



Use of NUHOMS Fuel Storage System Under General License at Surry - 10CFR50.68 Implications

Meeting with U.S. Nuclear Regulatory Commission
September 27, 2005

Opening remarks

Surry current ISFSI status and planned changes

Compliance with 10CFR50.68 for general license storage system

- **Analytical approach**
- **Schedule**



Surry Current ISFSI Status

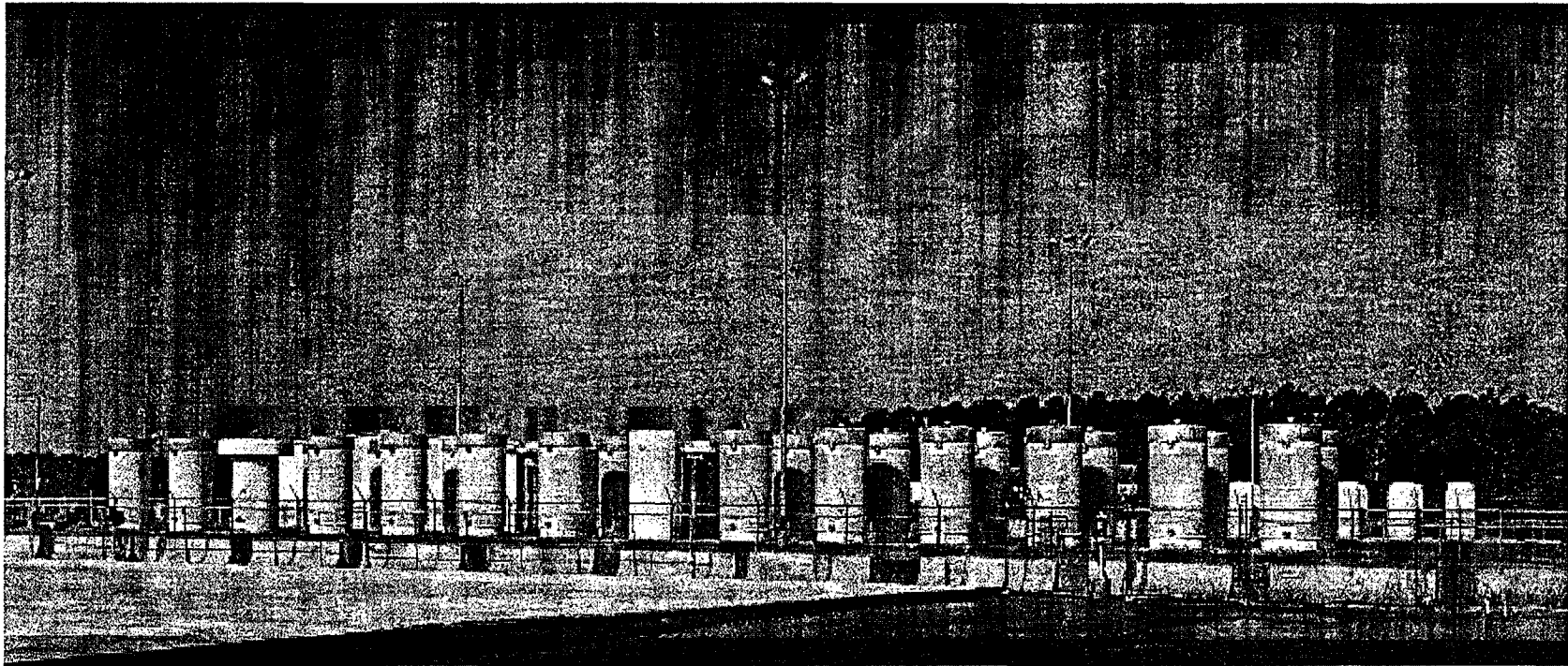
Site specific license

- **Two pads**
- **53 metal storage casks in place**
 - **Five different cask designs**
 - **1406 fuel assemblies**

Plan to load last two TN-32 casks by July 2006

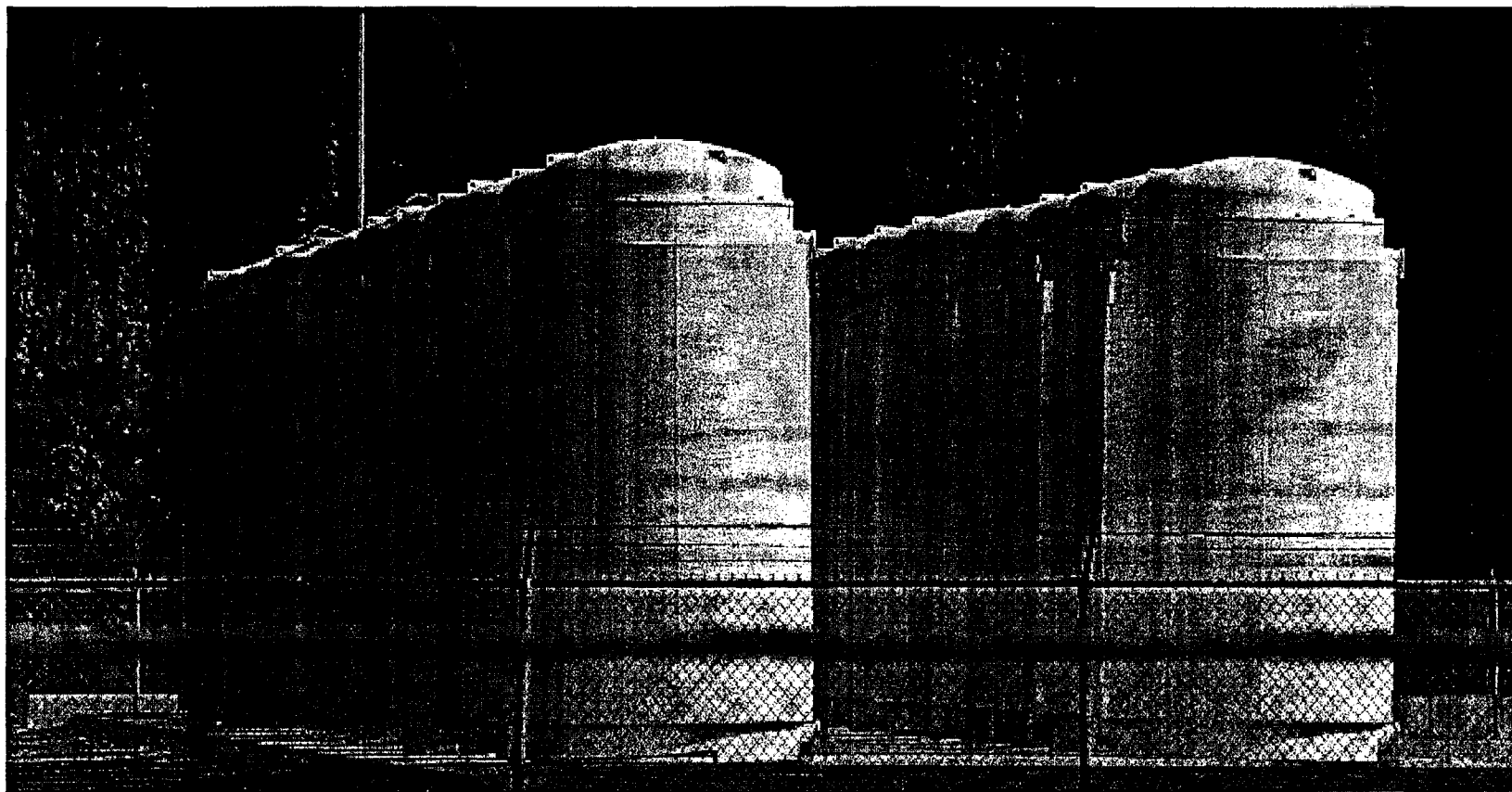


Surry ISFSI - Pad 1





Surry ISFSI - Pad 2





Planned Dry Storage Changes

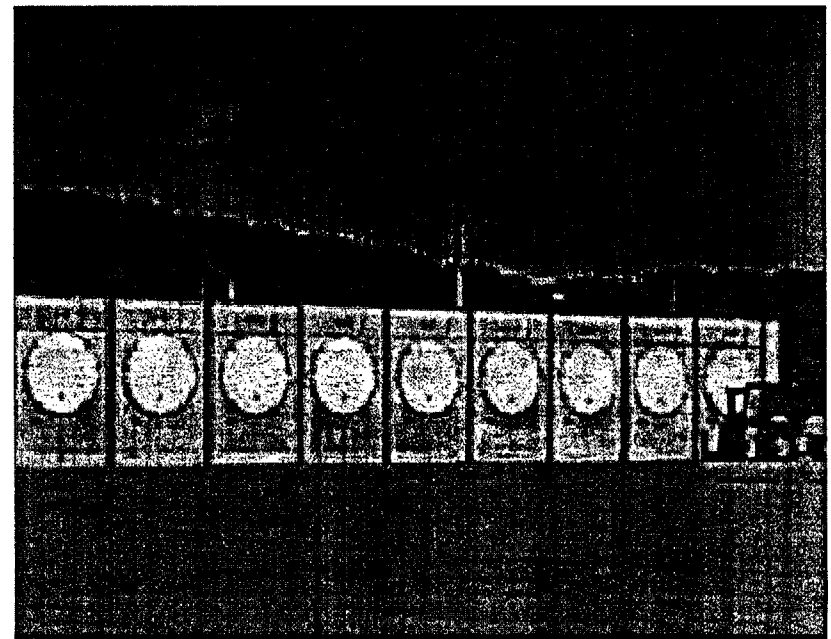
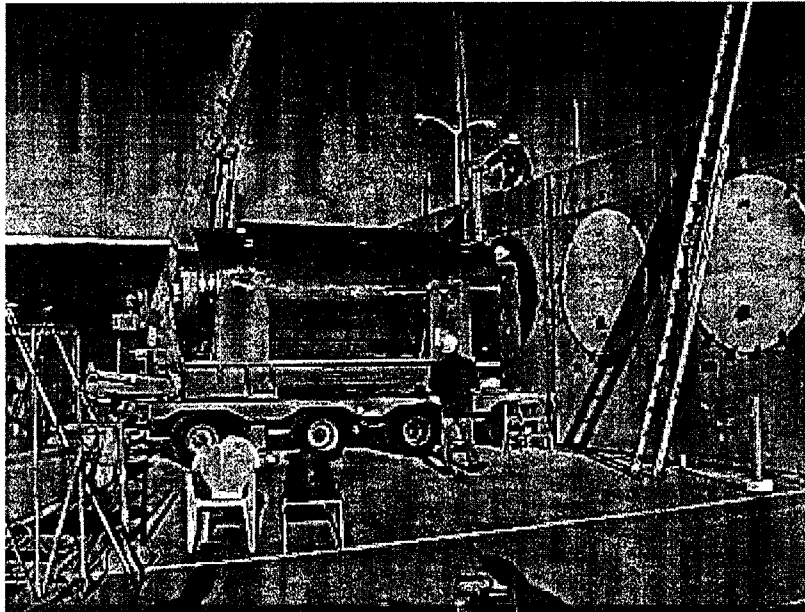
Use of a new fuel storage system is planned

- **Begin loading NUHOMS-32PTH casks in August 2006**
- **Unlike previous cask designs used at Surry, NUHOMS casks will be used under general license**

Surry compliance with 10CFR50.68 must be addressed for loading of NUHOMS casks under general license



NUHOMS Storage System





10CFR50.68 Compliance

Reviewed compliance with 8 requirements in
10CFR50.68(b)

Additional criticality calculation required for the
NUHOMS-32PTH cask:

- **NUHOMS HD criticality analyses for Part 72 credit presence of soluble boron in SFP**
 - 10CFR50.68 requires subcriticality for unborated conditions in SFP
- **Surry SFP analysis does not assume soluble boron for normal operation**



10CFR50.68 Compliance

New criticality calculations performed for NUHOMS-32PTH casks for Surry fuel:

- **No credit taken for soluble boron**
- **Fuel assembly burnup credit taken**

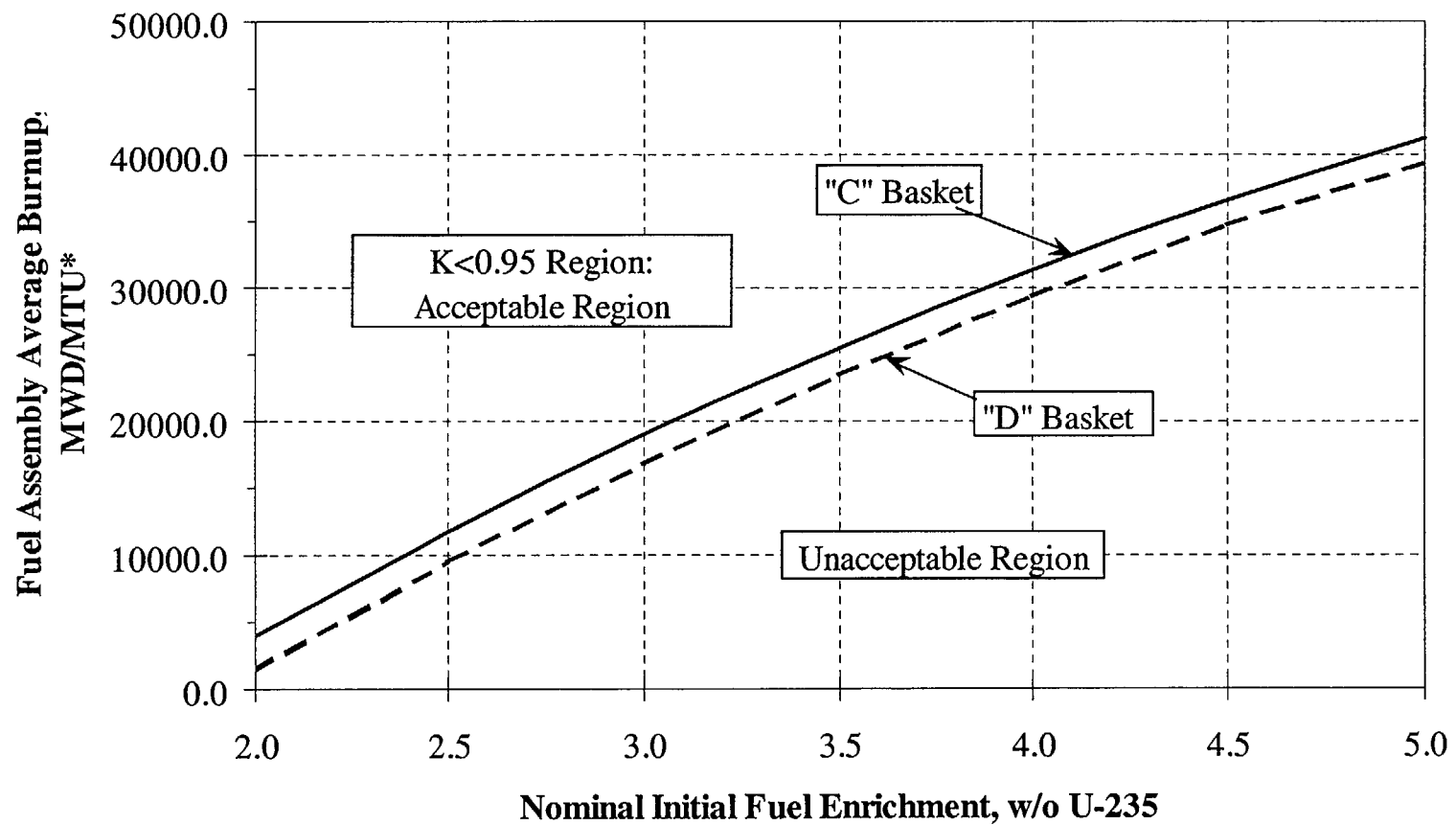
Plan to amend Surry Part 50 TS to ensure compliance with basis of criticality calculation

- **Add minimum burnup requirements for fuel to be stored in NUHOMS-32PTH system**
- **Similar to limit on burnup currently in Surry TS for Region 1 of SFP**



Sample TS Burnup Curve for NUHOMS-32PTH Casks

PRELIMINARY



LAR Schedule

<u><i>Activity</i></u>	<u><i>Est. Date</i></u>
SER for NUHOMS HD cask system (Includes 32PTH canister)	September 2005
Submittal of Surry LAR supporting NUHOMS cask use / compliance with 10 CFR 50.68	November 2005
SER for Surry LAR	June 30, 2006
Loading of last TN-32 cask at Surry	July 2006
Final dry run for NUHOMS-32PTH cask loading at Surry	July 2006
Implementation of 50.68 at Surry for NUHOMS casks	August 1, 2006
Initial loading of NUHOMS-32PTH casks at Surry	August 2006

- Feedback
 - **Approach**
 - **Schedule**
- Identify any action items