

Tuesday, July 21, 2009
Salt Lake City, UT.

Members Present:	Gopal Aravapalli	Joe Napper
	George Ballassi	Jim Parello
	John Beatty	Ted Riccio (Secretary)
	Tom Crawford	Mansoor Sanwarwalla
	Larry Gradin	Glen Schinzel (Chair)
	Rachel Gunnett	Owen Scott
	Hamid Heidarisafa	John Stevens
	Sharon Honecker	Yvonne Williams
	Peter Kang	Kiang Zee
	Jim Liming	

Members Absent:	Ali Daneshpooy	Jacob Kulangara
	Dave Horvath	Craig Sellers
	Ken Miller	

1.0 Introduction

- **Opening Remarks and Meeting Agenda**

Chairman Glen Schinzel called the meeting to order at 8:00 AM and explained the new agenda format. He announced that the subcommittee will review the 3 presentations from a subcommittee point of view and provide any necessary recommendations for presentation to NPEC.

Introductions went around the table with several guests present. These were:
Gopal Aravapalli from DTE Energy
Kirklyn Melson from Excel Services Corp.
Dirk Hopp from AREVA NP
Suresh Channarasappa from Westinghouse

Glen reviewed the agenda and noted that we have a full plate. Ted suggested that an additional item be added to discuss a formal method of bringing new people into the subcommittee. Glen added it provided we have enough time. Mansoor made a motion to accept the agenda as written with the added item. Jim Liming seconded it and the motion passed.

2.0 SC-3 Secretary's Report

- **Approval of SC3 09-1 Meeting Minutes**

There were several changes from the subcommittee. A motion was made by Yvonne to accept the minutes as amended and was seconded by Mansoor.

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Motion passed with no dissent.

• **Action Item Status**

There were two open actions. All previous open items were closed. Action items due this meeting were not complete. The first one was to finalize the Operating Manual and send to Rachel to post on the Web (2nd action). As of this meeting the manual is complete but had not been sent to Rachel. This action is closed at this meeting. The other action was for Rachel to post it on the Web which should be done by next meeting, leaving one action item open at this time. Current Action Items status can be found in [Attachment 1](#) (Action Items).

• **SC3 Membership**

Ted noted that we had 23 members as of the last meeting. The balance was discussed. Chairman Glen asked who was at the meeting who were not members yet. Glen asked Gopal if he would like to become a member since this was his second time to attend the meeting. After Gopal answered positively, Glen asked Mansoor to check the Operating Manual for new membership requirements. As per the Operating Manual, Glen appointed Gopal as a SC-3 member. Ted suggested that we look into what to do about members who do not make meetings. Discussion followed. Glen gave Ted actions to (1) contact members with 3 or more missed meetings to determine interest in continuing in SC-3 and (2) contact each member as to which category of “balance of interest” they should be designated as. This should be done prior to the next (10-1) meeting.

MEETING ATTENDANCE (Rolling 8 meetings)

Name	B a l	06-1 Phoenix	06-2 Williams burg	07-1 Ft. Lauderdale	07-2 Monterey	08-1 San Antonio	08-2 Toronto	09-1 Cocoa Beach	09-2 Salt Lake City
Gopal Aravapalli	U	-	-	-	-	-	-	Guest	P
George Ballassi	G	P	P	P	P	P	P	P	P
John Beatty	P	-	-	-	-	-	Guest	P	P
Tom Crawford	U	-	-	-	-	P	A	P	P
Ali Daneshpooy	P	-	-	-	P	P	A	A	A
Larry Gradin	P	-	-	P	P	A	A	A	P
Rachel Gunnett	P	-	-	P	P	P	A	P	P
Hamid Heidarisaafa	U	P	A	A	A	A	P	P	P
Sharon Honecker	P	-	-	-	-	-	Guest	P	P
David Horvath	P	P	A	P	P	A	P	P	A
Peter Kang	G	P	P	A	P	P	P	A	P
Jacob Kulangara	U	-	-	-	P	A	A	A	A
James Liming	P	P	P	P	P	P	P	P	P
Ken Miller	G	-	-	-	-	-	-	P	A
Joe Napper	P						Guest		P
Jim Parelo	P	-	-	-	Guest	P	P	P	P
Ted Riccio	U	P	P	P	P	P	P	P	P
Mansoor Sanwarwalla	P	P	A	P	P	P	P	P	P

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Name	B a I	06-1 Phoenix	06-2 Williams burg	07-1 Ft. Lauderdale	07-2 Monterey	08-1 San Antonio	08-2 Toronto	09-1 Cocoa Beach	09-2 Salt Lake City
Glen Schinzel	U	P	P	P	P	P	P	A	P
Owen Scott	P	-	-	-	P	P	P	A	P
Craig Sellers	P	-	-	-	Guest	P	A	A	A
John Stevens	P	-	-	-	P	P	P	P	P
Yvonne Williams	U	-	-	-	-	P	P	P	P
Kiang Zee	U	-	-	-	-	P	P	A	P

P means Present A means Absent - Prior to attendance

The current breakdown of SC 3 members by category is as follows:

<u>Academic A</u>	<u>General Interest I</u>	<u>Gov't/Military G</u>	<u>Producer P</u>	<u>User U</u>	<u>Total</u>
0	0	4*	12	8	23*

* Includes 1 corresponding member – John Taylor

The SC-3 roster can be found on the IEEE/NPEC website at URL:

<http://grouper.ieee.org/groups/npec/private/sc3/sc-3.html>:

user name: [REDACTED] password: [REDACTED].

- **Alligator Fund**

Rather than having coffee, etc. brought to the meeting room, an account was set up with the hotel coffee shop. The subcommittee discussed a contribution and decided on \$10.00 amount was agreed upon.

See [Attachment 2](#) for actual amounts.

3.0 SC-3 Chair's Report

- **SC3 Leadership review - succession planning**

Chairman Glen talked about succession planning and discussions since the last meeting with Ted. Ted announced that he will step down as secretary after this meeting. Glen noted that he will work with Mansoor on succession planning before the 10-1 meeting.

- **Leadership telecoms**

Glen reported on a telecom about 6 weeks earlier with the SC3 leadership which consisted of the Chair, Vice Chair, Secretary, and working group chairs. George Balassi was also included as a past chair and valuable asset. He described how it was good in that preparation and content for the meeting were discussed and agreed on. Glen plans to have SC3 leadership meetings at least each quarter.

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- **PAR status**

The chairman announced that the PAR for the risk informed standard will be presented at AdCom but that the status of 338 is unknown. At this time, Joe Napper questioned if members could join the telecom. Glen noted that the telecom was for SC3 management purposes and suggested that the working groups have their own telecom.

- **NPEC meeting preparations**

Glen reviewed that we would have 3 presentations at NPEC and reminded members to get involved in the balloting process if approved by NPEC.

4.0 Vice Chairman's Report

Vice Chair Mansoor noted that we haven't had presentations at meetings in awhile and suggested that members make presentations at meetings. He then reviewed the scope of SC3. Std 934 is assigned to SC3 but is inactive. For the newer members, he also reviewed standards associated with Working Groups 3.2 and 3.4 since they normally do not meet with SC3. Std 500 was also discussed but no action taken. Mansoor also suggested that we need to consider reviewing Std 1205, "*Guide for Assessing, Monitoring, and Mitigating Aging Effects on Class 1E Equipment Used in Nuclear Power Generating Stations*" because plant licenses are now being extended to 60 years.

At this time Glen reviewed all 7 standards assigned to SC3 and asked Mansoor to remove 934 and 500 from the working groups and place elsewhere.

Glen noted that he would take an action to report outcome of NPEC activities associated with our 7 standards.

5.0 Insights from NPEC

For the benefit of new members, NPEC Secretary George Ballassi described AdCom (Subcommittee 1) and what they do. He described the information path from NPEC to the subcommittee chairs to working group chairs and out to members.

Jim Liming asked about AdCom minutes being posted on the NPEC website. He also noted that PARs approved by AdCom need to have a better way to get disseminated.

6.0 Presentations

The chairs of Working Groups 3.1 and 3.3 went through presentations to be given at the NPEC meeting and questions on how to present were worked out.

Ted motioned to present 336 to NPEC for approval. Mansoor seconded. Motion passed.

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Larry Gradin motioned to present 577 to NPEC for approval. Tom Crawford seconded. Motion passed.

Tom Crawford motioned to present 933 to NPEC for approval. Hamid seconded. Motion passed.

7.0 Working Group Reports

WG 3.1 The working group met on Jan. 26 in Cocoa Beach in conjunction with SC3 and NPEC. Schedules were reviewed and adjusted for Standards 336, 338 and the proposed risk informed standard. Std 336 PAR is approved. Std 338 PAR is planned to be approved between this meeting and next (09-2). The proposed risk informed standard PAR is approved for submission to AdCom which is planned for the afternoon. The meeting will continue after the subcommittee adjourns this day.

WG 3.2 Chairman Dave Horvath reported that the WG has not met since the last meeting. STD 692 Draft 3 was submitted and balloted with 3 negatives out of 57 total ballots. A meeting is planned to resolve those comments.

WG 3.3 The working group under Chairman Jim Liming met on Jan 26 in Cocoa Beach in conjunction with SC3 and NPEC. The working group discussed the current 5 year plan. Jim reported that of all 3 PARs submitted, (352, 577, and 933) 577 and 933 were approved and 352 was still awaiting Ad Com approval. The meeting will continue after the subcommittee adjourns this day.

WG 3.4 Chairman Dave Horvath reported that Standard 1205 is coming up on its 5 year cycle. Plans are to assess for changes that might be needed.

8.0 Liaison Reports

- NRC Liaison Report – Peter presented the NRC report. See [Attachment 3](#)
- ASME Liaison Report – Glen gave the ASME report. See [Attachment 4](#)
- NEI/EPRI Liaison Report – There was no NEI or EPRI report.

9.0 Old Business

Glen reviewed the status of our 7 standards.

The subject of succession planning was brought up concerning the secretary. Ted announced that he would like to step down as secretary at the completion of the 09-2 meeting. Glen asked for volunteers to assume the secretary position. Yvonne volunteered. George motioned to accept Yvonne as secretary effective 10-1 meeting. Mansoor seconded. Motion passed.

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10.0 New Business

- **Future Meeting Locations and Frequency**

The 10-1 IEEE Nuclear Power Engineering Committee (NPEC), Sub-Committees and Working Groups will meet in Clearwater Beach, Florida from Jan 18-20, 2010. Subcommittee 3.0 will meet the morning of Jan 19. Working Groups 3.1 and 3.3 are scheduled to be held on Jan 18 in the same location and expect to continue on Jan 19 after the subcommittee meeting. If you need assistance, such as an invitation letter for attending this series of meetings, please contact Chairman, Glen Schinzel, Vice Chair Mansoor Sanwarwalla or myself, and an invitation letter will be provided. All are invited to attend the NPEC meeting on Jan 20.

Marriott Clearwater Beach, FL. The negotiated room rate is \$ 127 single/double. This rate will be honored only during the meeting dates (This may, however, change).[The cut-off date for the hotel reservation is December 19, 2009.](#) Members are encouraged to make reservations within first month of the meeting announcement to ensure rooms at the negotiated rate. Clearwater Beach is a resort town.

The nearest airport is Tampa, Florida (about 25 miles from the Hotel). Commercial airport shuttles are available. Parking is free.

NPEC will be hosting One-Hour Welcome Reception on the evening of Tuesday, January 19, 2010 from 6:00 PM-7:00 PM.

HOTEL INFORMATION:

Clearwater Beach Marriott Suites on Sand Key

1201 Gulf Boulevard • Clearwater Beach, Florida 33767 USA • Phone: 1-727-596-1100 Fax: 1-727-595-4292

Reservation Links:

[Clearwater Beach Marriott Suites on Sand Key >>](#)

<http://www.marriott.com/hotels/travel/tpams?groupCode=ieniena&app=resvlink&fromDate=1/17/10&toDate>






- Current standard status is included for reference in [Attachment 5](#)

Yvonne moved to adjourn. There were several seconds. Motion passed.
Meeting adjourned at 12:05 PM.

Prepared by Ted Riccio SC-3 Secretary.

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ATTACHMENTS

Attachment 1 Double click below	Attachment 2 Double click below	Attachment 3 Double click below
 Action Items	 Alligator Fund	 NRC Liaison Report
Attachment 4 Double click below	Attachment 5 Double click below	
 ASME Liason Report E:\I EEE RB Testing\San Antonio meeting.doc	 SC3 Standards Status	

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Alligator Fund

The Alligator Fund is made up of voluntary contributions from SC-3 members to defray the cost of meeting rooms, refreshments, etc.

Meeting	Beginning Balance	Meeting Contributions	Expenses	Ending Balance
S05-1	\$312.14	\$207.18	\$359.82	\$159.50
S05-2	\$159.50	\$240.00	\$0.00	\$399.50
S06-1	\$399.50	\$220.00	\$178.67	\$440.83
S06-2	\$440.83	\$160.00	\$335.00	\$265.83
S07-1	\$265.83	\$200.00	\$201.70	\$264.13
S07-2	\$264.13	\$600.00	\$340.87	\$523.26
S08-1	\$523.26	\$300.00	\$347.80	\$475.46
S08-2	\$475.46	\$320.00	\$386.26	\$409.20
S09-1	\$409.20	\$180.00	\$12.00	\$577.20
S09-2	\$577.20	\$210.00	\$92.54	\$694.66

Meeting 09-1	Meeting 09-2
Expenses -\$12.00 Donuts Meeting contributions \$180.00	Expenses -\$92.54 Meeting contributions \$210.00

2009 IEEE L50-S Financial Report

Received from individuals	\$390.00
Meeting expenses	\$104.54
Cash on hand beginning of the year	\$409.20

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Total cash at end of year \$694.66

**NRC LIAISON REPORT
BY PETER KANG**

**OFFICE OF NEW REACTORS (NRO)
US NUCLEAR REGULATORY COMMISSION
JULY 20-21, 2009**

I. US NRC Activities Related to New Reactor Licensing

Since the inception of NRO in October 2006, NRO has been conducting licensing reviews under 10 CFR part 52 process for three Design Certification (DC) applications, one DC amendment, and 17 Combined Operating License (COL) applications while learning the details of a licensing process which had not been applied to COL applications in the past and trying to enhance NRO processes and a new scheduling system. Unlike Part 10 CFR Part 50, the 10 CFR Part 52 is a streamlined licensing process, such that once a particular DC is approved for a COL application (RCOL). Its subsequent applicants (SCOL) are only addressed the differences and site-specific items such as offsite power systems, or interface systems. This makes new plant licensing a more stable and predictable licensing process and reduces the financial risk to licensees. The DC certification would be valid for 15 years.

The Nuclear Regulatory Commission staff is currently reviewing the following DC and COL applications:

US APWR (Mitsubishi) DC Application

On December 31, 2007, Mitsubishi Heavy Industries submitted an application for a DC for the US-APWR. The US-APWR is a 4451-megawatt (thermal) pressurized-water reactor (PWR) designed by Mitsubishi. It is an evolutionary design with active safety features, and it is to be used in a 1538-megawatt electric reactor planned for the Tsuruga Power Station in Japan. The US-APWR by Mitsubishi Heavy Industries (MHI) proposes to use gas turbines instead of diesel driven generators (EDGs) for safety-related emergency power supply system. Main problem using the gas turbine for USAPWR is reliability and diversity issues. Since MHI is trying to use Kawasaki gas turbines for both EDG and station blackout (SBO) purpose, diversity is also another issue.

EPR DC Application

On December 14, 2007, AREVA submitted its DC application for the Evolutionary Power Reactor (EPR). The EPR is an evolutionary power reactor design based on the latest French plant. UniStar nuclear submitted a COL application for Calvert Cliffs Unit 3. The Calvert Cliffs COL application is to be certified the first plant for the EPR design and is designated as referenced COL applicant (RCOLA) plant and its subsequent COL plants are designated as SCOL.

DC Reviews Approved or Currently Under Review are:

Approved Designs

ABWR B Advanced Boiling Water Reactor by General Electric
AP1000 - AP1000 Reactor by Westinghouse Electric Company

Designs under Review

ESBWR - Economic Simplified Boiling Water Reactor by General Electric
USEPR - U.S. Evolutionary Power Reactor by AREVA Nuclear Power
USAPWR - U.S. Advanced Pressurized Water Reactor by Mitsubishi Heavy Industries, Ltd.

COL Applications Currently Under Review:

APPLICATIONS SUBMITTED IN 2007

South Texas Project (2 units) ABWR
Bellefonte (2 units) AP1000
Calvert Cliffs (1 unit) EPR
North Anna (1 unit) ESBWR
William Lee Nuclear Station (2 units) AP1000

APPLICATIONS SUBMITTED IN 2008

Harris (2 units) AP1000
Grand Gulf (1 units) ESBWR (S)
Vogtle (2 units) AP1000
Summer (2 units) AP1000
Victoria County (2 units) ESBWR (S)
Fermi (1 unit) ESBWR
Comanche Peak (2 units) USAPWR
River Bend (1 unit) ESBWR (S)
Callaway (1 unit) EPR (S)
Nine Mile Point (1 unit) EPR (D)
Bell Bend (1 unit) EPR

(S) suspended review, (D) delaying submittal

APPLICATIONS SUBMITTED IN 2009

Florida Power & Light AP1000 Turkey Point (2 units) AP1000
Vicinity of Amarillo (2 units) EPR
Hammett (1 unit) EPR

The original federal loan guarantees was amounted about \$122 billion for 21 proposed reactors, but \$18.5 billion is so far approved by previous Bush administration for loan guarantees

Mitsubishi Heavy, Luminant Sign Pact on Comanche Peak Project. MHI "will hold talks with Luminant" to "supply what it claims will be the world's biggest nuclear reactors." MHI and Luminant, "signed a non-binding agreement July 1, along with their Comanche Peak (CP) Nuclear Power Co. joint venture, and Mitsubishi Nuclear Energy Systems Inc. Mitsubishi Heavy wants to start marketing it's newly- developed 1,700-megawatt nuclear reactors in the US and Europe as governments increase efforts to counter global warming by burning less coal." CP Energy's recently announced \$13-billion cost estimate for two more nuclear reactors at the South Texas Project.

Report Suggests New Reactors Will Be Too Expensive To Build. Reports on the new study released from the Institute for Energy and the Environment at Vermont Law School, which predicts "massive" costs to taxpayers and electricity consumers for "a new fleet of nuclear power plants". In "a 78-page report, economist Mark Cooper concluded that investing the money in efficiency and renewable power would be more economical than building new nuclear power plants." The "cost increase mirrors the seven-fold increase in the costs of nuclear reactors in the 1960s and 1970s, stated the report, when half of planned reactors had to be abandoned or canceled due to massive cost overruns." The Reformer quotes from a report by

the NEI that discounts Cooper's findings.

Millstone Station Unit 2 Reactor Remains Shut Down Following Scram Friday. The Unit 2 reactor at Millstone Power Station remains shut down today after lightning from thunderstorms Friday apparently struck a power line somewhere in Connecticut and destabilized the transmission grid." The reactor scrambled "midday Friday after the voltage coming to the power station fluctuated and affected the operation of the turbine. The turbine uses steam to spin the generator and produce electricity. The plant is stable and did shut down safely and there were no radioactive releases associated with the incident or any impact on public health and safety.

ORNL Announces New Member of "Smart Grid" Program. The technologies used to monitor power grids and a researcher in ways to create the next generation 'smart grid.' ORNL's Energy and Transportation Science Division and University of Tennessee's Electrical Engineering Department is expected to be a key participant in the Electric Grid Research and Development Program" at ONRL. A smarter, more efficient power grid is vital to the nation's energy plan and a key part of ORNL's research portfolio.

Multinational Design Evaluation Program (MDEP) DI&C Working Group Meeting, NRO/DE staff participated in a Multinational Design Evaluation Program Digital Instrumentation and Controls (DI&C) Working Group meeting. The session was attended by representatives from the United States, United Kingdom, France, Korea, Canada and Japan. Representatives from the International Electrotechnical Commission, the Institute of Electrical and Electronics Engineers, and the International Atomic Energy Agency gave presentations. The group worked on all four common positions previously defined -- common cause failures, software tools, software verification and validation, and complex electronics.

License Renewal Applications Currently Under Review:

- Pilgrim 1, Unit 1 - Application received January 27, 2006
- Vermont Yankee - Application received January 27, 2006
- Susquehanna, Units 1 and 2 - Application received September 15, 2006
- Indian Point, Units 2 and 3 - Application received April 30, 2007
- Beaver Valley, Units 1 and 2 - Application received August 28, 2007
- Three Mile Island, Unit 1 - Application received January 8, 2008
- Prairie Island, Units 1 and 2 - Application received April 15, 2008
- Kewaunee Power Station - Application received August 14, 2008
- Cooper Nuclear Station - Application received September 30, 2008
- Duane Arnold Energy Center - Application received October 1, 2008
- Palo Verde - Application received December 15, 2008
- Crystal River - Application received December 18, 2008

Future Submittals of License Renewal Applications:

Facility and Location	Applicant	Expected Date of Submittal
Salem Generating Stations Unit 1 and 2	PSEG Nuclear, LLC	September 2009
Hope Creek Generating Station	PSEG Nuclear, LLC	September 2009
Strategic Teaming and Resource Sharing (STARS) Plant	STARS	October-December 2009
Columbia Generating Station	Energy Northwest	January 2010
Grand Gulf Nuclear Station	Entergy Nuclear, Inc.	January 2012
Seabrook Station	FPL Energy	April - June 2010
Davis-Besse, Unit 1	FirstEnergy Nuclear Operating Company	August 2010
South Texas Project Units 1 and 2	STP Nuclear Operating Company	October-December 2010
River Bend Station - Unit 1	Entergy Nuclear, Inc.	January 2013
Waterford 3	Entergy Nuclear, Inc.	January 2011
Limerick Units 1 and 2	Exelon Generating Company, LLC	September 2011
Callaway Plant, Unit 1	AmerenUE	October-December 2011
Strategic Teaming and Resource Sharing (STARS) Plant	STARS	October-December 2012
Exelon Plant	Exelon Generating Company, LLC	July 2013
Strategic Teaming and Resource Sharing (STARS) Plant	STARS	July-September 2013
Perry Nuclear Power Plant Painesville, OH	FirstEnergy Nuclear Operating Company	August 2013
Exelon Plant	Exelon Generating Company, LLC	July 2015
Exelon Plant	Exelon Generating Company, LLC	April 2017

Application Schedules:

Standard - 22 months without a hearing/30 months with a hearing

3. Office of Reactor Research (RES) Ongoing Projects and Branch Programs

Reactor Fuel Behavior and High Burnup

Fuel Plant Aging

Plant Material Conditions

Digital Instrumentation and Controls

Thermal Hydraulic and Severe Accident Computer Codes

Probabilistic Risk Analysis

Operational Data Assessment

Radiation Protection

Human Performance

State-of-the-Art Reactor Consequence Analyses (SOARCA)

Fire Research Program (Fire modeling, Fire related PRA methods development, Electrical Cable fire Damage Testing, Fire-Induced Electrical Cable failure Testing)
 Computer codes for: fuel behavior, reactor kinetic, thermal-hydraulics, severe accident, DBA, health effects/dose calculation, and radionuclide/transport)

4. List of Licensing Documents Published Recently

Generic Letters – 2006-8

File Name	Date	Description
gl200801	01/11/08	Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems
gl200701	02/07/07	Inaccessible or Underground Power Cable Failures that Disable Accident Mitigation Systems or Cause Plant Transients.
gl200603	04/10/06	Potentially Nonconforming Hemyc and MT Fire Barrier Configurations
gl200602	02/01/06	Grid Reliability and the Impact on Plant Risk and the Operability of Offsite Power
gl200601	01/20/06	Steam Generator Tube Integrity and Associated Technical Specifications

Information Notices – 2008

File Name	Date	Description
<u>in2008-22</u>	01/12/2009	Molybdenum-90 Breakthrough in Molybdenum-99/Technetium-99M Generators
<u>in2008-21</u>	11/24/2008	Impact Of Non-Safety Electrical Support System Vulnerabilities On Safety Systems
<u>in2008-20</u>	12/08/2008	Failures of Motor Operated Valve Actuator Motors with Magnesium Alloy Rotors
<u>in2008-19</u>	12/16/2008	Tamper-Indicating Device Issues
<u>in2008-18</u>	12/01/2008	Loss of a Safety-Related Motor Control Center Caused by a Bus Fault
<u>in2008-17</u>	10/22/2008	Construction Experience With Concrete Placement
<u>in2008-16</u>	9/02/2008	Summary of Fitness-For-Duty Program Performance Reports for Calendar Year 2007
<u>in2008-15</u>	8/12/2008	Emergency Response Data System Test Schedule Revised
<u>in2008-14</u>	7/29/2008	Criticality Safety-related Events Resulting from Fissile Material Operations under Procedures Not Reviewed by Criticality Safety Staff
<u>in2008-13</u>	7/30/2008	Main Feedwater System Issues and Related 2007 Reactor Trip Data

Regulatory Issue Summaries - 2008

Document Number	Date	Title
RIS 09-07	05/07/2009	Status Update For The Implementation Of NRC Regulatory Authority For Certain Naturally Occurring And Accelerator-Produced Radioactive Material
RIS 09-06	06/15/2009	Importance of Giving NRC Advance Notice of Intent to Pursue License Renewal
RIS 09-05	04/29/2009	Uranium Recovery Policy Regarding: (1) The Process For Scheduling Licensing Reviews of Applications For New

		Uranium Recovery Facilities And (2) The Restoration Of Groundwater At Licensed Uranium In Situ Recovery Facilities
RIS 09-04	04/03/2009	Steam Generator Tube Inspection Requirements
RIS 09-03	02/12/2009	Process For Scheduling Acceptance Reviews Of New Reactor Licensing Applications After April 2009 and Process For Determining Budget Needs For Fiscal Year 2011
RIS 09-02, Rev. 1	05/08/2009	Use of Containment Atmosphere Gaseous Radioactivity Monitors as Reactor Coolant System Leakage Detection Equipment at Nuclear Power Reactors
RIS 09-02	01/29/2009	Use of Containment Atmosphere Gaseous Radioactivity Monitors for Reactor Coolant System Leakage Detection Equipment at Nuclear Power Reactors

Interim Staff Guidance (ISG) Associated with Digital Instrumentation & Controls

DI&C-ISG-01	Cyber Security DI&C-ISG-01, Interim Staff Guidance, Digital Instrumentation and Control, Cyber Security, December 31, 2007
DI&C-ISG-02	Diversity and Defense-in-Depth (D3) Interim Staff Guidance on Diversity and Defense-in-Depth Issues, September 26, 2007
DI&C-ISG-03	Risk-Informed Digital Instrumentation and Controls Draft ISG-03, Review of New Reactor Digital Instrumentation and Control Probabilistic Risk Assessments
DI&C-ISG-04	Highly Integrated Control Rooms – Digital Communication Systems Interim Staff Guidance on Highly-Integrated Control Rooms – Communications Issues (HICRc), September 28, 2007
DI&C-ISG-05	Highly Integrated Control Rooms – Human Factors Interim Staff Guidance on Highly-Integrated Control Rooms – Human Factors Issues (HICR-HF), September 28, 2007
DI&C-ISG-06	Licensing Process Draft ISG Currently Under Revision

Interim Staff Guidance (ISG) Associated with Combined Operating License Application (COL) and Design Certification (DC) for New Reactor Applicants

Interim Staff Guidance (ISG)	Topic (Click for ISG)	Status (Click for FRN)
COL/DC-ISG-1	Interim Staff Guidance On Seismic Issues of High Frequency Ground Motion	Issued Final

COL/DC-ISG-2	Interim Staff Guidance on Financial Qualifications of Applicants For Combined License Applications	Issued Final
COL/DC-ISG-3	PRA Information to Support Design Certification and Combined License Applications	Issued Final
COL/ESP-ISG-4	Interim Staff Guidance for Limited Work Authorizations to Support Early Site Permit and Combined License Applications	Issued Final
COL/DC-ISG-5	GALE86 Code for Calculation of Routine Radioactive Releases in Gaseous and Liquid Effluents to Support Design Certification and Combined License Applications	Issued Final
DC/COL-ISG-6	Evaluation and Acceptance Criteria for 10 CFR 20.1406 to Support Design Certification and Combined License Applications	Issued for Comments
DC/COL-ISG-7	Assessment of Normal and Extreme Winter Precipitation Loads on the Roofs of Seismic Category I Structures	Issued Final
DC/COL-ISG-8	Necessary Content of Plant-Specific Technical Specifications	Issued Final News Note Regarding Final Issuance
DC/COL-ISG-010	Adverse Flow Effects in Equipment Other Than Reactor Internals	Issued for Comments
DC/COL-ISG-011	Finalizing Licensing-basis Information	Issued for Comments
DC/COL-ISG-013	Interim Staff Guidance on NUREG-0800 Standard Review Plan Section 11.2 and Branch Technical Position 11-6 Assessing the Consequences of an Accidental Release of Radioactive Materials from Liquid Waste Tanks for Combined License Applications Submitted under 10 CFR Part 52	Issued for Comments

ASME Liaison Report

Glen E. Schinzel - STARS

Risk-Informed In-service Testing (IST) standard published

The approved Risk-Informed Inservice Testing standard entitled ISTE is scheduled for ASME publication later this year. This standard provides guidance for testing affected pumps and valves, with the scope and frequency of testing commensurate with the component's safety significance.

Treatment Standard for Low Safety Significant SSCs

Standard OM-29 is scheduled for ASME publication later this year. This standard addresses treatment of safety-related, low safety significant pumps and valves. IEEE WG3.1 is factoring in the insights of this ASME standard in the pursuit of a risk-informed IEEE standard per SC3 Risk-Informed White Paper, Option 3.

ASME Interactions on 10CFR 50.69

10CFR 50.69 allows the special treatment requirements (Class 1E, EQ, etc) currently invoked on safety-related, low safety significant equipment to be reduced. Two ASME Code Cases, N-660 and N-752, are relied upon for passive categorization of both components and pressure boundary. Code Case submittals have been reviewed by the NRC, and further industry action is being considered. These further actions may impact/influence the WG3.1 risk-informed standard development.

Committee on Nuclear Risk Management (CNRM)

ASME's Committee on Nuclear Risk Management is considering development of additional standards to establish consistent approaches on integrated decision-making panels, use of expert panels, and approaches for practical programmatic applications using risk insights. A Scope/Need Statement for a risk application methodology was presented to the Standards Planning committee in February 2009. Further refinement on this approach is underway before standard development can begin.

This is an area for IEEE to monitor. The approaches established in these ASME standards may be useful for future IEEE consideration and inclusion in future IEEE standards.

Nuclear Risk Management Coordinating Committee (NRMCC)

ASME and the American Nuclear Society (ANS) head a joint industry oversight group to better align various Standards Development Organizations (SDOs) when developing risk-related standards within the nuclear industry. IEEE's representative on this industry group is the NPEC Vice Chairman (Satish Aggarwal).

Other

ASME continues to assess revision of current standards and development of new standards to support new nuclear construction as well as the next generation of nuclear plant development. It appears that most of the current standards are supportive of the expected and planned construction efforts, but this focus continues to proactively assess the needs of the industry to ensure that necessary standards are available when required.

SC-3 "Operations, Surveillance, Reliability, and Testing"

Chair: Glen Schinzel

PROJECT	Rev Year	Re-Affirmation	TITLE	Working Group	Chair	Cycle Year	Status	Status as of:	Next Mtg WG	Next Mtg SC3	Next Mtg NPEC
1205	2000	2007	IEEE Guide for Assessing, Monitoring, and Mitigating Aging Effects on Class 1E Equipment used in Nuclear Power Generating Stations	3.4	D. Horvath	2	Standard approved at 3/30/2000 Standards Board Meeting. Re-affirmation approved by Std Bd March 22, 2007	3/31/2009			
336	2006		IEEE Recommended Practice - Installation, Inspection, and Testing Requirements for Power, Instrumentation, and Control Equipment at Nuclear Facilities	3.1	T. Riccio	3	Approval from NPEC to go to ballot. Waiting on resolution of editorial comments.	11/24/2009			
338	2006		IEEE Standard Criteria for the Periodic Surveillance Testing of Nuclear Power Generating Station Safety Systems	3.1	T. Riccio	3	PAR in development - See sheet 2	11/24/2009			
352	1987	2004	IEEE Guide for General Principles of Reliability Analysis of Nuclear Power Generating Station Protection Systems	3.3	J. Liming	5	Reaffirmation successful. Waiting for RevCom approval.	11/24/2009		Celebrate	
577	2004		IEEE Standard Requirements for Reliability Analysis in the Design and Operation of Safety Systems for Nuclear Power Generating Stations	3.3	J. Liming	5	PAR for revision approved, but reconsidering reaffirmation, based on 352 discussions.	3/31/2009			
692	1997	2005	IEEE Standard Criteria for Security Systems for Nuclear Power Generating Stations	3.2	D. Horvath	4	Ballot closed - 3 negatives resolved. Waiting for RevCom approval	11/24/2009		Celebrate	
933	1999	2004	Guide for Definition of Reliability Program Plans	3.3	J. Liming	5	PAR for revision approved, but reconsidering reaffirmation, based on 352 discussions.	3/31/2009			
Risk Informed	N/A	N/A	Standard for Rsk-Informed Categorization and Treatment of Electrical Equipment in Nuclear Facilities	3.1	T Riccio	N/A	PAR to AdCom for approval	3/21/2009	Review Basic Document	Report on progress	Work in Progress report

Color Code ;

Green - Document 0 to 2 years old	1
Aqua - Document 3 years old	2
Yellow - Document 4 Years old	1
Red - Document 5 or more years old.	3
	7

Draft Standards	0
PAR's in process	6
PAR's Needed	1
Re-Affirmations in process	0
Re-Affirmations Needed	0