



AMERICA'S NUCLEAR SOLUTION

Consolidated Interim Storage of Spent
Nuclear Fuel and Reactor Related GTCC Waste

Discuss Request for Supplemental
Information for CISF

Rockville, Maryland

22 August 2016



Agenda

- (NRC/WCS) 1:00 P.M. – 1:10 P.M. - Introductions and opening remarks
- (WCS) 1:10 P.M. – 2:25 P.M. - How WCS intends to address questions/concerns expressed
- The storage systems that WCS intends to include in its application.
 - How the application intends to ensure canisters awaiting shipment to WCS meet its license.
 - How the application intends to ensure canisters received at WCS will meet its license.
 - How WCS plans to provide additional and clearer language in its application, technical specifications, and safety analysis report to ensure common understanding of WCS' application and clarity.
- (WCS) 2:25 P.M. – 2:50 P.M. - WCS's progress, plans, and practices in responding to requests and observations in NRC's June 22, 2016, letter.
- Providing responses in standard format.
 - Solicit any comments or suggestions on response format, including how WCS is addressing necessary level of detail.
- (WCS) 2:50 P.M. – 3:05 P.M. - WCS CISF application high level schedule
- (NRC/WCS) 3:05 P.M. – 3:20 P.M. - Public questions and comments
- (NRC/WCS) 3:20 P.M. – 3:30 P.M. - Closing remarks



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Storage Systems at the WCS CISF

| Cask System | NRC Docket No. | Canister | Overpack | Priority Site |
|--|---------------------|----------------------------------|----------------|----------------------------------|
| NUHOMS [®] MP187 Cask System | 72-11 (SNM-2510) | FO-DSC | HSM (Model 80) | Rancho Seco |
| | | FC-DSC | | |
| | | FF-DSC | | |
| Advanced Standardized NUHOMS [®] System | 72-1029 | NUHOMS [®] 24PT1 | AHSM | SONGS Unit 1 |
| Standardized NUHOMS [®] System | 72-1004 | NUHOMS [®] 61BT | HSM Model 102 | Millstone Unit 1 Oyster Creek |
| | | NUHOMS [®] 61BTH Type 1 | | |
| NAC-MPC | 72-1025 | Yankee Class | VCC | Yankee Rowe |
| | | Connecticut Yankee | VCC | Connecticut Yankee |
| | | LACBWR | VCC | La Crosse |
| NAC-UMS | 72-1015 | Classes 1 thru 5 | VCC | Maine Yankee |
| MAGNASTOR | 72-1031 | TSC1 thru TSC4 | CC1 thru CC4 | Zion Kewaunee |



Initial License Application

Priority on currently licensed systems for shutdown sites:

◆ NAC International

- **Maine Yankee**
- **Connecticut Yankee**
- **Yankee Rowe**
- **La Crosse**
- **Zion**

◆ AREVA NUHOMS®

- **Rancho Seco**
- SONGS Unit 1
- Millstone Unit 1
- Oyster Creek* (S/D scheduled 2019)

Red indicates a “stranded” (ISFSI only) site identified in the 2012 Final Report of the “Blue Ribbon Commission on America’s Nuclear Future” (BRC)

* Fuel Burned less than 45 GWd/MTU



Licensing Basis for WCS CISF

- WCS CISF Licensing Basis includes:
 - WCS CISF SAR
 - Incorporates FSARs of six NRC approved storage systems by reference
 - Evaluated the six NRC approved storage systems for WCS site parameters
 - Site-Specific License Conditions and Tech Specs
 - Focused on the unloading of transportation casks and the transfer and storage of canistered spent fuel at WCS site.
 - Limits contents and canister designs to those authorized under specific NRC approved Certificates and Site Specific licenses.



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Prior to Shipment to WCS CISF

- Before a canister may be shipped to WCS;
 - A verification is performed to confirm it conforms to the approved WCS CISF Licensing Basis which considers:
 - CoC Amendment/FSAR revision under which it was loaded.
 - Vendor/Licensee changes accepted under 10 CFR 72.48



Prior to Shipment to WCS CISF

- Canister may be shipped if:
 - The CoC Amendment/FSAR revision is compatible with the WCS CISF Licensing Basis, and
 - There are 10 CFR 72.48 changes that affect the canister that have already been incorporated into a referenced FSAR revision.
- If there are Part 72.48 changes made by Vendors or Licensees that affect the canister:
 - WCS will determine if the Part 72.48 change is incorporated in a referenced FSAR revision.
 - If not, WCS will do its own Part 72.48 analysis to see if the change affects the ability of the canister to meet the WCS CISF Licensing Basis.



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Conformance of Canisters to WCS Licensing Basis

NAC-MPC Storage System

| Certificate Amendment 72-1025 | Canister | Tech Specs Compatible with WCS Configuration | | |
|----------------------------------|---|---|----------|--------------------|
| | | Canister | Contents | Loading Procedures |
| 6 | Yankee Rowe Connecticut Yankee Yankee Class LACBWR | Yes | Yes | Yes |
| 5 | Yankee Rowe Connecticut Yankee Yankee Class | Yes | Yes | Yes |
| 4 | Yankee Rowe Connecticut Yankee Yankee Class | Yes | Yes | Yes |
| 3 | Yankee Rowe Connecticut Yankee Yankee Class | Yes | Yes | Yes |
| 2 | Yankee Rowe Connecticut Yankee | Yes | Yes | Yes |
| 1 | Yankee Rowe | Yes | Yes | Yes |
| 0 | Yankee Rowe | Yes | Yes | Yes |

WCS will include a “crosswalk” in its application that compares its licensing basis with CoC Amendments/FSAR revisions under which canisters were loaded.



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Shipment of Canisters to WCS CISF

NAC-MPC Storage System

| Certificate Amendment 72-1025 | Canister | Tech Specs Compatible with WCS Configuration | | | Licensee/ Vendor 72.48 Change | WCS 72.48 Required | Notes |
|----------------------------------|---|---|----------|-----------------------|--|-----------------------|---|
| | | Canister | Contents | Loading Procedures | | | |
| 6 | Yankee Rowe Connecticut Yankee Yankee Class LACBWR | Yes | Yes | Yes | No | No | |
| | | | | | Yes | Yes | |
| 5 | Yankee Rowe Connecticut Yankee Yankee Class | Yes | Yes | Yes | No | No | |
| | | | | | Yes | Yes | |
| 4 | Yankee Rowe Connecticut Yankee Yankee Class | Yes | Yes | Yes | No | No | Increased vacuum drying times. Decreased time limits for canisters in transfer casks. |
| | | | | | Yes | Yes | |
| 3 | Yankee Rowe Connecticut Yankee Yankee Class | Yes | Yes | Yes | No | No | |
| | | | | | Yes | Yes | |
| 2 | Yankee Rowe Connecticut Yankee | Yes | Yes | Yes | No | No | |
| | | | | | Yes | Yes | |
| 1 | Yankee Rowe | Yes | Yes | Yes | No | No | |
| | | | | | Yes | Yes | |
| 0 | Yankee Rowe | Yes | Yes | Yes | No | No | |
| | | | | | Yes | Yes | |

WCS proposes a standard process to evaluate whether loaded canisters meet the WCS CISF licensing basis prior to shipment.



Receipt at WCS CISF

- Upon arrival at WCS, canisters will be evaluated to assure that they continue to meet the terms, conditions of use, and technical specifications of one of the six storage systems
- If the canisters cannot be evaluated to meet these conditions, WCS would undertake an evaluation to determine if:
 - WCS's site specific license could be amended to accept the canister in its post shipment configuration;
 - an evaluation done under 10 CFR 72.48 for the WCS site would support putting the canister in storage at WCS, or
 - WCS will isolate the transport cask, notify the NRC, and develop an action plan for the canister.



WCS Plan

- We are preparing a new WCS SAR Section 1.2.4 that will clarify our proposed licensing basis.
- We are continuing to review the application for areas that need clarification, including the RSIs, observations, and feed back from today's meeting.
- We plan to identify clarifications in time to prepare them for the October 31, 2016 submittal.
- We believe this plan affords us time to factor in any questions you have today. If you desire more information on this approach, we are happy to work with you.