ANS 3.5 Working Group Meeting Minutes
Oconee Nuclear Station
Seneca, SC
2010 July 27-29

Approved Minutes

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1. Visitors

Visitor	Date	Affiliation	Email, Phone Fax
Jody Lawter	2010jul27	SCE&G V.C. Summer Nuclear Station PO Box 88 MC 750 Jenkinsville, SC 29065	Jody.lawter@scana.com Work: 803-345-4854 Cell: 803-530-4535
Bill Hendricsen	2010jul27	Palo Verde 5801 S. Wintersburg Rd Sta 7894 Tonapah, AZ 85354	whendric@apsc.com Cell: 602-618-1315 Work: 623-393-6585
Bill Fraser	2010jul27	Westinghouse Electric Company Nuclear Services I-70 Madison Exit 54, MB #20 Madison, PA 15663, USA	fraserwa@westinghouse.com Cell: 717-304-6225 Work: 724-722-5777
Robert Goldman	2010jul27	Entergy Nuclear 1340 Echelon Parkway Jackson, MS 39213	rgoldma@entergy.com Work: 601-368-5582 Cell: 601-754-7136

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2. Roll Call – (of Voting Membership for this Meeting Session)

Present	Member	Address	Notes-Proxy	Email-Phone-Fax
Present	Timothy Dennis **Chair**	645 Lehigh Gap St. P. O. Box 119 Walnutport, PA 18088-0119		Email: a243@yahoo.com Phone:610-767-0979 Fax: 610-767-7095
Present	Jim Florence **Vice Chair**	Nebraska Public Power District P. O. Box 98 Brownville, Nebraska 68321		Email: jbflore@nppd.com Phone: 402-825-5700 Fax: 402-825-5584
Present	Keith Welchel **Secretary**	Duke Power Company Oconee Training Center- MC:ON04OT 7800 Rochester Hwy Seneca, SC 29672		Email: kwelchel@duke-energy.com Phone: 864-885-3349 Fax: 864-885-3432
Present	F.J. (Butch) Colby **Editor**	L-3 MAPPS 8565 Cote-de-Liesse Quebec, Canada H4T 1G5		Email: butchcolby@cs.com Email: butch.colby@l-3com.com Phone: (410) 756-1924 Fax: (410) 756-1954
Absent	William M. (Mike) Shelly **Style Editor**	507 Texas Drive Georgetown, TX 78633	Resigned	Email: mshelly51@yahoo.com Phone: 512-240-5378
Present	Lawrence (Larry) Vick **Parliamentarian**	US NRC, Office of Nuclear Reactor Regulation 09-D24 Washington, DC 20555		Email: lawrence.vick@nrc.gov Phone: 301-415-3181 Fax: 301-415-2222
Present	George McCullough	GSE Systems, Inc. 2300 St. Marys Road Suite D St. Marys, GA 31558		Email: gsmccullough@gses.com Phone: 912-576-6730 Cell: 410-707-6946
Present	Robert Felker	Western Services Corporation 7340 Executive Way, Suite A Frederick, MD 21704		Email: felker@ws-corp.com Phone: 301-644-2520 Fax: 301-682-8104 Cell: 240-344-5889
Absent	Allan A. Kozak	10004 Brookemoor Ln Glen Allen, VA 23060	Resigned	Email: kozak621@comcast.com Phone: 804-756-2077
Absent	Dennis Koutouzis	INPO 700 Galleria Parkway, NW Atlanta, GA 30339-5957		Email: koutouzisjd@inpo.org Phone: 770-644-8838 Fax: 770-644-8120
Absent	Oliver Havens, Jr	PSEG Power Hope Creek Generating Station, NTC 244 Chestnut St. Salem, NJ 08079	Resigned	Email: Oliver.Havens@pseg.com Phone: 856-339-3797 Fax: 856-339-3997
Present	Frank Tarselli	129 Abbey Rd Sugarloaf, PA 18249		Email: frankt64@epix.net Phone: 570.542.3551 Cell: 570-956-0303 Fax: 570.542.3855

Present	SK Chang	Dominion Nuclear Connecticut, Inc. Millstone Power Station L. F. Sillin, Jr. Nuclear Training Ctr. Rope Ferry Road Waterford, CT 06385		Email: Shih-Kao.Chang@dom.com Phone: 860-437-2521 Fax: 860-437-2671
N/A	Patricia Schroeder	Standards Administrator American Nuclear Society 555 North Kensington avenue La Grange Park, IL 60526-5592		Email: PSchroeder@ans.org Phone: 708-579-8269 Fax: 708 352 6464

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3. Action Item List

3.1 Action Item Quick-look Table

Open	Complete	Carried to Next Standard

~~1~~	~~2~~	~~3~~	~~4~~	~~5~~	~~6~~	~~7~~	~~8~~	~~9~~	~~10~~
~~11~~	~~12~~	~~13~~	~~14~~	~~15~~	~~16~~	~~17~~	~~18~~	~~19~~	~~20~~
~~21~~	~~22~~	~~23~~	~~24~~	~~25~~	~~26~~	~~27~~	~~28~~	~~29~~	~~30~~
~~31~~	~~32~~	~~33~~	~~34~~	~~35~~	36	~~37~~	~~38~~	~~39~~	~~40~~
~~41~~	~~42~~	~~43~~	~~44~~	~~45~~	~~46~~	~~47~~	~~48~~	~~49~~	~~50~~
~~51~~	~~52~~	~~53~~	~~54~~	~~55~~	~~56~~	~~57~~	~~58~~	~~59~~	60
~~61~~	~~62~~	~~63~~	~~64~~	~~65~~	~~66~~	~~67~~	~~68~~	~~69~~	~~70~~
~~71~~	~~72~~	~~73~~	~~74~~	~~75~~	~~76~~	~~77~~	~~78~~	~~79~~	~~80~~
~~81~~	~~82~~	~~83~~	~~84~~	~~85~~	~~86~~	~~87~~	~~88~~	~~89~~	~~90~~
~~91~~	~~92~~	~~93~~	~~94~~	~~95~~	~~96~~	~~97~~	~~98~~	~~99~~	~~100~~
~~101~~	~~102~~	~~103~~	~~104~~	~~105~~	~~106~~	~~107~~	~~108~~	~~109~~	~~110~~
~~111~~	~~112~~	~~113~~	~~114~~	~~115~~	~~116~~	~~117~~	~~118~~	~~119~~	120
~~121~~	~~122~~	~~123~~	~~124~~	~~125~~	126	~~127~~	~~128~~	~~129~~	~~130~~
~~131~~	132	~~133~~	134	135	136	137	~~138~~	~~139~~	~~140~~
141	~~142~~	~~143~~	~~144~~	~~145~~	~~146~~	147	~~148~~	~~149~~	150
~~151~~	~~152~~	~~153~~	~~154~~	~~155~~	~~156~~	~~157~~	~~158~~	~~159~~	~~160~~
~~161~~	162	163	~~164~~	~~165~~	~~166~~	~~167~~	~~168~~	~~169~~	~~170~~
~~171~~	~~172~~	~~173~~	~~174~~	~~175~~	176	177	178	179	180
181	~~182~~	~~183~~	184	185					

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3.2 Action Items

No.	Status	Date	Assigned To:	Work Assignment
182	Closed 2010jul28	2010jul27	Tarselli Chang Colby	Develop appreciation letters for: Shelly Kozak Havens
183	Closed 2010jul28	2010jul27	Dennis	Forward Bigelow Clarification to ANS Forward Matsumoto Clarification to ANS
184	Open	2010jul28	Dennis	Send letters of appreciation to: Shelly Kozak Havens
185	Open	2010jul29	Florence	Draft letter to NEI for NEI participation in the ANS-3.5 Working Group and also to develop a more collaborative relationship.

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4. Working Group Procedural Rules

4.1 Rules of the Chair

- Interim Voting (Motions – Substantive Changes) shall be by Consensus (75% [rounded up] of quorum in session);
- The Chairman rules that no Motions will be accepted when not in session;
- Administrative issues by simple majority (quorum in session);
- The Chair shall be informed of absences;
- The absent member is encouraged to send a proxy;
- A Proxy shall have voting privileges (Rule changed at this meeting {6.4}, notification e-mailed to absent members);
- Members shall attend the full length of the meeting;
- Word 7.0 shall be the document format;
- The Host shall collect and send all handout material for absent members without proxy;
- Robert's Rules of Order shall be used as a general guide;
- Guest Individual Contributors may receive working copy of the draft standard based on need;
- Chair approval shall be required for distribution of working copies of the draft standard;
- Members shall not Vote against their own non-amended Motion;
- The WG will through the course of normal business, generate confidential documentation applicable to the WG charter. As a result of this business, documentation could be released to the public through approved minutes posted on the ANS 3.5 WEB site. Other information may be released to the public as deemed appropriate by the WG Chair or Vice-Chair. In addition, information may be supplied to non-working group members on a need-to-know basis for the purpose of review and comment.

4.2 Rules Enacted by the Working Group

Missing two consecutive meetings in a row without representation could result in loss of membership on the committee.
DG-1248 comments pass by simple majority

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5. Tuesday 2010 July 27 (0800)

5.1 Roll Call

Absent Members: * denotes previous members to this session.

Havens
Koutouzis
Kozak
Shelly

5.2 Consensus Level

9 - Voting members
5 – Quorum
7 - Consensus (75% Rule of the Chair)
6 – Super Majority
5 – Majority

5.3 Agenda Approved

5.4 Resignation Business

AI 182 – Develop letters appreciation.

Shelly – Accepted

Kozak -Accepted

Havens - Accepted

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5.5 New Consensus Level

9 - Voting members
5 – Quorum
7 - Consensus (75% Rule of the Chair)
6 – Super Majority
5 – Majority

5.6 Members reviewed Rules of the Chair (No change)

5.7 Officers reports

Dennis

Discussion concerning the change in the Request for Clarification process. An audit at ANS concluded that the Interpretation process was not appropriate. "Clarification" change to "inquiry".

Florence

Bigelow/Matsumoto - Clarifications sent to members for review

Welchel

No report

Colby

No report

Chang

No Update

Vick

No Update

Dennis

ANS 3.4 is active

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ANS 3.1 is active

USUG (Florence)

USUG appreciative the NRC is basically adopting the standard without exception

Vogtle concern regarding loss of all Feed Pumps (Transient #2; an inspector interpreted transient #2 to be a loss of all feed water including Aux feed water pumps. Florence encourage Vogtle to request clarification

5.8 Vick DG-1248 Update

Industry comments received

Industry Inspections – Generally the industry is adhering to ANSI standards.

NEI SBT workshop tentatively scheduled during 2010 Qtr 4

NRC – John (Jack) McHale (Ops Lic and Trn Branch Chief) is available for contact

5.9 Style Editor Appointment – SK Chang

Motion (Carried): Accept SK Chang as Style Editor	**For**: 9 **Against**: 0 **Abstained**: 0

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5.10 Bigelow Clarification

Commentary

An important theme in the ANS-3.5-2009 Standard is the avoidance of negative training in the operator training environment. It is essential that the student view the same data regardless of the means by which the data is accessed. For instance, historical data could be obtained from a process computer, trend graphs, trend charts, or history on a digital recorder. To the extent possible, the student should find the same data value at the same previous time step. This leads naturally to the requirements of section 3.3.3 and to stimulated components in particular. In general, the first paragraph of section 3.3.3 states the entire simulator must participate in simulator unique functions. Recognizing the older hardware generation of certain stimulated devices, this requirement is relaxed to some degree for the unique category of stimulated components. If stimulated devices can comply with Section 3.3.3, then the requirements are obviously satisfied. If not, then the standard requires a Training Needs Assessment be performed to identify any potential impact to the student of viewing different data values at the same previous time step via different means.

Requirement

The definition of Stimulated Components is: Hardware/software components that are integrated with the simulator process via simulator inputs/outputs that perform their functions parallel to, and either independently of or synchronized with, the simulation process.

It is the intent of Section 3.3.3, third paragraph, to be applicable to Stimulated Components that store historical data if the device is integrated with the simulator process via simulator inputs/outputs and performs its function parallel to, and either independently of or synchronized with, the simulation process. If the Stimulated Component meets this applicability, then it is required to participate in the simulator unique functions as specified in Section 3.3.3.

If a device is considered to be a Stimulated Component per Section 3.3.3, then consideration of Section 4.3.3 also applies; "For a stimulated component it shall be documented that noticeable differences have been defined and that a training needs assessment has been performed in accordance with Sec. 4.2.1.4". Section 4.3.3 shall be utilized to justify why a stimulated component does not have to meet the requirements for freeze, run, initial condition reset, snapshot, and backtrack.

Discussion

Bigelow asked for an Interpretation regarding Stimulated Components rather than a Clarification.

Should is improperly used in the Clarification.

To the extent possible, the student ***should*** find

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Motion

Motion (Carried): Accept Bigelow Clarification as Recorded	**For**: 8 **Against**: 1 **Abstained**: 0

AI 183 – Dennis – Forward Bigelow Clarification to ANS

5.11 Matsumoto Clarification

Regarding 3.4.3.3 Simulator reactor core performance testing:

1. *What do you specify as appropriate reactor core performance testing?*

   Section 4.4.3.3, Simulator Reactor Core Performance Testing, notes that "Simulator reactor core performance testing shall be conducted each reference unit fuel cycle. 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. It shall be demonstrated that the simulator response during conduct of simulator reactor core performance testing meets the reference unit procedures' acceptance criteria."

   The ANSI/ANS-3.5-2009 Standard, by design, does not prescribe core performance testing methodology. Currently, each simulation facility is responsible for creating a method to demonstrate adequate simulator core performance.

2. *Why did you include reactor core performance testing as a requirement; was it because of a NRC requirement and/or an industry issue?*

   It was anticipated that the industry would take advantage of a regulatory option to utilize the simulator for reactivity manipulation experience credit.

   Ref: (1) Code of Federal Regulations, Simulation Facilities, 10CFR55.46(c)(2)(i)
   (2) Code of Federal Regulation, Operator's License Applications, 10CFR55.31 (a)(5)

   On November 16, 2001, the NRC amended its rules (66 FR 52667, Oct. 17, 2001) as described in 10 CFR 55.46 (c) so that facility licensees could utilize their nuclear power plant-referenced simulator instead of the actual nuclear plant for performing control manipulations that affect reactivity to establish eligibility for an operator's license as described in 10 CFR 55.31(a)(5). The ANS-3.5 Working Group recognized and supported the need for having a requirement for simulator core performance testing since there is a direct benefit for using the simulator rather than the actual plant to meet the regulatory requirement.

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Commentary

It is important to distinguish between update and upgrade to facilitate the following discussion.

Update means incorporating new data into the simulator design database.

Upgrade means changing the simulator to match the reference unit.

Regarding Section 5.1.2.1 Initial update:

1. *Why do you specify the initial update within 18 months?*

This section applies to the first update of the simulator design database following the reference unit's commercial operation date or the simulator's operational date, whichever is later. Eighteen months provides ample time after the reference unit's commercial operation date or the simulator's operational date to review and determine the need for a simulator modification. Eighteen months was assumed to be a reasonable amount of time to update the simulator design database following new reference unit commissioning; this period of time anticipates that more effort is required to review and determine the need for a simulator modification after unit startup and commissioning tests are completed.

Regarding Section 5.1.2.2 Subsequent update:

1. *Why do you specify the subsequent update within 12 months?*

This section applies to each new design database update following the initial update. Twelve months provides ample time to review and determine the need for a simulator modification after the initial design database update.

Regarding Section 5.3.1.1 Initial upgrade:

1. *Why do you specify the initial upgrade within 30 months?*

This section applies to plant modifications that impact the simulator following its initial construction. Thirty months provides ample time after the reference unit's commercial operation date or the simulator's operational date to implement plant modifications received during simulator construction. The complexity of the plant modification can require a long period of time to implement. Thirty months is based on the total allowable time period associated with the simulator's design database update (eighteen months for the initial update and twelve months for the subsequent upgrade). Thirty months to implement reference unit modifications allows for the review and applicability determination of new data over both time periods. By the end of thirty months, new data reviewed during the initial and subsequent design database updates shall be implemented to the simulator via an initial upgrade.

Regarding Section 5.3.1.2 Subsequent upgrade:

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1. *Why do you specify the subsequent upgrade within 24 months?*

   This section applies to plant modifications that may have some impact to the simulator following the initial upgrade. Twenty-four months provides ample time after the reference unit modification is determined to be operational (or in-service) to implement the plant's modification to the simulator (twelve months to identify the reference unit modification and twelve months to implement the reference unit modification). Twenty-four months provides ample time to implement the plant modification based on the needs of the operator training program.

Motion

Motion (Carried): Accept Matsumoto Clarification as Recorded	**For**: 9 **Against**: 0 **Abstained**: 0

AI 183 – Dennis – Forward Matsumoto Clarification to ANS

5.12 DG-1248 Review

Dennis	Introduction	No comment
Welchel	Background	No comment
Florence	Role of Nuclear Power Plant Simulation Facilities in Operator Licensing	Felker - Last paragraph 2nd sentence – The first sentence states "with the advent of new nuclear power plants". The second sentence states "This guide also applies to the use of new full-scope nuclear power plant simulation facilities." Question: Please explain the staff's rationale for the second sentence considering the possible use for a "new nuclear power plant"."

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McCullough	Plant- Referenced Simulator Performance testing	No comment
Colby	ANSI/ANS-3.5-2009, "Nuclear Power Plant…	No comment
Dennis	NEI 09-09, "Nuclear Power Plant…	No comment
Vick	Appendices to This Regulatory Guide	No comment
Vick	1. Use of Voluntary Consensus Standards	Tarselli – Voluntary versus mandatory and the adoption timeframe
McCullough	2. NRC Acceptance and Endorsement of ANSI/ANS-3.5-2009	No comment
Vick	Regulatory Position a.	No comment
Felker	Regulatory Position b.	Welchel - How does retaining documentation for a test that is required to be conducted only once in the life of the simulator ensure continued assurance.
Chang Dennis	Regulatory Position c.	No comment
Felker	Regulatory Position d.	No comment
Colby	Regulatory Position e.	Colby - Clarification of the word "applicable"
Felker Dennis	Regulatory Position f.	No comment

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Chang	Regulatory Position g.	McCullough – The last sentence does not pertain to Core Performance Testing and should be removed.
Florence	Regulatory Position h.	Hendricsen – During a normal shutdown that includes a Manual reactor Trip, is PEST required? Welchel - Recommendation to adopt without exception or do not comment at all. Tarselli – Add unplanned to items two and four. Tarselli – What does 60 days mean.
Dennis	NRC Acceptance and Endorsement of NEI-09-09, Revision 1	Colby – Delete all references to ANS-3.5-1998 and NEI-09-09 Rev0. Colby – Delete last sentence. Florence – Perception that NEI-09-09 does not ensure expected plant response.
Tarselli	Acceptability of Licensee's Simulation facility	No comment
Welchel Hendricsen	Use of Simulation facility for Multiple Plants	No comment
McCullough	Use of Other Simulation Devices	No comment
Florence	Implementation	No comment
McCullough	Regulatory Analysis – Statement of the Problem	No comment
Vick	Objective	No comment
Vick	Alternative Approaches	No comment
Vick	Conclusion	No comment
	Glossary	Felker – Change Reference Plant to Reference Unit
	Appendix	Florence – Remove Appendices A and B

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5.13 Recessed: 1730

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6. **Wednesday 2010 July 28 (0800)**

6.1 Roll Call

Absent Members:* denotes previous members to this session.

Koutouzis

6.2 Consensus Level

9 - Voting members
5 – Quorum
7 - Consensus (75% Rule of the Chair)
6 – Super Majority
5 – Majority

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6.3 DG-1248 Comment

Motion (Carried): Section B Discussion, Role of Nuclear Power Plant Simulation Facilities in Operator Licensing, third paragraph states "This guide also applies to the use of new full-scope nuclear power plant simulation facilities…". The ANS 3.5 Standard, section 5.1 defines possible sources of Simulator Design Baseline design data. No source exists for the category of no design data available particularly in the case of Distributed Control Systems yet the draft regulatory guide states the standard applies to new build plants. If a simulator must be delivered to support initial licensed operator training prior to detail design data becoming available, please explain the staff's rationale for concluding that the current edition of the standard can be applied to simulators for new build plants.	Role of Nuclear Power Plant Simulation Facilities in Operator Licensing	Felker - Last paragraph 2nd sentence – The first sentence states "with the advent of new nuclear power plants". The second sentence states "This guide also applies to the use of new full-scope nuclear power plant simulation facilities."
Motion (Carried) In 10 CFR 55.46(3)(d)(1) does the requirement for record retention of four years after the completion of each performance test or until superseded by updated test results mean whichever is longer (i.e. - if test results are not superseded within four years, can the performance test record be discarded after four years?)? NEI-09-09 malfunction record retention (life of the simulator) appears to be more restrictive than 10 CFR 55.46(3)(d)(1) (four years or until superseded by updated test results). Please clarify malfunction tests record retention.	Regulatory Position b. Malfunctions	Welchel - How does retaining documentation for a test that is required to be conducted only once in the life of the simulator ensure continued assurance

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Motion (Carried): Provide the following comment to the NRC: Delete DG-1248 section C.2.e. Reason: Section C.2.e in DG-1248 (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 facility licensees should note that Appendix A provides examples that are applicable to Section 4.4.3.1) is already contained within ANSI/ANS-3.5–2009 Section 4.4.3.1 Note 6 (Appendix A) provides examples of acceptable simulator performance test documentation. This is stating a fact which is already confirmed in the Standard.	Regulatory Position e. 4.4.3.1 Operability testing	Colby - Clarification of the word "applicable"
No action	Regulatory Position g. 4.4.3.3 Reactor Core Performance Testing	McCullough – The last sentence does not pertain to Core Performance Testing and should be removed.

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Motion (Carried): Provide the following comment to the NRC: Suggest items (1), (2) and (4) in C.2.h address unplanned events only. Reason: Paragraph C.2.h of Draft Guide 1248 appears to be too broad. Motion (Carried): Provide the following comment to the NRC: Request the phrase "within 60 calendar days following the event" in DG-1248 paragraph C.2.h be removed. ANSI/ANS-3.5-2009 Section 4.4.3.4 provides adequate guidance.	Regulatory Position h. 4.4.3.4 Post Event testing	Hendricsen – During a normal shutdown that includes a Manual reactor Trip, is PEST required? Welchel - Recommendation to adopt without exception or do not comment at all. Tarselli – Add unplanned to items two and four. Tarselli – What does 60 days mean.
Motion (Carried): Provide the following comment to the NRC: Delete DG-1248 Section C.3 the last part of the second sentence (and ANSI/ANS-3.5-1998, which NEI-09-09, Revision 0, supported). Reason: Under this section (NRC Acceptance and Endorsement of NEI-09-09, revision 1) we should only be dealing with items, issues which deal with ANS-3.5-2009 Standard.	NRC Acceptance and Endorsement of NEI-09-09, Revision 1	Colby – Delete all references to ANS-3.5-1998 and NEI-09-09 Rev0. Colby – Delete last sentence. Florence – Perception that NEI-09-09 does not ensure expected plant response.
Motion (Carried): Please reconsider the use of Reference-Unit in lieu of Reference Plant for consistency with regards to the ANSI/ANS-3.5 Standard.	Glossary	Felker – Change Reference Plant to Reference Unit

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Motion (Carried): Remove Appendix B from DG-1248. Reason: Checklist is repetitive to the NRC NEI-09-09 endorsement.	Appendix	Florence – Remove Appendices A and B

6.4 Motion NRC Acceptance and Endorsement of NEI-09-09

Motion (Carried): Provide the following comment to the NRC: Delete DG-1248 Section C.3 the last part of the second sentence (and ANSI/ANS-3.5-1998, which NEI-09-09, Revision 0, supported). Reason: Under this section (NRC Acceptance and Endorsement of NEI-09-09, revision 1) we should only be dealing with items, issues which deal with ANS-3.5-2009 Standard.	**For**: 7 **Against**: 1 **Abstained**: 1

Reason Against: Deleting reference text will make no difference.

6.5 Motion Glossary

Motion (Carried): Please reconsider the use of Reference-Unit in lieu of Reference Plant for consistency with regards to the ANSI/ANS-3.5 Standard	**For**: 8 **Against**: 0 **Abstained**: 1

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6.6 Motion Appendix

Motion (Carried): Remove Appendix B from DG-1248. Reason: Checklist is repetitive to the NRC NEI-09-09 endorsement.	**For**: 6 **Against**: 2 **Abstained**: 1

6.7 Motion Rule of the Working Group

Motion (Carried): Add the Rule of the Working Group for DG-1248 comments pass by simple majority.	**For**: 5 **Against**: 2 **Abstained**: 2

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6.8 Motion Role of Nuclear Power Plant Simulation Facilities…

Motion (Carried): Section B Discussion, Role of Nuclear Power Plant Simulation Facilities in Operator Licensing, third paragraph states "This guide also applies to the use of new full-scope nuclear power plant simulation facilities…". The ANS 3.5 Standard, section 5.1 defines possible sources of Simulator Design Baseline design data. No source exists for the category of no design data available particularly in the case of Distributed Control Systems yet the draft regulatory guide states the standard applies to new build plants. If a simulator must be delivered to support initial licensed operator training prior to detail design data becoming available, please explain the staff's rationale for concluding that the current edition of the standard can be applied to simulators for new build plants	**For**: 7 **Against**: 1 **Abstained**: 1

Against reason: Data is insufficient and not unavailable.

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6.9 Motion Regulatory Position b. Malfunctions

Motion (Carried):	**For**: 6
In 10 CFR 55.46(3)(d)(1) does the requirement for record retention of four years after the completion of each performance test or until superseded by updated test results mean whichever is longer (i.e. - if test results are not superseded within four years, can the performance test record be discarded after four years?)? NEI-09-09 malfunction record retention (life of the simulator) appears to be more restrictive than 10 CFR 55.46(3)(d)(1) (four years or until superseded by updated test results). Please clarify malfunction tests record retention.	**Against**: 1 **Abstained**: 2

Reason Against: Not in Standards space

Abstained:

- NRC member conflict of interest.
- Not in Standards space.

Approved Minutes

6.10 Motion Regulatory Position e. 4.4.3.2 Operability testing

Motion (Carried): Provide the following comment to the NRC: Delete DG-1248 section C.2.e. Reason: Section C.2.e in DG-1248 (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 facility licensees should note that Appendix A provides examples that are applicable to Section 4.4.3.1) is already contained within ANSI/ANS-3.5–2009 Section 4.4.3.1 Note 6 (Appendix A) provides examples of acceptable simulator performance test documentation. This is stating a fact which is already confirmed in the Standard.	**For**: 6 **Against**: 0 **Abstained**: 3

Abstained:

- NRC member conflict of interest
- Editorial
- Incomplete contemplation

6.11 Motion Regulatory Position h. 4.4.3.4. Post event simulator testing

Reason against: Initial intent

Abstained: NRC member conflict of interest.

Approved Minutes

Only certain reference units events provide the opportunity relevant performance data, therefore

6.12 Letters of appreciation to resignees (SK Chang)

Letters of appreciation were reviewed by members:

- Allan Kozak
- Mike Shelly

Motion (Carried): Approve Letter of Appreciation to Allan Kozak	**For**: 9 **Against**: 0 **Abstained**: 0
Motion (Carried): Approve Letter of Appreciation to Mike Shelly	**For:** 9 **Against:** 0 **Abstained:** 0
Motion (Carried): Approve Letter of Appreciation to Bud havens	**For:** 9 **Against:** 0 **Abstained:** 0

AI 184 Dennis Letters of Appreciation

6.13 Recessed: 1730

Approved Minutes

7. Thursday 2010 July 29 (0800)

7.1 Agenda Review

Absent Members:* denotes previous members to this session.

Koutouzis

7.2 Consensus Level

9 - Voting members
5 – Quorum
7 - Consensus (75% Rule of the Chair)
6 – Super Majority
5 – Majority

7.3 Motion Regulatory Position h. 4.4.3.4. Post event simulator testing

Motion (Carried): Provide the following comment to the NRC: Request the phrase "within 60 calendar days following the event" in DG-1248 paragraph C.2.h be removed. ANSI/ANS-3.5-2009 Section 4.4.3.4 provides adequate guidance.	**For**: 7 **Against**: 1 **Abstained**: 1

Abstained: NRC member conflict of interest.

Against: Working Group has deviated from the initial PEST intent

Approved Minutes

7.4 Felker – Discussion ANS 3.5 NEI and NRC relationship

AI 185 Florence Request NEI Participation Letter

Draft letter to NEI for NEI participation in the ANS-3.5 Working Group and also to develop a more collaborative relationship.

7.5 ANS 3.5 Reorganization

2010 Oct

7.6 Adjourned: 1109

Approved Minutes

8. Action Items Carried to Next Standard [For WG Use Only]

60	**2004 Aug 25** **Deferred** **to Next Standard for consideration**	Priority 1	**McCullough** **Shelly**	Define the Term **Training Needs Assessment** in such a manner that it is clear in intent to both Training and Simulator staffs **2004aug25** **McCullough** **Recommend to keep deferred due to effort to correct** 2002apr23 McCullough History presentation of Training Need Assessment. See Appendix 2001Apr05 McCullough Trainers and Simulator personal view Training Needs Assessments Differently; Training Needs Analysis and Training Needs Assessment are not used consistently. McCullough will revisit this item in a future date; Reference: ACAD-85-006 "A Supplement to Principles of Training Systems Development"

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126	**Status:** **2004 Aug 26** **Deferred to next standard for consideration**		**Vick** **Shelly – BWR** **Kozak – PWR** **Golightly - BWR**	Consider adding Performance Test Program in next standard **2004 Aug 26** **Deferred to next standard for consideration** **Vick** 2003 Apr 05 Initial AI
132	**Status:** **2004 Nov 09** **Deferred to the next standard for consideration**		**Wyatt**	Review Section 4.1.4 – Malfunction testing **2004 Nov 09** **Deferred to the next standard for consideration** 2004 Aug 26 Felker Required Malfunction testing is ambiguous. Lengthy Discussion concerning removing the malfunction list in 4.1.3. Wyatt will assume lead role for this AI in the next standard's revision.
134	**Status:** **2004 Nov 08** **Deferred to the next standard for consideration**		**McCullough** **Felker** **Florence**	Minimum Testing Periodicity Table **2004 Nov 10** **After lengthy discussion, deferred to the next standard for consideration** 2004 Nov 8 Presented Proposed Appendix E 2004 Aug 26 Initial AI

APPROVED

137	**Status:** **2004 Nov 11** **Deferred to the next standard for consideration**		**Florence** **Koutouzis** **Shelly**	Establish better (routine) communication on ANS WG makeup and activities Target audience – Plant management **2004 Nov 11** **Deferred to the next standard for consideration** 2004 Aug 27 Initial AI
141	**Status:** **2004 Nov 10** **Deferred to the next standard for consideration**		**Tarselli**	Review incorporation of alternative testing methods into Section 3.4.3.2. **2004 Nov 10** **Due to magnitude of subject matter, Tarselli recommended Alternative Testing be deferred to next standard for consideration** 2004 Aug 27 Initial AI
147	**Deferred to next Standard**	2007may01	**Welchel**	Impact of Fully-Integrated Mode of Operation on Performance Testing (Deferred to next standard)
150	**Deferred to next Standard**	2007may02	**Vick**	Review consistency in the use of the Term Power Range (Deferred to next standard)
162	**Deferred to Next Standard**	TBD	**TBD**	Next standard revision review Appendix B parameters against standard body. 2008 October 18-26 Meeting Minutes; Section 10.22 Initial AI
163	**Deferred to Next Standard**	TBD	**TBD**	Next standard revision review for next generation nuclear reactor/plant designs. 2008 October 18-26 Meeting Minutes; Sections 10.24 & 12.48 Initial AI
179	**Deferred to Next Standard**	TBD	**McCullough**	Real-time and repeatability periodicity. 2008 October 18-26 Meeting Minutes; Section 11.17 Initial AI

180	**Deferred to Next Standard**	TBD	**TBD**	Performance testing in a non-fully integrated mode Section 3.4.3. 2008 October 18-26 Meeting Minutes; Section 12.35 Initial AI
181	**Deferred to next Standard**	TBD	**TBD**	Section 5 Separate Requirements for Initial Simulator Construction and Subsequent Simulator Changes 2008 October 18-26 Meeting Minutes; Section 13.7 Initial AI

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9. Closed Action Items [For WG Use Only]

No.	Status	Date	Assigned To:	Work Assignment
1	**Status:** **2004aug26** **Complete** **Dennis** contacted Mike Wright. No Input from Mike. The Scope change should be approved soon. 2001Apr05 Scope statement will be revised based on SubCommittee-1 comments that ANS 3.1 is not Training Criteria	Priority 1 – PINS form will be completed by next meeting (15min)	**Dennis**	DOE Nuclear Facility vs. Power Plant Simulators – Check with ANS 3. Inquire as to whether other simulator issues are addressed/referenced in other ANS 3 standards Dennis will contact Mike Wright (ANS-3 chair). Are DOE issues referencing simulators? 2001Apr05 Dennis Dennis attended the SubCommittee-1 meeting and was informed the PINS form needs to be completed. Additionally, the scope statement states ANS 3.1 establishes Training Criteria, but does not. Accepted 3.5 Scope change and Appendix D 2000mar09 Chandler Comments (NUPPSCO) relating to DOE simulators. We need to resolve Open NUPPSCO comments from the 1998 standards approval process.

Approved

2	**Date: 2000oct25** **Status:** Additional Editorial Review Required **Date: 2000mar09** **Status: Complete**		**Colby** **Welchel**	Obtain a Master Copy of the ANS 3.5 standard in Dual Column (working/1998) format. The WordPerfect copy from Shawn does not port into WORD correctly Assigned to Butch Colby.
3	**Date: 1999sep14** **Status: Complete**		**Welchel**	Get NUPPSCO comments to members
4	**Date: 1999sep14** **Status: Complete**		**Welchel**	Send copy of meeting minutes 1998Nov04 and 1999Mar02-03 to Jim Florence
5	**Date: 1999sep14** **Status: Complete**		**Florence**	Jim will look at creating a survey on the USUG WEB concerning the Action Items and for soliciting info from the industry
6	**Date: 1999sep14** **Status: Complete**		**Dennis**	Jeff will contact ANS about ANSI Historical standards Cataudella-Spoke with ANS Standards Secretary, Shawn Coyne-Nalbach Historical Standards: Past standards are retired and are only available as historical standards. 1979, 1981, 1985, and 1993 are no longer endorsed by ANSI and ANS only the 1998 standard is endorsed.
7	**Date: 2001Aug9** **Status: Complete**		**Shelly** **Vick** **Dennis**	Talk to ANS about use of footnotes, asterisks, etc in standards To review style guide. 2001Apr05 Shelly Shelly will call Shawn.

Ap

No.	Status	Date	Assigned To:	Work Assignment
8	**Status:** **2004aug26** **Complete**	Priority 1 – PINS form will be completed by next meeting (15min)	**Dennis**	Contact Mike Wright about the scope change Scope and Background submitted to Shawn and Mike. No schedule at present for ANS-3 to review scope change. **2002Oct29** **PINs form completed and ready to send to ANS**. 2001Apr05 Contacted Sub-Committee-1 and Dennis needs to complete PINS forms;
9	**Date: 2001Apr05** **Status: Complete** **Dennis**		**Dennis**	Is ANS 3 considering that the standard may address other simulators not specific to NRC Regulatory Commission licensing? 2001Apr05 Dennis - No - per SubCommittee-1 Tamp Meeting Dennis will verify with Mike concerning additional scope (adding DOE facilities into 3.5). 2001Apr05 Dennis - No - per SubCommittee-1 Tamp Meeting **2000mar09** Dennis will check at the next ANS 3 meeting

Ap

10	**Date: 2001Apr04** **Status: Awaiting Kozak conversation with Chandler and Mallay** **Date: 2001Aug09** **Status: Closed Pending input from Alan Kozak** **Date: 2001Aug27** **Status: Complete**		**Kozak** **Collins (Vick)** **McCullough**	Propose security criteria for Simulators operating in Exam Mode 2001aug27 Kozak Contact was made with James Mallary (NUPPSCO) to clarify the comment concerning "non-prescriptive" His concern was the inclusion of further details within the body and stated that if this was not the case then he has no further comment. Contact could not be made with Harish Chandler. Information gathered via the ANS survey presents the fact that all of the responding sites are applying Exam Security measures that meet the requirements of their training programs and review from other agencies, i.e. NRC, INPO. It can be safely assumed that non responders are doing likewise. Based on this information no further action should be needed for this AI. 2001Apr04 Kozak PPT Presentation outlining several Security concerns. The presentation is included in the AI-10 documentation dated 2001Apr04. Final conclusion was that the current wording is sufficient. AI Originator: Parking Lot Issue 2001Apr05 Kozak Two NUPPSCO comments: NUPPSCO supporting comment: James: Mallay stated that this item should be non-prescriptive. NUPPSCO supporting comment: Harish Chandler Kozak will call Chandler and Mallay and discuss their NUPPSCO **2000mar09** Determine source of Exam Security comment

11	**Date: 2001Apr05** **Status: Complete** **Moved to AI 13**		**Felker** **Collins** **(Vick)**	Standard Section 3.1.4 - Add information notices and any other information; establish threshold of documents to be reviewed. Correspondences change over time. Discuss at next meeting with Felker present. Origin: Parking Lot List 2001Apr05 Deferred for later discussion pending more important issues
12	**Date: 2001Aug09** **Status: Complete**			Intentionally Left Blank

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13	**Date: 2002oct29** **Status: Complete**	Priority 1 – Waiting input from Florence on feedback from industry	**Felker** **Florence** **Colby**	Standard Section 3.1.3(7) - Rated coolant Flow - are BWR's OK with this? Review entire list in section 3.1.3 for applicability. Review present parameter list. Colby has additional information for discussion at the next meeting. Consider instrument accuracy relating to different plant types. 2002OCT29 Florence Approved change of 3.1.3 items 1 trough 5 from April 22-25, 2002: Action item #13. The new words in Item 1 includes the intent of old items #1, 2, 3, 5, 7, and 10 and as a result has replaced them. Old item # 8 wording changed in new item #2 to be consistent with wording in new #1. Old item # 4, # 6 and #9 were not changed and are now new item #3, 4, and 5. The main reason for the change is to eliminated unnecessary wording contained within various tables of the Standard and to make them a little more in tune with the industry as it exist in today's environment. This was also the consensus of the industry peer group based on a survey conducted by the ANS Working Group. Origin: Parking Lot List Review all List; Combined with the 3.1.3(7) item (Moved from 23); Standard Section 3.1.4 - Add information notices and any other information; establish threshold of documents to be reviewed. Correspondences change over time. Discuss at next meeting with Felker present. Note: Review associations between removal of List and Appendix. 2001Apr05 Moved AI 11 to AI 13 Deferred for later discussion pending more important issues Felker: The Simulator shall cause an alarm or automatic action

14	**Closed:** **2002apr23** **Motion**	Priority 1 –	**Paris** **Felker** **Florence** **Chang**	2001Aug 09 SK Chang proposes including *synchronization* in the new definition for stimulated device. Hal Paris and SK Chang to provide working group a revised document regarding stimulated devices in one month. Members shall respond within 30 days. Review guidance on stimulated devices. Combine stimulated hardware and stimulated devices. Issues relating to various stimulated device functions and compatibility with the simulator (e.g. Run/Freeze, History retention and Recalls/Backtracks, software revision control) 2002apr23 Motion: Change Definition of Stimulated Hardware to Stimulated Components with the definition of Stimulated Components: • **stimulated components** Hardware/software components that are integrated to the simulator process via simulator inputs/outputs which perform their functions parallel to, and either independently of or synchronized with the simulation process • Replace Stimulated hardware and Stimulated Device with Stimulated Components 2001Apr04 Paris Recommends new definition: Old Definition: "**Stimulated hardware.** Components or devices that perform their functions independently of and parallel to the simulation process" 2001Apr05 Paris Considerations for new definitions for later review New Definitions: Suggested choices for new definitions:

15	**Date: 2000mar09** **Status: Complete** Presentation by Allan Kozak		**Collins (Vick)** **Kozak** **McCullough**	Numerous uses of Training Needs Assessment (TNA) Collins - Add paragraph in Section 3.0 detailing TNA and then remove all other references to TNA. Training Needs Assessment was changed to Training Impact Assessment **2000mar09** Determine Source of this comment
16	**2002apr24** **Status: Complete** **Motion No Carried**	Priority 1 –	**Welchel** **Dennis**	Coordinate use of Discrepancy and Deviation. Consider Yoder #12. NUPPSCO Comment 2002apr24 Welchel Prepared and presented Deviation/Discrepancy and Differences replacement. Closed – Motion Not Carried **2001apr03** Welchel Discrepancy is used in sections 4.4.3.2 and 5.2. Webster's definition: Discrepancy-inconsistency Deviation – diverge

Appr

17	**Date: 2001Aug09** **Status: Complete**		**Dennis Welchel**	Get feedback from industry on actually how the 1998 standard is actually used. Use USUG meetings. Cataudella – Seabrook MANTG meeting (Aug-1999) comments: How to document Scenario Based Testing? Expand on what is V&V and what is necessary. Shelly – User feedback is not available for inclusion at this time. Develop Mission statement for working group. Cataudella – Problems implementing Scenario Based Testing. Benchmarking of various sites has shown use of V&V and scenario validation. **2000mar09** Welchel – Add relevant SSNTA meeting minutes to WG minutes. Wait for industry experience 2001Apr05 Industry Feedback Callaway has implement the 1998 Standard and presently reports no concerns. **2001apr03** Welchel As of Jan 2001, Callaway (Scott Halverson) is the only simulator presently implementing the 1998 standard. The industry consensus, as expressed at the 2001 USUG meeting, is that implementing Scenario based testing for License Class Simulator Scenarios is unworkable. It is generally agreed that the Regulatory carrot for using the simulator for License Candidate Reactivity Manipulations, is a significant positive for adopting the 1998 3.5 ANS standard. Activity: MANTG Mar 2001 SSNTA Jan 2001 SCS Jan 2001 USUG Jan 2001

18	**Date: 2000mar09** **Status:** **Closed Statement (**Do we need to put some boundaries as to the limits simulator**)**		**Kozak** **Shelly** **Cox** **Havens** **Florence**	Part-Task – Should Part-Task become part of the standard or remain as an appendix. Possibly look at tying the Standard body to the Appendix; Application of Full Scope Simulators. Outside interest are asking for uses of simulators that are not related to Operator Training. ~~Do we need to put some boundaries as to the limits simulator;~~(Closed 2001Apr05) Origin: Scope Change at Oconee Meeting 2001Apr05 Florence Moved from AI 22 Look at the use of Simulator, Simulation Facility; Definitions change Simulation Facility becomes Simulator; Simulation Facility is now defined as the collection of Simulators; Coordinate use of Simulator and Simulation Facility. 2001Apr05 Kozak Close the Boundry issue *Do we need to put some boundaries as to the limits simulator;* 2001Apr05 Kozak See Minutes Body **2000mar09** Presentation of Virginia Power Classroom/Part-task trainer at the 2000mar09 meeting Related AI: 41

19	**Date: 2001apr05** **Status: Complete** (This Item will be ask on Survey#2)		**Colby** **Florence**	Using the simulator for other than Operator Training. Uses in predictive analysis and design mods, SAMGS procedures changes; 2001Apr05 Colby Include this as part of Survey #2 and Closed **2000mar09** Scope change. This will require approval from ANS-3
20	**Status:** **2004Nov8** **Complete** **2004aug25** **Reactivated** **Date: 2002oct29** **Status: Deferred to 2008**	Priority 1 –	**Paris (Noe)** **Colby** **Kozak** **McCullough** **Felker**	Exploiting technology changes and future industry trends. What's coming around the corner; **2004Nov8** **Consensus from working group to close item based on discussions during this meeting.** **2004aug25** **Reactivated** **Consensus to reactivate this AI and try to develop some language during this period. If DCS is postponed until the next standard, that will possibly be six years before DCS is addressed.** 2002oct29 Paris Deferred to 2008. Additional technologies will need to be considered (e.g. Virtual reality, DCS, WEB based training) 2001Apr05 Paris Presentation: What is Around the Corner (See Attachments Section)

No.	Status	Date	Assigned To:	Work Assignment
				2001Aug09 Paris Presentation – Distributed Control Systems scope needs to be considered in the standard (Hal will e-mail his presentation to Butch).
21	Date: 2000mar10 Status: Complete Keith Welchel wanted to dismiss this item. The WG agreed.		**Collins (Vick)** **Welchel** **Chang**	(JFC/KPW/JS) Hybrid Simulators. Hybrid Simulator refers to a simulator that implements many different technologies, source code vendors, different operating systems, integration vendors, etc. Maybe we need to have words that stipulate that testing needs to cover all the other changes we make to the simulator that may affect the operation of the simulator: Instructor Console, Operating Systems, New I/O, etc. (Voted to Dismiss-Consensus) Comments on regulation - The Working Group will not comment on regulations. The Standards Working Group is working in Working Group space. **2000mar10** Keith Welchel moved to dismiss this item. Jim Florence Seconded;

Approved

22	**Date: 2001apr05** **Status: Complete**		**Florence Kozak**	~~Workshops on Testing Philosophy (what are the benefits? testing that provides results); USUG participation;~~ ~~Schedule workshop during USUG at SCS in Jan. 1999. Develop materials for handout. Florence led material development.~~ Closed 2001Apr05 Complete Look at the use of Simulator, Simulation Facility; Definitions change Simulation Facility becomes Simulator; Simulation Facility is now defined as the collection of Simulators Coordinate use of Simulator and Simulation Facility. Closed Moved to AI 18 Jim gave a presentation at the 2000 SCS conference during the USUG meeting.
23				Intentionally Left Blank
24	**Date: 2000mar09** **Status: Complete** **No Action.** Real-time at this time does not seem to be an industry concern at this time. Committee members had no issues with the definition or Section 4.1.1. Therefore, this AI was Closed.		**Dennis DeLuca**	Real Time - Dennis will give further consideration and he will look at industry standards; Measuring Real-Time;
25	**Status** **2004nov10** **Closed**		**Dennis Neis**	Process Guidelines (Mods and Testing) ;Institutionalizing Procedures **2004nov10**

No.	Status	Date	Assigned To:	Work Assignment
				Dennis and Hudnut gave presentation on adding Item (5) to Section 5. AI-25 is Closed. No action. 2004aug24 Reactivated Try to complete during this revision 2002apr24 Dennis Gave presentation on Millstone experience Defer AI-25 to 2008 2001Apr05 Dennis Deferred
26	**Date: 2000mar10** **Status: Complete** Historical information was presented at the SCS conference. Dennis checked with ANS Headquarters and this issue was discussed in detail		**Dennis**	1985 ANS 3.5 Standard is Historical Standard; Dennis will follow up with Shawn and Mike Wright about Historical/Active Standards and how the present process does not follow the five year; How should we handle or should we comment that the 1985 ANS/ANSI 3.5 standard is now an Historical standard and is no longer in the ANSI catalog. Does the ANS 3.5 Working Group need to comment on this issue; Utilities would need to take exception by treating Certification as other; Mark up the Form 474 and state the other that you are going to do. Scenario Based testing (> 25%/yr.); Performance Based testing Plan Dennis will call Mike Wright confirming ANS-3 understands the Historical Standard issue

27	**Date: 2001Aug09** **Status: Complete**		Collins(Vick) Dennis Koutouzis	(JFC/TD) Possible cross-pollination with other standards. Frank and Dennis will contact others 2001Apr05 Dennis Reference: ANSI/ISA–77.20–1993 Fossil Fuel Power Plant Simulators – Functional Requirements Reviewed FAA WEB Site: www.faa.gov/nsp Simulator Qualifications: www.faa.gov/nsp/ac.htm Colby –To research Navy Simulator Systems Colby – To research Germany regulatory standards
28	**Date: 1999sep15** **Status: Complete**		**Florence**	Suggested a letter to Jim Stavely asking for a commitment to attend meetings along with 02Mar1999 meeting minutes; however, Jim Stavely resigned and submitted replacement resume Oliver Havens, Jr;
29	**Date: 2000mar10** **Status: Complete**		**Florence** **Dennis**	Vice-chair prepare letter to Jim Davis asking for commitment to attend meetings along with 02Mar1999 meeting minutes; Chair to sign and send. Chair to send letter to Jim Davis and Ken Rach thanking them for their past participation and asking them for substitute resumes.

Appro

30	**Date: 2001Apr05** **Status: Complete**		**Florence** **Welchel**	Jim Florence suggested that the following information be placed on the USUG Web Page: ANSI-3.5 Membership List, approved meeting minutes, meeting schedules and meeting agendas. Florence/Welchel will ensure WEB page is updated Florence: Check with Shawn (ANS) for WEB space. Check with USUG for WEB Space 2001Apr05 Florence Membership List Minutes Meeting Schedules Will not use ANS WEB Site All future approved ANS WG minutes will be placed on the USUG WEB site.
31	**Date: 1999sep15** **Status: Complete**		**Dennis**	Mission statement for Working Group for the 2003 standard. AI #31 added 1999sep14 **1999sep15:** Voted not to complete

Approved

32	**Date: 2001Apr04** **Status: Closed by Motion**	**1999sep15**	**Colby** **Collins** **Koutouzis** **Havens** **Felker** **McCullough**	Description: Multi-Units. Application of reference unit simulators to non-referenced units. Butch has offered to survey the industry. INPO will assist by supplying information from their databases; Misc Info: Reg Guide 1.149 refers to Multi-Unit Plant, but 3.5 does not. Felker - Simulators other than the referenced unit are not covered by this standard; 2001Apr04 The WG, by Motion, closed AI 51 and 32. There was agreement that the 3.5 Standard does not cover simulator configured for Multi-Unit use. The Multi-Unit issues are basically training related and are not minimum reference unit Standard's space. Additional Survey questions will be directed by AI 50. The WG approved a motion to delete AI 32 and AI 51 and Colby will still ask survey questions concerning multi-unit plants. **2000Oct26:** **Butch will request bullets on Multi-Unit from the Group for next meeting**

Appro

33	**Date: 2001Apr04** **Status: Complete**		**Havens** **Kozak** **Shelly** **Welchel**	Change 24-month design change limit to some shorter period. **2001apr03** Welchel Proposed new wording: ***5.3.1.2 Subsequent Upgrade.*** *Following the initial upgrade, reference unit modifications determined to be relevant to the training program shall be implemented on the simulator within 24 months of their reference unit in-service dates, or earlier if warranted by a training needs assessment.* Requiring that a determination of the relevance to training and that a training needs assessment be completed should be sufficient. Recommendation is that the "24 months" be removed and that section 5.3.1.2 should read: ***5.3.1.2 Subsequent Upgrade.*** *Following the initial upgrade, reference unit modifications determined to be relevant to the training program shall be implemented on the simulator based on training needs assessments in accordance with the criteria provided in 4.2.1.4.* ***5.1.2.2 Subsequent Update.*** *Following the initial update, new data shall be reviewed, and the simulator design data base appropriately revised, once per calendar year. Modifications made to the reference unit shall be reviewed for determination of the need for simulator modification within 12 months.* ***5.1.2.2 Subsequent Update.*** *Following the initial update, new data shall be reviewed, and the simulator design data base appropriately revised, once per calendar year. Modifications made to the reference unit shall be implemented on the simulator based on training needs assessments in accordance with the criteria provided in 4.2.1.4.* . WG agreed to close this AI with no further discussion. The 12 and 24 month timelines could be used to ensure the modifications.

34	**Date: 2001Apr05** **Status: Complete**	**1999sep15**	**Welchel** **McCullough** **DeLuca** **Koutouzis**	Present standard does not address software bugs, discrepancies, and enhancements. Time limits only relate to plant design changes, no time limits are associated for simulator fidelity and enhancements. Origin: Welchel 2001Apr05 Closed – Other issues are handled with the Simulator Configuration Process Related AI: 36
35	**Date: 2001Apr05** **Status: Complete**	**2000mar08**	**McCullough** **Collins(Vick)**	Review the double column Draft Working Document prepared by Butch Colby 2001Apr05 McCullough Reviewed and recommend no changes at this time. Footnotes in the side-by-side format do not agree with the original document but this should clear up when the double format is deleted. Additional editorial work may be needed to ensure the footnotes align correctly.
36	**2004aug25** **Closed** **Date: 2003Mar10** **Status: Deferred until 2008**	Priority 2	**Koutouzis** **Havens**	Questions from Review of INPO Documents: • Timeline for incorporation of Plant design changes into the simulator • Instructor Performance • Long Term Open Simulator Fidelity Issues This is an information AI **2004aug25** **Koutouzis update**

No.	Status	Date	Assigned To:	Work Assignment
				The Chair closed this AI. **2003Mar10** **Koutouzis** **No INPO statements on Simulator Fidelity.** **INPO is primarily focused on performance based issues, but will address programmatic issues.** 2002Apr24 Havens – Keep this AI open pending additional input and data. Koutouzis is gathering additional data. Recommends to do nothing right now No Update 2001Apr05 Koutouzis No Update Related AI: 34
37	**Date: 2001Apr05** **Status: Complete** **Group agreed to closed this item. No additional information required.**	2000mar08	**Koutouzis** **Collins(Vick)**	Five Required Control Manipulations Clarification 2001Apr05 Koutouzis No Update

Ap

38	**Date: 2001Apr05** **Status: Complete**	2000mar08	**Dennis**	Discuss the ANS definitions and process of Clarification and Interpretation 2001Apr05 Refer to Meeting Minutes {find the meeting minutes and place here}
39	**Date: 2001Apr05** **Status: Complete**	2000mar08	**McCullough** **Florence** **Felker**	Consider differentiating validation of Requal and Initial License Scenarios 2001Apr05 McCullough {Add LTI Document Here}
40	**Date: 2002oct31** **Status: Complete**	Priority 1	**Cox** **Vick** **Florence** **Collins** **McCullough**	Appendix Update for Scenario Based Testing Documentation. 2002oct31 Florence New Appendix E Accepted See Minutes Appendix 2001Apr05 Draft a Scenario Based Testing Guideline (new) Appendix

Appr

41	**Date: 2000Oct26** **Status**: **Complete**	2000mar08	**DeLuca** **Colby**	Appendices consideration up-front and not as an afterthought. Tie documentation and Testing to the Standard Body Related AI: 18 **Resolution (2000Oct26 – Colby)**: Continue using Appendices A and B as is Recommendation to revisit appendices content Consider moving Appendix D (Part-Task) into standard main body Related AI-18

Approved Mi

42	**Closed:** **2002apr23** **Motion**	Priority 1 -	**Chang** **Felker** **Cox**	Use of Verification and Validation Origination: Colby Survey **2002apr23** **Closed by Motion** **2000Oct26:** **Chang to look at Survey and determine the issues with Verification and Validation and bring to next meeting** **Origin: ANS 3.5 WG Survey #1** **2001Apr05** **Felker** **The use of V&V as espoused through the IEEE 7xxx standards for SW Validation. We have outside documentation regarding the use of the term SW Validation &Verification;** **It is not V&V as defined in the Nuclear Industry.** **2001Aug09** **SK will put out a revised document on V&V in one week. Members shall respond within 30 days.**
43	**Date: 2001Apr03** **Status: Complete**	2000mar08	**Welchel**	Send 1998 Standard NUPPSCO comments to: Hal Paris Bob Felker Bud Havens **2001apr03** Welchel - Delivered 2001apr03

44	**Date: 2002oct29** **Status: Complete**	Priority 1 -	**Paris** **Havens** **Chang**	Clarify Simulator Repeatability wrt to Real-time and not Scenario Based Testing. Repeatability is not specified for Scenario Based Testing but is related to Real-time. 2002oct29 Paris Closed Refer to 2002apr motion to leave wording as is. This item is closed (originated form 1998 NUPSCO comments TVA) 2001Apr05 Paris Concern: What is Repeatability? Further review is needed. See Attachment for AI 44 **2000Oct26:** **Hal and Group will review the use of these terms and consistency**
45	**Date: 2000Oct26** **Status: Complete**	2000mar08	**Shelly** **Chang** **Havens**	Clarify Overrides do not have to be tested like Malfunctions and are not Malfunctions. (Survey Comment 3.15 p20) **2000Oct26:** **Non-issue because it's related to CFR and not the standard** Not all Overrides need to be tested Only Overrides in Scenarios need to be tested AI45 Originated from Colby survey Confusion between the CFR about 25%/yr and the 98 standard linking Overrides to Malfunctions Recommend that this is a non-issue and should be closed because its not an issue with the standard but is with the 10CFR Part 55

46	**Date: 2001Aug09** **Status: Complete**		**Committee**	Request members review the other parts of the survey and comment. Members are ask to review and submit two bullets that they consider important for further ANS3.5WG consideration
47	**Date: 2000Oct26** **Status: Complete**	2000mar09	**Colby**	Send Thank You notes to all Survey Participants
48	**Date: 2000Oct26** **Status: Complete**	2000mar09	**Colby**	Modify DCD Training Needs Assessment to Training Impact Assessment **2000Oct26:** **Deleted due to Motion by Felker being Carried** **WG decided to revert back to Training Needs Assessment**
49	**Date: 2000Oct26** **Status: Complete**	2000mar09	**Kozak**	Determine source of Training Needs Assessment Related AI: 15 **2000Oct26:** **Could not determine the Source of Training Needs Assessment**
50	**Date: 2001Apr04** **Status: Complete** **Redundant to AI 10**	2000mar09	**Colby**	Additional survey concerning Exam Security Concerns 2001Apr05 Colby Close redundant to AI 10. Closed 2001Apr04 Kozak presented a PPT presentation outlining and defining security issues Closed based on better understanding of NUPPSCO.

APPROVED

51	**Date: 2001Apr04** **Status: Closed by Motion**	2000mar09	**Colby**	Send out another survey concerning Multi-unit questions and will try to target Simulator, Training, and OPS 2001Apr04 The WG, by Motion, closed this AI 51 and 32. There was agreement that the 3.5 Standard does not cover simulator configured for Multi-Unit use. The Multi-Unit issues are basically training related and are not minimum reference unit Standard's space. Additional Survey questions will be directed by AI 50. The WG approved a motion to delete AI 32 and AI 51 and Colby will still ask survey questions concerning multi-unit plants;
52	**Date: 2000Oct26** **Status: Complete**	2000mar09	**Felker**	Locate previous Multi-Unit work completed by the 1993 WG. Bob will contact Bill Geiss **Resolution**: 2000Oct26 Felker Material does not exist.
53	**Date: 2001Aug09** **Status: Complete**		**Colby**	Review the Appendix A – A(3) (BOM). Consider removal of the BOM list and replace with I&C list 2001Apr05 Colby March 2000 meeting minutes Working Doc Editor to remove BOM from App A
54	Date: 2000Apr05 **Status: Complete**	2000mar09	**Vick**	Acquire US Government Style Guide 2001Apr05 Style manual given to Style Editor.
55	Date: 2000Oct25 **Status: Complete**	2000oct25	**Dennis**	Distribute Robert Boire work assignments 2001Oct25 Completed

56	Date: 2000Oct26 **Status: Complete**	2000oct25	**Colby**	Contact Mr. Cox (Com Ed) for 3.5 WG participation. **2000Oct26** **Colby called Mr. Cox but Mr. Cox is out until 2000Oct30.** **Terrill Laughton attended on behalf of Mr. Cox**
57	**Date: 2002Oct29** **Status: Complete**	Priority 1 -	**Dennis** **Vick** **Colby**	Remove all references to 3.1 2002oct29 Dennis - Closed Verified by working group in Standard Draft Rev 6. 2002apr24 Dennis Vick and Colby will determine the changes necessary and bring these to the committee for approval. Revised wording presented to Working Group. One negative comment resolved by personal review of ANS-3.1; Motion passed to accept wording (see 14.11 2002apr22 minutes) 2002apr23 Dennis Get Copy of 3.1 for review. 2001Apr05 Dennis Deferred for later discussion.

Apr

58	**Date: 2002apr24** **Status: Complete**	Priority 1	**Dennis**	Send Robert Boire a note of thanks for his participation 2002apr24 Dennis Closed Letter reviewed by members. 2002apr23 Dennis Letter sent. Get copy of letter for members review. 2001Apr05 Dennis Letterhead not available. Florence will contact Shawn at ANS and request letterhead.
59	**Date: 2002apr23** **Status: Complete**	Priority 1	**Florence McCullough**	Develop a list of Action Items for 3.5-WG resulting from the 2000Oct26 USUG Ops Test Directors Meeting at DC Cook 2002apr23 Closed Closed – Items were reviewed by WG in the Oct 2000 meeting and they were incorporated into the Working Groups public comment to the NRC's proposed rule change. 2001Apr05 Florence Deferred until Florence communicates with McCullough
61	**Date: 2001apr03** **Status: Complete**	2000oct26	Welchel Dennis	Write letter to NRC concerning the WG comments on the proposed rule change 2001apr03 Welchel – Letter Written and mailed to NRC stating the three issues regarding the proposed rule change.

62	**Date: 2001Aug09** **Status: Complete**		Koutouzis	Send Meeting Materials to Absent members;
63	**Date: 2001Aug09** **Status: Complete**		Dennis	Address the problem of other standards placing requirements on the ANS 3.5 Standard without our knowledge. (NFSC Sub-Committee I);
64	**Date: 2001Aug09** **Status: Complete**		Florence Dennis	Florence to prepare W. DeLuca letter for T. Dennis signature;
65	**Date: 2001apr03** **Status: Complete**		Welchel	NUPPSCO comment to Kevin Cox (Complete)
66	**Date: 2001Aug09** **Status: Complete**		Havens	Scan NRC Form 398 and Email to WG members

Approved Mi

67	**Date: 2001Aug09** **Status: Complete**		Dennis	Contact Shawn concerning Clarification Statement 2001jul11 Ms. Shawn M. Coyne-Nalbach NFSC Secretary American Nuclear Society 555 North Kensington Avenue La Grange Park, IL 60526-5592 Dear Ms. Coyne-Nalbach: Subject: Request for Clarification Reference: ANSI/ANS-3.5-1998 Standard Document, Section 4.4.3.2 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: 1. What is the intent of scenario-based testing? Does scenario-based testing impose additional training program requirements? ANS-3.5 Working Group answer: Scenario Based Testing is intended to best utilize, to the

68	**Date: 2003Mar11** **Status: Complete** **Date: 2002oct30** **Status: Re-Opened** **Closed** **2002apr24**	Priority 1	**Colby** **Shelly** **Felker**	Survey #2 Multi-Unit Different OPS Procedures Fuel Cycles Time Delay loading Sim Fuel load Unit Procedure Differences and Training **2003Mar11** **Colby** **Presented list of survey results.** **Motion:** **Delete Malfunction List Table in Section 3.1.4 and move to Appendix A** **2003Mar10** **Colby** **Presented list of survey results.** **This item was originally discussed in AI-83.** **2002oct30** **Reopened to consider additional Survey data.** **Consider AI-83 - Malfunctions List and Survey Results** 2002apr24 Colby Recommend Closing due to information will be handled by future Action Items. 2002apr23 Colby Nothing here that would be changed in the 2003 standard. 2001AUG7 All survey's have not been received, so the final results of the survey will be discussed at our next meeting in March.

69	**Status: Complete 2002apr24**		**Vick**	Check out and report information on SECY-01-0125 2002apr24 Vick Simulator rule is in effect Nov 16,2001 and SECY reference is now background info only.
70	**Date: 2002oct29** **Status: Complete**		**Florence**	Come up with a set of rules for use and what will go on the web site. **2002oct29** Florence Closed WEB Site Changes: • Only latest minutes will be posted • Contact Keith Welchel to request previous minutes • ANS 3.5 WEB will not be password protected • Remove membership contact info accessible by general public 2002apr24 Florence Handout presented to members for review. AI-70 will be closed when the ANS 3.5 WEB site is password protected. Password protect the ANS 3.5 WEB site and post amended ANS 3.5 WEB page use policy.
71	**Date: 2002apr24** **Status: Complete**		**Dennis**	Vary if ANS normally provide the minutes of group meetings 2002apr24 Dennis Provided by request by ANS.

72	**Date: 2001Nov27** **Status: Complete**		**Shelly**	Check if we can add an appendix and still reaffirm **2001Nov27** **Shelly** I contacted Suriya with this question, and her response was that a standard can be reaffirmed if the appendix/annex will be informative. If the additional appendix is informative, then you should supply a statement in the foreword regarding this informative piece. The statement in the foreword is NOT required but highly recommended. The standards cannot be reaffirmed if the additional appendix will be normative. In this case the standard will have to be considered under the revision process through ANSI. According to Webster's, NORMATIVE means "of, relating or conforming to, or prescribing norms". Based on this, we could add an appendix to the standard and still reaffirm the current standard, but we must ensure the appendix contains clarifying information and doesn't prescribe any new requirements or parameter limits. I consider this action closed unless someone knows of a need for further research on this issue.
73	**Status: Complete** **2002apr24**		**Dennis**	Send the clarification letter to ANS on the Scenario Based Testing 2002apr24 Dennis Published in the Nuclear Standards News, Vol. 33/No. 2 March-April 2002

74	**Status: Complete 2002apr24**		**Dennis**	Contact ANS Standards Administer to determine if we can refer to documents other than ANS Standards 2002apr24 Dennis
75	**Status: Complete 2002apr24**		**Jim Florence**	Contact the industry 2002apr24 Florence does not know what this is about. Recommend to close.
76	**Status: Complete 2002apr24**		**Butch & Hal**	To research Germany regulatory standards and navy standards 2002apr24 Colby Most International simulator customers refer to ANS 3.5 in their purchase spec
77	**Status: Complete 2002apr22 Dennis**		**Dennis**	Determine if the ANS 3.5 Working Group name will change due to the ANS 3 to ANS-21 name change. Closed 2002apr22 Dennis contacted Suriya Ahmad at ANS headquarters and no change is planned for ANS 3.5.

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78	**Status: Complete** **2002apr24**		**Keith** **Welchel**	AI16 - Prepare a document for review by ANS members that shows the result of substituting Difference for Deviation/Discrepancy. 2002apr24 Colby Prepared summary of all Deviation/Discrepancy and Difference replacements and reviewed with members.
79	**Date: 2002oct30** **Status: Complete**		**Vick** **Cox** **Kozak**	Bring to the committee recommendation for implementing Roberts Rules or Order. (i.e. Revisiting Motions Not-carried) **2002Oct30** **Cox** **Consensus that Robert's Rules of Order will used a general guide**
80	**Status** **2004nov08** **Complete**		**Florence**	2008 Copy and Paste RG 1.149 Rev 3 Section 1.5 into the 2008 Standard. (Software V&V) **2004nov8** **Florence** Item discussed and concluded no change to the standard should occur. This item was closed. **2004aug25** **Florence** **Reactivated and will be considered at this meeting.**

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81	**Date: 2002Oct29** **Status: Complete**		**Dennis**	Get copy of ANS 3.1 for members review. **2002oct29** **ANS 3.1 is no longer referenced in ANS 3.5; No need for ANS 3.1.** **2002Apr24 Closed** **Dennis** **Copy of ANS-3.1 obtained from ANS Standards Secretary.** **Copy given to requesting Working Group member for review.**
82	**Status: Complete** **2002apr24**		**Dennis**	Get copy of Letter of thanks to Robert Boire for members review 2002apr24 Dennis Members reviewed letter
83	**Date: 2002oct30** **Status: Complete**		**Colby**	Compare 3.1.4 Malfunction List with 10 CFR Part 55.59 **2002oct30** **Colby** **Reviewed items that are in 10CFR55.59 but are not in the Standard. This item was discussed before.** **This item may be discussed in AI-68.** 2002oct29 Colby Reviewed 10CFR55.59 List (See Appendix AI-83)

APPROVED

84	**Date: 2002oct29** **Status: Complete**		**Florence**	Review 4.4.3.1 for clarity concerning SBT and to remove Certification reference **2002oct29** **Florence** Complete Refer to AI-40 AI-84 was completed at Jackson meeting via AI-40. Cannot find reference in past minutes why this AI was created. AI-84 has been completed and is thus Closed.
85	**Date: 2002Oct28** **Status: Complete**		**Welchel**	Create another Bucket to place 2008 deferred AI's **2002Oct28 Closed** **Welchel** **New Section and Table to Hold Deferred Action Items**
86	**Date: 2002oct29** **Status: Complete**		**Colby** **Florence**	Create Frank Collins Plaque for review membership 2002oct29 Colby Colby create a plaque for the group to consider. Plaque is mahogany base with Brass ANS Logo and wording.
87	**Date: 2002oct29** **Status: Complete**		**Colby**	Review MANTG Simulator Historical base-line data 2002oct29 Colby Closed – Reference Section 5.1 "Current Simulator"

Approved

88	**Date: 2003Mar10** **Status: Complete**		**Cox**	Review simulator Fidelity. Standard does not define Software Fidelity, only HW Fidelity **2003Mar10** **Vick** **New AI - Recommends having Document Edited by a Technical Editor** **Complete – No need to define SW fidelity.** 2002oct30 Cox Cox and Vick will recommend new definition.
89	**Date: 2002oct29** **Status: Complete**		**Shelly** **Vick**	Review 4.4.3.1 "once per year on a calendar basis language" **2002oct29** **Shelly** **Defeated on Motion**

Approved

90	**Date: 2003Mar12** **Status: Complete**		**Florence** **Colby** **Cox** **Chang**	Review all Section for alignment specifically Sections 3.4 and 4.4 and report and recommend new Section alignments **2003Mar12** **Colby** **Report to committee complete** **AI-Closed** **Refer to AI-102** **2003Mar11** **Colby** **Motion: Defer AI-90 to 2008 Standard** **Motion withdrawn pending further discussions** 2002oct30 Colby Action deferred to next meeting. See AI-90 meeting minutes 2002oct30.
91	**Date: 2003** **Status: Complete**		**Dennis**	Call Mike Wright and get a determination on standards organizational alignment and possible standards name change **2003Mar11** **Dennis** **Refer to AI-77** **No further change from NFSC Nov 2002 meeting** 2002oct28 Dennis

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92	**Date: 2003Mar11** **Status: Complete**		**Florence** **Colby** **Kozak**	Improve Definition of Simulation facility to include Part-task and limited scope. (coordinate with Scope State) **2003Mar11** **Colby** **Motion:** **Revise Scope Statement**
93	**Date: 2003Mar10** **Status: Complete**		**Shelly**	Appendix and Standard Dates referencing Are Appendices required to reference the standard's published date. **2003mar10** **Shelly** **Contacted Suriya Ahmad of ANS.** **Response: The appendix reference to the standard's published date is part of the ANSI's format when publishing a standard. Therefore, it cannot be removed.**
94	**Date: 2003Mar10** **Status: Complete**		**Colby**	Align Appendix Header dates to Appropriate Published Standard Date **2003Mar11** **Colby:** **Presented New Appendix Wording**

Approved

95	**Date: 2003Mar11** **Status: Complete**		**Felker** **Florence** **Kozak**	Section 4.4.3.2 New 4.4.3.2 wording and/or integrate 4.4.3.2 **2003Mar11** **McCullough** **Motion to add procedural in Section 4.4.3.2 and Appendix E.** **Modify Paragraph Numbered Item (2) Section 4.4.3.2** (2) the simulator is capable of producing the expected reference unit response without procedural exception, significant performance discrepancies, or deviation from an approved scenario sequence; **Modify paragraph after "Scenario Lesson Plan Title:" in Appendix E** This test verifies that the simulator may be used to satisfy predetermined learning or examination objectives without procedural exception, significant performance discrepancies or deviation from the approved scenario sequence, including the appropriate instructor interfaces, operator actions, and operator cues.
96	**Date: 2002Oct30** **Status: Complete**		**Kozak** **Chang**	Locate a copy of INPO document concerning pre-running Scenarios and determine what validation is required. **2002Oct30** **ACAD 90-022 – "Guidelines for Simulator Training"** **The document uses the word "should" to validate scenarios before use in operator training.** **This document is only a guide.**

97	**Date: 2003Jul24** **Status: Complete**		**Dennis**	Determine reference usage within ANS Standards. Can the 3.5 Standard reference an INPO document? **2003Jul24** **Dennis presented minutes from NFSC meeting. It was noted that INPO documents are generally available to the public at large and should be avoided. But, may be used if required.** 2003Mar11 Dennis Researching using documents not available to general public.
99	**Status:** **Complete** **2003Oct28**		**Vick Koutouzis**	Vick and Koutouzis will have Standard reviewed by Technical Editors for consistency 2003Oct28 Complete Technical Review completed and present to working group. 2003Mar10 Initial Action Item.

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100	**2003Jul24** **Status: Complete**		**<u>PWR</u>** **McCullough - Lead** **Neis** **Chang** **Kozak** **Welchel** **<u>BWR</u>** **Havens - Lead** **Felker** **Florence** **Panfil** **Tarselli** **Vick - Coordinator**	Create two subcommittee's (PWR and BWR) that will investigate Core Performance testing inclusion into the Standard. • Review Section 3.1.3 "Normal Evolutions" Item 9 ANS 3.5 1998 with regard to Core Performance testing for PWR and BWR types. • Should Core Performance be in Section 3.1.3 Is Unit Performance Testing the correct term or did the committee mean Core Performance Testing. **2003Jul24** **Closed** **Accept changes to sections: 3.1.5, 4.1.5, 4.4.3.1, 5.3.2** 2003Mar10 Initial Action Item.
101	**2003Jul24** **Status: Complete**		**Neis** **Felker** **Kozak**	Review 3.2.1.4 for language clarification **2003Jul24** **Neis** **Proposed new Wording** **Passed by Amended Motion** 2003Mar10 Initial Action Item.

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102	**Status:** **2003Oct30** **Complete**		**Colby** **Paris** **Dennis** **Koutouzis** **Shelly** **Cox** **Vick -** **Coordinator**	Review Sections 3, 4, 5 and 6 for alignment and consistency and possible merge. **2003Jul21** **Colby** **Distributed comparison and groups were formed to review and report next meeting** Inform Tim Cassidy that Sections are under review. Options: • This Standard • Next Standard Formatting • Keep the Sections separate but aligned • Merge the Sections **2003Mar10** **Initial Action Item.**
103	**Status:** **2003Oct28** **Complete**		**Colby**	Will create two Revised Standards Versions Version 1 1998 versus 2003 No History Version 2 1998 versus 2003 with Revision History **2003Oct28** **WG is not sure what the reason for this AI. The WG recommend closing this AI. Colby can deliver this information at a later time.** 2003Mar10 Initial Action Item.

104	**Status:** **2003Oct28** **Complete**		**Vick**	Review the parliamentarian procedure for motion approval (75% Consensus Rule of the Chair) Rule of the Chair: Interim Voting (Motions) shall be by Consensus Action: Vick will review and advise at future meetings **2003Oct28** **Rule of the Chair is 75% for consensus motions. 75% for consensus is from ANS.** 2003Jul24 Initial Action Item
105	**Status:** **2003Oct28** **Complete**		**Shelly** **Neis** **Koutouzis**	Incorporate technical writing editor modifications for committee review Refer to Colby AI-102 handout (Comment 1 and 2) concerning technical editor review and suggested changes **2003Oct28** **Complete** **Delivered to WG via Email. AI-106 will continue Tech Editing Review.** **2003Jul24** **Initial Action Item**

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No.	Status	Date	Assigned To:	Work Assignment
106	**Status:** **Closed** **2004Apr05**		**Shelly-Lead** **Committee**	Working Group will review tech Editing markup Marked up version was distributed to committee members Comments to Shelly by 2003Sep01 **2004Apr05** **Shelly presentation** **Closed per Section 5.3 of the ANSI Style Manual (8th edition, version 1.0, 1991) addresses the use of notes within a standard.** 2003Oct31 Determine use of the term "NOTE" in the standard. 2003Jul24 Initial Action Item
107	**Status:** **2003Oct27** **Complete**		**Wyatt-Lead** **Neis** **Vick** **Koutouzis** **Havens** **Florence**	Determine what may be acceptable performance test documentation and evaluation test results documentation to take credit for a scenario-based test. Provide a white paper to the Working group for discussion at the next meeting. **2003Oct27** 2003Jul24 Initial Action Item

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108	**Status:** **2003Oct30** **Complete**		**Felker** **Vick**	Review Section Comparison Section 3.0 Section 3.1 Section 3.1.1 Section 3.1.2 Format of change: • Reline changes (Track Changes) • Add "why change is made" comment for each change • Email changes to Florence for consolidation by 2003Oct01 Be prepared to present to WG at next meeting **2003Oct30** 2003Jul24 Initial Action Item
109	**Status:** **2003Oct28** **Complete**		**Havens** **McCullough**	Review Section Comparison Section 3.1.3 Section 3.1.4 **2003Oct28** **Amended Sections:** 2003Jul24 Initial Action Item

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110	**Status:** **2003Oct28** **Complete**		**Welchel** **Paris/Noe**	Review Section Comparison Section 3.2 **2003Oct28** **Amended Sections:** **3.2.1.1 – 4.2.1.1** **3.2.1.2 – 4.2.1.2** **3.2.1.3 – 4.2.1.3** **3.2.1.4 – 4.2.1.4** 2003Jul24 Initial Action Item
111	**Status:** **2003Oct30** **Complete**		**Neis** **Kozak**	Review Section Comparison Section 3.3 **2003Oct30** 2003Jul24 Initial Action Item
112	**Status:** **2003Oct30** **Complete**		**Florence** **Tarselli** **Chang**	Review Section Comparison Section 3.4 **2003Oct30** 2003Jul24 Initial Action Item

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No.	Status	Date	Assigned To:	Work Assignment
113	**Status: Closed** **2004Apr07**		**Havens** **McCullough** **Tarselli** **Kozak**	Appendix B Revision to Appendix B will address requirements as a result of AI-100 Update Appendix B with Core Performance as a result of adding Core Performance Testing in the Standard **2004Apr07** **Closed with no Action. WG could not come to a consensus on the placement and word for adding additional CPT requirements and testing criteria into the standard.** 2003Oct31 Havens presented a revised Appendix B. Havens will review and make another recommendation at the next meeting. 2003Jul24 Initial Action Item
114	**Status:** **2004Apr08** **Complete**		**Felker** **Florence** **Neis**	SBT Resolution Felker will review section 4.4.3 and recommend a resolution to the SBT and checklist problem. **2004Apr08** **Completed SBT with various changes** **2003Oct28**

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115	**Status:** **2003Oct30** **Complete**		**McCullough**	Find a another home the existing wording of Section 3.4 Create Data Collection Section **2003Oct30** **Removed all wording Section 3.4 and added new Section 3.3.5 and 4.3.5 Data Collection** **AI-115 and AI-115 were considered at the same time and Accepted by Motion** **2003Oct29** **Initial AI**
116	**Status:** **2003Oct30** **Complete**		**Koutouzis Florence**	Develop the requirements, Section 3.4 for Section 4.4 that better defines the requirements for V&V **2003Oct30** **2003Oct30** **New wording for Section 3.4** **AI-116 and AI-115 were considered at the same time and Accepted by Motion** **2003Oct29** **Initial AI**
117	**Status:** **2004Apr08** **Complete**		**Havens**	Review and evaluate references to Section 3.1.3 to determine if the correct linkage is still maintained **2004Apr08** **Changes to 3.2.2.1, 3.2.2.2, 4.2.2.1, 4.2.2.2, 4.1.3.2 to reference 3.1.3.2 instead of 3.1.3** 2003Oct30 Initial AI

No.	Status	Date	Assigned To:	Work Assignment
118	**Status:** **2004Apr08** **Complete**		**Colby**	Examine Stimulated Hardware references to determine modification to Stimulated Components **2003Apr08** **Review presented by Colby and no Action required** 2003Oct30 Initial AI
119	**Status:** **2004Apr08** **Complete**		**Kozak**	Investigate the impact of removing "or initial condition" in paragraph one of Section 3.1.3 **2004Apr08** **Review and presentation by Kozak** **Recommendation to Do Nothing** **WG agreed to Close** 2003Oct30 Initial AI
121	**Status:** **2004aug23** **Complete**		**Florence**	During review of AI-106, three technical edits were considered "more than just technical edits" and were not adopted. Florence will champion the three issues: Affected sections: • Section 4.2.2.2 • Section 5.3.1.2 • Section 4.1.2.3 **2004aug23** **Several motions were considered.** 2003Apr05 Initial AI

No.	Status	Date	Assigned To:	Work Assignment
122	**Status:** **2004aug26** **Complete**		**Vick**	Simulator Performance testing Item Experience **2004aug26** **Presentation to WG** 2003Apr05 Initial AI
123	**Status:** **2004aug24** **Closed**		**Felker**	Consideration of Change of Section 1.2 first two sentences **2004aug24** **Felker will send a note to Peer stating WG will take no action.** 2003Apr05 Initial AI
124	**Status:** **Complete** **2004nov11**		**Florence** **Tarselli** **Welchel**	Evaluate plant transient and for simulator performance (Post Event Data) Consider Reference unit post event guidance to evaluate simulator performance **2004nov11** **The WG added Post Event Simulator testing Sections 3.4.3.4 and 4.4.3.4** 2004aug24 Florence will lead development of additional language for "Post Event Processing". 2003Apr05 Initial AI

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No.	Status	Date	Assigned To:	Work Assignment
125	**Status:** **2004aug24** **Closed**		**Florence**	Consider placing 4.1.4 performance criteria into Appendix B1.2 **2004aug24** **Closed** **This AI was discussed and no final resolution. Florence agreed to close AI-125 with further action** 2003Apr05 Initial AI
127	**Status:** **2004aug25** **Completed by Motion**		**Neis** **Havens** **Chang**	Divorce Core Performance Testing from Operability Testing **2004aug25** **Havens presented several changes to Sections 3 and 4. Two new sections were added 3.4.3.3 and 4.4.3.3** 2003Apr05 Initial AI
128	**Status:** **Complete** **2004nov11**		**Shelly**	Single column Version of Standard ready for final reading **2004nov11** **Complete and used for final reading** 2003Apr05 Initial AI
129	**Status:** **2004aug24** **Complete**		**Colby**	Resolve that Appendix D is no longer referenced in standard **2004aug24** **Move Appendix D Footnote reference from Section 1.2 to Section 1.1** 2003Apr05 Initial AI

130	**Status:** **2004aug26** **Closed**		**Florence**	Impact to 3.4.3.2 and 4.4.3.2 resulting from Kennett Square AI-115 and AI-116 **2004aug26** **Neis, Florence** **Closed to AI-133** 2004aug23 Initial AI
131	**Status:** **2004aug26** **Complete**		**Havens**	Review 2003oct27 minutes concerning Continuation of the discussion Section 3.1.3 and 3.1.4 Comparison **2004aug26** **Havens** **Closed- No error in minutes found after review** 2003augxx Initial AI

Approved

No.	Status	Date	Assigned To:	Work Assignment
133	**Status:** **2004nov08** **Complete**		**Neis** **Havens** **Felker-** **Presenter**	Review 3.4.3.2 and 4.4.3.2 for redundancy and consolidation **2004nov8** **Hudnut** **Reviewed proposed wording changes. Intent change determined. Closed without further action.** **2004aug27** **Review Section 4.4.3.2** **2004aug27** **Section 3.4.3.2 was modified by Motion** **2004aug26** **Initial AI**
138	**2004nov10** **Completed**		**Colby**	Revision Tracking • Kennett Square (2003oct27) – Rev 14b • DS&S (2004apr05) – Rev 16b • Post DS&S – rev 15 (Rev 14 Tech Editing) • Ginna (2004aug23) – Rev 17 **2004nov10** **Reviewed draft standard rev 19** 2004aug27 Initial AI

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No.	Status	Date	Assigned To:	Work Assignment
139	**Status:** **Complete** **2004nov11**		**All Members**	Members to review their action items to ensure correct incorporation into the standard **2004Nov11** **Complete** 2004aug27 Initial AI
140	**2004nov10** **Complete**		**Havens**	Review Section 4.1.3.2 needs tech editing consideration due to Kennett Square modification **2004nov10** **Replaced Item (4) in Section 4.1.2.3** 2004nov8 Presented potential change to standard 2004aug27 Initial AI
142	**Status: Completed** **9 Sep 2006**		**Dennis**	PINS Comment Review 09sep2006; E-mail correspondence from Pat Schroeder to Tim Dennis, Subj: ANS-3.5 Okay to Proceed w/SC Ballot
143	**Completed:** 2006sep13	Opened 2006May01	**Dennis**	Add new Action Item: PINS Comment Review
144	**Completed:** 2006sep20	Opened 2006May01	**Chang**	Incorporate SI units in the standard as appropriate
145	**Completed:** 2006may12	Opened 2006May1	**Felker**	Setup Webex demonstration for possible future meetings
146	**Completed:** 2007may03	2007apr30	**Welchel**	Summarize the E-Vote (Complete)
148	**Completed:**	2007may01	**Hendricsen**	Core Performance Testing Frequency

149	**Completed:**	2007may01	**Florence**	Ensure ANSI is aware Appendix Title is listed in Table of Contents
151	**Completed:**	2007may02	**Dennis**	Obtain Calvert Cliffs Clarification Approval from ANS-21
152	**Completed:**	2007may03	**Dennis**	Send ANS-21 comment resolution letters to ANS-21 commenters
153	**Completed:**	2007may03	**Dennis**	NFSC List needs to be added to Forward
154	**Completed:**	2007may03	**Colby**	Review contributing members list
155	**Completed:**	2007may03	**Florence**	Develop E-meeting procedure
156	**Completed:**	2007may03	**Tarselli**	Research possible use of Webex
157	**Completed:**	2007may03	**Chang**	Research possible use of BLOGs
158	**Completed:**	2008oct20	**Florence**	Florence will draft and mail letters to former members Cox, Paris and Neis thanking them for their contributions.
159	**Completed**	2008oct26	**Florence**	ANS 3.5 Draft Standard membership and non-member contributors list
160	**Completed**	2008oct26	**Florence**	Update sections 4.1.3.1.3, B2.1 specifying "Reactor Narrow Range Pressure" and "Reactor Wide Range Pressure"
161	**Completed**	2008oct26	**Colby**	Update Sections 4.4.1 and 4.4.2 Changes
164	**Completed**	2008oct26	**Tarselli**	NFSC Response - Bell
165	**Completed**	2008oct26	**Felker**	NFSC Response - Wehrenberg
166	**Completed**	2008oct26	**Florence**	NFSC Response - Hill
167	**Completed**	2008oct26	**Florence**	NFSC Response - Englehart
168	**Completed**	2008oct26	**Felker**	NFSC Response - Shepherd
169	**Completed**	2008oct26	**Vick**	NFSC Response - Kadambi
170	**Completed**	2008oct26	**Felker**	*NFSC Ballot - Wright
171	**Completed**	2008oct26	**Colby**	*NFSC Ballot - Prillaman
172	**Completed**	2008oct26	**Dennis**	*NFSC Ballot - Reuland
173	**Completed**	2008oct26	**Felker**	*NFSC Ballot - Lloyd
174	**Completed**	2008oct26	**Colby**	*NFSC Ballot - Eggett
175	**Completed**	2008oct30	**Dennis/Welchel**	Package all NFSC Response and send to ANS

Approved