

IEEE NPEC SC2 Spring Meeting 16-01

April 24-28th
Seattle Airport Marriott

SC-2 Rate \$169/night

CLICK HERE TO BOOK YOUR RESERVATION

Onsite parking \$27/night, Valet \$32/night

Hotel Address and Phone:

3201 South 176th Street Seattle Washington 98188 USA Phone:

+1-206-241-2000

Airport Shuttle Information: 4:15AM – 12:00AM

The first Minute Park & Go Shuttle leaves our hotel at 4:15AM and runs continuously to the airport every fifteen minutes until Midnight.

Shuttle Service to and from the Airport is Complementary to our IEEE NPEC SC-2 Guests

Wednesday April 27th: SC-2 Meeting 8:30 AM - 5:00 PM: Seattle Ballroom

A. BUSINESS

Call to order - R. Konnik

- 1. Introductions R. Konnik
 - a. Roll Call J. Cornelius 28/45 or 46 quorum met
 - b. Identification of Guests R. Konnik
 - c. Approval of Agenda and General Remarks R. Konnik MOTION APPROVED TO ACCEPT AS AMENDED See Attachment 1.
 - d. Meeting Fee \$70 Includes all WG meeting room fees
- 2. Secretary's Report J. Cornelius
 - a. Approval of Previous Meeting Minutes

MOTION APPROVED TO ACCEPT AS AMENDED

- b. Status of Action Items
- c. Status of SC 2 Membership 2016: Form Sent Out For SC-2 Update Bio Book: Need A Volunteer Rebecca Steinman volunteered
- d. Report of SC 2 Financial Status/Alligator Fund

SC-2 (15-2) Meeting November 2015 Clearwater Beach, Florida

Balance Prior to Meeting - \$3017.48 Collected at 15-2 Meeting - \$1840 Cost of 15-2 Meeting - \$1199.78 Balance (2/15/16) - \$3657.70

3. Chairman's Report – R. Konnik

a. Summary of SC 2 ADCOM See Attachment 2 for Bob's slides

There is an effort to plan ahead for two meetings in advance. This will help people make better plans especially for those who are willing to sponsor meals or make presentations.

It was suggested that we look into a credit card payment method like PayPal

Next meeting and subsequent will likely end up with 5 day agenda,

Monday and Tuesday for the IEEE plus 1682 then

Wednesday for SC2

Then dual logo for Thursday and Friday

We are attempting to have 2 events back to back or just see what we can get in tandem...Clearwater tentative

Suggestions that meeting 17-1 around May 14 San Diego possibly around ICC IEEE/IEC October 2017 in Shanghai

Start to have a 3rd meeting possibly every other year in Asia. Non-mandatory 17-2 not settled...but a couple of ideas.

John white summarized some education meetings that have been in China and there is a lot of interest in EQ. IEEE is supportive of this and having involvement there.

Standards summaries would be given later in the meeting...but Std. 650 needs to get moving since the PAR ends in 2017.

Comment- NPEC meets in July.

Std. 382 is another that needs a PAR by May June. Needs a preview at SC-2 plus NPEC Std 649 will start after that in 2017.

62582 which takes longer...related to Std. 344 is coming up in 2018

Officers - The new incoming SC-2 Secretary has been selected.

Gary Elam selected as chair of 572, and Eric Rasmusssen as vice chair.

Several Vice chairs are needed for Working groups

BIO Books are still being completed and there may be a need to do a photo day...NPEC is also trying to do this as well.

Need a volunteer to update procedures...

Roster has been updated...

Forms were distributed for the working groups and membership....for Rebecca Stienman Art Maldonado introduced and Liaison volunteer is requested for 1202 as well as NQA-1

b. Summary of NPEC Meeting See Attachment 3 for Bob's slides

Next NPEC meetings are:

- (1) 16-02 Denver
- 17-01 New Orleans, LA February 7-8, 2017
- 17-02 Niagara Falls/Buffalo, NY July 2017

The NPEC Fact sheet is available presented and summarized

Tom Koshy was recognized for starting this effort

NPEC will be putting stds on the website....maybe we should also.

Preview's approved at NPEC 16-01: P1082, P1792, and P352

Several PARS were approved: P2421 Computer Displays, P2425 EMC, 62582-6 CM - IR

Technical Presentations

One particular presentation was severe accident..."it is important keep the containment intact...penetrations focus areas". (Koshy summarized, Jim will be talking about this in his presentation) Passive cooling is of interest...some testing has been done on passive submerged pumps...4 plants on the list to be shutdown.

"My Project" redesign Malia Zaman summarized the new features. Will be active in July...training available and will be given in November

PES general meeting is in Boston July 17-21

Topics of interest are:

Open phase faults...program

Cyber security task force (get from Bob)

ANS advanced reactor standards

c. Status of Required Project Revisions

See table at the end of the meeting minutes for a standard-by-standard status.

(Out of agenda order...)

An Awards segment was added to the agenda

Looking at past chairs awards need to work with NPEC

Suresh Channarasappa was recognized as the recipient of PES Chapter Outstanding Engineer Award. Also Kjell Spang and Bob Konnik were given awards for their work on the IEC/IEEE efforts.

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4. Vice-Chairman's Report – E. Mohtashemi

a. Meeting 16-2 Tentative: Week of Nov 7th

Clearwater beach...Sheraton

b. Meeting 17-1 TBD

San Diego May15- will possibly be connected to ICC

- 5. Previews
 - a. None

B. 10:30 AM – Noon: Working Group and Liaison Reports

a. SC 2.1: IEEE Std. 323 (Electric Equip EQ) J. White

Kjell summarized while Bob Konnik displayed an overview with slides...on 62582 -1,,2,3,4,5, John White...updated the work and need for a whitepaper to summarize the changes to the std...2003 vs 2015.

Goal to have white paper issued by or before this time next year. Target is the working group members...to give the intent and what intent for each of the changes

b. SC 2.2: IEEE Std. 334 (Motors)

J. Dean/B. Newell

Reformulating the WG open for member to join the WG as this will work will be in the near future...

c. SC 2.3: IEEE Std. 382 (Valve Operators) E. Mohtashemi

This group met on Tuesday...Went through the presentation that was given in 15-2. Will be drafting a PAR

PAR will be prepared and sent and be ready to present to NPEC by July meeting. To meet this deadline, it needs to be delivered by June 15.

d. SC 2.4: IEEE Std. 383 (Cables)

R. Konnik

Published late last year and a white paper is done...the intentions is to describe the changes and to get this out on the Website. This will describe the meaning and the intent to the changes. If this goes outside the website then we may need NPEC approval. Sometime next year pursuing a PAR for next year...

e. SC 2.5: IEEE Std. 344 (Seismic)

J. Parello

See Attachment 7 for Jim's presentation.

Beginning to do joint logo in this area 344-60980; no PAR yet. Also a white paper being created that will summarize some history of the standard.

Not intended to include acoustic vibration...but should be considered

Ed Mohtashemi offered comments about operating vibrations vs. vibrations associated with equipment.... 2kHz vs 5kHz .

f. SC 2.6: C37.98 (Relays Seismic Qual) S. Channarasappa

/M. Nemier

No Actions

g. SC 2.10: IEEE 627 (Overall EQ)

Rebecca Steinman

PAR submitted and approved in March and the group met on Monday...to get started. The group will be attempting bi-monthly web based meetings. They need NRC participation and Tom Koshy said he will contribute. The goal is to preview at SC-2 in 2018

h. C 2.11: IEEE Std. 572 (Connectors)

Met and will be a working group by 17-1

i. SC 2.13: IEEE Std. 650 (Battery Chargers)

Someone should be getting with Dennis and pick up this Standard.

j. SC 2.14: IEEE Std. 649 (Motor Control

Centers)

Gary Elam

D. Dellinger

R. Francis

k. SC 2.15: IEEE 1682 (Fiber Optic Cable)

No actions at this time

I. SC 2.16 EMI/EMC

PAR will be reviewed later in the year...did meet yesterday and discussed what to do looking for NRC participation and will also be doing web meetings.

m. Conformity Assessment Committee

This summary was given by John White.

A webinar will be given goal is to let broader community be aware what is going on in IEEE. Marie Nemier, Bob Konnik, and John White will do it...

John White also mentioned that the old nuclear standards reference guide "EQ Source Book" that is now re-available...
May be willing on considering to update...

Moving very quickly...with Mock audits summary,

The steering committee met Yesterday to work on lead auditor and team member requirements...audit checklist based on 17025 with some changes, checklist intended for NQA-1 and appendix B...

Reported on the press release can get it by email from John White Bruce Lory asked about test anomalies in the test report. John White reported that this was always central in the meetings.

Producers will also be able to offer certified functional tests.

Part 21 obligations were briefly discussed in SC-2 but thoroughly in the 2.17 meeting. The issue is very visible and important.

Question was asked by Mike Daugherty regarding the grandfathering of products.

Marek Tengler asked about what if challenged...Qualifications vs qualification/certifications...

Hope to have certified labs by year end.

There will also be a white paper produced regarding the Steris irradiation Part 21 issue.

J. Pirrong

S. Channarasappa

J. Cornelius

Tom Koshy stated that once the deficiency has been identified then Nureg 588 needs to be verified...

The values of variability as published by the whitepaper are consistent with Steris ...

Noon - 1:00 PM: Lunch Sponsored by NTS



n. EPRI Liaison Report

None presented

o. NRC Liaison Report

Tom Koshy APR-1400 review underway Looking into 80 year service life for cables.

Open phase enforcement is being drafted..."this is the largest discrepancy found in decades."

Expect Nu-Scale DCD submittal by end year.

Comments about service life for mild/non accident equipment...

Recommendation was made to encourage IEEE to look into the conditioning monitoring for equipment that has little history for extended service life.

p. ISA Liaison Report

SP67, the ISA committee responsible for all nuclear-related ISA standards, met in June 2016 during the POWID symposium. We recognized the contributions that Pete VandeVisse has made over many years of participation, and we'll miss his active involvement as he starts into retirement. Several active subcommittees reported:

- Bill Barasa's 67.01 subcommittee reports that ISA-67.01.01-2002 (R2007) Transducer and Transmitter Installation for Nuclear Safety Applications is in revision, with a full committee vote targeted for October.
- Klemme Herman's 67.02 recently issued ISA-67.02.01-2014
 Nuclear Safety-Related Instrument Sensing Line Piping and Tubing

Chris Abernathy

Shelia Ray

Bob Queenan

- Standard for Use in Nuclear Power Plants and is slowly collecting information to support the next revision.
- Wayne Marquino has taken over leadership of 67.04 following Pete's retirement. The group agreed to move ahead to revise or reaffirm ANSI/ISA-67.04.01-2006 (R2011) - Setpoints for Nuclear Safety-Related Instrumentation. No changes are pending for ISA-RP67.04.02-2010 Methodologies for the Determination of Setpoints for Nuclear Safety-Related Instrumentation.
- Brent Shumaker's 67.06 is working to send a revision of ISA-67.06.01-2002 Performance Monitoring for Nuclear Safety-Related Instrument Channels in Nuclear Power Plants to the committee for vote by the end of the year.

q. ASME Liaison Report

No report

r. IEEE/ASME NQA-1 Liaison Report

No report

s. IEEE ICC Liaison Report

See Attachment 8.

Open

Open

Art Maldonado

C. 2:00 PM to 4:45 PM: Presentations

a. Jim Gleason: SA Instruments and Hydrogen Sensors: The Regulatory Case

Jim Gleason: GLSEQ Radiation Test Services

b. Marie Nemier: Maintaining Seismic Qualification – See Attachment 5 for Marie's presentation

C. Eric Rasmussen: RSCC MV Qualification To IEEE 383-2003 – See Attachment 6 for Eric's presentation

D. 4:45 PM to 5:00 PM: Wrap-Up

a. Old Business

b. New Business

c. Next Meeting

^{***}Action for each of the WG chairs to identify the critical items, and make a checklist for the ICAP that will assist an auditor when auditing a product category. By the end of JULY 2016

d. Adjournment

IEEE PES NPEC SC2 Standards

SC	2. Standard	Title	Status	Par Exp.	Expires
1	IEEE/IEC 60780-323: 2016	Qualification of Electrical Equipment Important to Safety for Nuclear Facilities	Published 2016	NA	31-Dec-26
1	62582-1	Standard for Nuclear power plants - Instrumentation and control important to safety - Electrical equipment condition monitoring methods - Part 1: General		NA	31-Dec-21
1	62582-2	Standard for Nuclear power plants - Instrumentation and control important to safety - Electrical equipment condition monitoring methods - Part 2: Indenter modulus		NA	31-Dec-21
1	62582-2-am1	Nuclear Power Plants - Instrumentation and Control Important to Safety - Electrical Equipment Condition Monitoring Methods - Part 2: Indenter Modulus Amendment 1	Published 2015	NA	NA
1	62582-3	Standard for Nuclear Power Plants - Instrumentation and control important to safety - Electrical equipment condition monitoring methods - Part 3: Elongation at break		NA	31-Dec-22
1	62582-4	Standard for Nuclear power plants - Instrumentation and control important to safety - Electrical equipment condition monitoring methods Part 4: Oxidation induction techniques		NA	31-Dec-21
1	62582-5	Nuclear Power Plants - Instrumentation and control important to safety - Electrical equipment condition monitoring methods Part 5: Optical time domain reflectometry	Published 2015	NA NA	31-Dec-25
1	P62582-6	Nuclear Power Plants - Instrumentation and control important to safety - Electrical equipment condition monitoring methods Part 6: Insulation Resistance		31-Dec-19	
2	IEEE <u>334-2006</u> R2012	IEEE Standard for Qualifying Continuous Duty Class 1E Motors for Nuclear Power Generating Stations		NA	31-Dec-22
3	IEEE <u>382-2006</u>	IEEE Standard for Qualification of Safety-Related Actuators for Nuclear Power Generating Stations	PAR	31-Dec-09	31-Dec-18
4	IEEE <u>383 2015</u>	IEEE Standard for Qualifying Electric Cables and Splices for Nuclear Facilities IEEE Standard for Seismic Qualification of Equipment for Nuclear Power	Published IEC	NA	31-Dec-25
5	IEEE <u>344 2013</u> C37.98-2013	Generating Stations IEEE Draft Standard for Seismic Qualification Testing of Protective Relays and	Harmonize	NA	31-Dec-23
6 10	IEEE <u>627 -2010</u>	Auxiliaries for Nuclear Facilities IEEE Standard for Qualification of Equipment Used in Nuclear Facilities		NA	31-Dec-23
	IEEE <u>572-2006</u> R2011	IEEE Standard for Qualification of Class 1E Connection Assemblies for Nuclear Power Generating Stations		31-Dec-20	31-Dec-20
11 13	IEEE <u>650 -2006</u>	Standard for Qualification of Class 1E Static Battery Chargers, Inverters and Uninterruptible Power Supply (UPS) Systems for Nuclear Power Generating Stations	Start NPEC July	NA 31-Dec-17	31-Dec-21 31-Dec-18
14	IEEE <u>649-2006</u> R2011	IEEE Standard for Qualifying Class 1E Motor Control Centers for Nuclear Power Generating Stations	July	NA NA	31-Dec-21
15	IEEE 1682 - 2011	IEEE Standard for Qualifying Fiber Optic Cables, Connections, and Optical Fiber Splices for Use in Safety Systems in Nuclear Power Generating Stations	White Paper	NA NA	31-Dec-21
16		Standard for Electromagnetic Compatibility Testing of Electrical and Instrumentation and Control Equipment at Nuclear Power Generating Stations and Other Nuclear Facilities	PAR	IVA	01 DGC-21

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