

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

ANS 3.5 Working Group Meeting Minutes
American Nuclear Society
Crystal River, Florida
2011 Jan 25-27

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

1.	VISITORS	4
2.	MEMBERSHIP AND ATTENDANCE	5
3.	ACTION ITEMS.....	7
3.1	ACTION ITEM QUICK-LOOK TABLE	7
3.2	NEW ACTION ITEMS	8
4.	WORKING GROUP PROCEDURAL RULES	14
4.1	RULES OF THE CHAIR	14
4.2	RULES ENACTED BY THE WORKING GROUP	14
5.	TUESDAY 2011 JAN 25 (0800)	15
5.1	INTRODUCTION (LEE LINTON)	15
5.2	ROLL CALL	15
5.3	CONSENSUS LEVEL	16
5.4	AGENDA APPROVED	16
5.5	BUSINESS RULES	16
5.6	MEMBERS REVIEWED RULES OF THE CHAIR (NO CHANGE)	16
5.7	OFFICERS REPORTS	16
5.8	NRC (VICK)	17
5.9	NEW MEMBERSHIP INTRODUCTIONS (FLORENCE)	17
5.10	STANDARD SCOPE DEVELOPMENT	17
5.11	RECESSED: 1720	19
6.	WEDNESDAY 2011 JAN 26 (0800)	20
6.1	ROLL CALL	20
6.2	CONSENSUS LEVEL	20
6.3	SCOPE –CONTINUED	21
6.4	RECESSED: 1830	24
7.	THURSDAY 2011 JAN 27 (0800).....	25
7.1	ROLL CALL	25
7.2	CONSENSUS LEVEL	25
7.3	REVIEW PROJECT INITIATION NOTIFICATION SYSTEM (PINS) FORM	26
7.4	ACTION ITEM REVIEW	26
7.5	NEW ACTION ITEMS	26

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

7.6	NEW FOCUS AREAS	28	
7.6.1	<i>Tech Support and other Simulator Uses</i>		28
7.6.2	<i>DCS Inclusion</i>		29
7.6.3	<i>Experience Requirements (Reactivity Control Manipulations)</i>		29
7.6.4	<i>Other Simulation Devices</i>		29
7.7	NEW BUSINESS	30	
7.7.1	<i>Cyber Security</i>		30
7.7.2	<i>Initial Conditions</i>		30
7.8	NEXT MEETING	30	
7.9	ADJOURNED: 1345	31	
8.	ATTACHMENT - STYLE GUIDE REVIEW (SK CHANG)		32

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

1. **Visitors**

Visitor	Date	Affiliation	Email, Phone Fax
Mr. Tim Dennis Observer	2011jan25	645 Lehigh Gap St. P. O. Box 119 Walnutport, PA 18088-0119	Email: a243@yahoo.com Phone: 610-767-0979 Fax: 610-767-7095
Mr. Bill Fraser	2011jan25	Westinghouse Electric Company Nuclear Services I-70 Madison Exit 54, MB #20 Madison, PA 15663, USA	Email: fraserwa@westinghouse.com Cell: 717-304-6225 Work: 724-722-5777 Work: 724-722-5665
Dr. Burkhard Holl	2011jan25	PO Box 150251 45242 Essen Germany	Email: b.holl@ksg-gfs.de Work: +49/201/4862-172 Fax: +49/201/4862-404

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

2. Membership and Attendance

Present	Member	Address	Notes-Proxy	Email-Phone-Fax
Present	Jim Florence Chair	Nebraska Public Power District P. O. Box 98 Brownville, Nebraska 68321		Email: jbflore@nppd.com Phone: 402-825-5700 Fax: 402-825-5584
Present	Robert Felker Vice Chair	Western Services Corporation 7340 Executive Way, Suite A Frederick, MD 21704		Email: felker@ws-corp.com Phone: 301-644-2520 Fax: 301-682-8104 Cell: 240-344-5889
Present	Keith Welchel Secretary	Duke Power Company Oconee Training Center- MC:ON04OT 7800 Rochester Hwy Seneca, SC 29672		Email: kwelchel@duke-energy.com Phone: 864-885-3349 Fax: 864-885-3432
Present	F.J. (Butch) Colby Editor	L-3 MAPPS 8565 Cote-de-Liesse Quebec, Canada H4T 1G5		Email: butchcolby@comcast.net Email: butch.colby@l-3com.com Phone: (410) 961-7535 Fax: (410) 756-1954
Present	Lawrence (Larry) Vick Parliamentarian	US NRC, Office of Nuclear Reactor Regulation 07-G13 Washington, DC 20555		Email: lawrence.vick@nrc.gov Phone: 301-415-3181 Fax: 301-415-3061
Present	George McCullough	GSE Systems, Inc. 2300 St. Marys Road Suite D St. Marys, GA 31558		Email: gsmccullough@gses.com Phone: 912-576-6730 Cell: 410-707-6946
Present	Dennis Koutouzis	INPO 700 Galleria Parkway, NW Atlanta, GA 30339-5957		Email: koutouzisjd@inpo.org Phone: 770-644-8838 Fax: 770-644-8120
Present	Frank Tarselli	129 Abbey Rd Sugarloaf, PA 18249		Email: frankt64@epix.net Phone: 570.542.3717 Cell: 570-956-0303 Fax: 570.542.3855
Present	SK Chang	Dominion Nuclear Connecticut, Inc. Millstone Power Station L. F. Sillin, Jr. Nuclear Training Ctr. Rope Ferry Road Waterford, CT 06385		Email: Shih-Kao.Chang@dom.com Phone: 860-437-2521 Fax: 860-437-2671
Present	Robert Goldman	Entergy 1340 Echelon Parkway Jackson, MS 39213-8298		Email: rgoldma@entergy.com Phone: 601-368-5582 Fax:
Present	David Goodman	Luminant PO Box 1003 Glen Rose, TX 76043		Email: david.goodman@luminant.com Phone: 254-897-5636 Fax: 254-897-5714

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

Present	Jody Lawter	VC Summer Nuclear Station PO Box 88 Jenkinsville, SC 29065		Email: jody.lawter@scana.com Phone: 803-345-4854 Fax: 803-931-5616
Present	Mac McDade	Progress Energy – Harris Nuclear Plant 3932 New Hill–Holleman Rd New Hill, NC 27562		Email: mac.mcdade@pgnmail.com Phone: 919-362-3319 Fax: 919-362-3346
Present	Michael Petersen	Xcel Energy – Prairie island – Monticello 1660 Wakonade Drive West Welch, MN 55089		Email: Michael.petersen@xenuclear.com Phone: 651-388-1121 x 7253 Fax: 651-330-6282
Present	Pablo Rey	Tecnatom, s.a. Avda. Montes de Oca, 1 San Sebastian de los Reyes, 28703 - Madrid		Email: prey@tecnatom.es Phone: +346-079-99218 Fax: +349-165-98677
Present	James Sale	North Anna Power Station 11022 Haley Drive, PO Box 402 Mineral, Virginia 23117-0402		Email: jim.sale@dom.com Phone: 540-894-2464 Fax: 540-894-2931
Host	Lee Linton	Crystal River 3 Nuclear Power Plant Training Center 8200 West Venable St. Crystal River, FL 34429		Email: lee.lintonjr@pgnmail.com Phone: (352) 795-0504, x 6258 Fax:

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

3. **Action Items**

3.1 Action Item Quick-look Table

Open				Complete		Carried to Next Standard			
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24						

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

3.2 New Action Items

No.	Status	Date	Assigned To:	Work Assignment
1		2010oct05	Florence Lawter Sale	Appoint new members for officer development (job shadow for position development). Parliamentarian Assist Lawter, Sale
2		2010oct06	Koutouzis McCullough	2009 AI-60 Define the Term Training Needs Assessment in such a manner that it is clear in intent to both Training and Simulator staff
3		2010oct06	Vick Tarselli (BWR) Petersen (BWR) Rey (BWR) Goodman (PWR) McDade (PWR) Sale (PWR)	2009 AI-126 Consider adding Performance Test Program in next standard. New Appendix that gives example Performance Testing Program.
4		2010oct06	Tarselli Vick Chang Fraser Felker	2009 AI-132 Review Malfunction Testing. Are all list required? What constitutes Malfunction testing is unclear Better define Malf causes.
5		2010oct06	McCullough Florence Tarselli Colby	2009 AI-134 Minimum testing Periodicity Build Periodicity into the standard
6		2010oct06	Welchel Lawter Petersen	2009 AI-147 2009 AI-180 Non-fully integrated mode performance testing Where applicable run performance test off-line
7		2010oct06	Vick Goldman	2009 AI-150 Review the term Power Range for consistency Confusion about the term Power Range.

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

8		2010oct06	Chang Tarselli Felker	2009 AI-162 Review Appendix B parameters against the standard body MANTG comments App. B parameters and std body are not consistent.
9		2010oct06	Felker Lawter McCullough Fraser Colby Goodman McDade Koutouzis Rey Sale	2009 AI-163 Next generation simulators New builds. Public review comments that the WG did not considered new builds. Examine unique issues with new builds. Review will ask if 3.5-2009 provides sufficient guidance for new builds.
10		2010oct06	McCullough Felker McDade Goldman	2009 AI-179 Real-time and Repeatability testing Periodicity 2009 Public review comments. Methodology to demonstrate real-time.
11		2010oct06	Goodman Vick Petersen Chang	2009 AI-181 Section 5 rewrite 2009 Westrain Comment #60 Configuration Management expectations needs strengthening Performance based. V&V is part of configuration mgt. (Section 4) possible a better fit in Section 5

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

12	Complete: 2010oct22	2010oct06	Florence	Invite ANS-21 Chair to WG meeting ANS-21 Chair Gene Carpenter Two White Flint North Washington, DC 20555-0001 Mobile Ph: 202-579-5155 Work Ph: 301-415-7333 Email: gene.carpenter@nrc.gov
13	Complete: 2011jan28	2010oct06	Florence	Send letters of appointment to new working group members and their respective facility management Letter to new working group member and manager.
14	Complete: 2011jan28	2010oct06	Florence	Coordinate next ANS-3.5 Meeting at the Crystal River Nuclear Power Plant in January 2011
15	Complete: 2011jan28	2010oct06	Florence	2009 AI-185 Send a letter to the NEI in an effort to promote NEI participation in the ANS-3.5 Working Group and to develop a more collaborative relationship.
16		2011jan28	Sale Rey McCullough Tarselli Chang Koutouzis	Consider the option to include other uses of the simulator in footnote 1 on Page 1 of the Standard (e.g. - technical support). This was a consideration during the development of the scope statement in lieu of explicitly mentioning other uses of the simulator in the scope statement.

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

17		2011jan28	McDade Tarselli Koutouzis Petersen	<p>Consider placing language in Section 1.2 Background to insert “experience requirements”: “It is intended that in meeting the criteria of this standard, the simulator will be sufficiently complete and accurate to meet the training needs of the industry as well as the requirements of the NRC, as described in <i>Code of Federal Regulations</i>, Title 10, “Energy,” Part 55, “Operators' Licenses” (10CFR55) and station mandated experience requirements</p> <p>Consider language in Section 1.2 Background to add clarification regarding control manipulations allowed by 10CFR55.46 and how this standard supports it.</p>
18		2011jan28	Florence Rey Holl Fraser	<ol style="list-style-type: none"> 1) Contact ANS to determine international opportunities in Standard development. 2) Consider language in Section 1.2 Background to mention use of this standard by the international community. 3) Additional consideration in the Standard body for the international community. <p>Acknowledge international regulatory authorities.</p>

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

19		2011jan28	Tarselli McCullough Goodman Chang Rey	Review the list below for inclusion into ANS 3.5 or other standards and basis for the recommendation: <ul style="list-style-type: none"> • Engineering Assist • Simulation Assisted Engineering • EP • DCS Logic Control Validation • HFE – Human Factors Engineering • Tech Training – I&C / Mechanical • PR Tours • Process Flow Diagrams • Spec. Operating Parameters • PRA • SAMG
20		2011jan28	McCullough Colby Tarselli Lawter Fraser	Identify areas in the standard that can be improved to address DCS
21		2011jan28	McCullough Felker Koutouzis Lawter Goodman	Evaluate the need for inclusion into the standard other simulation devices derived directly from the full scope control room simulator.
22		2011jan28	Lawter Sale Welchel Vick Felker	Review the recent regulatory cyber security guidance and OE to determine if cyber security should be included in the standard.

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

23		2011jan28	Vick Tarselli Rey Sale Florence Chang	Evaluate the need for including into Section 3.3.1 a set of IC criteria for ICs that are to be used when conducting the performance tests required by this standard.
24		2011jan28	Florence	Submit PINS Form to ANS Administrator

4. Working Group Procedural Rules

4.1 Rules of the Chair

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

4.2 Rules Enacted by the Working Group

Missing two consecutive meetings in a row without representation could result in loss of membership on the committee.

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

5. Tuesday 2011 Jan 25 (0800)

5.1 Introduction (Lee Linton)

5.2 Roll Call

Present:

Chang, SK

Colby, Butch

Florence, Jim

McCullough, George

Tarselli, Frank

Vick, Larry

Welchel, Keith

Felker, Bob

Koutouzis, Dennis

Robert Goldman

David Goodman

Jody Lawter

Mac McDade

Michael Petersen

Pablo Rey

James Sale

Absent:

None

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

5.3 Consensus Level

- 16 - Voting members
- 16 - Voting members Present
- 9 - Quorum (Majority Total Membership)
- 12 - Consensus (75% Membership Attendees)
- 11 – Super Majority (2/3 Membership Attendees)
- 9 – Majority (> 50% Membership Attendees)

5.4 Agenda Approved

5.5 Business Rules

Roberts Rules of Order

5.6 Members reviewed Rules of the Chair (no change)

5.7 Officers reports

Florence

No report

Welchel

No report

Colby

The standard working copy will be maintained in a two column format. The working copy is confidential to the working group and should not be shared outside the working group.

Chang

Style Review (Attachment)

Koutouzis (INPO)

Realism – Main emphasis are items within instructor control

Fidelity – Time limited and performance triggered

USUG (Florence)

No report

5.8 NRC (Vick)

- Reg Guide 1.149 Rev 4 - Proposed publication target end of March 2011
- IP71111.11 Inspection Process– No proposed changes
- NRC FAQ – Total review
- NRC is encouraging industry to adopt ANS 3.5-2009
- Note: Reg Guide is not a Rule

5.9 New Membership Introductions (Florence)

New members were introduced and welcomed to the working group:

Robert Goldman
David Goodman
Jody Lawter
Mac McDade
Michael Petersen
Pablo Rey
James Sale

5.10 Standard Scope Development

Brought forward from minutes 2010 Oct 05-06 Section 6.1 Standard Scope Development

- List of Simulator uses:
 - Engineering Assist
 - 201x – Needs Definition
 - Meeting Experience Requirements
 - 201x – Needs Definition
 - Utilize Classroom or Simulators other than Full Scope
 - Classroom, Soft Panel, Glass Top, etc Simulators
 - 2009 Appendix D is not referenced in standard body
 - Possibly use for meeting experience requirements

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

- List of new technologies and uses
 - New Builds
 - Engineering Assist
 - Human Factors
 - Separate sections in next Standard could identify needs for:
 - Initial (new) Build Simulators
 - Continuing maintenance on “legacy” simulators
 - DCS
 - Engineering Assist
 - Human Factors
 - Emulation
 - Virtual Reality

Discussion:

Moving the standard towards Engineering Assist: Today’s simulators are mainly used for the issuance of operator license examination requirements and changing the scope should not invalidate this main requirement.

Possible additions:

- Infrequently performed evolutions
- EP
- EOF Tech support

Today a simulator’s main use is in meeting training objectives.

Engineering simulator requirements are beyond the scope of training requirements.

Engineering Assist does not imply Engineering Simulator.

Referencing other standards is not permitted. Standards Law.

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

A robust discussion ensued concerning engineering use of an “operator training simulator.” Terms centered on Engineering Simulator and Engineering Assist. These terms are sometimes used interchangeably, when the actual use is quite different.

Several members stated the present standard is sufficient to build the new plant design simulators. Several other members expressed reservations that the present standard adequately addresses the new designs and DCS.

Additional discussions centered on DCS and possibly additional language specific to DCS.

Concerns were expressed that engineering references can possibly open the door for 10CFR50 Appendix B and NQA 1 audits.

Standard changes and additions that address recent technological shifts or improvements should be considered as to not become obsolete in short order.

Reoccurring themes from today’s discussion for Scope change considerations:

- Experience requirements – Reactivity control manipulations to satisfy experience requirements
- Engineering Assist – Simulator use in assisting unit engineering with unit modifications
- DCS – New and unique requirements and functionality
- Classroom Simulators – FS Simulation code used outside the FS Unit Control Room

5.11 Recessed: 1720

6. Wednesday 2011 Jan 26 (0800)

6.1 Roll Call

Present:

Chang, SK
Colby, Butch
Florence, Jim
McCullough, George
Tarselli, Frank
Vick, Larry
Welchel, Keith
Felker, Bob
Koutouzis, Dennis
Robert Goldman
David Goodman
Jody Lawter
Mac McDade
Michael Petersen
Pablo Rey
James Sale

Absent:

None

6.2 Consensus Level

16 - Voting members
16 - Voting members Present
9 - Quorum (Majority Total Membership)
12 - Consensus (75% Membership Attendees)
11 - Super Majority (2/3 Membership Attendees)
9 - Majority (> 50% Membership Attendees)

6.3 Scope –Continued

The morning was utilized discussing the scope regarding the use of the term Full Scope, and the characterization of operator training. Various scope examples were put forth by members and discussed.

Motion

<p>McCullough 2011 jan 26</p> <p>Motion:</p> <p>This standard establishes the minimum functional requirements for nuclear power plant control room simulators for commercial power reactors subject to U.S. Nuclear Regulatory Commission (NRC) regulation. The standard also establishes criteria for the scope of simulation, performance, and functional capabilities of nuclear power plant control room simulators.</p>	<p>Motion: Withdrawn</p> <ul style="list-style-type: none">• x – For• x – Against• x – Abstained
---	---

McCullough Supporting discussion:

- Added minimum because the standard defines the minimum required
- Simulator changed to Control Room Simulator further defines the subject matter
- Commercial Power Reactor used to further defines the subject matter

Concern was expressed that the proposed wording excludes remote panels in other rooms/locations.

The Standard requires that actions taken by the operator do are not different than those taken in the actual control room. The location of the remote panel is irrelevant.

The proposed wording does not meet the NSFC minimum requirements.

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

Full Scope is missing.

The NRC's definition of reference plant and reference unit were reviewed.

Motion withdrawn.

The Scope discussion continued and the working group reviewed and discussed alternative scope wordings.

<p>McDade 2011 jan 26</p> <p>Motion: This standard establishes the functional requirements for full scope nuclear power plant control room simulators that are subject to U.S. Nuclear Regulatory Commission (NRC) regulation for use in operator training, examination and experience requirements. The standard also establishes criteria for the scope of simulation, performance, and functional capabilities of nuclear power plant control room simulators.</p> <p>This standard does not establish criteria for the use of simulators in operator training programs.</p>	<p>Motion: Amended</p> <ul style="list-style-type: none">• x – For• x – Against• x – Abstained
--	---

McDade supporting discussion

- Bound to singular full scope simulator device
- Experience requirements used instead of reactivity control manipulations due to broader coverage. Could cover a lot more than just reactivity control manipulations.

The discussion is centered on the meaning of "Experience Requirements" (e.g. Reactivity control manipulations only or a much broader meaning encompassing much more)

McDade – Experience requirements are those activities expected to be completed on the simulator.

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

<p>McDade 2011 jan 26</p> <p>Amended Motion: This standard establishes the functional requirements for full scope nuclear power plant control room simulators that are subject to U.S. Nuclear Regulatory Commission (NRC) regulation for use in operator training and examination.¹⁾ The standard also establishes criteria for the scope of simulation, performance, and functional capabilities of nuclear power plant control room simulators.</p> <p>This standard does not establish criteria for the use of simulators in operator training programs.</p> <p>¹⁾ Guidance is provided in Appendix D to adapt this standard to part-task and limited-scope simulators to ensure fidelity appropriate to the intended use for operator training and examination.</p>	<p>Motion: Carried</p> <ul style="list-style-type: none">• 16 – For• 0 – Against• 0 – Abstained
---	--

Vote called on the Amended Motion.

The Amended Motion was accepted by unanimous vote and replaced the original motion.

<p>McDade 2011 jan 26</p> <p>Motion: This standard establishes the functional requirements for full scope nuclear power plant control room simulators that are subject to U.S. Nuclear Regulatory Commission (NRC) regulation for use in operator training and examination.¹⁾ The standard also establishes criteria for the scope of simulation, performance, and functional capabilities of nuclear power plant control room simulators.</p>	<p>Motion: Carried</p> <ul style="list-style-type: none">• 13 – For• 2 – Against• 1 – Abstained
--	--

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

<p>This standard does not establish criteria for the use of simulators in operator training programs.</p>	
---	--

<p>¹⁾ Guidance is provided in Appendix D to adapt this standard to part-task and limited-scope simulators to ensure fidelity appropriate to the intended use for operator training and examination.</p>	
--	--

Reasons Against: Missed opportunity to move the standard forward.

Reason Abstained: Scope does not reflect simulators for use in meeting experience or for use in engineering support.

6.4 Recessed: 1830

7. Thursday 2011 Jan 27 (0800)

7.1 Roll Call

Present:

Chang, SK
Colby, Butch
Florence, Jim
McCullough, George
Tarselli, Frank
Vick, Larry
Welchel, Keith
Felker, Bob
Koutouzis, Dennis
Robert Goldman
David Goodman
Jody Lawter
Mac McDade
Michael Petersen
Pablo Rey
James Sale

Absent:

None

7.2 Consensus Level

16 - Voting members
16 - Voting members Present
9 - Quorum (Majority Total Membership)
12 - Consensus (75% Membership Attendees)
11 - Super Majority (2/3 Membership Attendees)
9 - Majority (> 50% Membership Attendees)

7.3 Review Project Initiation Notification System (PINS) Form

The ANS-3.5-201X Scope was documented on the PINS form.

The PINS Form (Page 1) was approved by the working group.

AI 24

Submit PINS Forms to ANS Administrator.

7.4 Action Item Review

Action Items review and table updated.

7.5 New Action items

See Action Item Table for final disposition

AI16

Consider the option to include other uses of the simulator in footnote 1 on Page 1 of the Standard (e.g. - technical support). This was a consideration during the development of the scope statement in lieu of explicitly mentioning other uses of the simulator in the scope statement.

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

AI17 Part 1

Consider placing language in Section 1.2 Background to insert “experience requirements”: It is intended that in meeting the criteria of this standard, the simulator will be sufficiently complete and accurate to meet the training needs of the industry as well as the requirements of the NRC, as described in *Code of Federal Regulations*, Title 10, “Energy,” Part 55, “Operators' Licenses” (10CFR55) **and station mandated experience requirements**

AI 18

Consider language in Section 1.2 Background to mention use of this standard by the international community.

AI 17 Part 2

Consider language in Section 1.2 Background to add clarification regarding control manipulations allowed by 10CFR55.46 and how this standard supports it.

7.6 New Focus Areas

7.6.1 Tech Support and other Simulator Uses

- Engineering Assist
- Simulation Assisted Engineering
- EP
- DCS Logic Control Validation
- HFE – Human Factors Engineering
- Tech Training – I&C / Mechanical
- PR Tours
- Process Flow Diagrams
- Spec. Operating parameters
- PRA
- SAMG

Concerns with users utilizing the simulator but are not aware with the simulator's limitation.

In many instances, the simulator is the only device available to support the complex testing required.

Possible AI - Develop an Appendix that gives guidance for using the simulator for other purposes.

Possible AI – Of the list above what should be included into the std body and/or other standards.

AI 19

Review the list below for inclusion into ANS 3.5 or other standards and basis for the recommendation:

- Engineering Assist
- Simulation Assisted Engineering
- EP

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

- DCS Logic Control Validation
- HFE – Human Factors Engineering
- Tech Training – I&C / Mechanical
- PR Tours
- Process Flow Diagrams
- Spec. Operating Parameters
- PRA
- SAMG

7.6.2 DCS Inclusion

AI 20

Identify areas in the standard that can be improved to address DCS.

7.6.3 Experience Requirements (Reactivity Control Manipulations)

No additional discussion

7.6.4 Other Simulation Devices

Other simulation devices are used in operator training and should be considered for inclusion into the standard

AI 21

Evaluate the need for inclusion into the standard other simulation devices derived directly from the full scope control room simulator.

7.7 New Business

7.7.1 Cyber Security

Possibly the WG can develop useful guidance for Cyber Security

Presently the standard only addresses exam security and the WG discussed if cyber security should be included

AI 22

AI Review the recent regulatory cyber security guidance and OE to determine if cyber security should be included in the standard.

7.7.2 Initial Conditions

Vick – The standard is basically silent on the number and type of Initial Conditions.

Define a set of ICs with pedigree that would be used in the conduct of the performance tests.

AI 23

Evaluate the need for including into Section 3.3.1 a set of IC criteria for ICs that are to be used when conducting the performance tests required by this standard.

7.8 Next Meeting

Date: 2011 June 7

Sponsor: William Fraser

Location: Westinghouse Cranberry, PA

ANS 3.5 Working Group Meeting Minutes
Crystal River, Florida
2011 Jan 25-27

7.9 Adjourned: 1345

Approved Minutes Crystal River

8. **Attachment - Style Guide Review (SK Chang)**

201x Standard - Style Guide

1. ANSI Style Guide-sheet – 2003

Available at <http://www.ansi.org/>

A. General guide-lines

- Heavy emphasis on technical integrity (accurate, complete, consistent), a spelling error would only be a minor issue.
- Consistency throughout the document: format, capitalization, etc..

B. Strong recommendations:

- No requirements in foreword, scope, background, definitions, footnotes.
- Use of “shall” to indicate a requirement; use “should” to indicate a recommendation. Avoid use of “must”.
- References: full and complete. Annex is a preferred term to Appendix.
- Number the footnotes sequentially.

C. Completeness and consistency of document:

Pagination, indentation, punctuation, numbering of sections, footnotes, etc.: follow 2009 Standard.

2. ANSI Style manual, 8th edition, version 1.0, 3/1/91. [historical]

<http://www.new.ans.org/standards/resources/downloads/docs/ansi-stylemanual.pdf>

This has been replaced by the 2003 guide, but ANS keeps it for reference.

3. ANS NFSC Policy and Procedures Manual

<http://www.ans.org/standards/resources/downloads/docs/nfscpolicies.pdf>

Section 7.3 Specifying Requirements in a Standard (Shall, Should, and May) (approved Jan 2010).

Directions given in the standard shall use “shall”, “should”, and “may”:

Shall, to designate a mandatory action.

Should, to delineate a recommended action. “Should also indicates that the issue must be addressed and that either the recommended action shall be taken or an equivalent action shall be taken and a basis given for equivalency.”

May, to designate a permissive action.

Avoid “shall consider”, “shall, if possible” and equivalent phrases

Note: Three occurrences of “shall consider” or equivalent are found in the 2009 Standard. These may deviate from NFSC rules.

Section 3.2.1.2, end of 1st paragraph: “The following items shall be considered:”

Section 3.2.1.3, end of 1st paragraph: “The following items shall be considered:”

Section 4.4.3.2, end of 4th paragraph: “Evaluation of the test data shall consider:”

Section 7.4 Use of units SI units shall be used either parenthetically with English units

or SI units exclusively (approved Nov 2004).

It refers to the NBS publication concerning SI units:

NBS Special Publication 330, "The International System of Units (SI)," U.S. Department of Commerce, 1977.

The current version is "NIST Special Publication 330. 2008 Edition; U.S. Department of Commerce, National Institute of Standards and Technology" available at

<http://physics.nist.gov/Pubs/SP330/sp330.pdf>

The 2008 edition has no impact on the SI units used in Appendix C of the Standard:
MPa and °C

4. Other References:

Google dictionary: <http://www.google.com/dictionary>

Merriam-Webster: <http://www.merriam-webster.com/>

The Chicago Manual of Style. Chicago: University of Chicago.

Webster's New International Dictionary of the English Language (Unabridged). Springfield, MA: Merriam-Webster, Inc.