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From: GOLDMAN, ROBERT E [RGOLDMA@entergy.com]
Sent: Thursday, August 26, 2010 1:54 PM
To: Rulemaking Comments
Subject: Comments for DRAFT REGULATORY GUIDE DG-1248
Attachments: Entergy Comments DG1248.doc

Please see the attachment for my comments on DG-1248 (NUCLEAR POWER PLANT SIMULATION FACILITIES FOR USE IN OPERATOR TRAINING, LICENSE EXAMINATIONS, AND APPLICANT EXPERIENCE REQUIREMENTS)

Thank you,

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RULES AND DIRECTIVES
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SONSI Review Complete
Template = ADM-013

E-RIDS = ADM-03
Call = R. Carpenter (RCI)
M. Case (MSC)

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1	Page 3, 2 nd paragraph under; “Plant-Referenced Simulator Performance Testing”	N/A	The commission should state that it recognizes exceptions taken on initial certification of simulation facilities.	Add to the 2 nd paragraph: “The commission recognizes exceptions taken on initial certification of simulation facilities; these exceptions may be carried forward as applicable to the ANS-3.5-2009 Standard.”
2	Page 3, 3 rd paragraph under; “Plant-Referenced Simulator Performance Testing”	Additionally, the Commission’s regulations in 10 CFR 55.46(c)(2) require that facility licensees that propose to use a plant-referenced simulator to meet the experience requirements in 10 CFR 55.31(a)(5) ensure that (1) the plant-referenced simulator utilizes models relating to nuclear and thermal-hydraulic characteristics that replicate the most recent core load in the nuclear power reference plant for which a license is being sought, and (2) simulator fidelity has been demonstrated so that significant control	<p>This comment implies that the only testing acceptance criteria for experience requirement criteria are items (1) and (2) of this paragraph.</p> <p>The regulator should reference scenario-based testing acceptance criteria in Section 4.4.3.2 or clearly state any additional acceptance criteria in the regulatory guide. This comment also applies to DG 1248 Appendix B, Item 5 for the experience requirement.</p>	Add to the 3 rd paragraph: “Facility licensees that propose to use a plant-referenced simulator to meet the experience requirements in 10 CFR 55.31(a)(5) shall validate the performance of the simulator via simulator reactor core performance testing and scenario-based testing utilizing acceptance criteria in sections 4.4.3.2 and 4.4.3.3 of the Standard, respectively.”

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		<p>manipulations are completed without procedural exceptions, simulator performance exceptions, or deviation from the approved training scenario sequence.</p>		
3	<p>Page 4, 2nd paragraph under; NEI 09-09, “Nuclear Power Plant-Referenced Simulator Scenario Based Testing Methodology”</p>	<p>On December 8, 2009, NEI provided for NRC review and endorsement of its industry guidance document, NEI-09-09, Revision 1, “Nuclear Power Plant-Referenced Simulator Scenario Based Testing Methodology” (Ref. 10), which provides an equitable and consistent approach and methodology for the conduct and documentation of SBT, as described in Section 4.4.3.2, “Simulator Scenario-Based Testing,” of ANSI/ANS-3.5-2009. NEI-09-09, Revision 1, also supports Section 4.4.3.2, “Simulator Scenario-</p>	<p>The last sentence should be deleted from this paragraph. It implies a “back fit” from the proposed revision 4 of Regulatory Guide 1.149 to a previous edition of the ANS-3.5 Standard.</p>	<p>On December 8, 2009, NEI provided for NRC review and endorsement of its industry guidance document, NEI-09-09, Revision 1, “Nuclear Power Plant-Referenced Simulator Scenario Based Testing Methodology” (Ref. 10), which provides an equitable and consistent approach and methodology for the conduct and documentation of SBT, as described in Section 4.4.3.2, “Simulator Scenario-Based Testing,” of ANSI/ANS-3.5-2009. NEI 09-09, Revision 1, also supports Section 4.4.3.2, “Simulator Scenario-Based Testing,” of ANSI/ANS 3.5 1998.</p>

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		Based Testing,” of ANSI/ANS-3.5-1998.		
4	Page 5, Section 2.b under; NEI 09-09, “NRC Acceptance and Endorsement of ANSI/ANS-3.5-2009”	b. In regard to Section 3.1.4, “Malfunctions,” simulation facility licensees should demonstrate that they have conducted performance testing of the malfunctions listed in the standard, as applicable to the design of the reference plant, at least once in the life of the simulation facility and that the associated test documentation includes the completed test results. If performance testing of a malfunction has been completed more than once, then the licensee need only retain the latest test results. The staff recognizes that simulator malfunction test results may be retained longer than 4 years after the completion of each	<p>This paragraph should be deleted from this section. This paragraph is not consistent with the records retention requirement in 10CFR55.46(d)(1) which states that “The results of performance tests must be retained for four years after the completion of each performance test or until superseded by updated test results.”</p> <p>The CFR reference allows malfunction tests to be discarded after four years. There is no requirement to maintain performance tests records longer than four years.</p> <p>Additionally, the NRC has previously inspected the results of the ANS-3.5-1985 Standard malfunction testing and approved initial certification of</p>	<p>b. In regard to Section 3.1.4, “Malfunctions,” simulation facility licensees should demonstrate that they have conducted performance testing of the malfunctions listed in the standard, as applicable to the design of the reference plant, at least once in the life of the simulation facility and that the associated test documentation includes the completed test results. If performance testing of a malfunction has been completed more than once, then the licensee need only retain the latest test results. The staff recognizes that simulator malfunction test results may be retained longer than 4 years after the completion of each malfunction test. Therefore, regardless of how long it has been since the malfunction test has been performed, the NRC expects simulation facility licensees to make the results of these malfunction performance tests available for NRC</p>

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		<p>malfunction test. Therefore, regardless of how long it has been since the malfunction test has been performed, the NRC expects simulation facility licensees to make the results of these malfunction performance tests available for NRC review, either before, or concurrent with, the preparation for each operating test or requalification program inspection.</p>	<p>the simulators which included the malfunction tests.</p> <p>How can a Regulatory Guide impose more requirements/ restrictions on a facility licensee than the regulation on which it is based?</p> <p>Do the facilities' previous certification submittals to the NRC under older versions of ANSI/ANS 3.5 suffice for this 'proof' of individual malfunction testing?</p>	<p>review, either before, or concurrent with, the preparation for each operating test or requalification program inspection.</p>
5	Page 6, Section 2.d under; NEI 09-09, "NRC Acceptance and Endorsement of ANSI/ANS-3.5-2009"	<p>d. In regard to Section 3.4.3.2, "Simulator Scenario-Based Testing," simulation facility licensees should meet the requirements of the standard with respect to the following type of SBTs for inclusion as simulator performance tests: (1) NRC initial license examination (operating test)</p>	<p>Delete "(such as just-in time training and routine plant system and equipment startup and shutdown training)".</p> <p>The perceived intent of this sentence was to provide examples when operator and senior operator training simulator scenarios are excluded from SBT for purposes of meeting the standard's SBT</p>	<p>d. In regard to Section 3.4.3.2, "Simulator Scenario-Based Testing," simulation facility licensees should meet the requirements of the standard with respect to the following type of SBTs for inclusion as simulator performance tests: (1) NRC initial license examination (operating test) scenarios, (2) licensed operator requalification annual examination (operating test) simulator scenarios, and (3) scenarios used</p>

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		<p>scenarios, (2) licensed operator requalification annual examination (operating test) simulator scenarios, and (3) scenarios used for performing applicant control manipulations that affect reactivity to establish eligibility for an operator's license. All other operator and senior operator training simulator scenarios (such as just-in time training and routine plant system and equipment startup and shutdown training) are excluded from SBT for purposes of meeting the standard's SBT requirements.</p>	<p>requirements; however, the examples provided within the parentheses is not all inclusive when operator and senior operator training simulator scenarios may excluded from SBT for purposes of meeting the standard's SBT requirements. It could be perceived by licensees and inspectors that these are the only occasions when operator and senior operator training simulator scenarios are excluded from SBT for purposes of meeting the standard's SBT requirements, despite the fact that the three requirements are listed in this section.</p>	<p>for performing applicant control manipulations that affect reactivity to establish eligibility for an operator's license. All other operator and senior operator training simulator scenarios (such as just in time training and routine plant system and equipment startup and shutdown training) are excluded from SBT for purposes of meeting the standard's SBT requirements.</p>
6	Page 6, Section 2.e under; NEI 09-09, "NRC Acceptance and Endorsement of ANSI/ANS-3.5-2009"	e. In regard to Section 4.4.3.1, "Simulator Operability Testing," Footnote 6, as referenced to Appendix A, "Guideline for Documentation of Simulator	Delete this section in its entirety. It does not clarify or add any additional guidance than that already noted in the Standard and could only add to confusion.	e. In regard to Section 4.4.3.1, "Simulator Operability Testing," Footnote 6, as referenced to Appendix A, "Guideline for Documentation of Simulator Design and Test Performance," simulation

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		Design and Test Performance,” simulation facility licensees should note that Appendix A provides examples that are applicable to Section 4.4.3.1.		facility licensees should note that Appendix A provides examples that are applicable to Section 4.4.3.1.
7	Page 6, Section 2.f under; NEI 09-09, “NRC Acceptance and Endorsement of ANSI/ANS-3.5-2009”	f. In regard to Section 4.4.3.2, “Simulator Scenario-Based Testing,” simulation facility licensees should also adhere to the NEI standardized approach for the conduct, performance, and documentation of simulator SBT, as described in NEI 09-09, Revision 1. The NRC expects licensees to perform other simulator performance testing, such as that described in Section 4.4.3.1, “Simulator Operability Testing”; Section 4.4.3.3, “Simulator Reactor Core Performance	Editorial; delete words “other” and “such as that” from the last sentence to provide clarity in regards to the regulator’s expectations.	f. In regard to Section 4.4.3.2, “Simulator Scenario-Based Testing,” simulation facility licensees should also adhere to the NEI standardized approach for the conduct, performance, and documentation of simulator SBT, as described in NEI 09-09, Revision 1. The NRC expects licensees to perform other simulator performance testing, such as that described in Section 4.4.3.1, “Simulator Operability Testing”; Section 4.4.3.3, “Simulator Reactor Core Performance Testing”, and Section 4.4.3.4, “Post-Event Simulator Testing,” separately and independently from the testing described in Section 4.4.3.2.

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		Testing”, and Section 4.4.3.4, “Post-Event Simulator Testing,” separately and independently from the testing described in Section 4.4.3.2.		
8	Page 6, Section 2.g under; NEI 09-09, “NRC Acceptance and Endorsement of ANSI/ANS-3.5-2009”	g. In regard to Section 4.4.3.3, “Simulator Reactor Core Performance Testing,” simulation facility licensees should meet the requirements of the standard with respect to real time and the conduct of core evolutions involved. The NRC expects a facility licensee’s plant-referenced simulator to utilize models relating to nuclear and thermal-hydraulic characteristics that replicate a core load in the nuclear power reference plant. If the plant-referenced simulator is used to meet NRC applicant	<p>First sentence:</p> <ol style="list-style-type: none"> 1. Add “within the scope of simulation” to be consistent with Section 3.4.3.3 of Standard. 2. Delete “with respect to real time”; there are some simulator performance tests that would require an eight hour run time (such as a peak xenon test). Simulation facilities appreciate the use of the fast time simulation feature to conduct tests that would require an extensive amount of run time in an age where simulator utilization by the operations training 	g. In regard to Section 4.4.3.3, “Simulator Reactor Core Performance Testing,” simulation facility licensees should meet the requirements of the standard within the scope of simulation with respect to real time and the conduct of core evolutions involved. The NRC expects a facility licensee’s plant-referenced simulator to utilize models relating to nuclear and thermal-hydraulic characteristics that replicate a core load in the nuclear power reference plant. If the plant-referenced simulator is used to meet NRC applicant experience requirements, as described in 10 CFR 55.31(a)(5), then the most recent core load (e.g., the core load(s) that existed during the time of the NRC applicant’s initial training program;

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		<p>experience requirements, as described in 10 CFR 55.31(a)(5), then the most recent core load (e.g., the current reference plant core load, or if the reference plant is in a refueling outage, the core load just previous to the outage) in the nuclear power reference plant for which a license is being sought must be utilized.</p>	<p>programs is very high.</p> <p>3. Clarify “and the conduct of core evolutions involved”. This appears to be an incomplete sentence.</p> <p>The third sentence references “the most recent core load”. License classes may run through more than one fuel operating cycle, so reactivity manipulations may be conducted on core loads that precede and follow a refueling outage, therefore, reactivity manipulations may not be performed in the same fuel cycle.</p> <p>Additional clarification is required in the third sentence taking into account the preceding comment. Consider defining the “most recent core load” as “the core load(s) that existed during the time of the NRC applicant’s initial training</p>	<p>reactivity manipulations may be conducted on core loads that precede and follow a refueling outage, therefore, reactivity manipulations may be performed in more than one fuel cycle) the current reference plant core load, or if the reference plant is in a refueling outage, the core load just previous to the outage) in the nuclear power reference plant for which a license is being sought must be utilized.</p>

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			program”.	
9	Page 6, Section 2.h under; NEI 09-09, “NRC Acceptance and Endorsement of ANSI/ANS-3.5-2009”	h. In regard to Section 4.4.3.4, “Post-Event Simulator Testing,” simulation facility licensees should meet the requirements of the standard with respect to demonstrating that the plant-referenced simulator performance and response compares favorably to the reference plant’s performance and response without significant deviation from the sequence of events for the reference plant event. As a minimum, a licensee should demonstrate on the plant-referenced simulator those reference plant events that result in (1) the automatic initiation of an engineered safety system, (2) the manual or automatic trip of the nuclear	<p>Second sentence:</p> <ol style="list-style-type: none"> 1. Delete “As a minimum” to place focus on demonstrating simulator performance for items 1 through 4. 2. Delete “reference plant events” and “such as” and add “relevant unplanned or unexpected (off-normal) events-deemed appropriate by the facility licensee”; this language provides some degree of flexibility to the licensee and is consistent with the intent of Sections 3.4.3.4 and 4.4.3.4 in the Standard. The items listed in Section 2.h can occur during normal plant evolutions and routine surveillance testing, the scope of testing could be very great. Therefore, it 	h. In regard to Section 4.4.3.4, “Post-Event Simulator Testing,” simulation facility licensees should meet the requirements of the standard with respect to demonstrating that the plant-referenced simulator performance and response compares favorably to the reference plant’s performance and response without significant deviation from the sequence of events for the reference plant event. As a minimum, a licensee should demonstrate on the plant-referenced simulator those relevant unplanned or unexpected (off-normal) events reference plant events deemed appropriate by the facility licensee, such as that result in (1) the automatic initiation of an engineered safety system, (2) the manual or automatic trip of the nuclear reactor, (3) a significant unplanned or unexpected reactivity change, and (4) the manual or automatic trip of the main turbine-generator while online with the electrical grid, and (5) any other event

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		<p>reactor, (3) a significant unplanned or unexpected reactivity change, (4) the manual or automatic trip of the main turbine-generator while online with the electrical grid, and (5) any other event deemed appropriate by the facility licensee within 60 calendar days following the event to ensure that fidelity is being met and maintained.</p>	<p>should be clarified that the unplanned, unexpected, and off-normal events should be the focus of post event simulator testing.</p> <p>3. Delete item 5 from the list and add the following clarification: “The comparison should be performed and any significant deviations identified within 60 days of the event.” This is to clarify that resolutions to noted deviations are not required to be resolved within 60 days; depending on scope of deviation, efforts to resolve could take longer than 60 days (and may require vendor support or model replacements).</p>	<p>deemed appropriate by the facility licensee within 60 calendar days following the event to ensure that fidelity is being met and maintained.</p> <p>The comparison should be performed and any significant deviations identified within 60 days of the event.</p>
10	Page 6, Section 3 under; “NRC Acceptance and Endorsement of	The NRC staff has reviewed NEI-09-09, Revision 1, and finds the implementation guidance an acceptable	The reference to ANS-3.5-1998 should be deleted from the second sentence. It implies a “back fit” from the proposed	The NRC staff has reviewed NEI-09-09, Revision 1, and finds the implementation guidance an acceptable method for simulation

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	NEI-09-09, Revision 1”	method for simulation facility licensees to demonstrate their compliance with the requirements of Sections 3.4.3.2 and 4.4.3.2 of ANSI/ANS-3.5-2009 regarding simulator SBT. Therefore, the NRC accepts and endorses NEI-09-09 as an acceptable method for an equitable and consistent approach and methodology for the conduct and documentation of SBT, as described in ANSI/ANS-3.5-2009 (and ANSI/ANS-3.5-1998, which NEI-09-09, Revision 0, supported). Implementation of NEI-09-09, Revision 1, ensures that simulation facility licensees will demonstrate expected plant response to operator input and to normal, transient, and accident conditions to which the simulator has been	revision 4 of Regulatory Guide 1.149 to a previous edition of the ANS-3.5 Standard. Delete third sentence in its entirety. The NEI 09-09 document does not, by itself, satisfy the 10CFR55.46 requirements to: (1) demonstrate expected plant response to operator input and to normal, transient, and accident conditions to which the simulator has been designed to respond (10CFR55.46(c)), and (2) that significant control manipulations are completed without procedural exceptions, simulator performance exceptions, or deviation from the approved training scenario sequence (10CFR55.46(c)(2)(ii)). The simulator’s testing program as described in Sections 3.4 and 4.4 of the Standard is designed to meet the requirements in 10CFR55.46.	facility licensees to demonstrate their compliance with the requirements of Sections 3.4.3.2 and 4.4.3.2 of ANSI/ANS-3.5-2009 regarding simulator SBT. Therefore, the NRC accepts and endorses NEI-09-09 as an acceptable method for an equitable and consistent approach and methodology for the conduct and documentation of SBT, as described in ANSI/ANS-3.5-2009 (and ANSI/ANS 3.5-1998, which NEI 09-09, Revision 0, supported). Implementation of NEI 09-09, Revision 1, ensures that simulation facility licensees will demonstrate expected plant response to operator input and to normal, transient, and accident conditions to which the simulator has been designed to respond, so that significant control manipulations are completed without procedural exceptions, simulator performance exceptions, or deviation from the approved training scenario sequence.

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		<p>designed to respond, so that significant control manipulations are completed without procedural exceptions, simulator performance exceptions, or deviation from the approved training scenario sequence.</p>		
11	<p>Page 7, Section 4 under; “Acceptability of Licensee’s Simulation Facility”</p>	<p>Licensees who maintain simulation facilities certified under previous editions of ANSI/ANS-3.5 (-1998, -1993, and -1985) endorsed by the NRC are encouraged to, but are not required to, revise the software and testing documentation to maintain the simulation facility in accordance with ANSI/ANS-3.5-2009. The NRC staff recognizes that it will take some time for these simulation facility licensees to transition to ANSI/ANS-3.5-2009.</p>	<p>First sentence:</p> <ol style="list-style-type: none"> 1. Substitute “testing documentation” with “testing methodology”. It is not perceived that previous simulator documentation would be revised to transition to ANS-3.5-2009. 2. The idea that “the NRC encourages simulation facilities to, but do not require simulation facilities to...” and “the NRC staff anticipates that simulation facility licensees will voluntarily move to 	<p>4. Acceptability of Licensee’s Simulation Facility Licensees who maintain simulation facilities certified under previous editions of ANSI/ANS-3.5 (-1998, -1993, and -1985) endorsed by the NRC are encouraged to, but are not required to, revise the software and testing documentation methodology to maintain the simulation facility in accordance with ANSI/ANS-3.5-2009. The NRC staff recognizes that it will take some time for these simulation facility licensees to transition to ANSI/ANS-3.5-2009. Therefore, the NRC staff anticipates that simulation facility licensees will voluntarily</p>

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		Therefore, the NRC staff anticipates that simulation facility licensees will voluntarily move to ANSI/ANS-3.5-2009 following the date of the final regulatory guide (e.g., Regulatory Guide 1.149, Revision 4).	<p>ANSI/ANS-3.5-2009” appears to be contradictory.</p> <p>There is a recommendation, followed by a soft requirement; there is direction, but no direction.</p> <p>Recommend either: (1) deletion of last sentence, or (2) absolute direction to the industry regarding transition to one Standard.</p>	<p>move to ANSI/ANS 3.5 2009 following the date of the final regulatory guide (e.g., Regulatory Guide 1.149, Revision 4).</p>
12	Page 7, Section 5, second paragraph under; “Use of Simulation Facility for Multiple Plants”	The NRC will only administer operating tests on a plant-referenced simulator that meets the Commission’s requirements, as described in 10 CFR 55.46. In addition, a licensee must request Commission approval if it plans to administer the NRC operating test using other than a -plant-referenced simulator or the plant.	<p>This statement should be applicable to single/multiple unit plants.</p> <p>Correct typo “plant-referenced”.</p> <p>May need to address use of single unit plant-referenced simulator in separate section since Section 5 is specific to multiple plants.</p>	The NRC will only administer operating tests on a single/multiple plant-referenced simulator that meets the Commission’s requirements, as described in 10 CFR 55.46. In addition, a licensee must request Commission approval if it plans to administer the NRC operating test using other than a plant-referenced simulator or the plant.

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13	Page 9, 5 th paragraph under; “Regulatory Analysis”	Revision of Regulatory Guide 1.149 is necessary for (1) the NRC to endorse the use of ANSI/ANS-3.5-2009 as a technical standard to ensure compliance with the Commission’s simulation facility scope and fidelity requirements, (2) simulation facility licensees to voluntarily move to a single consensus standard and carry out its requirements, (3) the NRC to communicate its expectations, and (4) facilitation of a common approach and methodology for conducting and documenting simulator scenario-based performance testing.	Is this revision of Regulatory Guide 1.149 necessary for simulation facility licensees to voluntarily move to a single consensus standard and carry out its requirements? Item 2 does not meet the intent of DG 1248, whereas the other three items do; delete item 2.	Revision of Regulatory Guide 1.149 is necessary for (1) the NRC to endorse the use of ANSI/ANS-3.5-2009 as a technical standard to ensure compliance with the Commission’s simulation facility scope and fidelity requirements, (2) simulation facility licensees to voluntarily move to a single consensus standard and carry out its requirements, (2) the NRC to communicate its expectations, and (3) facilitation of a common approach and methodology for conducting and documenting simulator scenario-based performance testing.
14	Page 10, 1 st paragraph under; “Alternative	The benefit of updating and revising Regulatory Guide 1.149 is that it would	Revising Regulatory Guide 1.149 will not preclude negative training and inappropriate	The benefit of updating and revising Regulatory Guide 1.149 is that it would provide guidance to

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	Approaches”	provide guidance to ensure that nuclear power plant simulation facilities used for operator training, license examinations, and applicant experience requirements are maintained in accordance with the industry’s most recent consensus standard, which will preclude negative training and inappropriate operator license evaluations. Simulation facilities that meet the minimum scope and fidelity requirements of ANSI/ANS-3.5-2009 must be able to demonstrate, on a continuing basis, compliance with the Commission’s simulation facility regulations, as described in 10 CFR 55.46.	operator license evaluations. Strike this phrase from this paragraph; it appears naïve. Implementation of the Regulatory Guide 1.149 Revision 4 and the ANS-3.5-2009 Standard will not by itself preclude negative training (“...preclude negative training...” is an absolute statement).	ensure that nuclear power plant simulation facilities used for operator training, license examinations, and applicant experience requirements are maintained in accordance with the industry’s most recent consensus standard, which will preclude negative training and inappropriate operator license evaluations. Simulation facilities that meet the minimum scope and fidelity requirements of ANSI/ANS-3.5-2009 must be able to demonstrate, on a continuing basis, compliance with the Commission’s simulation facility regulations, as described in 10 CFR 55.46.
15	Page 11 under; “Glossary”	N/A	Add definitions for: (1) replicate, (2) significant deviation, (3) compare	N/A

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			favorably, (4) procedural exception.	
16	Appendix B, Item 2	N/A	Please clarify; do “Simulator initial conditions (IC) agreed with reference plant with respect to reactor status, plant configuration, and system operation” only apply to scenarios associated with reactivity manipulations?	N/A
17	Appendix B, Item 10	SBT conducted in a manner sufficient (i.e., meets requirements of ANSI/ANS-3.5-2009) to ensure that simulator fidelity has been demonstrated and met for this scenario. <i>Note: Attach relevant “as-run” marked-up plant procedures and or procedure portions/pages utilized to support assertion.</i>	Reference to ANS-3.5-2009 is redundant in this proposed revision 4 to Regulatory Guide 1.149. Delete reference to ANSI/ANS-3.5-2009.	SBT conducted in a manner sufficient (i.e., meets requirements of ANSI/ANS 3.5-2009) to ensure that simulator fidelity has been demonstrated and met for this scenario. <i>Note: Attach relevant “as-run” marked-up plant procedures and or procedure portions/pages utilized to support assertion.</i>
18	Appendix B, Item 11	Modeling and hardware discrepancies identified	Regarding the sentence; “Modeling and hardware	Modeling and hardware discrepancies identified during the conduct of SBT

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		<p>during the conduct of SBT are documented and entered in accordance with the site simulator configuration management procedures. <i>Note: Discrepancies that directly affect operator response (or action) or expected plant response must be resolved before the SBT test results can be judged as satisfactory.</i></p>	<p>discrepancies identified during the conduct of SBT are documented and entered in accordance with the site simulator configuration management procedures”...</p> <p>The term “and entered” is redundant to “documented” in the configuration management process. Strike the phrase “and entered”.</p>	<p>are documented and entered in accordance with the site simulator configuration management procedures. <i>Note: Discrepancies that directly affect operator response (or action) or expected plant response must be resolved before the SBT test results can be judged as satisfactory.</i></p>
19	Appendix B, Page B-1	<p><i>The draft regulatory guide includes this appendix so that the public can discern the staff's acceptance and endorsement of the Nuclear Energy Institute's (NEI) industry technical guidance document, NEI-09-09, Revision 1. The final guide may or may not include this appendix.</i></p>	<p>In regards to the italicized note at the bottom of Page B-1...</p> <p>Entergy recommends that this appendix not be included in final regulatory guide; remove any references to it in the body of the proposed revision to the regulatory guide.</p>	N/A

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Other Comments: (1st)

ANSI 3.5, 2009 section 3.4.3.3 Simulator reactor core performance testing requires that "Simulator reactor core performance testing shall be conducted to confirm that the simulator nuclear and thermal-hydraulic models replicate the reference unit core response within the scope of simulation.

Section 4.4.3.3 Simulator reactor core performance testing requires that "Testing shall be performed in accordance with the reference unit procedures and shall be compared and demonstrated to replicate the response of the reference unit." Additionally, this section requires the simulator to meet the reference unit procedures acceptance criteria.

Issue/Concern; Reactor Core Testing in the plant is very limited depending on whether initial criticality is attained as expected. Additionally, reactor engineering utilizes a reactivity meter to measure reactivity changes. This requirement in the ANSI standard reduces the quality of reactor core testing currently being implemented by most facilities. A reactivity meter does not exist in the simulator modeling which means it is not within the scope of simulation (section 3.4.3.3) and therefore prevents the ability to utilize the reference plants procedures for core testing. These two sections seem to contradict each other when considering what "within the scope of simulation" actually means.

Recommendation for DRAFT REGULATORY GUIDE DG-1248

In regard to 2g, add a statement at the end that says;

If the scope of simulation prevents performance of simulator reactor core testing using reference plant procedures as required by section 4.4.3.3 of ANSI 3.5, 2009, then the utility should document an exception to the standard and establish simulator reactor core testing methodologies (including acceptance criteria) that demonstrate the simulator response replicates the response of the reference unit.

Other Comments: (2nd)

What are the NRC's expectations with respect to facility licensee communication on their commitment to ANSI/ANS -3.5 - 2009 (i.e., formal docketed correspondence, phonecon, etc.)?