	format the ACTIONS and COMPLETION TIMES.
	Therefore this TS paragraph does not serve any
	safety purpose and can be removed from the
	licensing basis.

CoC Condition/TS Identifier: T

<u>TS-5.1.2</u>

(Form #57) Revision 3 (changes made and tracked)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement		TS 5.1.2: ISFSI Operations Program	
		(as currently listed in Proposed Amendment 15 TS)	
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Featu	res	No
Appendix A - Inspec Evaluations	ctions, Tests, and		Νο
Section 1 Definitions, Use and Application			Νο
	Section 2	A1	Νο
	Approved Contents (Selection Criteria)	A2	Νο
Appendix B.		A3	No
Technical Specifications	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	No
		L2	Νο
		L3	Νο
	Section 4 Administrative Controls		Yes for TS 5.1.2 #2
A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		1	Νο
Will removing this requirement from the CoC/TS result in	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?		Νο
	A Significant reduction in the margin of safety for ISFSI or cask operation?		Νο

Requirement	TS 5.1.2: ISFSI Operations Program
	(as currently listed in Proposed Amendment 15 TS)
	Item 1 is not really related to UFSAR ISFSI operations, but rather is a verification that TS 4.3.1 is met. TS 4.3.1 will be verified as an item in the Appendix A inspections, tests, and evaluations, and therefore TS 5.1.2 Item 1 serves no purpose and can be removed entirely from the licensing basis.
Evaluation Summary	Item 2 is a verification that that the concrete storage pad parameters are consistent with the UFSAR analysis. This verification will be joined with the current TS 5.3.1 TC/DSC lifting and handling requirements in the new TS Section 4 Administrative Controls.
	Item 3 is also not really related to UFSAR ISFSI operations, but rather is a verification that the maximum lifting heights for the cask system meet Technical Specification 5.3.1 requirements. TS
	5.5.1 will be verified as an item in CoC Appendix A inspections, tests, and evaluations, and therefore TS 5.1.2 Item 3 serves no purpose and can be removed entirely from the licensing basis.

CoC Condition/TS Identifier: TS-5.2 Programs -Introduction (Form #58) Revision 0 (no NRC questions – no changes made)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement		TS 5.2 Programs - Introduction Each user of the NUHOMS® System will implement the following programs:	
			• 10 CFR 72.48 Evaluation Program
		• Training Program	
			Radiological Environmental Monitoring Program Padiation Protection Program
			HSM Thermal Monitoring Program
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Feat	ures	No
Appendix A - Inspe Evaluations	ctions, Tests, and		No
Section 1 Definitions, Use and Application			Νο
	Section 2 Approved Contents (Selection Criteria)	A1	Νο
		A2	Νο
Appendix B.		А3	Νο
Technical Specifications	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	Νο
		L2	Νο
		L3	No
	Section 4 Administrative Controls		Yes, since it introduces the programs
	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR? The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?		Νο
Risk Insight**: Will removing this requirement			
from the CoC/TS result in			Νο

		TS 5.2 Programs - Introduction
Requirement		Each user of the NUHOMS® System will implement the following programs: • 10 CFR 72.48 Evaluation Program • Training Program • Radiological Environmental Monitoring Program • Radiation Protection Program • HSM Thermal Monitoring Program
	A Significant reduction in the margin of safety for	Νο
	ISFSI or cask operation?	
Evaluation Summary		This introductory section will be retained in TS and will list the programs which remain in this section.

CoC Condition/TS Identifier: TS-5.2.1 (Form #59) Revision 0 (no NRC questions – no changes made)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement		TS 5.2.1: 10 CFR 72.48 Evaluation Program	
			(as currently listed in Proposed Amendment 15 TS)
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Featu	ires	No
Appendix A - Inspective Evaluations	ctions, Tests, and		Νο
Section 1 Definitions, Use and Application		Νο	
	Section 2	A1	No
	Approved Contents (Selection Criteria)	A2	No
Appendix B.		A3	No
Technical Specifications	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	Νο
		L2	Νο
		L3	Νο
	Section 4 Administrative Controls		No
Risk Insight**: Will removing this requirement from the CoC/TS result in	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		Νο
	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR? A Significant reduction in the margin of sofety for		No
ISFSI or cask operation		?	

Requirement	TS 5.2.1: 10 CFR 72.48 Evaluation Program
	(as currently listed in Proposed Amendment 15 TS)
Evaluation Summary	The provisions of this TS are entirely redundant to 10 CFR 72.48 and having them reiterated in the TS is not necessary to assure safe cask or ISFSI operation.

CoC Condition/TS Identifier: TS

TS-5.2.2

(Form #60) Revision 1 (changes made and tracked)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement		TS 5.2.2: Training Program	
		(as currently listed in Proposed Amendment 15 TS)	
CoC Body	CoC Body Section I. Technology		No
Certified Design	Section II. Design Featu	ires	No
Appendix A - Inspections, Tests, and Evaluations		Νο	
Section 1 Definitions, Use and Application		Νο	
	Section 2	A1	No
	Approved Contents (Selection Criteria)	A2	No
Appendix B.		A3	No
Technical Specifications	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	Νο
		L2	Νο
		L3	Νο
	Section 4 Administrative Controls		No
Risk Insight**: Will removing this requirement from the CoC/TS result in	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		Νο
	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR? A Significant reduction in the margin of safety for		No
ISFSI or cask operation?		?	

Requirement	TS 5.2.2: Training Program
	(as currently listed in Proposed Amendment 15 TS)
Evaluation Summary	As the TS states, training is required by Part 72. The UFSAR has sections addressing training. The details of the specific training required represent the aspects for which licensees must develop procedures and therefore must train on. That detail more appropriately should be included in the UFSAR. No purpose is served by having that detail in the TS. Therefore, this TS can be removed. <i>UFSAR Section 9.3, "Training Program," should be</i> <i>revised to incorporate applicable information</i> <i>from this TS.</i>

CoC Condition/TS Identifier: TS

TS-5.2.3

(Form #61) Revision 3 (changes made and tracked)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

		TS 5.2.3: Radiological Environmental Monitoring
Requirement		Program
	(as currently listed in Proposed Amendment 15 TS)	
Section I. Technology		No
Section II. Design Featu	ires	No
ctions, Tests, and		No
Section 1 Definitions, Use and Application		Νο
Section 2	A1	No
Approved Contents	A2	No
(Selection Criteria)	A3	No
Section 3 Limiting Conditions	L1	Νο
for Operation (LCOs)* and Surveillance	L2	Νο
Requirements (SRs) (Selection Criteria)	L3	Νο
Section 4 Administrative Controls		Yes
Risk Insight**:A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?Will removing this requirement from the CoC/TS result inThe possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?A Significant reduction in the margin of safety for		Νο
		No
	Section I. Technology Section II. Design Featu tions, Tests, and Section 1 Definitions, Use and Application Section 2 Approved Contents (Selection Criteria) Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria) Section 4 Administrative Control A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR? The possibility of a new different kind of accide being created compare to those previously evaluated in the FSAR? A Significant reduction the margin of safety fo ISFSI or cask operation	Section I. TechnologySection II. Design FeaturesSection 1Definitions, Use and ApplicationSection 2Approved Contents (Selection Criteria)A3Section 3Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)Section 4 Administrative ControlsA significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?A Significant reduction in the margin of safety for ISFSI or cask operation?

Requirement	TS 5.2.3: Radiological Environmental Monitoring Program
	(as currently listed in Proposed Amendment 15 TS)
Evaluation Summary	This TS establishes a program essentially the same as that required by 72.44(d)(2) for specific licenses. This TS shall be retained and moved to TS Section 4 Administrative Controls.

CoC Condition/TS Identifier: <u>TS-5.2.4 (introductory paragraph)</u> (Form #62) Revision 0 (no NRC <u>questions – no changes made</u>)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

		TS 5.2.4: Radiation Protection Program	
			(introductory paragraph)
Requirement		The Radiation Protection Program shall establish administrative controls to limit personnel exposure to As Low As Reasonably Achievable (ALARA) levels in accordance with 10 CER Part 20 and Part 72.	
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Feat	ures	Νο
Appendix A - Inspe Evaluations	ctions, Tests, and		Νο
	Section 1 Definitions, Use and Application		Νο
	Section 2	A1	Νο
Appendix B. Technical Section 3 Specifications Limiting Condition (LCOs)* and Surveillance Requirements (S (Selection Criter	Approved Contents (Selection Criteria)	A2	No
		A3	No
	Section 3 Limiting Conditions	L1	Νο
	for Operation (LCOs)* and	L2	Νο
	Surveillance Requirements (SRs) (Selection Criteria)	L3	Νο
Section 4 Administrative Controls		ls	Νο
	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR? The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?		Νο
Risk Insight**: Will removing this requirement			
from the CoC/TS result in			Νο

		TS 5.2.4: Radiation Protection Program
		(introductory paragraph)
Requirement		
		The Radiation Protection Program shall establish
		administrative controls to limit personnel
		exposure to As Low As Reasonably Achievable
		(ALARA) levels in
		accordance with 10 CFR Part 20 and Part 72.
	A Significant reduction in	
	the margin of safety for	No
	ISFSI or cask operation?	
		The introductory paragraph is totally redundant to
Evaluation Summary		Part 20 and Part 72, both of which define ALARA
		and require ALARA. Therefore this TS sentence is
		not needed and can be removed.

CoC Condition/TS Identifier: <u>TS-5.2.4.a</u> (Form #63) Revision 0 (no NRC questions – no changes made)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement		TS 5.2.4 Item a): Radiation Protection Program – topics dealing with remote handling devices, situations involving the OS197L transfer cask model, and liquid	
icquirement			neutron shield draining.
			(as currently listed in Proposed Amendment 15 TS)
CoC Body	Section I. Technology		Νο
Certified Design	Section II. Design Featu	ures	No
Appendix A - Inspec Evaluations	ctions, Tests, and		Νο
	Section 1 Definitions, Use and Application		Νο
	Section 2	A1	Νο
	Approved Contents (Selection Criteria)	A2	Νο
Appendix B.		A3	No
Technical Section 3 Specifications Limiting Condition for Operation (LCOs)* and Surveillance Requirements (SF (Selection Criteria	Section 3 Limiting Conditions	L1	Νο
	for Operation (LCOs)* and	L2	Νο
	Requirements (SRs) (Selection Criteria)	L3	Νο
Section 4 Administrative Controls		S	Yes
A significant increase in the probability or consequences of an Risk Insight**: accident previously		Νο	
will removing this requirement from	ill removing this evaluated in the cask quirement from FSAR?		
the CoC/TS result The possibility of a new or in different kind of accident being created compared to those previously evaluated in the ESAP2		Νο	

Requirement		TS 5.2.4 Item a): Radiation Protection Program – topics dealing with remote handling devices, situations involving the OS197L transfer cask model, and liquid neutron shield draining.
		(as currently listed in Proposed Amendment 15 TS)
	A Significant reduction in the margin of safety for ISFSI or cask operation?	Yes, based on the importance of radiation safety and the unique nature of the OS197L design, if the requirements in this TS were not met a significant reduction in margin would potentially occur.
Evaluation Summary		Based on risk insights, these TS requirements should remain in the CoC Appendix B TS Section 4 Administrative Controls under the Radiation Protection Program.

CoC Condition/TS Identifier: <u>T</u>

<u>TS-5.2.4.b</u>

(Form #64) Revision 4 (changes made and tracked)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement		TS 5.2.4 Item b): Radiation Protection Program – DSC Closure Weld NDE	
			(as currently listed in Proposed Amendment 15 TS)
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Featu	res	No
Appendix A - Inspec Evaluations	tions, Tests, and		Yes
	Section 1 Definitions, Use and Application		No
	Section 2	A1	No
	Approved Contents (Selection Criteria)	A2	No
Appendix B.		A3	No
Technical Specifications	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	Νο
		L2	Νο
		L3	No
	Section 4 Administrative Controls		No
A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		I	Yes, potentially. This TS is only a verification of the confinement boundary multi-layered welds, but if the confinement boundary, which is a fission product barrier, is not ensured, consequences of a drop accident could potentially increase.
the CoC/TS result	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?		No
the margin of safety for ISFSI or cask operation?		>	Νο

Requirement	TS 5.2.4 Item b): Radiation Protection Program – DSC Closure Weld NDE
	(as currently listed in Proposed Amendment 15 TS)
	This item, regarding DSC closure weld NDE, is related to the confinement design function.
Evaluation Summary	If these steps are not performed, the worst possible consequences would be that all of the multiple welds were flawed, the flaws line up to create a leak path, and therefore the multiple accidents involving the confinement boundary would involve a potential breach and a potential release of radionuclides, which would result in contamination and increased dose rates.
	Based on the direct relationship of this TS to the confinement design function, which is a fission product barrier, this <i>one-time verification</i> TS <i>item</i> should remain, but is better suited to become an <i>ITE</i> .
	Language regarding "dye penetrant test" and "liquid penetrant test" has been made consistent in the ITE to say "liquid penetrant test."

CoC Condition/TS Identifier:

TS-5.2.4.c (Form #65) Revision 4 (changes made and tracked)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

		TS 5.2.4 Item c): Radiation Protection Program –	
Requirement		Leak Test of DSC Inner Seal Weld	
			(as currently listed in Proposed Amendment 15 TS)
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Feat	ures	No
Appendix A - Inspections	ctions, Tests, and		Yes
	Section 1 Definitions, Use and Application		No
	Section 2	A1	No
	Approved Contents	A2	No
Appendix B.	(Selection Criteria)	А3	No
Technical Section 3 Specifications Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	Section 3 Limiting Conditions	L1	Νο
	for Operation (LCOs)* and	L2	Νο
	L3	No	
Section 4 Administrative Controls		ls	Νο
	A significant increase i	n	Yes, potentially. This TS is only a verification of
Risk Insight**:the probability or consequences of an accident previously evaluated in the cask FSAR?Will removing this requirement from the CoC/TS result inThe possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?			the confinement boundary multi-layered welds,
			but if the confinement boundary, which is a
			fission product barrier, is not ensured,
			consequences of a drop accident could potentially increase.
		w or	
		ent	
		ed	Νο
		?	
	A Significant reduction	n in	
the margin of safety for ISFSI or cask operation?		or	No
		ı?	

Requirement	TS 5.2.4 Item c): Radiation Protection Program – Leak Test of DSC Inner Seal Weld
	(as currently listed in Proposed Amendment 15 TS)
	This item, regarding leak testing of the DSC inner seal weld, is related to the confinement design function.
Evaluation Summary	If this leak test is not performed, the worst possible consequences would be that all of the multiple welds were flawed, the flaws line up to create a leak path, the NDE of the welds was somehow not performed, and therefore the multiple accidents involving the confinement boundary would involve a potential breach and a potential release of radionuclides, which would result in contamination and increased dose rates.
	Regardless of the very low risk, based on the direct relationship of this TS to the confinement design function, which is a fission product barrier, this <i>one-time</i> TS <i>item</i> should remain, but is better suited to become an <i>ITE</i> .

CoC Condition/TS Identifier: T

<u>TS-5.2.4.d</u>

(Form #66) Revision 4 (changes made and tracked)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

		TS 5.2.4 Item d): Radiation Protection Program –	
Requirement		TC/DSC Contamination	
			(as currently listed in Proposed Amendment 15 TS)
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Featu	ires	No
Appendix A - Inspec Evaluations	ctions, Tests, and		Νο
	Section 1 Definitions, Use and Application		Νο
	Section 2	A1	No
	Approved Contents	A2	No
Appendix B.	(Selection Criteria)	A3	No
Technical Secti	Section 3	L1	No
	for Operation (LCOs)*	L2	Νο
Requirements (Si (Selection Criteri Section 4 Administrative C	Requirements (SRs) (Selection Criteria)	L3	Yes; this item is related to ensuring that radioactive contamination does not exceed limits prior to DSC storage in the HSM.
	Section 4 Administrative Control	s	Νο
	A significant increase in the probability or	ו	No increase in the probability of any accident.
Risk Insight**: Will removing this requirement from the CoC/TS result in Kisk Insight**: Will removing this requirement from the CoC/TS result in	consequences of an accident previously evaluated in the cask FSAR?		Slight Increase in consequences due to increased dose from contamination, but not a significant increase.
	v or ent ed	No	
A Significant reduction in the margin of safety for ISFSI or cask operation?		Νο	

Requirement	TS 5.2.4 Item d): Radiation Protection Program – TC/DSC Contamination
	(as currently listed in Proposed Amendment 15 TS)
Evaluation Summary	In order to ensure that radioactive contamination does not exceed limits prior to DSC storage in the HSM, this item will be moved to TS Section 3 as an LCO. <i>The TS Bases in UFSAR Chapter 10 will be</i> <i>updated as well.</i>

CoC Condition/TS Identifier:

TS-5.2.4.e (Form #67) Revision 4 (changes made and tracked)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

		TS 5.2.4 Item e): Radiation Protection Program –	
Requirement			TC Dose Rate Measurements
			(as currently listed in Proposed Amendment 15 TS)
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Featu	ires	No
Appendix A - Inspec Evaluations	ctions, Tests, and		Yes
	Section 1 Definitions, Use and Application		Νο
	Section 2	A1	No
	Approved Contents (Selection Criteria)	A2	No
Appendix B.		A3	No
Technical Specifications	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	Νο
		L2	Νο
		L3	Νο
	Section 4 Administrative Controls		Νο
A significant increase in		า	No increase in the probability of any accident.
Risk Insight**: Will removing this requirement from the CoC/TS result in	the probability or consequences of an accident previously evaluated in the cask FSAR?		Increase in consequences of all accidents, due to increased dose from the TC, only if there was an area with reduced shielding. This TS is a verification and not an overt action involving an SSC that provides shielding.
	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?		Νο
	A Significant reduction in the margin of safety for ISFSI or cask operation?		No There would be a slight reduction in the margin of safety for the shielding design function, but only if an area of reduced shielding exists.

Requirement	TS 5.2.4 Item e): Radiation Protection Program –
nequirement	(as currently listed in Proposed Amendment 15
	15)
Evaluation Summary	Based on the importance of this dose rate information in assessing worker dose and potentially identifying a misload, this item should be retained and is best suited to become an ITE.
	Language regarding the timing of this LCO is made consistent and clear.

CoC Condition/TS Identifier: TS

<u>TS-5.2.5</u>

(Form #68) Revision 4 (changes made and tracked)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Dequirement		TS 5.2.5: HSM or HSM-H Thermal Monitoring	
Requirement			Program
			(as currently listed in Proposed Amendment 15 TS)
CoC Body	Section I. Technology		Νο
Certified Design	Section II. Design Featu	ures	No
Appendix A - Inspece Evaluations	ctions, Tests, and		Νο
Section 1 Definitions, Use and Application		Νο	
	Section 2 Approved Contents (Selection Criteria)	A1	Νο
		A2	No
Appendix B.		A3	No
Technical Specifications	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	Νο
		L2	Yes
		L3	Νο
	Section 4 Administrative Controls		Νο
Risk Insight**: Will removing this requirement from the CoC/TS result in	Insight**: removing this irement from CoC/TS result A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		The probability of a blocked vent event may go undetected if not detected by inspection of the HSM inlet and outlet vents or monitoring of the DSC/HSM temperatures. The consequences of a blocked undetected vent could cause the cladding temperatures in the DSC to exceed the 752 degrees F temperature limit (loss of confinement safety function) or cause
			degradation of the structural properties of the concrete HSM.

		TS 5.2.5: HSM or HSM-H Thermal Monitoring
Requirement		Program
		(as currently listed in Proposed Amendment 15 TS)
	The possibility of a new or different kind of accident being created compared to those previously	Νο
	evaluated in the FSAR?	
	A Significant reduction in	
	the margin of safety for ISFSI or cask operation?	Νο
Evaluation Summa	γ	The safety purpose of this program is to provide the licensee with a positive means to identify conditions which threaten to approach temperature criteria for proper HSM or HSM-H operation and allow for the correction of off- normal thermal conditions that could lead to exceeding the concrete and fuel clad temperature criteria. The details of this TS include surveillances, requirements, conditions, and actions, and therefore it is better suited as an LCO. <i>The LCO CONDITIONS and REQUIRED ACTIONS are written to ensure that the system is returned to normal operating conditions.</i> The following aspects of the existing TS can be moved to the TS Bases chapter of the UFSAR: "This program shall monitor the thermal performance of each HSM daily, either by direct visual inspection or remote temperature measurement. The program shall be of sufficient scope to provide the licensee with a positive means to identify conditions which threaten to approach temperature criteria for proper HSM or HSM-H operation and allow for the correction of off- normal thermal conditions that could lead to exceeding the concrete and fuel clad temperature criteria."

CoC Condition/TS Identifier: TS

<u>TS-5.2.6</u>

(Form #69) Revision 4 (changes made and tracked)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement			TS 5.2.6: Hydrogen Gas Monitoring for 24P, 52B, 24PHB, 61BT, 32PT, 24PTH, 61BTH, 32PTH1, 69BTH, and 37PTH DSCs
			(as currently listed in Proposed Amendment 15 TS)
CoC Body	Section I. Technology		Νο
Certified Design	Section II. Design Featu	ires	No
Appendix A - Inspective Evaluations	ctions, Tests, and		Νο
	Section 1 Definitions, Use and Application		Νο
	Section 2	A1	No
	Approved Contents (Selection Criteria)	A2	Νο
Appendix B.		A3	No
Technical Specifications	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	Νο
		L2	Νο
		L3	Νο
	Section 4 Administrative Controls		Yes
Risk Insight**:	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?	n	Νο
Will removing this requirement from the CoC/TS result in	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?		Yes A hydrogen explosion could result from a hydrogen concentration exceeding the flammability limit – an accident threatening occupational workers as well as possible loss of confinement.
	A Significant reduction in the margin of safety for ISFSI or cask operation?		Νο

Requirement	TS 5.2.6: Hydrogen Gas Monitoring for 24P, 52B, 24PHB, 61BT, 32PT, 24PTH, 61BTH, 32PTH1, 69BTH, and 37PTH DSCs
	(as currently listed in Proposed Amendment 15 TS)
Evaluation Summary	This TS prevents a potential hydrogen explosion during establishment of the confinement boundary or purposeful breaching of the confinement boundary. The explosion could affect the shielding function and is a personnel safety item. This TS should be retained and located in CoC Appendix B TS Section 4 Administrative Controls. This TS is applicable to all DSC models so there is no reason to specify models.

CoC Condition/TS Identifier: T

<u>TS-5.3.1</u>

(Form #70) Revision 4 (changes made and tracked)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement		TS 5.3.1: TC/DSC Lifting/Handling Height Limits	
		(as currently listed in Proposed Amendment 15 TS)	
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Featu	ires	No
Appendix A - Inspections, Tests, and Evaluations		Νο	
Section 1 Definitions, Use and Application			Νο
	Section 2	A1	No
	Approved Contents (Selection Criteria)	A2	No
Appendix B.		A3	No
Technical Specifications	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	No
		L2	No
		L3	No
	Section 4 Administrative Controls		Yes
Pick Incidet**:	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		Νο
Will removing this requirement from the CoC/TS result in	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?		Νο
	A Significant reduction in the margin of safety for ISFSI or cask operation?		Yes A significant reduction in the margin of safety for confinement is possible if there were no limit on the cask lifting and handling height (currently analyzed to 80 inches).

Requirement	TS 5.3.1: TC/DSC Lifting/Handling Height Limits
	(as currently listed in Proposed Amendment 15 TS)
Evaluation Summary	This TS is associated with ensuring the confinement function. The TS contains evaluations of temperatures with resultant restrictions (impacting the ductility/brittleness of the cask materials) necessary to provide reasonable assurance that the cask safety function of confinement will be performed.
	Therefore, this TS should be <i>retained in (Section 4 of revised TS) Administrative Controls.</i>

CoC Condition/TS Identifier: TS-5.3.2 (Form #71) Revision 0 (no NRC questions – no changes made)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement			TS 5.3.2: Cask Drop
			(as currently listed in Proposed Amendment 15 TS)
CoC Body	Section I. Technology		Νο
Certified Design	Section II. Design Featu	ires	No
Appendix A - Inspections, Tests, and Evaluations		Νο	
Section 1 Definitions, Use and Application		Νο	
	Section 2	A1	No
	Approved Contents	A2	No
Appendix B.	(Selection Criteria)	A3	No
Technical Specifications	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	Νο
		L2	Νο
		L3	Νο
	Section 4 Administrative Controls		No
Risk Insight**: Will removing this requirement from the CoC/TS result in	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		Νο
	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?		No
	the margin of safety for ISFSI or cask operation?		Νο

Requirement	TS 5.3.2: Cask Drop
	(as currently listed in Proposed Amendment 15 TS)
	This TS requires an inspection of the cask/DSC after a drop height of greater than 15 inches. As explained in the details of this TS, the probability of a confinement breach due to a drop is essentially zero.
Evaluation Summary	Based on the quality assurance program and its required corrective action program, a drop of an SSC as massive as the TS/DSC would without doubt receive a thorough investigation and inspection for damage.
	Therefore, this TS can be removed and relocated to the UFSAR. The requirement for inspection if a drop occurs should become an operational step in the UFSAR operations chapters and the remainder of this TS should be included in the Confinement chapters if the information is not already included in those chapters.

CoC Condition/TS Identifier: T

TS-5.3.3

(Form #72) Revision 1 (changes made and tracked)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement		TS 5.3.3: TC Alignment with HSM or HSM-H	
			(as currently listed in Proposed Amendment 15 TS)
CoC Body Section I. Technology			No
Certified Design	Section II. Design Featu	ures	No
Appendix A - Inspections, Tests, and Evaluations		Νο	
	Section 1 Definitions, Use and Application		Νο
	Section 2	A1	No
	Approved Contents (Selection Criteria)	A2	No
Appendix B.		A3	No
Technical Specifications	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	Νο
		L2	Νο
		L3	Νο
	Section 4 Administrative Controls		No
Risk Insight**: Will removing this	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		Νο
requirement from the CoC/TS result in	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR? A Significant reduction in		No
	ISFSI or cask operation	r ?	NO

Requirement	TS 5.3.3: TC Alignment with HSM or HSM-H
	(as currently listed in Proposed Amendment 15 TS)
Evaluation Summary	This TS provides the alignment tolerances for the transfer cask with respect to the horizontal storage module and is applicable during the insertion and retrieval operations. Those operations are detailed in UFSAR operations chapters (e.g., Chapter 5, Chapter K.8, Chapter M.8). This TS should be moved to those chapters of the UFSAR, including the actions to ensure proper alignment.

CoC Condition/TS Identifier: T

: <u>TS-5.3.4</u>

(Form #73) Revision 3 (changes made and tracked)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement		TS 5.3.4: Trailer Shielding Drop onto OS197L TC The DSC and the OS197L TC and the trailer shielding shall be inspected for damage and evaluated for further use after the accident drop of the trailer shielding onto the OS197L TC. The lifting of outer top trailer shielding is restricted such that the bottommost part of the body of the outer top trailer shielding is less than 4 inches above the inner top trailer shielding.	
CoC Body	CoC Body Section I. Technology		No
Certified Design Section II. Design Feature		res	No
Appendix A - Inspections, Tests, and Evaluations		No	
	Section 1 Definitions, Use and Application		No
	Section 2 Approved Contents (Selection Criteria)	A1	No
		A2	No
Appendix B.		A3	No
Technical Specifications	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	No
		L2	No
		L3	Νο
Section 4 Administrative Con		5	Yes
Risk Insight**: Will removing this requirement from the CoC/TS result in	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		Νο

		TS 5.3.4: Trailer Shielding Drop onto OS197L TC
Requirement		The DSC and the OS197L TC and the trailer shielding shall be inspected for damage and evaluated for further use after the accident drop of the trailer shielding onto the OS197L TC.
		The lifting of outer top trailer shielding is restricted such that the bottommost part of the body of the outer top trailer shielding is less than 4 inches above the inner top trailer shielding.
	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?	Νο
	A Significant reduction in the margin of safety for ISFSI or cask operation?	Yes A drop of the outer top trailer shielding could damage the TC. In addition, for radiation shielding purposes, to maintain dose to the occupational workers within acceptable levels, the top trailer shielding should be maintained just above the inner top trailer shielding.
Evaluation Summary		These requirements are necessary for radiation protection and should remain in TS as Administrative Controls.

CoC Condition/TS Identifier: TS-5.4 (Form #74) Revision 1 (changes made and tracked)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement		TS 5.4: HSM or HSM-H Dose Rate Evaluation Program	
			(as currently listed in Proposed Amendment 15 TS)
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Features		No
Appendix A - Inspections, Tests, and Evaluations		Yes	
	Section 1 Definitions, Use and Application		Νο
	Section 2 Approved Contents (Selection Criteria)	A1	No
Appendix B. Technical Specifications		A2	No
		А3	No
	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	Νο
		L2	Νο
		L3	Νο
	Section 4 Administrative Controls		No
Risk Insight**: Will removing this requirement from	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?	ו	Νο
the CoC/TS result in	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?		Νο

Requirement		TS 5.4: HSM or HSM-H Dose Rate Evaluation Program (as currently listed in Proposed Amendment 15 TS)
	A Significant reduction in the margin of safety for ISFSI or cask operation?	Yes Failure of this SSC to provide adequate shielding could result in a significant reduction in the margin of safety for radiation shielding effectiveness and impact on worker and public dose.
Evaluation Summary		This TS is a one-time measurement taken at locations on the exterior of the HSM or HSM-H that contributes to ensuring that the shielding design function has been established correctly. Failure of the HSM to provide shielding could have a significant impact on worker and public health and safety.
		Therefore, this TS should be retained. However, based on its one-time evaluation nature, it belongs in the CoC Appendix A ITE section.

CoC Condition/TS Identifier: TS-5.5 (Form #75) Revision 0 (no NRC questions – no changes made)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement		TS 5.5: Concrete Testing for HSM-H	
			(as currently listed in Proposed Amendment 15 TS)
CoC Body	Section I. Technology		Νο
Certified Design	Section II. Design Features		No
Appendix A - Inspections, Tests, and Evaluations		Yes, performed by the CoC holder	
	Section 1 Definitions, Use and Application		Νο
	Section 2 Approved Contents (Selection Criteria)	A1	Νο
		A2	Νο
Appendix B. Technical Specifications		А3	No
	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	Νο
		L2	Νο
		L3	Νο
	Section 4 Administrative Controls		Νο
	A significant increase in the probability or		Yes
Risk Insight**:	consequences of an		The consequences of the Blockage of Air Inlet and
	accident previously		Outlet Openings could be significantly increased if
	evaluated in the cask FSAR?		the concrete fails at elevated temperatures.
this requirement	The possibility of a new or		
from the CoC/TS result in	different kind of accident		
	being created compared		Νο
	evaluated in the FSAR?		
	Δ Significant reduction in		
	the margin of safety for		Νο
	ISFSI or cask operation?		

Requirement	TS 5.5: Concrete Testing for HSM-H
	(as currently listed in Proposed Amendment 15 TS)
Evaluation Summary	This TS requires tests that are necessary to provide reasonable assurance that HSMs have been manufactured and will operate in conformance with the certified design and that the safety function of shielding will be performed. This TS should remain but should be relocated to CoC Appendix A, Inspections, Tests, and Evaluations, to be performed by the CoC holder during fabrication.

CoC Condition/TS Identifier: TS-5.6 (Form #76) Revision 4 (changes made and tracked)

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement		TS 5.6: HSM-H Configuration Changes	
		(as currently listed in Proposed Amendment 15 TS)	
CoC Body Section I. Technology			No
Certified Design	Section II. Design Features		No
Appendix A - Inspections, Tests, and Evaluations		Νο	
Section 1 Definitions, Use and Application			Νο
	Section 2 Approved Contents (Selection Criteria)	A1	No
Appendix B. Technical Specifications		A2	No
		A3	No
	Section 3 Limiting Conditions for Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L1	Νο
		L2	Νο
		L3	Νο
	Section 4 Administrative Controls		Yes
A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		ו	Νο
will removing this requirement from the CoC/TS result in	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR? A Significant reduction in the margin of safety for		No

Requirement	TS 5.6: HSM-H Configuration Changes
	(as currently listed in Proposed Amendment 15 TS)
Evaluation Summary	The 8% limitation in TS 5.6 for configuration changes was a condition for acceptance of the analysis in a prior amendment. Therefore it must remain in the TS. It will be moved to new TS Section 4 for Administrative Controls.