ANS 3.5 –2003 Working Group Approved Meeting Minutes
March 08-10, 2000
Innsbrook Technical Center, Virginia Power
Rev 6. Approved 2000oct25

Meeting Summaries:

Next Meeting (Tentative):

Location: DC Cook Nuclear Station
Date: Prior to the USUG ANS Workshop. Week 3 or 4 in September. Schedule TBD.

Motions:

Butch Colby: **Send Thank You notes to all Survey Participants**	**Approved**
George McCullough **2000mar08** Change **Training Needs Assessment** to **Training Impact Assessment** The term **Needs** may have other meanings based on the reader. The term **Needs** carries additional baggage and has other connotations. The committee agreed that the word Impact better describes the intent of requiring a Training Value Assessment.	**Approved (Unanimous)**
Frank Collins **2000mar09** Reaffirm the 1998 ANS3.5 standard without revision and discontinue working group meetings until additional major changes to the Standard can be identified	**Not Carried (Unanimous)**
Bob Felker **2000mar09** Motion to recess until such time as the regulatory process for the 1998 standard is complete and that industry feedback regarding the 1998 standard is available. The regulatory process will be considered complete when Reg. Guide 1.149 Rev. 3 is adopted or dismissed.	**No Second**
Ron Conaway **2000mar10** Remove the Appendix A – A(3) "simulator bill of materials". BOM was provided during the construction period. This document was a vendor supplied document and this document is no longer maintained by the simulation facility. The simulator configuration management process maintains modifications to the simulator Hardware Configuration.	**Approved (Unanimous)**

New Action Items:

35	**Review the double column Draft Working Document prepared by Butch Colby**	**McCullough Collins(Vick)**
36	**Questions from Review of INPO Documents:** • **Timeline for incorporation of Plant design changes into the simulator** • **Instructor Qualification** • **Long Term Open Simulator Fidelity Issues**	**Koutouzis Havens**
37	**Five Required Control Manipulations Clarification**	**Koutouzis Collins(Vick)**
38	**Clarification/Interpretation from Tim**	**Dennis**
39	**Consider differentiating validation of Requal and Initial License Scenarios**	**McCullough Florence Felker**
40	**Appendix Update for Scenario Based Testing Documentation**	**Florence Collins(Vick) McCullough**
41	**Appendices consideration up-front and not as an after thought. Tie documentation and Testing to the Standard Body**	**DeLuca Colby**
42	**Use of Verification and Validation**	**Chang Felker Boire**
43	**Send 1998 Standard NUPPSCO comments to:** • **Hal Paris** • **Bob Felker** • **Bud Havens** • **Robert Boire**	**Welchel**
44	**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.**	**Paris Havens Chang Boire**
45	**Clarify Overrides do not have to be tested like Malfunctions and are not Malfunctions. (Survey Comment 3.15 p20)**	**Shelly Chang Havens**
46	**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**	**Committee**

	further ANS3.5WG consideration	
47	**Send Thank You notes to all Survey Participants**	**Colby**
48	**Training Needs Assessment to Training Impact Assessment**	**Colby**
49	**Determine source of Training Needs Assessment Action Item#15**	**Kozak**
50	**Additional survey concerning Exam Security Concerns**	**Colby**
51	**Send out another survey concerning Multi-unit questions and will try to target Simulator, Training, and OPS**	**Colby**
52	**Locate previous Multi-Unit work completed by the 1993 WG**	**Felker**
53		**Florence (Conaway)**
54	**Aquire US Government Style Guide**	**Vick**

Wednesday 2000Mar08 (Day 1)

Opening Comments Tim Dennis:

- Tim Dennis opened the ANS3.5WG session and welcomed all visitors.
- Tim Dennis ask each person present to state their name and affiliation.

Introduction of Guest:
- Arthur H. Friedman
  - Manager Nuclear Training, Virginia Power
  - Email: arthur_friedman@vapower.com
  - Phone: 804-273-2701

Roll Call:

Present	Member	Address	Notes/Proxy:	Email, Phone Fax
Present	Timothy Dennis – Chairman	P. O. Box 119 645 Lehigh Gap St. Walnutport, PA 18088-0119		Email:a243@yahoo.com Phone:610-767-0979 Fax: 610-767-7095
Proxy	Jim Florence – Vice Chairman	Nebraska Public Power District P. O. Box 98 Brownville, Nebraska 68321	Ron Conaway NPPD Email: rdconaw@nppd.com	Email: jbflore@nppd.com Phone: 402-825-5700 Fax: 402-825-5584
Present	Keith Welchel – Secretary	Duke Power Company Oconee Training Center- MC:ON04OT 7800 Rochester Hwy Seneca, SC 29672		Email: kwelchel@duke-energy.com Phone: 864-885-3349 Fax: 864-885-3432
Present	F.J. (Butch) Colby – Editor	General Physics Corporation 6700 Alexander Bell Drive Suite 400 Columbia, MD 21046		Email: bcolby@genphysics.com Phone: 410-290-2566 Fax: 410-290-2481 (attn: B.Colby)
Proxy	Frank Collins – Style Editor	US NRC, Office of Nuclear Reactor Regulation 09-D24 Washington, DC 20555	Larry Vick Email:Lxv@nrc.gov Phone: 301-415-3181	Email: JFC1@NRC.GOV Phone: 301-415-3173 Fax: 301-415-2222
Present	George McCullough	American Electric Power Cook Nuclear Plant One Cook place Bridgman, MI 49106		Email: gsmccullough@aep.com Phone: 616-466-3333 Fax: 616-466-3388
Present	Hal Paris	GSE Systems 8930 Stanford Blvd. Columbia, MD. 21004		Email: hal.paris@gses.com Phone: 410-772-3559 Fax: 410-772-3595
Present	Robert Felker	EXITECH Corporation 102 E. Broadway Maryville,TN 37804		Email: rfelker@EXITECH.com Phone: 410-461-4295 Fax: 410-730-4008
Present	Allan A. Kozak	Virginia Power North Anna power Station P.O. Box 402 Mineral, VA 23117-0402		Email: allan_kozak@vapower.com Phone: 540-894-2400 Fax:
Present	William M. (Mike) Shelly	Entergy Services Inc. Grand Gulf Nuclear Station POBox 756 Port Gibson, MS 39150		Email: wshelly@entergy.com Phone: 601-437-6301 Fax: 601-437-6363
Present	Dennis Koutouzis	INPO 700 Galleria Parkway, NW Atlanta, GA 30339-5957		Email: koutouzisjd@inpo.org Phone: 770-644-8838 Fax:

Proxy	William A. DeLuca	Pennsylvania Power & Light, Co. Susquehanna Steam Electric Station P.O. Box 467 Berwick, PA 18603	Cleon Dodge PP&L Email: cdodge@papl.com Phone: 570-542-1990	Email: WADeLuca@pplweb.com Phone: 570-542-1988 Fax: 570-542-3177
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
Present	Robert Boire	CAE PO Box 1800 St-Laurent Quebec, Canada		Email: boire@cae.ca Phone: 514-340 2000 x 2257 Fax: 514-340 5571
Absent - Resigned	George Huang	Northeast Utilities POBox 128 Waterford, CT 06385	S.K. Chang Northeast Utilities POBox 128 Waterford, CT 06385 Email: changsk@nu.com Phone: 860-437-2521	Email: huanglr@nu.com Phone: 860-437-2509 Fax: 860-437-2671
Absent	Shawn M. Coyne-Nalbach	NFSC Secretary American Nuclear Society 555 North Kensington avenue La Grange Park, IL 60526-5592		Email: SCoyne-Nalbach@ans.org Phone: 708-579-8269 Fax:

Visitors

Visitor	Affiliation	Email, Phone Fax
Arthur H. Friedman	Manager Nuclear Training, Virginia Power	Email: arthur_friedman@vapower.com Phone: 804-273-2701
H. Ashley Royal	Superintendent Nuclear Training – North Anna Power Station	Email: ashley_royal@vapower.com Phone: 540-894-2446
Robert Soderholm	Simulation Coordinator – Virginia Power	Email: robert_soderholm@vapower.com Phone: 757-365-2656
Carl Stebbings	Software Engineer – Virginia Power	Email: carl_stebbings@vapower.com Phone: 540-894-2168
Ken Elgert	Simulation Coordinator – Virginia Power	Email: kenneth_elgert@vapower.com Phone: 540-894-2483
Sharad Kumar	Simulator Support Coordinator – North Anna Power Station	Email: sharad_kumar@vapower.com Phone: 540-894-2726

Work Assignments

No.	Status	Date	Assigned To:	Work Assignment
1	**Tim** contacted Mike Wright. No Input from Mike. The Scope change approval should be approved soon.		**Dennis**	DOE Nuclear Facility vs. Power Plant Simulators – Check with ANS 3. Inquire as to whether other simulator issues are addressed/referenced in other ANS 3 standards Tim Dennis will contact Mike Wright (ANS-3 chair). Are DOE issues referencing simulators? **2000mar09** Chandler Comments (NUPPSCO) relating to DOE simulators. We need to resolve Open NUPPSCO comments from the 1998 standards approval process.
2	**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			**Vick Dennis**	Talk to ANS about use of footnotes, asterisks, etc in standards To review style guide.
8			**Dennis**	Contact Mike Wright about the scope change Scope and Background submitted to Shawn and Mike. No schedule at present for ANS-3to review scope change.
9			**Dennis**	Is ANS 3 considering that the standard may address other simulators not specific to NRC Regulatory Commission licensing? Tim will verify with Mike concerning additional scope (adding DOE facilities into 3.5). **2000mar09** Tim will check at the next ANS 3 meeting

10				**Kozak** **Collins(Vick)** **McCullough**	Propose security criteria for Simulators operating in Exam Mode **2000mar09** Determine source of Exam Security comment
11				**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.
12					Intentionally Left Blank
13				**Florence** **Felker** **Colby**	Standard Section 3.1.3(7) - Rated coolant Flow - are BWR's OK with this? Review entire list in section 3.1.3 for applicability. Review present parameter list. Colby has additional information for discussion at the next meeting. Consider instrument accuracy relating to different plant types. Review all List; Combined with the 3.1.3(7) item (Moved from 23);
14				**Paris** **Felker** **Florence**	Review guidance on stimulated devices. Combine stimulated hardware and stimulated devices. Issues relating to various stimulated device functions and compatability with the simulator (e.g. Run/Freeze, History retention and Recalls/Backtracks, software revision control) **2000mar09** **Determine the source of this comment**
15	**Date: 2000mar09** **Status: Complete** Presentation by Allan Kozak			**Collins(Vick)** **Kozak** **McCullough**	Numerous uses of Training Needs Assessment (TNA) Collins - Add paragraph in Section 3.0 detailing TNA and then remove all other references to TNA. Training Needs Assessment was changed to Training Impact Assessment **2000mar09** **Determine Source of this comment**
16				**Welchel** **Dennis**	Coordinate use of Discrepancy and Deviation. Consider Yoder #12. NUPPSCO Comment
17				**Dennis** **Welchel**	Get feedback from industry on actually how the 1998 standard is actually used. Use USUG meetings. Cataudella – Seabrook MANTG meeting (Aug-1999) comments: • How to document Scenario Based Testing?

				• Expand on what is V&V and what is necessary. • Shelly – User feedback is not available for inclusion at this time. • Develop Mission statement for working group. • Cataudella – Problems implementing Scenario Based Testing. • Benchmarking of various sites has shown use of V&V and scenario validation. **2000mar09** Welchel - Add relevant SSNTA meeting minutes to WG minutes. Wait for industry experience
18			**Boire Kozak Shelly**	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; **2000mar09** Presentation of Virginia Power Classroom/Part-task trainer at the 2000mar09 meeting Related AI: 41
19			**Colby Florence**	Using the simulator for other than Operator Training. Uses in predictive analysis and design mods, SAMGS procedures changes; **2000mar09** Scope change. This will require approval from ANS-3
20			**Paris Colby Boire Kozak**	Exploiting technology changes and future industry trends. What's coming around the corner;
21	**Date: 2000mar10 Status: Closed** Keith Welchel wanted to dismiss this item. The WG agreed.		**Collins(Vick) Welchel Chang**	(JFC/KPW/JS) Hybrid Simulators. Hybrid Simulator refers to a simulator that implements many different technologies, source code vendors, different operating systems, integration vendors, etc. Maybe we need to have words that stipulate that testing needs to cover all the other changes we make to the simulator that may affect the operation of the simulator: Instructor Console, Operating Systems, New I/O, etc. (Voted to Dismiss-Consensus) Comments on regulation - The Working Group will not comment on regulations. The Standards Working Group is working in Working Group space.

				Keith Welchel moved to dismiss this item. Jim Florence Seconded;
22	Jim gave a presentation at the 2000 SCS conference during the USUG meeting.		**Florence Kozak**	Workshops on Testing Philosophy (what are the benefits? testing that provides results); USUG participation; Schedule workshop during USUG at SCS in Jan. 1999. Develop materials for handout. Florence lead material development. 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.
23				Inten Left Blank
24	**Date: 2000mar09 Status: Closed No Action.** Real-time at this time does not seem to be an industry concern at this time. Committee members had no issues with the definition or Section 4.1.1. Therefore, this AI was Closed.		**Dennis DeLuca**	Real Time - Tim will give further consideration and he will look at industry standards; Measuring Real-Time;
25			**Dennis**	Process Guidelines (Mods and Testing) ;Institutionalizing Procedures Dennis: Next meeting, present external review showing procedures etc… and present recommendations using Millstone experience.
26	**Date: 2000mar10 Status: Complete** Historical information was		**Dennis**	1985 ANS 3.5 Standard is Historical Standard; Tim 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.

	presented at the SCS conference. Tim checked with ANS Headquarters and this issue was discussed in detail			Does the ANS 3.5 Working Group need to comment on this issue; Utilities would need to take exception by treating Certification as other; Mark up the Form 474 and state the other that you are going to do. Scenario Based testing (> 25%/yr.); Performance Based testing Plan Dennis will call Mike Wright confirming ANS-3 understands the Historical Standard issue
27			**Collins(Vick) Dennis Koutouzis**	(JFC/TD) Possible cross-pollination with other standards. Frank and Tim will contact others
28	**Date: 1999sep15 Status: Complete**		**Florence**	Suggested a letter to Jim Stavely asking for a commitment to attend meetings along with 02Mar1999 meeting minutes; however, Jim Stavely resigned and submitted replacement resume Oliver Havens, Jr;
29	**Date: 2000mar10 Status: Complete**		**Florence Dennis**	Vice-chair prepare letter to Jim Davis asking for commitment to attend meetings along with 02Mar1999 meeting minutes; Chair to sign and send. Chair to send letter to Jim Davis and Ken Rach thanking them for their past participation and asking them for substitute resumes.
30	**Date: 1999sep15**		**Florence Welchel**	Jim Florence suggested that the following information be placed on the USUG Web Page: ANSI-3.5 Membership List, approved meeting minutes, meeting schedules and meeting agendas. Florence/Welchel will ensure WEB page is updated Florence: • Check with Shawn (ANS) for WEB space. • Check with USUG for WEB Space
31	**Date: 1999sep15 Status: Complete** Voted not to complete		**Dennis**	Mission statement for Working Group for the 2003 standard. AI #31 added 1999sep14
32		1999sep15	**Colby Collins Koutouzis Havens Felker McCulough**	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;
33			**Havens**	Change 24 month design change limit to some shorter period.

			Kozak Shelly Welchel	
34		**1999sep15**	**Welchel McCullough DeLuca Koutouzis**	Present standard does not address software bugs, descrpancies, and enhancements. Time limits only relate to plant design changes, no time limits are associated for simulator fidelity and enhancements. Related AI: 36
35		2000mar08	**McCullough Collins(Vick)**	Review the double column Draft Working Document prepared by Butch Colby
36		2000mar08	**Koutouzis Havens**	Questions from Review of INPO Documents: • Timeline for incorporation of Plant design changes into the simulator • Instructor Qualification • Long Term Open Simulator Fidelity Issues This is an information AI Related AI: 34
37		2000mar08	**Koutouzis Collins(Vick)**	Five Required Control Manipulations Clarification
38		2000mar08	**Dennis**	Discuss the ANS definitions and process of Clarification and Interpretation
39		2000mar08	**McCullough Florence Felker**	Consider differentiating validation of Requal and Initial License Scenarios
40		2000mar08	**Florence Collins(Vick) McCullough**	Appendix Update for Scenario Based Testing Documentation
41		2000mar08	**DeLuca Colby**	Appendices consideration up-front and not as an after thought. Tie documentation and Testing to the Standard Body Related AI: 18
42		2000mar08	**Chang Felker Boire**	Use of Verification and Validation
43		2000mar08	**Welchel**	Send 1998 Standard NUPPSCO comments to: • Hal Paris

				- Bob Felker - Bud Havens - Robert Boire
44		2000mar08	**Paris Havens Chang Boire**	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.
45		2000mar08	**Shelly Chang Havens**	Clarify Overrides do not have to be tested like Malfunctions and are not Malfunctions. (Survey Comment 3.15 p20)
46		2000mar09	**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		2000mar09	**Colby**	Send Thank You notes to all Survey Participants
48		2000mar09	**Colby**	Modify DCD Training Needs Assessment to Training Impact Assessment
49		2000mar09	**Kozak**	Determine source of Training Needs Assessment Related AI: 15
50		2000mar09	**Colby**	Additional survey concerning Exam Security Concerns
51		2000mar09	**Colby**	Send out another survey concerning Multi-unit questions and will try to target Simulator, Training, and OPS
52		2000mar09	**Felker**	Locate previous Multi-Unit work completed by the 1993 WG. Bob will contact Bill Geiss
53		2000mar09	**Florence (Conaway)**	Review the Appendix A – A(3) (BOM). Consider removal of the BOM list and replace with I&C list
54		2000mar09	**Vick**	Aquire US Government Style Guide

Rules of the Chairman (Tim Dennis):

- Procedures
- ANS-3.5 is a Working Group and not a Sub-Committee of ANS 3.
- Approval process NFSC, ANS-3, Public Comments
- Interim Voting (Motions) shall be by Consensus
- The Chairman rules that no Motions will be accepted when not in session

Definitions:

- **WG** – The ANS-3.5 Working Group
- **DCD** – Double Column Document (Butch Colby Document)

Working Group Document Rules:

- The WG will use the Double Column 1998/2003 document prepared by Butch Colby
- The WG DCD document will be referenced by Revision Number
- These WG minutes reference DCD Rev 1.0

Reports:

Chairman (Tim Dennis):

- ANS-3.5 Scope Change scope
- NRC and industry initiatives and standards
- Attendance Rule:
  - Send proxy
  - Two misses 3.5-WG may review membership
- Three to four meetings in 2001

Survey (Butch Colby):
- Handout
- Assignment: George McCullough will review the double column Draft Working Document;

Review of INPO documents that refer to Simulators (Dennis Koutouzis):

Dennis reviewed INPO documents that reference the use of simulators. Simulator use is referenced in many INPO and Academy documents for personnel in operations as well as non-operations training programs. There was discussion on the use of simulators in other than operator training programs, and the need to reference the simulator as an ANS 3.5 simulator. There is potential for some INPO documents to be misinterpreted and simulators used for activities that would require a higher fidelity than is currently possible. The distinction between validating procedures base on engineering analysis and using simulator data to develop procedure strategies was discussed. Additionally, the simulator is not an engineering level simulator that can be used for certain engineering activities.

Bob Felker stated that the working group has not in the past considered training and implementation issues, and has focused on the technical aspects of simulation.

Dennis also said that INPO has provided evaluators additional guidance to improve the evaluation of simulator fidelity. Evaluators are encouraged to go beyond the traditional performance based approach and more effectively use information from many sources such as interviews of station, training and simulator personnel as well as from reviews of simulator documents. This could help identify problems previously not found.

A handout was provided that contained portions of selected documents that contain a reference to the use simulators. The handout contained information from the following documents:

- ACAD 00-001 (Objective 7)
- ACAD 00-002 (Objective 7)
- ACAD 90-002
- ACAD 90-022
- INPO 97-011
- INPO 90-009
- INPO 87-021
- INPO 86-025
- TQ-505 Appendix I (Draft ACAD 00-002 is in progress to update this document)
- SOER 96-2
- An internal paper, for INPO evaluators to reference when evaluating simulator fidelity.

Review/Acceptance of Sep 14-16 Meeting Minutes:

- Several minor editorial corrections were incorporated in the meeting minutes.
- Revision 03
- The meeting minutes will be Emailed to members

Survey Discussion (Butch Colby):

- Feedback from ANS-3.5 1998 Standard usage and other general industry questions
- 53 surveys returned with one survey serving multi-unit plants
- ANS3.5WG agreement not to collect more data
- Discussions concerning the Standard's Scope and the survey. Any areas not specifically stated in the Scope cannot be considered in the 2003 standard without changing the scope. The Scope defines the ANS-3.5 boundaries.
- Survey key areas concerning the 1998 Standard(Butch):
    - High percentage of uses plan on implementing the 1998 Std
        - Based on NRC's rule change and endorsement
    - Management support
    - Additional resources and money to implement
    - Industry consensus that the 1998 Standard will require additional work, money and resources. The ANS3.5WG did not share this opinion.
    - Utility
        - (Conaway) Cooper plans to gog to 1998 by the end of 2000
        - (McCullough) DC Cook concerns with Initial License

- (Chang) Millstone - 1998 Std will save time
- (Dodge) – NRC Reg. Guide concerns
- (Havens) – Plans on implementing 1998 Std this year.
- (Welchel) – Concerns with HLP scenario validation and NRC Reg. Guide concerns
- Felker –
  - Old testing methodology is costly and ineffective
  - Problems were not being resolved using the old standard
  - No benefit from the present testing program
  - The 1998 testing methodology is trying to address the ineffective testing
  - It is realized that scenario validation was presently taking place already in a limited form
  -
- Documentation an issue:
  - How much documentation is required for scenario validation
  -
- Consider differentiating validation of Requal and Initial License Scenarios
- Consider added an appendix that outlines an acceptable method for Scenario Based Testing Documentation
- Reconsider the use of verification and Validation
- Clarify repeatability wrt to Real-time and that Repeatability is not related to Scenario Based Testing
- Clarify Overrides do not have to be tested like Malfunctions and are not Malfunctions. (Survey Comment 3.15 p20)
-

USUG Update (George McCullough)

- Scenario Based Testing Update
- Exam Security
  - Differing levels of understanding of Exam Security
  - Differing Exam Security implementations
  - Software Locks
  - Performance Indicators

- **New Membership**
  - George Huang resigned
  - Shih-Kao Chang new member election – **Accepted**
  - Discussed additional membership. The WG presently consist of 15 members (8 Utility, 2 Organizations, 4 Vendors, 1 NRC). The committee agreed the present membership makeup is acceptable. The present makeup covers a broad range of industry and organizational experience. Additional membership was not considered at this time.

Adjourned 1700

Thursday 2000Mar09 (Day 2)

Introduction of Guests:

- H. Ashley Royal
    - Superintendent Nuclear Training – North Anna Power Station
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- Robert Soderholm
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Review of Previous days Events

- (**AI**) Butch Colby – Request members review the other parts of the survey and comment. Members are ask to review and submit two bullets from each section that they consider important for further ANS3.5WG consideration

Tim Dennis

New Laws defining the governments use of standards and industry initiatives
- Agency's should use standards and industry initiatives instead of developing new standards.
- NIST (National Institute of Standards Technology)
- Agencys are required to report on progress (OMB-A119)
- These laws possibly affect the NRC's business practices

Action Item Discussion and Resolution

Action Item # 15 Allan Kozak Numerous uses of Training Needs Assessment (TNA) Collins - Add paragraph in Section 3.0 detailing TNA and then remove all other references to TNA	Pg.2 Definition **Training Needs Assessment**	Rewrite to " subject matter experts". This should indicate cross-discipline reviews.	Felker – Background for TNA is related to previous Consequential Failure discussions. TNA was added to limit simulation. Dennis – Redundancy in sections 3 and 4 because section 4 is the action item.	**Motion:** Change **Training Needs Assessment** to **Training Impact Assessment.** Still need to determine if this originated from a NUPPSCO comment. Originator:
	pg. 11 Sect. 3.1.4, pg.-4 "Malfunction"	Could be eliminated by a reference to section 4.2.1.4		
	p.13 Sect. 3.2.1.4, pg.-5 "Simulator Control Room Deviations"	Needs to stay in the body		
	pg. 20 Sect. 4.2.1.1, pg.-7 "Scope of Panel Simulation"	Could be eliminated since panel deviations are addressed in section 3.2.1.4, maybe in a referral to section to 3.2.1.4.		
	pg. 21 Sect. 4.2.1.2, pg.-8 "Instrumentation, Controls, Markings, and Operator Aids"	Could be eliminated since audio-visual cues are addressed in section 3.2.1.4, maybe in a referral to section to 3.2.1.4.	Concern that this is a style issue. Concerns having the standard constantly refer to other sections of the document.	
	pg. 21 Sect. 4.2.1.3, pg.-8 "Control Room Environment"	Could be eliminated by a reference to section 4.2.1.4		
	Sect. 4.2.1.4, pg.-8 "Assessment of Deviations"	Add reference to section 5.3		
	Sect. 4.2.2.1, pg.-8 "Systems Controlled or Monitored from the Control Room"	Needs to stay in the body.		

	Sect. 4.2.2.2, pg.-9 "Systems Controlled or Monitored External to the Control Room"	Could be eliminated by a reference to section 4.2.1.4		
	Sect. 4.3, pg.-9 "Simulator Instructor Station Capabilities"	Could be eliminated by a reference to section 4.2.1.4		
	Sect. 5.3.1.1, pg.-11 "Initial Upgrade" Sect. 5.3.1.2, pg.-11 "Subsequent Upgrade" Sect. 5.3.2, pg.-11 "Performance Based Simulator changers'	Could be eliminated.		

	Rewriting the "training needs assessment" phrasing that's used throughout the Standard into a statement that references it could be a way to eliminate some of it use.		Havens – Why is 4.2.1.4 a stand alone section. Reason – Sections 3 and 4 match one-for-one	
	General Statement "It shall be demonstrated that noticeable differences are documented and that a training needs assessment has been conducted in accordance with the criteria provided by 4.2.2.4" Suggested Statement rewrite "It shall be demonstrated that noticeable differences are documented in accordance with the criteria provided by 4.2.2.4"			

Action Item #24 Tim Dennis Bill DeLuca / Cleon Dodge Real Time - Tim will give further consideration and he will look at industry standards; Measuring Real-Time;			**Presentation (Tim Dennis)**: **Statement** Determine Technical basis for Real-time **Question?** How does industry measure Real-time **Sections** Definitions- pg. 4 Section 3.1.1 "Real Time and Repeatability" pg. 7 Section 4.1.1 "Real Time and Repeatability pg. 16 Appendix D • D2 pg. 45 • D3 pg. 46 **Reference:** "Reviewing Real-time Performance of Nuclear Reactor Safety Systems" G.G. Preckshot, LLNL **Expectations** • Operator has perception of Real-time • Run with time	

			constraints ● Complexity evaluation (worse case transient runs)	

Action Item #11 Bob Felker Standard Section 3.14 - 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.			Felker: Concerned about old wordings and List. Once in the document, its difficult to remove or change. Specifically the 25 malfunctions list. Consider a review of all lists. Don't consider the list as sacred cows. The committee should review all list for applicability or determine if the committee wants to continue to carry lists.	
Action Item #14 Hal Paris Review guidance on stimulated devices. Combine stimulated hardware and stimulated devices. Issues relating to various stimulated device functions and compatability with the simulator (e.g. Run/Freeze, History retention and Recalls/Backtracks, software revision control)	Section 3.3.3 Other Features Concerns with Stimulated devices storing data and the simulators ability to recall correctly.		Historical – Stimulated devices refers to controllers and smart devices in-lue of paperless recorders or necessarily logging devices. A Plant Computer may be considered a stimulated device. Felker – This is a requirement in Section 3.3.3 (1998). An impact Needs Assessment is required for non-compliance. Implementation of Stimulated devices should not dictate requirements (functional requirements should not differ based on implementation method)	No Change Still need to determine if this originated from a NUPPSCO comment. Originator:

Action Item #10	Section 3.0 pg. 7		Allan gave presentation concerning Security issues and implementation.	Originator: Frank Collins
Allan Kozak				Additional information will be requested via survey.
Propose security criteria for simulators operating in Exam Mode.			**Presentation**: EXAMINATION SECURITY	
			Action Item #10	
			Statement	
			Under section 3– General Requirements, second paragraph, a statement is made:	
			" The overall simulator design shall incorporate provisions for examination security"	
			Questions?	
			Should this statement be clarified within the Standard?	
			If so, where and how?	
			Should we define or give examples of the criteria?	
			What are the criteria?	

				Examples of security criteria:	
				Password protection for Initial Conditions (IC's)	
				Login prevention from outside the simulator envelope	
				Deletion of historical data from peripheral devices	
				Separation capability from external networks	
				Controlled use of wireless microphones	
				Implemented security measures should be monitored from the Instructor Console	
				Secure lockdown of entry points to the simulator	
				One minor editorial question?	

			This paragraph contains three sentences. Should the security topic be placed last? **Additional Information**: NO comments were collected from USUG or other industry organizations.	

Virginia Power Classroom Trainer Presentation:

The host, Virginia Power gave a very impressive demonstration of their Classroom Part-Task Trainer Technology. This technology consist of interactive Real-time simulation and additional support programs that allow the user to access plant design data and graphical information including digital images of plant equipment and control boards. This is indeed a very impressive system and the committee viewed this technology very positively.

Re-Affirmation Motion of 1998 Standard

The committee resumed discussion of re-affirming the 1998 standard. This issue was Tabled at the September Meeting at Cooper.

- The standard will assume the date of re-affirmation. Therefore, if the standard is re-affirmed in 2000, the standard timeline will assume 2000 to 2005
- Shawn M. Coyne-Nalbach suggests most Working Groups recess for the reminder of the term of the standard. Then convene to re-affirm the standard at the end of the present term.
- Keith Welchel displayed the SSNTA 2000 meeting minutes concerning the 1998 Standard.
- NRC is pursuing a triple track for regulation change. First level signoff's are complete.
- Felker – As written, the Frank Collins motion to re-affirm the 1998 standard prohibits further committee work. The committee would be required to :

Reaffirm the 1998 ANS3.5 standard without revision and discontinue working group meetings until additional major changes to the Standard can be identified

- Felker – Called a vote on the Frack Collins Motion to re-affirm the 1998 standard.
  - Consensus is eight voting Yes
    - Voting Yes – 0
    - Voting No – 11
  - The Motion the re-affirm the 1998 standard failed.
  - The committee voted unanimously not the re-affirm the 1998 standard.

Issues of Voting when not in Session:

- Keith Welchel would like the committee to adopt rules that Motions and Voting will be conducted when the committee meets
- Hall Paris agreed with Keith
- Butch Colby agreed that meeting in session is important and that this should be the order of business
- Tim Dennis stated that ANS head Quarters would like the WG to conduct business in the most efficient manner possible. The WG can decide how to handle this issue
- The issue was opened up for discussion and there were no opposing views
  - Issues that affect voting
    - Quorum
    - Contacting all members
    - Lack of robust discussion for related issues
- The Chairman ruled that no Motions will be accepted when not in session

Adjourned 1700

Friday 2000Mar10 (Day 3)

Introduction of Guests:

- Sharad Kumar
  - Simulator Support Coordinator – North Anna Power Station
  - Email: sharad_kumar@vapower.com
  - Phone: 540-894-2726

Continuation of other Survey

- Multi-Unit

- Many responded they have different Procedures for each Unit
- Issues could include training on a Unit specific simulator using another unit's procedures
- The ANS-3.5 standard is Unit Specific and we do not plan on addressing other uses of the simulator
- Bud Havens was added to AI#32
- Butch assumed the lead for AI#32
- Butch will send out another survey concerning Multi-unit questions and will try to target Simulator, Training, and OPS. AI#51

Motion by Ron Conaway:

Remove the Appendix A – A(3) "simulator bill of materials".

Approved (Unanimous)

BOM was provided during the construction period. This document was a vendor supplied document and this document is no longer maintained by the simulation facility. The simulator configuration management process maintains modifications to the simulator Hardware Configuration.

Discussion of next meeting:

George McCullough will host a USUG workshop in September 2000.

George will develop a schedule.

The WG discussed meeting two days before the USUG Workshop.

The USUG Workshop is tentatively set for the 3rd or 4th week in September 2000.