



**U.S.NRC**

UNITED STATES NUCLEAR REGULATORY COMMISSION

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# “MOVING FORWARD”

Nancy Salgado and Larry Vick

Office of Nuclear Reactor Regulation  
Division of Inspection and Regional Support  
Operator Licensing and Human Performance Branch  
U.S. Nuclear Regulatory Commission

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## Simulator Scenario Based Test (SBT) Background

- Nexus for scenarios as simulator performance test pursuant to ANS-3.5-1998, “Nuclear Power Plant Simulators for Use in Operator Training and Examination”
- Nexus for scenarios as NRC operating test pursuant to NUREG-1021, “Operator Licensing Examination Standards for Power Reactors” and 10 CFR 55.45, “Operating tests”
- IP-71111.11, “Licensed Operator Requalification Program”  
simulator inspection findings



## **NRC / NEI-industry Licensed Operator Focus Group (LOFG) Simulator SBT Actions**

- November 20, 2007, NEI letter to NRC (ML073370662)
  - Four simulator SBT recommendations made to NRC
- December 11, 2007 public meeting (ML073511714)
  - NRC staff discussed its position on the recommendations
- January 3, 2008, NRC letter to NEI (ML073460199)
  - NRC agrees in principle with the NEI / LOFG recommendations



## NEI White Paper – Detailed SBT Guidance

- NRC staff to review NEI pending white paper will provide a detailed description of the SBT methodology implementation guidance.



## Simulator SBT Recommendations

- Accept and endorse the NEI-Industry simulator SBT testing methodology.
- Accept and endorse the NEI-Industry simulator SBT documentation methodology.

## **Simulator SBT Recommendations (continued)**

- Establishes the scope of simulator SBT scenarios that fall under ANS-3.5-1998 to:
  - NRC initial license examination scenarios,
  - NRC annual re-qualification examination scenarios, and
  - Facility licensee scenarios utilized for applicant control manipulation credit.

## **Simulator SBT Recommendations (continued)**

- Demonstrate that testing of the malfunctions listed in section 3.1.4 of ANSI/ANS 3.5-1998 has been performed at least once in the lifetime of the simulator and that the documentation will include the completed test results.



## Simulator SBT Implementation

- NRC cognizant that sufficient time must be allowed for simulation facilities to implement SBT
- Once SBT is fully implemented, transition to one ANS-3.5 standard would be transparent and seamless.
- NEI to propose to Chief Nuclear Officers that licensees transition to a single ANS standard on simulators.



## Objective

- Licensees that maintain a plant-referenced simulator for meeting the requirements of 10 CFR 55.46 will transition to a single ANS-3.5 standard.

## Why move from historical to adopted standard?

- Reduced regulatory uncertainty.
- Uniform implementation across the simulator fleet.
- Uniform NRC inspection and oversight.



## Why move from historical to adopted standard? (continued)

- Uniform Regulatory Guidance relevant to the adopted ANS-3.5 standard.
- Adopted standard reflects latest industry consensus and technological advances.



## The Road Map

- National Technology Transfer and Advancement Act of 1995.
- NRC ANS-3.5 Working Group Representation
- NRC to Revise RG 1.149

## Estimated Milestones

- Fall 2008, publication of adopted ANS-3.5-200X
- Winter 2008, publication of Draft Guide
- Summer 2009, publication of RG 1.149 Revision 4
- Winter 2009, complete transition to one industry consensus simulator standard



# Questions / Comments?