

November 8, 2005

MEMORANDUM TO: David C. Trimble, Section Chief
Operator Licensing and Human Performance Branch
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

FROM: */RA/*
Lawrence Vick, Reactor Engineer (Examiner Qualified)
Operator Licensing and Human Performance Section
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

SUBJECT: 2005 SIMWORLD SIMULATOR CONFERENCE TRIP REPORT

During the week of September 25-27, 2005, I attended and participated in the 2005 SimWorld Simulator Conference held in Charleston, South Carolina at The Mills House Hotel. The SimWorld Simulator Conference provides an opportunity for staff to interact with industry stakeholders in the topical area of nuclear power plant simulation technology and its capability and products that reflect "state-of-the-art" solutions which enhance simulator scope and fidelity.

The conference also allows the NRC staff the opportunity to present program office perspectives with regard to regulating the plant-referenced simulator pursuant to 10 CFR Part 55 and gain valuable insight into the scope and fidelity capabilities of modern plant-referenced simulators. Conference attendees had an opportunity to meet with NRC staff to express viewpoints and to provide input on related topics. Attached is the slide presentation I provided to the group titled "Regulating The Plant-referenced Simulator." The group was provided general information on feedback received to-date with regard to simulator issues arising out of NRC inspection of Licensed Operator Requalification Inspections conducted under Inspection Procedure IP-71111.11. The group also provided information on the NRC's public web site on operator licensing issues relative to simulator issues.

The conference confirmed the continuing trend that licensees are utilizing more and more simulation solutions into their classroom training with devices such as "classroom simulators" that are based on personal computer platforms which directly utilize the plant-referenced simulator database and simulation capability. Most attendees expressed they would more likely than not increase their use of such simulation devices. Attendees discussed simulator scenario-based testing in light of what is available in the simulator programs to help support documentation of the performance of the simulator as compared to the reference plant's performance. Several potential solutions were brought up by simulation vendors and by the attendees. Most attendees agreed that the capability is already there to address performance test documentation concerns. The initial level of effort to develop the solution and subsequently apply it universally is not well understood.

Finally, simulator users indicated that they are more inclined than not to use the plant-referenced simulator for checking out and testing modifications before the modifications are made to the reference plant, for training staff other than plant operators, for complex procedure validations and verifications by operations and plant system engineers, and for analytical evaluations of plant events with respect to expected operator response times. Other technical topics of interest were presented by several vendor representatives.

Thank you for the opportunity to participate and represent the agency at this conference.

Attachment: 2005 SimWorld Simulator Conference Agenda
NRC Slide Presentation, "Regulating the Plant-referenced Simulator"

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Attachment: 2005 SimWorld Simulator Conference Agenda
NRC Slide Presentation, "Regulating the Plant-referenced Simulator"

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