



**Dominion™**

**Spent Fuel Storage Update  
Surry and North Anna Power Stations  
August 21, 2002**



## **Spent Fuel Storage Update**

- **Surry:**
  - **45 Dry Storage Casks at ISFSI**
    - **1150 Fuel Assemblies in Dry Storage**
  
- **North Anna:**
  - **13 Dry Storage Casks at ISFSI**
    - **416 Fuel Assemblies in Dry Storage**
    - **Additional TN-32 Loading This Week**



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## **Spent Fuel Storage Update**

- **Corrective Actions - Seal Failure and Bolting**
  - **Surry:**
    - Conax connectors replaced on all TN-32s
    - Desiccant placed under protective covers on TN-32s
    - Silver jacket o-rings will be installed during future TN-32 loadings
    - Nine of eleven protective covers replaced and bolts re-torqued at the pad
    - Protective cover replacement project to be completed in 2002



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## **Spent Fuel Storage Update**

- **Corrective Actions - Seal Failure and Bolting**
  - **North Anna:**
    - Conax connectors acceptable at North Anna
    - Desiccant will be installed during protective cover replacement project
    - Silver jacket o-rings will be installed during future TN-32 loadings
    - Four out of nine protective covers replaced and bolts re-torqued at the pad
    - Protective cover replacement project to be completed in 2003



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## **Spent Fuel Storage Update**

- **North Anna Burnup/Enrichment TS Amendment**
  - Submittal May 2002
  - Permit TN-32 casks at North Anna to store fuel with the following limits:
    - 4.3 initial weight percent U-235
    - 45,000 MWd/MtU burnup
    - 1.02 kW heat load
  - Request approval by May 2003



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## **Spent Fuel Storage Update**

- **Storage of Fuel With Cladding Defects**
  - Intend to clarify language in TN-32 SER for storage of fuel having cladding defects less than pinholes or hairline cracks
  - Considering submitting an amendment for engineered storage of fuel having cladding defects greater than pinholes or hairline cracks
  - Needed to increase inventory of fuel assemblies that are acceptable for dry storage



## **Spent Fuel Storage Update**

- **Clarification of Surry TN-32 Cask Spacing**
  - Amendment to permit higher burnup, enrichment, and heat load in TN-32 casks at Surry issued in October 2000
  - Spacing previous to amendment was 16-feet nominal, center-to-center
  - Spacing requirement with amendment is 16-foot minimum, center-to-center (tech. spec.)
  - No language in October 2000 licensing basis to “grandfather” TN-32s loaded prior to amendment
  - Plan to submit letter for clarification



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## **Spent Fuel Storage Update**

- **TN-32 TSAR/FSAR Licensing Basis Evaluation**
  - The FSAR Rev. 0 requirements meet or exceed the design and fabrication requirements of TSAR Rev. 9A
  - Surry and North Anna ISFSI FSARs were changed via 72.48 to reconcile differences





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## **Spent Fuel Storage Update**

- **TN-32 TSAR/FSAR Licensing Basis Evaluation**
  - **Present description of TN-32 casks in licensing basis found in TN-32 TSAR, Rev 9A**
  - **Current purchase of 22 TN-32 casks uses fabrication/design of TN-32 FSAR, Rev. 0**
  - **A thorough review of the differences between TN-32s described in TSAR Rev. 9A and FSAR Rev.0 is completed**



# ***2002 Dry Storage System Procurement***

## ***Results***



## **Scope of Supply**

- ***Dry Storage Needed at Surry from 2005 to 2010***
- ***Dry Storage Needed at North Anna from 2007 to 2010***
- ***Option for Storage Needed at Both Stations from 2010 to 2015***



## **Key Issues**

- ***Storage of High Burnup / High Heat Fuel***
- ***Storage of Fuel with Cladding Defects***
- ***Dual Purpose - Storage and Transport***
- ***Use of General License Vs. Site Specific License***



## **Chosen System**

### ***NUHOMS Modules and 32 PTH Canisters***

- ***Moving to a Canister-Based System is a New Approach at Surry and North Anna***
- ***Will Be Using This System under Part 72 General License***



## **Schedule**

- ***Complete Construction of Pad and Delivery of Modules, Canisters and Transfer Cask in First Quarter of 2005***
- ***Conduct Dry Run During Summer of 2005***
- ***Load First Canisters in Late 2005 and Early 2006***



## **Schedule**

- ***Complete Construction of Pad and Delivery of Modules, Canisters and Transfer Cask in Fourth Quarter of 2006***
- ***Conduct Dry Run During Second Quarter of 2007***
- ***Load First Canisters in Second and Fourth Quarters of 2007***