

ANS 3.5 Working Group Approved Meeting Minutes
Frederick, MD

ANS 3.5 Working Group Meeting Minutes
DS&S – Frederick, MD
2004 Apr 05-08

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1 Next Meeting

Location: Ginna Nuclear Power Plant

Airport: Rochester International

Date: August 23-27, 2004

- Monday 1:00pm-5:00pm
- Tuesday 8:00am-5:00pm
- Wednesday 8:00am-5:00pm
- Thursday 8:00am-5:00pm
- Friday 8:00am-12:00pm

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2 **Motions**

Shelly AI-106 2004Apr05 Accept technical editing revisions of the Standard Rev 13 base document as reviewed.	Motion: Carried <ul style="list-style-type: none">• 11 – For• 1 – Against• 0 – Abstained
Havens AI-117 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	Motion: Carried <ul style="list-style-type: none">• 10 – For• 1 – Against• 1 – Abstained
Felker AI-114 2004Apr08 SBT	Motion: Carried <ul style="list-style-type: none">• 9 – For• 2 – Against• 0 – Abstained

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3 Action Item Activity

120	Formalize a process for the industry to request a clarification and distribute through USUG.	Dennis
121	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: <ul style="list-style-type: none"> • Section 4.2.2.2 • Section 5.3.1.2 • Section 4.1.2.3 	Florence
122	Simulator Performance testing Item Experience	Vick
123	Consideration of Change of Section 1.2 first two sentences	Felker
124	Evaluate plant transient and for simulator performance (Post Event Data) Consider Reference unit post event guidance to evaluate simulator performance	Florence
125	Consider placing 4.1.4 performance criteria into Appendix B1.2	Florence
126	Consider adding Performance Test Program in next standard	Vick Shelly – BWR Kozak – PWR Golightly - BWR
127	Divorce Core Performance Testing from Operability Testing	Neis Havens Chang
128	Single column Version of Standard ready for final reading	Shelly
129	Resolve that Appendix D is no longer referenced in standard	Colby

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4 **Visitors**

Visitor	Date	Affiliation	Email, Phone Fax
Frank Tarselli	2004Apr05-08	PO Box 467 Berwick, PA 18603	Email: fatarselli@pplweb.com Phone: 570.542.3551 Fax: 570.542.3855
Carl Golightly	2004Apr05-08	Energy NW PO Box 968, MD1034 Richland, WA 99352	Email: cegolightly@energy-northwest.com Phone: 509.377.8268 Fax:
Don Noe	2004Apr05-07	Suite E 107 Industrial Dr St. Mary's, GA 31558	Email: donnoe@eagnet.com Phone: 912-576-6730 Fax: 912-576-6734
Dave Trimble	2004Apr06	NRC NRR Section Chief for Operator Licensing 06-F2 Washington, DC 20555	Email: dct@nrc.gov Phone: 301-415-2942 Fax:301-415-2222

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5 Roll Call

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: jbfllore@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	CAE Inc. 8585 Cote-de-Liesse P.O. Box 1800 Saint-Laurent Quebec, Canada H4L 4X4		Email: butchcolby@cs.com Email: butch.colby@cae.com Phone: (410) 381-3557 Fax: (410) 381-2017
Present	William M. (Mike) Shelly Style Editor	Entergy Services, Inc. 1340 Echelon Parkway Jackson, MS 39213-8298		Email: wshelly@entergy.com Phone: 601-368-5861 Fax: 601-368-5799
Present	Larry Vick Parliamentarian	US NRC, Office of Nuclear Reactor Regulation 09-D24 Washington, DC 20555		Email: Lxv@nrc.gov Phone: 301-415-3181 Fax: 301-415-2222
Absent(1)	George McCullough	American Electric Power One Cook Place Bridgman, MI 49106	No Proxy	Email: gsmccullough@aep.com Phone: 269-466-3343 Fax: 269-466-3388 Cell: 269-449-5481
Absent (1)	Hal Paris	GSE Systems 8930 Stanford Blvd. Columbia, MD. 21004	Don Noe	Email: hal.paris@gses.com Phone: 410-772-3559 Fax: 410-772-3595
Present	Robert Felker	DS&S 7340 Executive Way, Suite A Frederick, MD 21704		Email: exibob@aol.com Phone: 301-644-2520 Fax: 301-682-8104
Present	Allan A. Kozak	Dominion Generation North Anna power Station P. O. Box 402 Mineral, VA 23117-0402		Email: allan_kozak@dom.com Phone: 540-894-2400 Fax:540-894-2441
Present	Dennis Koutouzis	INPO 700 Galleria Parkway, NW Atlanta, GA 30339-5957		Email: koutouzisd@inpo.org Phone: 770-644-8838 Fax: 770-644-8120

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Present	Oliver Havens, Jr	PSEG Power Hope Creek Generating Station, NTC 244 Chestnut St. Salem, NJ 08079		Email: Oliver.Havens@pseg.com Phone: 856-339-3797 Fax: 856-339-3997
Absent	Kevin Cox	Exelon Generation Dresden Nuclear Power Station 6500 North Dresden Rd. Morris, IL 60450	No Proxy	Email: kevin.cox@exeloncorp.com Phone: 815-942-2920 x-2109 Fax: 815-941-7121
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
Present	Jane Neis	R.E. Ginna Nuclear Power Plant Training Center 1517 Lake Rd Ontario, NY 14519		Email: jane.neis@reginna.com Phone: (585) 771-5216 Fax: (585) 771-5379
NA	Cara Ford	Standards Administrator American Nuclear Society 555 North Kensington avenue La Grange Park, IL 60526-5592		Email: Phone: 708-579-8269 Fax: 708 352 6464

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6 **Action Item List**

6.1 Action Item Quick-look Table

	Open	Complete	Carried to 2008						
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	

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6.2 Action Items

No.	Status	Date	Assigned To:	Work Assignment
1	<p>Dennis contacted Mike Wright. No Input from Mike. The Scope change should be approved soon.</p> <p>2001Apr05 Scope statement will be revised based on SubCommittee-1 comments that ANS 3.1 is not Training Criteria</p>	<p>Priority 1 – PINS form will be completed by next meeting (15min)</p>	<p>Dennis</p>	<p>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?</p> <p>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</p> <p>2000mar09 Chandler Comments (NUPPSCO) relating to DOE simulators. We need to resolve Open NUPPSCO comments from the 1998 standards approval process.</p>

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8		Priority 1 – PINS form will be completed by next meeting (15min)	Dennis	<p>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.</p> <p>2002Oct29 PINs form completed and ready to send to ANS.</p> <p>2001Apr05 Contacted Sub-Committee-1 and Dennis needs to complete PINS forms;</p>
120			Dennis	<p>Formalize a process for the industry to request a clarification and distribute through USUG</p> <p>2003Apr05 Initial AI</p>
121			Florence	<p>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:</p> <ul style="list-style-type: none"> • Section 4.2.2.2 • Section 5.3.1.2 • Section 4.1.2.3 <p>2003Apr05 Initial AI</p>
122			Vick	<p>Simulator Performance testing Item Experience</p> <p>2003Apr05 Initial AI</p>
123			Felker	<p>Consideration of Change of Section 1.2 first two sentences</p> <p>2003Apr05 Initial AI</p>

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124			Florence	Evaluate plant transient and for simulator performance (Post Event Data) Consider Reference unit post event guidance to evaluate simulator performance 2003Apr05 Initial AI
125			Florence	Consider placing 4.1.4 performance criteria into Appendix B1.2 2003Apr05 Initial AI
126			Vick Shelly – BWR Kozak – PWR Golightly - BWR	Consider adding Performance Test Program in next standard 2003Apr05 Initial AI
127			Neis Havens Chang	Divorce Core Performance Testing from Operability Testing 2003Apr05 Initial AI
128			Shelly	Single column Version of Standard ready for final reading 2003Apr05 Initial AI
129			Colby	Resolve that Appendix D is no longer referenced in standard 2003Apr05 Initial AI

7 **Working Group Procedural Rules**

7.1 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 not have voting privileges;
- Members attend the full length of the meeting;
- Word 7.0 will be the document format;
- The Host will collect and send all handout material for absent members without proxy;
- Robert's Rules of Order will be used as a general guide;
- Guest Individual Contributors may receive working copy of the draft standard based on need;
- Chair approval required for distribution of working copies of the draft standard;
- Members cannot Vote against their own non-amended Motion;

7.2 Rules Enacted by the Working Group

Missing two consecutive meetings in a row with out representation could result in loss of membership on the committee.

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8 **Monday 2004Apr05 (Day 1 8:30AM)**

8.1 Introduction to DS&S (Felker)

Introduction and Welcome2

8.2 Opening Comments (Dennis):

- Called Meeting to order
 - In general, standards taking on more importance in the industry
 - New emphasis on maintenance and performance based
 - More performance based standards versus specifications
- Welcomed Visitors

8.3 Roll Call

Absent Members (1):

George McCullough (1)

Hal Paris (Proxy: Don Noe)

Kevin Cox (Proxy: Mike Wyatt)

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8.4 Day 1 Consensus Level

12 Voting members

9 members for consensus (75% Rule of the Chair)

8.5 Review of Meeting minutes Dated 2003Oct27

- 2003Oct27 Minutes were sent to member prior to this meeting. Welchel will incorporate any last minute modifications and recommends that acceptance of minutes dated 2003Oct27 be moved to this Wednesday April 07.

8.6 Officers:

Officer Reports:

- Dennis
 - MANTG meeting in Dec, 2003
 - Susquehanna MANTG meeting
 -
- Florence:
 - NEI will meet with the NRC on April 7 to discuss SBT.
Scott Halverson will represent Utility issues with respect to SBT
 - USUG meeting
 - IP Inspection discussions
 - Region activities
 - Larger International region
 - New regions
 - Region 5 - Canada
 - Region 6 – United Kingdom and Western Europe
 - Region 7 - World
- Welchel:
 - Nothing to report
- Shelly:

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- A-106 – Use of notes
- Tech edit for standards Rev 13.
- Three Entergy Units have completed IP 71111.11 standards. No issues.
- Entergy involved in 5050 DOE advanced reactor design. Approved design by 2008 and start construction by 2010. Combined operational license with Entergy, Exelon, Constellation, Southern Company, GE, Westinghouse and DOE.
- Major work completed. Remaining items considered tuning.
- Vick:
 - Parliamentary procedures working well
- Colby:
 - New Standards Revision 14
 - Regions 5 Meeting sometime this year. Requesting ANS members attend
 -

8.7 Review of Mission Statement: (Dennis)

Action Item Screening Criteria:

Committee agreed to use the screening criteria for considering standard language changes.

If the action facilitates clarification of the existing document

AND

If Clarification results in minimal impact to the 1998 standard

AND

If work is doable by December 31, 2004

THEN

ACCEPT Action Item for 2004

ELSE

TABLE Item until 2009

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8.8 Dates completing standards work this year to meet NSFC meeting dates:

Need approximately 75 days before NSFC meeting in order to complete balloting and voting by NSFC members.

NSFC meetings and dates WG needs to meet in order to meet NSFC meeting dates.

June 2004 – Standard submitted by April 15 to Standards Office

Oct 2004 – Standard submitted by July 15 to Standards Office

8.9 AI-106 – (Shelly) Using Notes in the Standard for Internal use

Subject: Action Item 106

During the Kennett Square Meeting (Oct 2003) action item 106 was assigned to me. The action was to “determine the use of the term NOTE in the standard”.

Response:

Section 5.3 of the ANSI Style Manual (8th edition, version 1.0, 1991) addresses the use of notes within a standard.

5.3 Notes

5.3.1 General

Explanatory statements may be used in the text for emphasis or for offering informative suggestions. Such statements shall be set apart from the text and shall be designated as notes.

A note in the text or following a table or figure is an official part of the approved standard (notes in text may contain requirements) and should follow the clause, sub-clause, paragraph, table, or figure to which it belongs.

5.3.2 Type specifications, margin treatment

This paragraph goes on to explain the exact formatting that a note must have. I won't bore you with the specifics. Also, in the back of the Style Manual, several examples are provided.

Based on the ANSI Style Manual, "NOTES" may be used within the standard when incorporated using the appropriate formatting. I consider this action closed.

Shelly presented language from the ANSI Style Guide.

Of special interest: Notes carry the same weight as text body.

8.10 (Colby) Review of the presentation and control of the standard

Prepared a document will all changes on a per section comparison.

Prepared Documents:

Rev 13 – The basis for all future revisions.

Several members commented that the technical edits should be incorporated into the working document as soon as possible.

The WG agreed that the technical editing should be reviewed and incorporated.

8.11 Technical Edits Review (Shelly)

WG agreed to review all Technical Edits and approve all edit in totality (Appendix A)

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Shelly led review of technical edits, reviewed one by one and commented on by the working group. The goal is to accept all proposed technical edits. Rev 13 with the accepted technical edits will become the new working standard revision.

Motion:

Accept technical editing revisions of the Standard Rev 13 base document as reviewed.

Vote:

For: 11

Against: 1

Abstained: 0

Against Reason: Preferred a different wording for the motion. Three items were considered more than just technical editing and these items should have been mentioned in the Motion.

8.12 (Colby) Review of SCS presentation

Dennis reviewed the industries adoption of the various standards.

Colby quickly reviewed the presentation gave at the SCS conference concerning changes made to the standard to date.

Some discussion about how to get utility senior management more involved in the simulator support and configuration.

Colby - ANS 3.5 WG should have a more visible appearance at the CONTE meeting

8.13 Review of Technical Edit items considered

Golightly - Section 3.2.1.4, what are audio visual cues.

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Audio-visual cues captures annunciators, pumps and such.

Audio-visual is covered in the physical and human factors section (2003mar meeting).

Felker – Audible and Visual Cues

Section 4.1.3.2

The WG discussed whether to incorporate the revised technical Edited revision. General agreement that the new wording is not just a technical change.

Point of order (Felker) – Discussion of the three items not considered during the technical Edit review is new business. The Wg agreed and AI-121 was assigned.

AI-121 (Florence) - Will champion three technical edit items not considered under AI-106. Relevant sections 4.2.2.2, 3.4.1.2, 5.1.3.2

8.14 (Dennis) Review of Standards Approval Process

- Full Reading of Standard
- Send Cover letter with attached standard and summary of changes
-

8.15 (Vick) Straw poll for Standards adoption

Vick suggest the WG take a straw poll on the adoption of the standard Rev 13 with the Approved Technical Edits.

Each member will have 5 minutes to speak:

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Member	Poll Status (including Guest): 8 Positive 8 Negative	Eligible Voting Member Poll Status: 7 Positive 5 Negative
Kozak	Positive	Target moved in the middle of the standards process. Clarification of SBT (still work in progress) Concerns – SBT, Core performance testing
Shelly	Positive	More work need in SBT (how to take credit), Core Performance
Colby	Positive	More work need in SBT (how to take credit), Core Performance. Target moved due in part to surveys solicited by the WG Rule change
Welchel	Negative	More work needed in SBT to better lock down so the regulator cannot liberally interpret requirements.
Havens	Positive	More work need for core performance testing Testing Documentation
Florence	Negative	Ditto on favorable comments More work need in Core performance testing More Work needed for SBT
Tarselli Guest	Positive	More clarification if SBT is not used adopted

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		SBT needs more work
Neis	Negative	Testing credit with respect to Operability, and SBT not well defined. Core Performance testing criteria is not established Implications if SBT is not in the testing program
Chang	Positive	Improves Core performance testing Alignment of Sections 3 and 4 SBT is much improved
McCullough	Negative	Industry is looking for more specificity Not giving the industry what it wants at this time
Felker	Negative	Testing is broken, more than just SBT SBT three issues: <ul style="list-style-type: none"> • Documentation, how much, what to save; • What Criteria; • Test credit (Proposed standard removes the ability to take “Testing Credit”) • Should SBT be a GO – NO GO criteria
Golightly	Negative	Standard should be more specific

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Guest		
Noe Proxy for Paris	Negative	Standard does not handle both construction and maintenance Does not handling mods on the simulator before installed in Plant
Koutouzis	Negative	Standard wording blurs the training processes with simulator testing processes The Standard's use of the term "Training Needs Analysis" can introduce confusion, and could conflict with its use in utility training processes. Implies that standard c Needs more specificity in Core Performance and SBT More work on Core Performance testing. Need to be clear that Standard was not intended to support Experience requirements. Simulator could now be interpreted as being suitable a predictive tool.
Vick	Positive	Please with the significant level of effort the get the standard to the new level it's at
Dennis	Positive	Appreciation this group has worked well together and helpful to achieve the end goal. Core Performance Testing needs additional work We are using Replicate now following the NRC's lead. The NRC is now using the word Replicate incasing the simulator in totality

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		Consider bringing in the Experience in to the next standard. SBT – Using SBT as substitution in section 4.4.3.1. Using a check list is not acceptable. Appendix needs more consideration
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8.16 **Adjourned 2004Apr05 at 1600**

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9 **Tuesday 2003Apr06 (Day 2 8:00am)**

9.1 Welcome to Dave Trimble

Visitor Dave Trimble – NRC - Chief in Charge of Operator Training

9.2 Day 2 Consensus Level

12 Voting members

9 members for consensus (75% Rule of the Chair)

9.3 Trimble and Vick presentation

The morning and afternoon was devoted to discussing the NRC MANTG Q&A with Dave Trimble and Larry Vick

9.4 (Havens) AI-113 Core Performance Testing

At the last meeting, Havens proposed Core Performance Testing be placed in Appendix B. At that time members recommended Core Performance Testing be moved to the standards body.

This discussion centered on moving the Core performance testing from **NEED BUD HAVENS INPUT**

Proposed 2 Options to incorporate Core Performance Testing

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Discussions went round about on whether Core Performance testing should be included in the standard. Some members feel that language presently exist to address this.

Core Performance testing was tabled and will be adopted at a later time.

9.5 Adjourned 2004Apr06 at 1845

10 **Wednesday 2003Apr07 (Day 3 8:00am)**

10.1 Day 3 Consensus Level

12 Voting members

9 members for consensus (75% Rule of the Chair)

10.2 (Havens) AI-113 Core Performance Testing Continued

Havens led a review of the history of incorporating CPT into the new standard

Previous mod:

3.1 and 4.1 – Simulator must replicate the Core for the reference unit

Added in Operability Sections including periodicity requirements

Kozak – (Reasoning for putting CPT in Operability) –

Comment from Section 4.4.3.1

(Note: core testing is in the 1985 standard under “Normal Evolutions”, this was changed in the 1993 standard to “Unit Performance Tests”. This, in essence, brings back the core testing requirement and delineates the periodicity.)

Motion (Havens):

<p>4.4.3.1 Simulator Operability Testing. A simulator operability test <i>(footnote deletion)</i> shall be conducted on a frequency as indicated below. A record of the</p>
--

Comment [bjc1]: Approve change of calendar basis to a frequency as indicated below from the July 21-24 meeting. NOTE: This change has deleted this previously approved change (of deleting the words “on either” and “or certification” from April 22-25 meeting. Action item #40. The rule change has eliminated the requirement for certification and the option of either per year or calendar basis.) Section 4.4.3.1 was reworded for clarity (reads easier). In addition, a new operability testing requirement was added to perform core testing. (Note: core testing is in the 1985 standard under “Normal Evolutions”, this was changed in the 1993 standard to “Unit Performance Tests”. This, in essence, brings back the core testing requirement and delineates the periodicity.

conduct of this test and its evaluation shall be maintained.

The intent of the operability test is to demonstrate overall simulator model completeness and integration by testing the following:

- (1) Simulator steady-state performance⁷ (once per year on a calendar basis);
- (2) Simulator transient performance for a benchmark set of transients⁷ (once per year on a calendar basis), and;
- (3) Simulator reactor core performance in accordance with section 4.1.5. (each reference unit fuel cycle

⁷ Appendix B provides examples of acceptable simulator operability tests.

Appendix B

(This Appendix is not a part of American National Standard for Nuclear Power Plant Simulators for Use in Operator Training and Examination, ANSI/ANS-3.5-2003, but is included for information purposes only.)

Guidelines for the Conduct of Simulator Steady-state and Transient Performance Operability Testing

The purpose of this Appendix is to provide examples of tests, parameters to be recorded, and time resolution for demonstration of simulator steady-state and transient performance operability. The example tests documented herein will clarify the scope and intent of simulator operability testing required by 4.4.3.1 of the standard.

Comment [BC2]: Approved addition of the words, "overall simulator model completeness and integration by testing the following:" from the July 21-24 meeting. Action Item #100. This change will better define the type of testing to be performed.

Comment [BC3]: Approved change of adding a time reference to each item 1, 2, and 3 from July 21 – 24 meeting. Action item #100. This will better define the time sequence with both the plant and simulator taken in to consideration as to when these tests should be performed.

Comment [bjc4]: Approved change from March 2003 meeting. Action item #97. (Also refer to Action Item 94) Add the words "and Examination" to be consistent with the approved title for the ANS 3.5 Standard.

Comment [bjc5]: Approved change from March, 2003 meeting. Action item #94. Change the Standard date from 1998 to 2003 to be consistent with the current Standard revision.

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Straw Poll –

Positive 5

Negative 5

Felker (Positive)

Colby (Negative)

Not in favor of App. B Title Change

Neis (Positive)

Prefers CPT should be some where else

Koutouzis (Positive)

Shelly (Positive)

Chang (Positive)

Maybe not the best place.

Not in favor of change App B Title Change

Kozak (Negative)

Creating a CPT Section may not be clearer

Florence (Negative)

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Would do industry a favor creating new CPT Testing

Havens withdrew the Motion based on the Straw Poll.

AI-113 will be closed with no action.

New AI will be created for CPT placement and wording

10.3 AI-114 (Felker) SBT

Felker prepared a sixteen page document for the committee. He summarized the MANTG letter and industry feedback against a list of NRC bullets presented at the SCS conference. The document is maintained with the secretary's files.

Felker – Testing is broken... how can we fix it... can we find the rock.

Felker presented to the WG a comprehensive set of changes for consideration.

Felker points to consider:

- The WG is no longer requiring Malfunction testing (no longer required based on the present testing scheme)
- The four qualitative testing criteria in 4.1.4 are becoming the testing criteria for SBT.
- This motion tries to align the CFR and Standard's language

REV 13 Proposed Modifications

performance testing. Testing conducted to verify simulator performance as compared to actual or predicted reference unit performance.

4.1.4 Transients. It shall be demonstrated that simulator response during transient testing required by this standard meets the following acceptance criteria:

- (1) The simulator allows the use of applicable reference unit procedures.
- (2) Any observable change in simulated parameters corresponds in direction to those expected from actual or best estimate response of the reference unit to the malfunction.
- (3) The simulator shall not fail to cause an alarm or automatic action if the reference unit would have caused an alarm or automatic action under identical circumstances.
- (4) The simulator shall not cause an alarm or automatic action if the reference unit would not cause an alarm or automatic action under identical circumstances.

4.4.3 Simulator Performance Testing. Simulator performance testing shall be conducted as specified below.

Performance testing shall include :

- use of a documented test procedure;
- collection of pertinent test data;
- comparison of test results against actual or predicted reference unit plant data;
- evaluation of the results with respect to the reference unit operating procedure acceptance criteria, if applicable; or, evaluation of the results with respect to section 4.1;
- retention of test results.

Simulator performance testing shall be conducted in a fully integrated mode of operation. The test criteria as specified by sections 4.1.1, 4.1.2, 4.1.3, and 4.1.4 shall apply as applicable.

Simulator performance testing comprises operability and scenario-based testing.

4.4.3.1 Simulator Operability Testing. A simulator operability test shall be conducted on a frequency as indicated below. A record of the conduct of this test and its evaluation shall be maintained.

The intent of the operability test is to demonstrate overall simulator model completeness and integration by testing the following:

- (1) Simulator steady-state performance (once per year on a calendar basis);
- (2) Simulator transient performance for a benchmark set of transients (once per year on a calendar basis), and;
- (3) Simulator Reactor Core Performance (each reference unit fuel cycle)

4.4.3.2 Simulator Scenario-Based Testing.

The intent of scenario-based testing is to ensure the simulator is capable of producing the expected reference unit response to satisfy predetermined learning or examination objectives by utilizing the existing training and examination scenario validation process. Note: "In other words, "test the simulator as it will be used"."

Performance test data may be acquired during scenario validation or operator training for subsequent evaluation of malfunctions, local operator actions, and other features exercised by the scenario provided that the following conditions are satisfied:

1) the scenario ~~has been test run to verify it is realistic and complete~~ it meets the predefined learning objectives prior to use for operator training and examination including the appropriate instructor interfaces, operator actions, and operator cues;

(2) the simulator is capable of producing the expected reference unit response without procedural exceptions, significant performance discrepancies, or deviation from an approved scenario sequence;

(3) the scenario-based testing results are evaluated ~~and documented~~.

A record of the conduct of these tests, and the evaluation of the test results, shall be maintained. [1]

A4. Simulator Test Documentation. The documentation of simulator performance criteria and simulator testing should include the following basic information:

- (1) Completed test (eg; procedure markup, etc.);
- (2) The initial condition;
- (3) The perturbations made to induce the transient, such as malfunctions local operator actions, or operator actions;
- (4) The responses of pertinent simulator parameters;
(4) An evaluation of test results such as:
 - parameters respond in the proper direction and order of magnitude,
 - equipment responds as expected;
 - alarms and automatic actions occurred as expected.

(5) The update of related documentation.

I recommend that the proposed Appendix "E" be deleted in its entirety.

10.3.1.1 Appendix E

(This Appendix is not a part of American National Standard for Nuclear Power Plant Simulators for Use in Operator Training and Examination, ANSI/ANS-3.5-2003, but is included for information purposes only.)

Guideline for Acceptable Documentation of Scenario-based Testing

(This Appendix is not a part of American National Standard for Nuclear Power Plant Simulators for Use in Operator Training and Examination, ANSI/ANS-3.5-2003, but is included for information purposes only.)

Guideline for Acceptable Documentation of Scenario-based Testing

E1. The purpose of this Appendix is to provide an acceptable means for documenting simulator conformance to Section 4.4.3.2 of the Standard.

E2. The following is an example of acceptable documentation for scenario-based testing.

SIMULATOR SCENARIO BASED TESTING FORM

Scenario Lesson Plan No./Revision: _____ Date Tested: _____

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<p>Scenario Lesson Plan Title:</p> <p>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.</p> <p><input type="checkbox"/> This scenario-based test demonstrates that the simulator performed as expected.</p> <p><input type="checkbox"/> This scenario-based test demonstrates that the simulator did not perform as expected.</p> <p>Performance discrepancies identified during the performance of this test were documented and submitted to the simulator support staff for resolution.</p> <p>Discrepancy Report Number(s):</p> <p>Scenario Tested by:</p>

Initially each item will be considered using a Straw Poll. The results of the straw poll will determine how the package will be handled as a Motion.

(Felker) Modify the definition for performance testing to read:

performance testing. Testing conducted to verify simulator performance as compared to actual or predicted reference unit performance.

Reason: To bring the standard more in line with the regulatory definition of performance testing. Note that integrated testing has been removed from this definition, and is covered in Section 3.4.3.

Straw Poll:

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Positive 11

Negative 1

(Neis) New wording for Section 4.1.4 and 4.4.3.2

Reword Section 4.1.4 lead in paragraph and move the list to Section 4.4.3.2

Add a paragraph after the Second item in Section 4.4.3.2 and move the List from 4.1.4 to after the new paragraph in Section 4.4.3.2

New Section 4.1.4 Wording

4.1.4 Malfunctions It shall be demonstrated that the simulator response to malfunctions used in scenarios developed for operator training or examinations shall meet the acceptance criteria identified in section 4.4.3.2.

New 4.4.3.2 Wording

4.4.3.2 Simulator Scenario-Based Testing.

The intent of scenario-based testing is to ensure the simulator is capable of producing the expected reference unit response to satisfy predetermined learning or examination objectives by utilizing the existing training and examination scenario validation process.

Performance testing credit may be taken for a scenario developed for the simulator provided that the following conditions are satisfied:

- (1) the scenario is tested prior to use for operator training and examination including the appropriate instructor interfaces, operator actions, and operator cues;
- (2) the simulator is capable of producing the expected reference unit response without procedural exceptions, significant performance discrepancies, or deviation from an approved scenario sequence;

The simulator response during the conduct of scenario based testing shall meet the following acceptance criteria :

- (1) The simulator allows the use of applicable reference unit procedures.
- (2) Any observable change in simulated parameters corresponds in

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direction to the change expected from actual or best estimate response of the reference unit to the malfunction.

- (3) The simulator shall not fail to cause an alarm or automatic action if the reference unit would have caused an alarm or automatic action under identical circumstances.
- (4) The simulator shall not cause an alarm or automatic action if the reference unit would not cause an alarm or automatic action under identical circumstances.

A record of the conduct of these tests, typically in the form of a completed scenario checklist and the evaluation of the test results, shall be maintained.^[2]

10.4 Adjourned 2004Apr07 at 1840

11 **Thursday 2003Apr08 (Day 4 8:00am)**

11.1 Day 4 Consensus Level

12 Voting members

9 members for consensus (75% Rule of the Chair)

11.2 AI-119 (Kozak) Investigate the impact of removing “or initial condition” in paragraph one of Section 3.1.3

Presented a slide show

Presented results of Polling 10 simulator sites

Most sites understood the concept of continuous manner” and ”without initial condition changes”.

Recommendation:

Do nothing

Close Out

<p>Investigate the impact of removing the statement "or initial condition" from paragraph one of Section 3.1.3</p> <ul style="list-style-type: none">• 3.1.3 Normal Evolutions. The simulator shall support the conduct of the reference unit evolutions listed in this section in a continuous manner, without any mathematical model or initial condition changes.• Some interpret it to mean non-stop!• It is my opinion the paragraph says that.
--

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- 10 simulators were polled.
- It was not meant to prevent you from stopping and saving an evolution, and recommencing the next day.
- You don't stop and change models to get over a trouble spot
- You don't stop and change to another IC that has conditions avoiding the trouble spot
- You don't change constants on the " fly" to smooth over a trouble spot
- 3 had some concern about the IC statement
- 2 had some concern about the model statement
- That's 50% that showed some confusion
- All 10 said it could read better and all offered 10 different suggestions
- I believe it would remove confusion for some but add it to others.
- What would removing the statement "or initial conditions" achieve?
- Could we eliminate some of the confusion?
- Without becoming overly wordy.
- Although some confusion was expressed, it did not appear deep and did not challenge the intent of the statement
- Better wording of the statement is desired but not necessary

Kozak – Recommendation to closed without action

AI-119 is Closed

11.3 AI-118 (Colby) Stimulated Components

Discussion and presentation led by Colby

No Action required

AI -Closed

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11.4 AI-117 (Havens)

Discussion and presentation led by Havens

Motion:

Revise the following:

In section; 3.2.2.1 Systems Controlled or Monitored from the Control Room.

In the first sentence replace the phrase:

"... to perform the evolutions described in 3.1.3 and ... "

With:

"... to perform the **normal** evolutions described in **3.1.3.2** and ..."

In section; 3.2.2.2 Systems Controlled or Monitored External to the Control Room.

In the first sentence replace the phrase:

"... to perform the evolutions described in 3.1.3 and ... "

With:

"... to perform the normal evolutions described in 3.1.3.2 and ..."

In section; 3.3.1; Initial Conditions.

Change the first sentence to read:

"The simulator shall include storage capacity for a sufficient number of initial conditions to support the evolutions identified in 3.1.3."

In section; 4.2.2.1 Systems Controlled or Monitored from the Control Room.

In the first sentence replace the phrase:

"... to perform the evolutions required by 3.1.3 and ... "

With:

"... to perform the normal evolutions required by 3.1.3.2 and ..."

In section; 4.2.2.2 Systems Controlled or Monitored External to the Control Room.

In the first sentence replace the phrase:

"... to perform the evolutions required by 3.1.3 and ... "

With:

"... to perform the normal evolutions required by 3.1.3.2 and ..."

Comment [BC6]: Approved change to align the old reference section number 3.1.3 with the new section number 3.1.3.1. Action Item #109 from October 27-30-03 meeting.

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In section; 4.1.3.2 Normal Evolutions.

Change the reference in the second paragraph from “3.1.2” to “3.1.3.2”.

Vote:

For: 10

Against: 1

Abstained: 1

Reasons

For:

Against: Change is unnecessary. The previously technical edited approved version is sufficient.

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11.5 AI-114 (Felker) SBT

(Felker) Performance testing consist of:

- Operability
- SBT
- Core Performance testing (which is now under Operability Testing)

Felker - Appendix A4 is also rolled into 4.4.3.2 with the recommended new 4.4.3.2 language

Quick summary of changes:

New Section 4.4.3.2
Reference to Appendix A is for Section 4.4.3.1 only
Leave Section 4.1.4 as is

Felker placed a motion on the floor (see below). Several hours were devoted discussing the motion. The committee is having difficulty incorporating SBT in such a manner as to not ratchet the industry into adding layers of work in order to accomplish and document SBT.

Significant time was spent discussing that “**not Validated before being used in training**” is no longer in this revision of 4.4.3.2. But it is still covered in the revision by “**Test data shall be acquired during scenario validation for subsequent evaluation**”.

Florence – The standard should not be prescriptive that all scenarios have to be validated.

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Motion (Felker):

Part	Motion
1	<p>Section 2.0 – “Replace the definition”</p> <p>performance testing. Testing conducted to verify a simulator’s performance as compared to actual or predicted reference unit performance.</p>
2	<p>4.4.3 Simulator Performance Testing. It shall be demonstrated that simulator performance testing is conducted as specified below. A record of the conduct of these tests, and data comparison that the results meet reference unit data, shall be maintained. – “{Delete Footnote to Appendix A}”</p>
3	<p>4.4.3.1 Simulator Operability Testing. A simulator operability test [7 to Appendix B] shall be conducted on a frequency as indicated below. A record {Add Footnote to Appendix A} of the conduct of this test and its evaluation shall be maintained.</p>
4	<p>“Replace section 4.4.3.2 as follows”</p> <p>4.4.3.2 Simulator Scenario-Based Testing.</p> <p>The intent of scenario-based testing is to ensure the simulator is capable of producing the expected reference unit response to satisfy predetermined learning or examination objectives by utilizing the existing training and examination scenario validation process to ensure the following:</p> <ul style="list-style-type: none"> (1) The scenario meets the predefined learning objectives and includes the appropriate instructor interfaces, operator actions, and operator cues; (2) The simulator is capable of producing the expected reference unit response without significant performance discrepancies, or deviation from an approved scenario sequence. <p>Test data shall be acquired during scenario validation for subsequent evaluation of</p>

Comment [BC7]: Approved change of adding It shall be demonstrated that to the first sentence and also the word “is” prior to Conducted. Also remove the last two sentences of this section. Action Item 115 & 116 from October 27-30 – 03 meeting. The reason is to better align the section 3.4.3 and section 4.4.3.

Comment [bjc8]: Approve change of calendar basis to a frequency as indicated below from the July 21-24 meeting. NOTE: This change has deleted this previously approved change (of deleting the words “on either” and “or certification” from April 22-25 meeting. Action item #40. The rule change has eliminated the requirement for certification and the option of either per year or calendar basis.) Section 4.4.3.1 was reworded for clarity (reads easier). In addition, a new operability testing requirement was added to perform core testing. (Note: core testing is in the 1985 standard under “Normal Evolutions”, this was changed in the 1993 standard to “Unit Performance Tests”. This, in essence, brings back the core testing requirement and delineates the periodicity.

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	<p>malfunctions, local operator actions, and other features exercised by the scenario. Evaluation of the test data shall consider:</p> <ol style="list-style-type: none"> (1) The simulator allows the use of applicable reference unit procedures. (2) Any observable change in simulated parameters corresponds in direction to the change expected from actual or best estimate response of the reference unit to the malfunction. (3) The simulator shall not fail to cause an alarm or automatic action if the reference unit would have caused an alarm or automatic action under identical circumstances. (4) The simulator shall not cause an alarm or automatic action if the reference unit would not cause an alarm or automatic action under identical circumstances. <p>Results of this evaluation shall be documented and include:</p> <ol style="list-style-type: none"> (1) The initial conditions and identification of the scenario; (2) Positive demonstration or assertion that the learning or examination objectives were met; (3) Listing of key parameters checked and assertion that there were no unexpected changes; (4) Positive demonstration or assertion that key alarms and automatic actions occurred; (5) Positive demonstration or assertion that no unexpected alarms and automatic actions occurred.
5	Delete Appendix "E"

Part	Motion (Amended)
1	<p>Section 2.0 – "Replace the definition"</p> <p>performance testing. Testing conducted to verify a simulator's performance as compared</p>

	to actual or predicted reference unit performance.
2	<p>4.4.3 Simulator Performance Testing. It shall be demonstrated that simulator performance testing is conducted as specified below. A record of the conduct of these tests, and data comparison that the results meet reference unit data, shall be maintained. – {Delete Footnote to Appendix A}</p>
3	<p>4.4.3.1 Simulator Operability Testing. A simulator operability test [7 to Appendix B] shall be conducted on a frequency as indicated below. A record {Add Footnote to Appendix A} of the conduct of this test and its evaluation shall be maintained.</p>
4	<p>"Replace section 4.4.3.2 as follows"</p> <p>4.4.3.2 Simulator Scenario-Based Testing.</p> <p>The intent of scenario-based testing is to ensure the simulator is capable of producing the expected reference unit response to satisfy predetermined learning or examination objectives by utilizing the existing training and examination scenario validation process to ensure the following:</p> <ul style="list-style-type: none"> (1) The scenario meets the predetermined learning or examination objectives and includes the appropriate instructor interfaces, operator actions, and operator cues; (2) The simulator is capable of producing the expected reference unit response without significant performance discrepancies, or deviation from an approved scenario sequence. <p>Test data shall be acquired during scenario validation for subsequent evaluation of malfunctions, local operator actions, and other features exercised by the scenario. Evaluation of the test data shall consider:</p> <ul style="list-style-type: none"> (1) The simulator allows the use of applicable reference unit procedures. (2) Any observable change in simulated parameters corresponds in direction to the change expected from actual or best estimate response of the reference unit to the malfunction. (3) The simulator shall not fail to cause an alarm or automatic action if the reference

Comment [BC9]: Approved change of adding It shall be demonstrated that to the first sentence and also the word "is" prior to Conducted. Also remove the last two sentences of this section. Action Item 115 & 116 from October 27-30 – 03 meeting. The reason is to better align the section 3.4.3 and section 4.4.3.

Comment [bjc10]: Approve change of calendar basis to a frequency as indicated below from the July 21-24 meeting. NOTE: This change has deleted this previously approved change (of deleting the words "on either" and "or certification" from April 22-25 meeting. Action item #40. The rule change has eliminated the requirement for certification and the option of either per year or calendar basis.) Section 4.4.3.1 was reworded for clarity (reads easier). In addition, a new operability testing requirement was added to perform core testing. (Note: core testing is in the 1985 standard under "Normal Evolutions", this was changed in the 1993 standard to "Unit Performance Tests". This, in essence, brings back the core testing requirement and delineates the periodicity.

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	<p>unit would have caused an alarm or automatic action under identical circumstances. (4) The simulator shall not cause an alarm or automatic action if the reference unit would not cause an alarm or automatic action under identical circumstances.</p> <p>Results of this evaluation shall be documented and include:</p> <p>(1) the initial conditions, description of the scenario and perturbations used to induce the transient; (2) positive demonstration or, alternatively, an assertion that the learning or examination objectives were met; (3) listing of key parameters checked and assertion that there were no unexpected changes; (4) listing of key alarms and automatic actions occurring and assertion that they would be expected for the scenario; (5) assertion that no unexpected alarms and automatic actions occurred.</p>
5	Delete Appendix "E"

Vote (Consensus is 9 of 11) Carried:

For: 9
Against: 2
Abstained: 0

Reasons

Against:

4.1.4 is included as absolute. It has to be complete here even though it may have been complete at another time.

Test before training wording missing. Criteria in 4.1.4 is now a consideration and not a shall.

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AI-114 is Closed

11.6 NRC IP71111.11 Industry Observations

An hour was devoted discussing the NRC's IP 71111.11 observations

Approximately 70 Simulator US programs

11.7 Adjourned 2004Apr08 at 1700

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12 **Appendix**

12.1

Refer to document: **Tech Edit of ans35rev13 OCT03.doc**

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13 **Action Items Carried to 2008 Standard**

20	<u>Date: 2002oct29</u> <u>Status: Deferred to 2008</u>	Priority 1 –	Paris Colby Kozak	Exploiting technology changes and future industry trends. What's coming around the corner; 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) 2001Aug09 Paris Presentation – Distributed Control Systems scope needs to be considered in the standard (Hal will e-mail his presentation to Butch).
25	Moved to 2008	Priority 2 –	Dennis	Process Guidelines (Mods and Testing) ;Institutionalizing Procedures 2002apr24 Dennis Gave presentation on Millstone experience Defer AI-25 to 2008 2001Apr05 Dennis Deferred
36	Date: 2003Mar10 Status: Deferred until 2008	Priority 2	Koutouzis Havens	Questions from Review of INPO Documents:

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				<ul style="list-style-type: none"> • Timeline for incorporation of Plant design changes into the simulator • Instructor Performance • Long Term Open Simulator Fidelity Issues <p>This is an information AI</p> <p>2003Mar10 Koutouzis No INPO statements on Simulator Fidelity. INPO is primarily focused on performance based issues, but will address programmatic issues.</p> <p>2002Apr24 Havens – Keep this AI open pending additional input and data. Koutouzis is gathering additional data. Recommends to do nothing right now No Update</p> <p>2001Apr05 Koutouzis No Update</p> <p>Related AI: 34</p>
60	Moved to 2008	Priority 1	McCullough Shelly	<p>Define the Term Training Needs Assessment in such a manner that it is clear in intent to both Training and Simulator staffs</p> <p>2002apr23 McCullough History presentation of Training Need Assessment. See Appendix</p>

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				2001Apr05 McCullough Trainers and Simulator personal view Training Needs Assesments 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 Suppliment to Principles of Training Systems Development"
80	Moved to 2008		Florence	2008 Copy and Paste RG 1.149 Rev 3 Section 1.5 into the 2008 Standard. (Software V&V)

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14 Closed Action Items

No.	Status	Date	Assigned To:	Work Assignment
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.

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9	<p>Date: 2001Apr05 Status: Complete Dennis</p>		<p>Dennis</p>	<p>Is ANS 3 considering that the standard may address other simulators not specific to NRC Regulatory Commission licensing?</p> <p>2001Apr05 Dennis - No - per Subcommittee-1 Tamp Meeting</p> <p>Dennis will verify with Mike concerning additional scope (adding DOE facilities into 3.5). 2001Apr05 Dennis - No - per Subcommittee-1 Tamp Meeting</p> <p>2000mar09 Dennis will check at the next ANS 3 meeting</p>
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<p>10</p>	<p>Date: 2001Apr04 Status: Awaiting Kozak conversation with Chandler and Mallay</p> <p>Date: 2001Aug09 Status: Closed Pending input from Alan Kozak</p> <p>Date: 2001Aug27 Status: Complete</p>		<p>Kozak Collins (Vick) McCullough</p>	<p>Propose security criteria for Simulators operating in Exam Mode</p> <p>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.</p> <p>Contact could not be made with Harish Chandler.</p> <p>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 like wise.</p> <p>Based on this information no further action should be needed for this AI.</p> <p>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.</p> <p>AI Originator: Parking Lot Issue</p> <p>2001Apr05 Kozak Two NUPPSCO comments: NUPPSCO supporting comment: James: Mallay stated that this item should be non-prescriptive. NUPPSCO supporting comment: Harish Chandler</p> <p>Kozak will call Chandler and Mallay and discuss their NUPPSCO</p> <p>2000mar09 Determine source of Exam Security comment</p>
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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	<p>Date: 2002oct29 Status: Complete</p>	<p>Priority 1 – Waiting input from Florence on feedback from industry</p>	<p>Felker Florence Colby</p>	<p>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.</p> <p>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.</p> <p>Origin: Parking Lot List</p> <p>Review all List; Combined with the 3.1.3(7) item (Moved from 23);</p> <p>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.</p> <p>Note: Review associations between removal of List and Appendix.</p> <p>2001Apr05 Moved AI 11 to AI 13 Deferred for later discussion pending more important issues</p> <p>Felker: The Simulator shall cause an alarm or automatic action only if the reference plant would have caused an alarm or</p>
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14	<p><u>Closed:</u> 2002apr23 <u>Motion</u></p>	Priority 1 –	<p>Paris Felker Florence Chang</p>	<p>2001Aug 09</p> <p>SK Chang proposes including <i>synchronization</i> 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.</p> <p>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)</p> <p>2002apr23 Motion:</p> <p>Change Definition of Stimulated Hardware to Stimulated Components with the definition of Stimulated Components:</p> <ul style="list-style-type: none"> • 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 <p>2001Apr04 Paris Recommends new definition:</p> <p>Old Definition: “Stimulated hardware. Components or devices that perform their functions independently of and parallel to the simulation process”</p> <p>2001Apr05 Paris Considerations for new definitions for later review</p>
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15	<p>Date: 2000mar09 Status: Complete Presentation by Allan Kozak</p>		<p>Collins (Vick) Kozak McCullough</p>	<p>Numerous uses of Training Needs Assessment (TNA) Collins - Add paragraph in Section 3.0 detailing TNA and then remove all other references to TNA.</p> <p>Training Needs Assessment was changed to Training Impact Assessment</p> <p>2000mar09 Determine Source of this comment</p>
16	<p>2002apr24 Status: Complete <u>Motion No Carried</u></p>	<p>Priority 1 –</p>	<p>Welchel Dennis</p>	<p>Coordinate use of Discrepancy and Deviation. Consider Yoder #12.</p> <p>NUPPSCO Comment</p> <p>2002apr24 Welchel Prepared and presented Deviation/Discrepancy and Differences replacement. Closed – Motion Not Carried</p> <p>2001apr03 Welchel Discrepancy is used in sections 4.4.3.2 and 5.2. Webster’s definition: Discrepancy-inconsistency Deviation – diverge</p>

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17	<p>Date: 2001Aug09 Status: Complete</p>		<p>Dennis Welchel</p>	<p>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.</p> <p>2000mar09 Welchel – Add relevant SSNTA meeting minutes to WG minutes.</p> <p>Wait for industry experience</p> <p>2001Apr05 Industry Feedback Callaway has implement the 1998 Standard and presently reports no concerns.</p> <p>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</p>
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18	<p>Date: 2000mar09 Status:</p> <p>Closed Statement (Do we need to put some boundaries as to the limits simulator)</p>		<p>Kozak Shelly Cox Havens Florence</p>	<p>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)</p> <p>Origin: Scope Change at Oconee Meeting</p> <p>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.</p> <p>2001Apr05 Kozak Close the Boundry issue <i>Do we need to put some boundaries as to the limits simulator;</i></p> <p>2001Apr05 Kozak See Minutes Body</p> <p>2000mar09 Presentation of Virginia Power Classroom/Part-task trainer at the 2000mar09 meeting</p> <p>Related AI: 41</p>
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19	<p>Date: 2001apr05 Status: Complete (This Item will be ask on Survey#2)</p>		<p>Colby Florence</p>	<p>Using the simulator for other than Operator Training. Uses in predictive analysis and design mods, SAMGS procedures changes;</p> <p>2001Apr05 Colby Include this as part of Survey #2 and Closed</p> <p>2000mar09 Scope change. This will require approval from ANS-3</p>
21	<p>Date: 2000mar10 Status: Complete Keith Welchel wanted to dismiss this item. The WG agreed.</p>		<p>Collins (Vick) Welchel Chang</p>	<p>(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.</p> <p>2000mar10 Keith Welchel moved to dismiss this item. Jim Florence Seconded;</p>

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22	<p>Date: 2001apr05 Status: Complete</p>		<p>Florence Kozak</p>	<p>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</p> <p>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</p> <p>Jim gave a presentation at the 2000 SCS conference during the USUG meeting.</p>
23				<p>Intentionally Left Blank</p>
24	<p>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.</p>		<p>Dennis DeLuca</p>	<p>Real Time - Dennis will give further consideration and he will look at industry standards; Measuring Real-Time;</p>

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26	<p>Date: 2000mar10 Status: Complete</p> <p>Historical information was presented at the SCS conference.</p> <p>Dennis checked with ANS Headquarters and this issue was discussed in detail</p>		<p>Dennis</p> <p>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.</p> <p>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</p> <p>Dennis will call Mike Wright confirming ANS-3 understands the Historical Standard issue</p>
27	<p>Date: 2001Aug09 Status: Complete</p>		<p>Collins(Vick) Dennis Koutouzis</p> <p>(JFC/TD) Possible cross-pollination with other standards. Frank and Dennis will contact others</p> <p>2001Apr05 Dennis Reference: ANSI/ISA-77.20-1993 Fossil Fuel Power Plant Simulators – Functional Requirements</p> <p>Reviewed FAA WEB Site: www.faa.gov/nsp Simulator Qualifications: www.faa.gov/nsp/ac.htm</p> <p>Colby –To research Navy Simulator Systems Colby – To research Germany regulatory standards</p>
28	<p>Date: 1999sep15 Status: Complete</p>		<p>Florence</p> <p>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;</p>

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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.
30	Date: 2001Apr05 Status: Complete		Florence Welchel	<p>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</p> <p>Florence: Check with Shawn (ANS) for WEB space. Check with USUG for WEB Space</p> <p>2001Apr05 Florence Membership List Minutes Meeting Schedules Will not use ANS WEB Site</p> <p>All future approved ANS WG minutes will be placed on the USUG WEB site.</p>
31	Date: 1999sep15 Status: Complete		Dennis	<p>Mission statement for Working Group for the 2003 standard. AI #31 added 1999sep14</p> <p>1999sep15: Voted not to complete</p>

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32	<p>Date: 2001Apr04 Status: Closed by Motion</p>	1999sep15	<p>Colby Collins Koutouzis Havens Felker McCulough</p>	<p>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;</p> <p>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;</p> <p>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.</p> <p>2000Oct26: Butch will request bullets on Multi-Unit from the Group for next meeting</p>
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33	<p>Date: 2001Apr04 Status: Complete</p>		<p>Havens Kozak Shelly Welchel</p>	<p>Change 24-month design change limit to some shorter period.</p> <p>2001apr03 Welchel Proposed new wording: 5.3.1.2 Subsequent Upgrade. <i>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.</i></p> <p>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:</p> <p>5.3.1.2 Subsequent Upgrade. <i>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.</i></p> <p>5.1.2.2 Subsequent Update. <i>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.</i></p> <p>5.1.2.2 Subsequent Update. <i>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.</i></p> <p>WG agreed to close this AI with no further discussion. The 12 and 24 month timelines could be used to ensure the modifications.</p>
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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.
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

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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

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41	Date: 2000Oct26 Status: Complete	2000mar08	DeLuca Colby	Appendices consideration up-front and not as an after thought. 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
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42	<p>Closed: 2002apr23 Motion</p>	Priority 1 -	<p>Chang Felker Cox</p>	<p>Use of Verification and Validation Origination: Colby Survey</p> <p>2002apr23 Closed by Motion</p> <p>2000Oct26: Chang to look at Survey and determine the issues with Verification and Validation and bring to next meeting</p> <p>Origin: ANS 3.5 WG Survey #1</p> <p>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;</p> <p>It is not V&V as defined in the Nuclear Industry.</p> <p>2001Aug09 SK will put out a revised document on V&V in one week. Members shall respond within 30 days.</p>
43	<p>Date: 2001Apr03 Status: Complete</p>	2000mar08	<p>Welchel</p>	<p>Send 1998 Standard NUPPSCO comments to: Hal Paris Bob Felker Bud Havens</p> <p>2001apr03 Welchel - Delivered 2001apr03</p>

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44	<p>Date: 2002oct29 Status: Complete</p>	Priority 1 -	<p>Paris Havens Chang</p>	<p>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.</p> <p>2002oct29 Paris Closed Refer to 2002apr motion to leave wording as is. This item is closed (originated form 1998 NUPSCO comments TVA)</p> <p>2001Apr05 Paris Concern: What is Repeatability? Further review is needed. See Attachment for AI 44</p> <p>2000Oct26: Hal and Group will review the use of these terms and consistency</p>
45	<p>Date: 2000Oct26 Status: Complete</p>	2000mar08	<p>Shelly Chang Havens</p>	<p>Clarify Overrides do not have to be tested like Malfunctions and are not Malfunctions. (Survey Comment 3.15 p20)</p> <p>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</p>

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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.

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51	Date: 2001Apr04 Status: Closed by Motion	2000mar09	Colby	<p>Send out another survey concerning Multi-unit questions and will try to target Simulator, Training, and OPS</p> <p>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;</p>
52	Date: 2000Oct26 Status: Complete	2000mar09	Felker	<p>Locate previous Multi-Unit work completed by the 1993 WG. Bob will contact Bill Geiss</p> <p>Resolution: 2000Oct26 Felker</p> <p>Material does not exist.</p>
53	Date: 2001Aug09 Status: Complete		Colby	<p>Review the Appendix A – A(3) (BOM). Consider removal of the BOM list and replace with I&C list</p> <p>2001Apr05 Colby March 2000 meeting minutes Working Doc Editor to remove BOM from Appx A</p>
54	Date: 2000Apr05 Status: Complete	2000mar09	Vick	<p>Aquire US Government Style Guide</p> <p>2001Apr05 Style manual given to Style Editor.</p>
55	Date: 2000Oct25 Status: Complete	2000oct25	Dennis	<p>Distribute Robert Boire work assignments</p> <p>2001Oct25 Completed</p>

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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.

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

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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

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67	<p>Date: 2001Aug09 Status: Complete</p>		Dennis	<p>Contact Shawn concerning Clarification Statement</p> <p>2001jul11</p> <p>Ms. Shawn M. Coyne-Nalbach NFSC Secretary American Nuclear Society 555 North Kensington Avenue La Grange Park, IL 60526-5592</p> <p>Dear Ms. Coyne-Nalbach:</p> <p>Subject: Request for Clarification</p> <p>Reference: ANS/ANS-3.5-1998 Standard Document, Section 4.4.3.2</p> <p>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.</p> <p>I am writing this letter to your organization to request a clarification to the reference document in regards to Simulator Scenario-Based Testing.</p> <p>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.</p> <p>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.</p> <p>Please clarify the preceding paragraph by addressing the following questions:</p> <ol style="list-style-type: none"> 1. What is the intent of scenario-based testing? Does scenario-based testing impose additional training program requirements? <p>ANS-3.5 Working Group answer:</p> <p>Scenario Based Testing is intended to best utilize, to the extent possible, the existing training scenario development process</p>
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68	<p>Date: 2003Mar11 Status: Complete</p> <p>Date: 2002oct30 Status: Re-Opened</p> <p>Closed 2002apr24</p>	Priority 1	<p>Colby Shelly Felker</p>	<p>Survey #2 Multi-Unit Different OPS Procedures Fuel Cycles Time Delay loading Sim Fuel load Unit Procedure Differences and Training</p> <p>2003Mar11 Colby Presented list of survey results. Motion: Delete Malfunction List Table in Section 3.1.4 and move to Appendix A</p> <p>2003Mar10 Colby Presented list of survey results. This item was originally discussed in AI-83.</p> <p>2002oct30 Reopened to consider additional Survey data. Consider AI-83 - Malfunctions List and Survey Results</p> <p>2002apr24 Colby Recommend Closing due to information will be handled by future Action Items.</p> <p>2002apr23 Colby Nothing here that would be changed in the 2003 standard.</p> <p>2001AUG7 All survey's have not been received, so the final results of the survey will be discussed at our next meeting in March.</p>
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69	Status: Complete 2002apr24		Vick	<p>Check out and report information on SECY-01-0125</p> <p>2002apr24 Vick Simulator rule is in effect Nov 16,2001 and SECY reference is now background info only.</p>
70	Date: 2002oct29 Status: Complete		Florence	<p>Come up with a set of rules for use and what will go on the web site.</p> <p>2002oct29 Florence Closed WEB Site Changes:</p> <ul style="list-style-type: none"> • 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 <p>2002apr24 Florence Handout presented to members for review. AI-70 will be closed when the ANS 3.5 WEB site is password protected.</p> <p>Password protect the ANS 3.5 WEB site and post amended ANS 3.5 WEB page use policy.</p>
71	Date: 2002apr24 Status: Complete		Dennis	<p>Vary if ANS normally provide the minutes of group meetings</p> <p>2002apr24 Dennis Provided by request by ANS.</p>

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72	<p>Date: 2001Nov27 Status: Complete</p>		<p>Shelly</p>	<p>Check if we can add an appendix and still reaffirm</p> <p>2001Nov27 Shelly</p> <p>I contacted Suriya with this question, and his 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 forward is NOT required but highly recommended.</p> <p>The standards can not 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.</p> <p>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.</p> <p>I consider this action closed unless someone knows of a need for further research on this issue.</p>
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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	<p>Status: Complete 2002apr24</p>		<p>Keith Welchel</p>	<p>AI16 - Prepare a document for review by ANS members that shows the result of substituting Difference for Deviation/Discrepancy.</p> <p>2002apr24 Colby Prepared summary of all Deviation/Discrepancy and Difference replacements and reviewed with members.</p>
79	<p>Date: 2002oct30 Status: Complete</p>		<p>Vick Cox Kozak</p>	<p>Bring to the committee recommendation for implementing Roberts Rules or Order. (i.e. Revisiting Motions Not-carried)</p> <p>2002Oct30 Cox Consensus that Robert's Rules of Order will used a general guide</p>
81	<p>Date: 2002Oct29 Status: Complete</p>		<p>Dennis</p>	<p>Get copy of ANS 3.1 for members review.</p> <p>2002oct29 ANS 3.1 is no longer referenced in ANS 3.5; No need for ANS 3.1.</p> <p>2002Apr24 Closed Dennis Copy of ANS-3.1 obtained from ANS Standards Secretary. Copy given to requesting Working Group member for review.</p>
82	<p>Status: Complete 2002apr24</p>		<p>Dennis</p>	<p>Get copy of Letter of thanks to Robert Boire for members review</p> <p>2002apr24 Dennis Members reviewed letter</p>

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83	Date: 2002oct30 Status: Complete		Colby	<p>Compare 3.1.4 Malfunction List with 10 CFR Part 55.59</p> <p>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.</p> <p>2002oct29 Colby Reviewed 10CFR55.59 List (See Appendix AI-83)</p>
84	Date: 2002oct29 Status: Complete		Florence	<p>Review 4.4.3.1 for clarity concerning SBT and to remove Certification reference</p> <p>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.</p>
85	Date: 2002Oct28 Status: Complete		Welchel	<p>Create another Bucket to place 2008 deferred AI's</p> <p>2002Oct28 Closed Welchel New Section and Table to Hold Deferred Action Items</p>
86	Date: 2002oct29 Status: Complete		Colby Florence	<p>Create Frank Collins Plaque for review membership</p> <p>2002oct29 Colby Colby create a plaque for the group to consider. Plaque is mahogany base with Brass ANS Logo and wording.</p>

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87	Date: 2002oct29 Status: Complete		Colby	Review MANTG Simulator Historical base-line data 2002oct29 Colby Closed – Reference Section 5.1 “Current Simulator”
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

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

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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 can not be removed.
94	Date: 2003Mar10 Status: Complete		Colby	Align Appendix Header dates to Appropriate Published Standard Date 2003Mar11 Colby: Presented New Appendix Wording

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95	<p>Date: 2003Mar11 Status: Complete</p>		<p>Felker Florence Kozak</p>	<p>Section 4.4.3.2 New 4.4.3.2 wording and/or integrate 4.4.3.1 and 4.4.3.2</p> <p>2003Mar11 McCullough Motion to add procedural in Section 4.4.3.2 and Appendix E.</p> <p>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;</p> <p>Modify paragraph after “Scenario Lesson Plan Title:” in Appendix E</p> <p>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.</p>
96	<p>Date: 2002Oct30 Status: Complete</p>		<p>Kozak Chang</p>	<p>Locate a copy of INPO document concerning pre-running Scenarios and determine what validation is required.</p> <p>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.</p>

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97	<p>Date: 2003Jul24 Status: Complete</p>		<p>Dennis</p>	<p>Determine reference usage within ANS Standards. Can the 3.5 Standard reference an INPO document?</p> <p>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.</p> <p>2003Mar11 Dennis Researching using documents not available to general public.</p>
99	<p>Status: Complete 2003Oct28</p>		<p>Vick Koutouzis</p>	<p>Vick and Koutouzis will have Standard reviewed by Technical Editors for consistency</p> <p>2003Oct28 Complete Technical Review completed and present to working group.</p> <p>2003Mar10 Initial Action Item.</p>

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<p>100</p>	<p>2003Jul24 Status: Complete</p>		<p><u>PWR</u> McCullough - Lead Neis Chang Kozak Welchel</p> <p><u>BWR</u> Havens - Lead Felker Florence Panfil Tarselli</p> <p>Vick - Coordinator</p>	<p>Create two subcommittee's (PWR and BWR) that will investigate Core Performance testing inclusion into the Standard.</p> <ul style="list-style-type: none"> 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. <p>2003Jul24 Closed Accept changes to sections: 3.1.5, 4.1.5, 4.4.3.1, 5.3.2</p> <p>2003Mar10 Initial Action Item.</p>
<p>101</p>	<p>2003Jul24 Status: Complete</p>		<p>Neis Felker Kozak</p>	<p>Review 3.2.1.4 for language clarification</p> <p>2003Jul24 Neis Proposed new Wording Passed by Amended Motion</p> <p>2003Mar10 Initial Action Item.</p>

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102	<p>Status: 2003Oct30 Complete</p>		<p>Colby Paris Dennis Koutouzis Shelly Cox Vick - Coordinator</p>	<p>Review Sections 3, 4, 5 and 6 for alignment and consistency and possible merge.</p> <p>2003Jul21 Colby Distributed comparison and groups were formed to review and report next meeting</p> <p>Inform Tim Cassidy that Sections are under review.</p> <p>Options:</p> <ul style="list-style-type: none"> • This Standard • Next Standard <p>Formatting</p> <ul style="list-style-type: none"> • Keep the Sections separate but aligned • Merge the Sections <p>2003Mar10 Initial Action Item.</p>
103	<p>Status: 2003Oct28 Complete</p>		<p>Colby</p>	<p>Will create two Revised Standards Versions Version 1 1998 versus 2003 No History Version 2 1998 versus 2003 with Revision History</p> <p>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.</p> <p>2003Mar10 Initial Action Item.</p>

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

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106	<p>Status: Closed 2004Apr05</p>		<p>Shelly-Lead Committee</p>	<p>Working Group will review tech Editing markup</p> <p>Marked up version was distributed to committee members</p> <p>Comments to Shelly by 2003Sep01</p> <p>2004Apr05 Shelly presentation</p> <p>Closed per Section 5.3 of the ANSI Style Manual (8th edition, version 1.0, 1991) addresses the use of notes within a standard.</p> <p>2003Oct31 Determine use of the term “NOTE” in the standard.</p> <p>2003Jul24 Initial Action Item</p>
107	<p>Status: 2003Oct27 Complete</p>		<p>Wyatt-Lead Neis Vick Koutouzis Havens Florence</p>	<p>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.</p> <p>2003Oct27</p> <p>2003Jul24 Initial Action Item</p>

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108	<p>Status: 2003Oct30 Complete</p>		<p>Felker Vick</p>	<p>Review Section Comparison Section 3.0 Section 3.1 Section 3.1.1 Section 3.1.2</p> <p>Format of change:</p> <ul style="list-style-type: none"> • Reline changes (Track Changes) • Add “why change is made” comment for each change • Email changes to Florence for consolidation by 2003Oct01 <p>Be prepared to present to WG at next meeting</p> <p>2003Oct30</p> <p>2003Jul24 Initial Action Item</p>
109	<p>Status: 2003Oct28 Complete</p>		<p>Havens McCullough</p>	<p>Review Section Comparison Section 3.1.3 Section 3.1.4</p> <p>2003Oct28 Amended Sections:</p> <p>2003Jul24 Initial Action Item</p>

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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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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	<p>Status: 2003Oct30 Complete</p>		<p>McCullough</p>	<p>Find a another home the existing wording of Section 3.4 Create Data Collection Section</p> <p>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</p> <p>2003Oct29 Initial AI</p>
116	<p>Status: 2003Oct30 Complete</p>		<p>Koutouzis Florence</p>	<p>Develop the requirements, Section 3.4 for Section 4.4 that better defines the requirements for V&V</p> <p>2003Oct30 2003Oct30 New wording for Section 3.4 AI-116 and AI-115 were considered at the same time and Accepted by Motion</p> <p>2003Oct29 Initial AI</p>
117	<p>Status: 2004Apr08 Complete</p>		<p>Havens</p>	<p>Review and evaluate references to Section 3.1.3 to determine if the correct linkage is still maintained</p> <p>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</p> <p>2003Oct30 Initial AI</p>

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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