



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, DC 20555 - 0001**

February 1, 2012

MEMORANDUM TO: ACRS Members

FROM: Sherry Meador **/RA/**
 Technical Secretary, ACRS

SUBJECT: CERTIFICATION OF THE MEETING MINUTES FROM
 THE ADVISORY COMMITTEE ON REACTOR
 SAFEGUARDS 586th FULL COMMITTEE MEETING
 HELD ON SEPTEMBER 8-10, 2011 IN ROCKVILLE,
 MARYLAND

The minutes of the subject meeting were certified on September 27, 2011 as the official record of the proceedings of that meeting. A copy of the certified minutes is attached.

Attachment:
As stated



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, DC 20555 - 0001**

September 27, 2011

MEMORANDUM TO: Sherry Meador, Technical Secretary
Advisory Committee on Reactor Safeguards

FROM: Cayetano Santos, Chief */RA/*
Technical Support Branch
Advisory Committee on Reactor Safeguards

SUBJECT: MINUTES OF THE 586th MEETING OF THE ADVISORY
COMMITTEE ON REACTOR SAFEGUARDS (ACRS),
SEPTEMBER 8-10, 2011

I hereby certify, to the best of my knowledge and belief, that the minutes of the subject meeting are an accurate record of the proceedings for that meeting.

OFFICE	ACRS	ACRS:RSB/Sunsi
NAME	SMeador	CSantos/sam
DATE	07/ 27 /11	07/ 27 /10

OFFICIAL RECORD COPY

MINUTES OF THE 586th MEETING OF THE
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

ROCKVILLE, MARYLAND

The 586th meeting of the Advisory Committee on Reactor Safeguards (ACRS) was held in Conference Room T2B1, Two White Flint North Building, 11545 Rockville Pike, Rockville, Maryland, on September 8-10, 2011. A copy of the meeting agenda is attached.

The summary report from the ACRS Chairman to the NRC Chairman contains the following information for this meeting: (1) an accurate description of each matter discussed and (2) a list of all the documents issued or approved by the Committee. A copy of the summary report is attached. The documents received by the Committee are listed in the references of each committee letter associated with this meeting.

A transcript of selected portions of the meeting is available in the NRC's public document room (pdr.resource@nrc.gov or 1-800-397-4209), or from the Publicly Available Records System (PARS) component of NRC's document system (ADAMS), or at <http://www.nrc.gov/reading-rm/doc-collections/acrs/agenda/>. The presentation slides and handouts used during the meeting are attached to these transcripts.

ATTENDEES

ACRS Members

Dr. Said Abdel-Khalik (Chairman), Dr. J. Sam Armijo (Vice-Chairman), Mr. John Stetkar (Member-at-Large), Dr. Sanjoy Banerjee, Dr. Dennis Bley, Mr. Charles Brown, Dr. Michael Corradini, Dr. Dana A. Powers, Mr. Harold Ray, Mrs. Joy Rempe, Dr. Michael Ryan, Dr. William Shack, and Mr. John Sieber.

ACRS Staff

E. Hackett
C. Santos
A. Dias
D. Widmayer
W. Wang
G. Shukla
I. Berrios
H. Nourbakhsh



**UNITED STATES
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**AGENDA
586th ACRS MEETING
September 8-10, 2011**

**THURSDAY, SEPTEMBER 8, 2011, CONFERENCE ROOM T-2B1, 11545 ROCKVILLE PIKE,
ROCKVILLE, MD**

- 1) 8:30 AM - 8:35 AM Opening Remarks by the ACRS Chairman (Open) (SAK/EMH)
1.1) Opening Statement
1.2) Items of Current Interest
- 2) 8:35 AM - 10:30 AM Near-Term Task Force Report Regarding the Events at the
Fukushima Dai-Ichi Site in Japan (Open) (SAK/AFD)
2.1) Remarks by the Subcommittee Chairman
2.2) Briefing by and discussions with representatives of the
NRC staff regarding the Near-Term Task Force report on
the events at the Fukushima Dai-ichi site in Japan.
- 10:30 AM - 10:45 AM ***** BREAK *****
- 3) 10:45 AM - 12:15 PM Technical Basis and Rulemaking Language Associated with Low-
Level Waste Disposal and Site-Specific Analysis (Open)
(MTR/DAW)
3.1) Remarks by the Subcommittee Chairman
3.2) Briefing by and discussions with representatives of the
NRC staff regarding technical basis and rulemaking
language associated with low-level waste disposal and
site-specific analysis.
- 12:15 PM - 1:15 PM ***** LUNCH *****
- 4) 1:15 PM - 3:15 PM Safety Evaluation Report Associated with Revision 19 of the
AP1000 Design Control Document (DCD) Amendment
(Open/Closed) (HBR/WW)
4.1) Remarks by the Subcommittee Chairman
4.2) Briefing by and discussions with representatives of the NRC
staff and Westinghouse regarding SER associated with
Revision 19 of the AP1000 DCD amendment

[NOTE: A portion of this session may be closed in order to discuss and protect information designed as proprietary by Westinghouse pursuant to 5 U.S.C 552b(c)(4).]

3:15 PM - 3:30 PM

***** BREAK *****

5) 3:30 PM - 5:00 PM

Draft Final Revision 2 to Regulatory Guide 1.115, "Protection Against Turbine Missiles" (Open) (JWS/GS)

5.1) Remarks by the Subcommittee Chairman

5.2) Briefing by and discussions with representatives of the NRC staff regarding Draft Final Revision 2 to RG 1.115.

6) 5:00 PM - 7:00 PM

Preparation of ACRS Reports (Open/Closed)

6.1) Near-Term Task Force Report Regarding the Events at the Fukushima Dai-Ichi Site in Japan (SAK/AFD)

6.2) Technical Basis and Rulemaking Language Associated with Low-Level Waste Disposal and Site-Specific Analysis (MTR/DAW)

6.3) SER associated with Revision 19 of the AP1000 DCD amendment (HBR/WW)

6.4) Draft Final Revision 2 to RG 1.115 (JWS/GS)

[NOTE: A portion of this session may be closed in order to discuss and protect information designed as proprietary by Westinghouse pursuant to 5 U.S.C 552b(c)(4).]

FRIDAY, SEPTEMBER 9, 2011, CONFERENCE ROOM T-2B1, 11545 ROCKVILLE PIKE, ROCKVILLE, MD

7) 8:30 AM - 8:35 AM

Opening Remarks by the ACRS Chairman (Open) (SAK/EMH)

7.1) Opening Statement

7.2) Items of Current Interest

8) 8:35 AM - 10:30 AM

Selected Chapters of the Safety Evaluation Report (SER) with Open Items Associated with the US-APWR Design Certification and the Comanche Peak Combined License Application (COLA) (Open/Closed) (JWS/ITB)

8.1) Remarks by the Subcommittee Chairman

8.2) Briefing by and discussions with representatives of the NRC staff, Mitsubishi Heavy Industries (MHI) and Luminant regarding selected chapters of the SER with Open Items associated with the US-APWR Design Certification and the COLA.

[NOTE: A portion of this session may be closed in order to discuss and protect information designed as proprietary by MHI and Luminant pursuant to 5 U.S.C 552b(c)(4).]

10:30 AM - 10:45 AM

***** BREAK *****

9) 10:45 AM - 12:15 PM

Future ACRS Activities/Report of the Planning and Procedures Subcommittee (Open/Closed) (SAK/EMH)

- 9.1) Discussion of the recommendations of the Planning and Procedures Subcommittee regarding items proposed for consideration by the Full Committee during future ACRS meetings.
- 9.2) Report of the Planning and Procedures Subcommittee on matters related to the conduct of ACRS business, including anticipated workload and member assignments.

[NOTE: A portion of this meeting may be closed pursuant to 5 U.S.C. 552b (c) (2) and (6) to discuss organizational and personnel matters that relate solely to internal personnel rules and practices of ACRS, and information the release of which would constitute a clearly unwarranted invasion of personal privacy.]

10) 12:15 PM - 12:30 PM

Reconciliation of ACRS Comments and Recommendations (Open) (SAK/CS/YDS)

Discussion of the responses from the NRC Executive Director for Operations to comments and recommendations included in recent ACRS reports and letters.

12:30 PM - 1:30 PM

***** LUNCH *****

11) 1:30 PM - 2:00 PM

Draft Report on the Biennial ACRS Review of the NRC Safety Research Program (Open) (MLC/HN)

- 11.1) Remarks by the Subcommittee Chairman
- 11.2) Discussion on the draft report on the biennial ACRS review of the NRC Safety Research Program.

- 12) 2:00 PM - 2:30 PM Assessment of the Quality of Selected NRC Research Projects (Open) (MLC/HPN)
12.1) Remarks by the Subcommittee Chairman
12.2) Discussions with members of the ACRS panels performing the quality assessment of NRC research projects on NUREG/CR-6969, "Analysis of Experimental Data for High Burnup PWR Spent Fuel Isotopic Validation – ARIANE and REBUS Programs (UO₂ Fuel)" and NUREG/CR-7027, "Degradation of LWR Core Internal Materials Due to Neutron Irradiation".

- 13) 2:30 PM - 7:00 PM Preparation of ACRS Reports (Open/Closed)
13.1) Near-Term Task Force Report Regarding the Events at the Fukushima Dai-Ichi Site in Japan (SAK/AFD)
13.2) Technical Basis and Rulemaking Language Associated with Low-Level Waste Disposal and Site-Specific Analysis (MTR/DAW)
13.3) SER associated with Revision 19 of the AP1000 DCD amendment (HBR/WW)
13.4) Draft Final Revision 2 to RG 1.115 (JWS/GS)
13.5) Selected Chapters of the SER with Open Items associated with the US-APWR Design Certification and the Comanche Peak COLA (JWS/ITB)

[NOTE: A portion of this session may be closed in order to discuss and protect information designed as proprietary by Westinghouse, MHI and Luminant pursuant to 5 U.S.C 552b(c)(4).]

SATURDAY, SEPTEMBER 10, 2011, CONFERENCE ROOM T-2B1, 11545 ROCKVILLE PIKE, ROCKVILLE, MD

- 14) 8:30 AM - 1:00 PM Preparation of ACRS Reports (Open/Closed)
Continue discussion of the proposed ACRS reports listed under Item 13. There may be a 15 break at some point during this activity.

[NOTE: A portion of this session may be closed in order to discuss and protect information designed as proprietary by Westinghouse, MHI and Luminant pursuant to 5 U.S.C 552b(c)(4).]

- 15) 1:00 PM - 1:30 PM Miscellaneous (Open) (SAK/EMH)
Discussion of matters related to the conduct of Committee activities and specific issues that were not completed during previous meetings, as time and availability of information permit.

NOTES:

- When appropriate, members of the public and representatives of the nuclear industry may provide their views during the briefings.
- During the meeting, phone number 301-415-7360 should be used in order to contact anyone in the ACRS Office.
- Presentation time should not exceed 50 percent of the total time allocated for a given item. The remaining 50 percent of the time is reserved for discussion.
- Thirty five (35) hard copies and one (1) electronic copy of the presentation materials should be provided to the ACRS in advance of the briefing.
- One (1) electronic copy of each presentation should be emailed to the Designated Federal Official 1 day before the meeting. If an electronic copy cannot be provided within this timeframe, presenters should provide the Designated Federal Official with a CD containing each presentation at least 30 minutes before the meeting.



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, DC 20555 - 0001**

September 27, 2011

The Honorable Gregory B. Jaczko
Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

SUBJECT: SUMMARY REPORT – 586TH MEETING OF THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS, SEPTEMBER 8-10, 2011

Dear Chairman Jaczko:

During its 586th meeting, September 8-10, 2011, the Advisory Committee on Reactor Safeguards (ACRS) discussed several matters and completed the following reports, letters, and memoranda:

REPORTS

Reports to Gregory B. Jaczko, Chairman, NRC, from Said Abdel-Khalik, Chairman, ACRS:

- Revision 19 to the AP1000 Design Control Document and the AP1000 Final Safety Evaluation Report, dated September 19, 2011
- Proposed Rulemaking to Introduce a Site-Specific Performance Assessment and Human Intrusion Analysis Requirement to 10 CFR Part 61, dated September 22, 2011

LETTERS

Letters to R. W. Borchardt, Executive Director for Operations, NRC, from Said Abdel-Khalik, Chairman, ACRS:

- Draft Final Regulatory Guide 1.115, Revision 2, "Protection against Turbine Missiles," dated September 19, 2011
- Chapters 2, 5, 8, 10, 11, 12, 13, and 16 of the Safety Evaluation Report with Open Items for Certification of the US-APWR Design, dated September 22, 2011

Letter to Brian Sheron, Director, Office of Nuclear Regulatory Research, NRC, from Said Abdel-Khalik, Chairman, ACRS:

- ACRS Assessment of the Quality of Selected NRC Research Projects - FY 2011, dated September 19, 2011

MEMORANDA

Memoranda to R. W. Borchardt, Executive Director for Operations, NRC, from Edwin M. Hackett, Executive Director, ACRS:

- Draft Final Regulatory Guides 1.159, 1.221, and 1.218, dated September 20, 2011
- Supplement 1 to NUREG-1930, "Safety Evaluation Report Related to the License Renewal of Indian Point Nuclear Generating Units 2 and 3," dated September 20, 2011
- Proposed Regulatory Guide DG-1278, dated September 21, 2011

HIGHLIGHTS OF KEY ISSUES

1. Near-Term Task Force Report Regarding the Events at the Fukushima Dai-Ichi Site in Japan

The Committee met with representatives of the NRC's Near-Term Task Force to discuss their review of the events at the Fukushima Dai-ichi site in Japan. Their report, issued on July, 12, 2011, contained 12 overarching recommendations for consideration by the Commission. These recommendations were aimed at improving the safety of both operating and new nuclear reactors. The task force also suggested improvements in the NRC programs for the oversight of reactor safety. Implementation of these recommendations would require rulemakings, orders, staff actions, long-term evaluations, as well as a policy statement appropriately balancing defense-in-depth and risk considerations. As part of the public input, Mr. Adrian Heymer, from the Nuclear Energy Institute, provided the industry's comments on the Near-Term Task Force's proposed near-term NRC actions associated with the Fukushima Dai-ichi accident.

Committee Action

The Committee chose not to write a letter report during its September meeting. The Committee will consider a report during the October 6-8, 2011 meeting.

2. Technical Basis and Rulemaking Language Associated with Low-Level Waste Disposal and Site-Specific Analysis

The Committee met with representatives of the NRC staff to continue discussing the proposed rulemaking language and technical basis to include site-specific analyses into revisions to 10 CFR Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste." The staff described changes to the draft rule language based on the public comments received on the proposed rule and from a May 2011 public meeting held with stakeholders. The staff also presented information on the guidance being prepared to accompany the rule language changes. The Committee also discussed the proposed rulemaking language with the NRC staff during its 585th meeting held July 13-15, 2011.

Committee Action

The Committee issued a letter to the NRC Chairman on this matter, dated September 22, 2011, recommending that 10 CFR Part 61 not be revised in accordance with the staff's proposed rulemaking language. Specific recommendations were offered regarding the period of performance, depleted uranium, and analysis of inadvertent intruder scenarios.

3. SER associated with Revision 19 of the AP1000 DCD amendment

The Committee met with representatives of the NRC staff, Westinghouse Electric Company (WEC), and the public to discuss Revision 19 to the AP1000 Design Control Document (DCD) and the AP1000 Final Safety Evaluation Report (FSER). In addition to editorial corrections and the inclusion of conforming items previously identified in the Advanced FSER, the update provided resolution to a few outstanding issues. During the meeting representatives of the NRC staff and WEC described the resolution of these issues: (1) passive containment cooling system (PCS) tank analysis methodology, (2) enhanced shield building load combination, (3) containment accident pressure analysis. Details of the resolution for these issues are described in the letter to the NRC Chairman dated September 19, 2011.

In addition, a member of the public commented that WEC's analyses did not address solar radiation heating on the exterior surface of the concrete shield building. It was stated that WEC's analyses did not address solar radiation on the exterior surface of physical models of evaporative cooling on containment tests used to validate the computer code, WGOTHIC. The committee evaluated the effects of insolation on the shield building design and the predicted peak containment pressure during an accident.

Committee Action

The Committee issued a letter to the NRC Chairman on this matter dated September 19, 2011, concluding that there is reasonable assurance that the revised design can be built and operated without undue risk to the health and safety of the public.

4. Draft Final Revision 2 to Regulatory Guide (RG) 1.115, "Protection against Turbine Missiles."

The Committee met with representatives of the NRC staff to discuss the draft final Regulatory Guide (RG) 1.115, Revision 2, "Protection Against Turbine Missiles." The key elements of RG 1.115, Revision 2 include: (i) consolidation of NRC guidance on turbine missiles into one document; (ii) expansion of the guidance to include high-trajectory missiles; (iii) clarification of the analysis scope to include all structures, systems, and components (SSCs) that are important to safety, rather than only designated safety-related SSCs; (iv) clarification of the scope to include the effects from other units at multi-unit sites; and, (v) inclusion of the option for a risk-informed evaluation of turbine missile damage. The NRC staff presented their current position on protection against turbine missiles, the results of their review of turbine operating experience, and industry comments on the proposed RG.

Committee Action

The Committee issued a letter to the Executive Director for Operations on this matter, dated September 19, 2011, recommending that Revision 2 of RG 1.115 be issued after adequate justification is provided for excluding an evaluation of high-trajectory missiles under Regulatory Position 2.b. The Committee also recommended that the staff supplement its review of domestic nuclear operating experience by including operating experience at large U.S. conventional power plants and international nuclear facilities for the last ~20 years to confirm that the nominal frequency of 1×10^{-4} turbine missile ejection event per year from all causes is justified.

5. Selected Chapters of the SER with Open Items Associated with the US-APWR Design Certification

The Committee met with representatives of Mitsubishi Heavy Industries, LTC. (MHI) and the NRC staff to discuss the following chapters of the safety evaluation report (SER) with open items associated with the United States – Pressurized Water Reactor (US-APWR) design certification (DC) application: Chapter 2, "Site Characteristics," Chapter 5, "Reactor Coolant and Connecting Systems," Chapter 8, "Electric Power," Chapter 10, "Steam and Power Conversion System," Chapter 11, "Radioactive Waste Management," Chapter 12, "Radiation Protection," Chapter 13, "Conduct of Operations," and Chapter 16, "Technical Specifications." Representatives of MHI and the NRC staff provided a summary of the major issues in these chapters. The main issues discussed include the survivability of the reactor coolant pump (RCP) seals with no seal cooling; the gas turbine generators (GTGs) and their reliability, compared to diesel generators; and the need to restore a source of AC power to support turbine-driven emergency feedwater (TDEFW) operation for longer than one hour. The staff also discussed their schedule for reviewing the DC application.

Committee Action

The Committee issued a letter to the Executive Director for Operations on this matter, dated September 22, 2011 recommending that issues associated with the RCP seals, GTG reliability, and operation of the TDEFW pumps be addressed. Except for these issues, the Committee did not identify any other issues with potentially significant safety implications. The Committee plans to review the staff's resolution of the open items and the identified issues during future meetings. The Committee will comment on potential safety implications of any system interactions in future interim letters and in their final report.

6. ACRS Assessment of the Quality of Selected NRC Research Projects

The Committee discussed the status of the ACRS Panels' review of the quality assessment of NRC research projects on NUREG/CR-6969, "Analysis of Experimental Data for High Burnup PWR Spent Fuel Isotopic Validation – ARIANE and REBUS Programs (UO₂ Fuel)," and NUREG/CR-7027, "Degradation of LWR Core Internal Materials Due to Neutron Irradiation."

Committee Action

The Committee issued a letter to the Director of the Office of Nuclear Regulatory Research, on this matter dated September 19, 2011, transmitting their quality assessment report of NUREG/CR-6969 and NUREG/CR-702. The Committee anticipates receiving a list of candidate projects for the quality assessment in FY-2012 prior to their November 3-5, 2011 meeting.

7. Draft Final Regulatory Guides 1.159, 1.221, And 1.218

The Committee has no objection to the staff's proposal to issue the following Regulatory Guides (RGs) as final: Revision 2 to RG 1.159, "Assuring the Availability of Funds for Decommissioning Nuclear Reactors," Final Revision to RG 1.221, "Design-Basis Hurricane and Hurricane Missiles for Nuclear Power Plants," and Final Revision to RG 1.218, "Condition-Monitoring Techniques for Electric Cables Used in Nuclear Power Plants."

8. Supplement 1 to NUREG-1930, "Safety Evaluation Report Related to the License Renewal of Indian Point Nuclear Generating Units 2 and 3"

The Committee considered Supplement 1 to NUREG-1930, "Safety Evaluation Report Related to the License Renewal of Indian Point Nuclear Generating Units 2 and 3," and decided not to review it.

9. Proposed Regulatory Guide DG-1278

The Committee considered proposed Revision 3 to Regulatory Guide 1.160 (DG-1278), "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," and decided not to review it. The Committee has no objection to the staff's proposal to issue this Guide for public comment. The Committee would like to have an opportunity to review the draft final version of this Guide after reconciliation of public comments.

RECONCILIATION OF ACRS COMMENTS AND RECOMMENDATIONS/EDO COMMITMENTS

The Committee considered the EDO's response of July 6, 2011, to comments and recommendations included in the May 19, 2011 ACRS letter on the final safety evaluation report associated with the amendment of AP 1000 design control document. The Committee decided that it was satisfied with the EDO's response.

The Committee considered the EDO's response of August 4, 2011, to comments and recommendations included in the July 20, 2011 ACRS letter on the request for an ACRS waiver of the final rule, US Advanced Boiling Water Reactor aircraft impact design certification amendment. The Committee decided that it was satisfied with the EDO's response.

The Committee considered the EDO's response of July 21, 2011, to comments and recommendations included in the June 22, 2011 ACRS letter on the draft regulatory guides DG-1261, DG-1262 and DG-1263. The Committee decided that it was satisfied with the EDO's response.

The Committee considered the EDO's response of July 14, 2011, to comments and recommendations included in the June 16, 2011 ACRS report on the safety aspects of the license renewal application for the Hope Creek Generating Station. The Committee decided that it was satisfied with the EDO's response.

The Committee considered the EDO's response of August 28, 2011, to comments and recommendations included in the May 24, 2011 ACRS letter on human factors considerations associated with emerging technologies in nuclear power plants. The Committee decided that it was satisfied with the EDO's response.

The Committee considered the EDO's response of July 25, 2011, to comments and recommendations included in the June 22, 2011 ACRS report on the Draft SECY Paper, "Options for Proceeding with Future Level 3 Probabilistic Assessment Activities." The Committee decided that it was satisfied with the EDO's response.

SCHEDULED TOPICS FOR THE 587th ACRS MEETING

The following topics are scheduled for the 587th ACRS meeting, to be held on October 6-8, 2011:

- Draft Final Revision 4 to Regulatory Guide (RG) 1.82, "Water Sources for Long-Term Recirculation Cooling Following a Loss-of-Coolant Accident"
- Fuel Cycle Oversight Process (FCOP)
- NRC Staff Recommendations on the Near-Term Task Force Report Regarding the Events at the Fukushima Dai-ichi Site in Japan

Sincerely,

/RA/

Said Abdel-Khalik
Chairman

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

586th Full Committee Meeting

September 9, 2011
Date

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	<u>NAME</u>	<u>AFFILIATION</u>
1	Hiroshi Shirogane	MNES
2	Hikaru Ogasawara	Mitsubishi Nuclear
3	Erin Usher	MNES
4	Shigeo Kawano	MNES
5	Kenji Mashio	MNES
6	Hideki Tanaka	MNES
7	Hiroshi Hamamoto	MNES
8	Masamori OKOZUKA	MNES
9	Jeremy Shook	Areva
10	Scott KIFFER	MNES
11	Freddie Gillespie	MNES
12	Neil Haggerty	Excel/NuStart
13	C. Keith Paulson	MNES
14	Ryan Sprengel	MNES
15	ATSUSHI Kumaki	MHI
16	Shinji Kinchi	MNES
17	Goro Imada	MNES
18	Bob Fitz	
19	Futoshi Tanaka	MNES
20	Ridwan Braung	MNES
21	Kojiro Mori	MNES
22	Yuta Maruyama	MNES
23	JOHN CONLY	LUMINANT
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ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

586th Full Committee Meeting

September 9, 2011

Date

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	<u>NAME</u>	<u>NRC ORGANIZATION</u>
1	Jeff Liocco	NRO
2	Joe Demars Hall	NRO
3	Brad Harvey	NRO/DSEI/RSAC
4	Steve Williams	NRO/DCIP/CHPB
5	Ron LaVend	NRO/DCIP/CHPB
6	NEOLA OTTO	NRO/DNRL/NMIP
7	Star Tania Martinez Navedo	NRO/DE/EEB
8	PAUL KACWAN	NRO/DNRL/NMIP
9	TARUN ROY	NRO/DNRL/NMIP
10	Seem	
11	ERIC PELTON	NRO/DCIP/COUP
12	Joel Jenkins	NRO/DE/CIB1
13	Greg Makar	NRO/DE/CIB1
14	Tarico Sweet	NRO/OSRA/SBPB
15	WEIJUN WANG	NRO/DSEI/RGR2
16	ANGELO STUBBS	NRO/OSRA/SBPA
17	Stephen Monarque	NRO/DNRL
18	John Honcharik	NRO/DE/CIB1
19	JOHN SERRA	NRO/OSRA/SBPA
20	Dinesh Tareja	NRO/DE/ICER
21	Nicholas Saltos	NRO/OSRA/SPRA
22	David Terao	
23	David Terao	NRO/DE/CIB1
24	Jessica Colon	NRO/DNRL/NMIP
25	Nebiyu Firman	NRO/DSEI/RHEB
26	Bob Davic	NRO/DE/CIB2
27	Bob Fitzpatrick	NRO/DE/CEB
28	Hen Le	NRO

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

586th Full Committee Meeting

September 8, 2011

Date

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<u>NAME</u>	<u>AFFILIATION</u>
1 VITAY M. NILEKANI	NEI.
2 ADRIAN P. HEYMER	NEI.
3 Neil Haggerty	EXCEL / NuStart
4 Jaiirus Guenzel	Mitsubishi
5 Dan Schultheisz	EPA
6 Andrea Kock	NRC IOM
7 Rolf Ziesing	Westinghouse
8 DONALD LINDGREN	WESTINGHOUSE ELECTRIC
9 Eddie R Grant	EXCEL / NuStart
10 Charles M. Herbst	Southern Nuclear
11 Rick Ofstun	Westinghouse
12 Kent Bonadio	Westinghouse
13 Brad Carpenter	Westinghouse
14 Stanley Ritterbusch	Westinghouse
15 Mike Meldon	WVU
16 TOD BAKER	WESTINGHOUSE
17 Amy Hightman	SNC
18 RICHARD GRUMBIR	NUSTART / Excel
19 Charles Baker	
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ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

586th Full Committee Meeting

September 8, 2011
Date

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	<u>NAME</u>	<u>NRC ORGANIZATION</u>
1	Gordon Carrera	NRO/DSRA
2	Samuel Lee	NRO/DSRA
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