ANS Issues Clarification on ANSI/ANS-3.5-1998, "Nuclear Power Plant Simulators for Use in Operator Training and Examination."
(*Nuclear News*, March 2002)

I am a supervisor for the Nebraska Public Power District's Cooper Nuclear Station responsible for maintaining the functional requirements for our full-scope nuclear power plant control room simulator used for operator training and examination.

I am writing this letter to your organization to request a clarification to the reference document in regards to Simulator Scenario-Based Testing.

Section 4.4.3.2 of the reference document states that scenarios developed for the simulator, including the appropriate instructor interfaces and cueing, shall be tested before use for operator training or examination. The simulator shall be capable of being used to satisfy predetermined learning or examination objectives without exceptions, significant performance discrepancies, or deviation from the approved scenario sequence. A record of the conduct of these tests, typically in the form of a completed scenario or lesson plan checklist, and the evaluation of the test results, shall be maintained.

I am concerned that the standard requires scenarios developed for the simulator shall be tested before use for operator training or examination. It appears that this requirement may not be achievable with all operator training programs, namely initial license candidate training programs. Please clarify the preceding paragraph by addressing the following questions:

Inquiry 1:
What is the intent of scenario-based testing?

Response 1:
Scenario-based testing is intended to demonstrate that the scenario development process produces the expected simulation so that testing credit can be take. (Credit for testing means that normal evolutions, malfunctions, local operator actions, and other features have been exercised by the code.)

Inquiry 2:
Does scenario-based testing impose additional training program requirements?

Response 2:
No.

Inquiry 3:
How does scenario-based testing interface with simulator performance testing?

Response 3:
Scenario-based testing is a part of the comprehensive testing program as described in section 4.4 of the standard. Simulator performance testing includes operability and scenario-based testing and establishes a test program to ensure acceptable simulator performance for use in operator training and examination.

Inquiry 4:
Do simulator users have to test each scenario before every use, including those utilized to support initial license candidate training programs?

Response 4:

No.

Inquiry 5:

Can training programs that utilize simulators currently certified to previous editions of the standard take testing credit for simulator performance testing and simulator scenarios previously developed and approved for use in operator training or examination?

Response 5:

Yes, users of the standard may take testing credit for simulator performance testing and simulator scenarios previously developed and approved for use in operator training or examination.