



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

January 6, 2014

NOTE TO: FILE

FROM: Sherry Meador, Technical Secretary */RA/*  
Advisory Committee on Reactor Safeguards

The minutes of the subject meeting were certified on March 22, 2013 as the official record of the proceedings of that meeting.



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

March 25, 2013

MEMORANDUM TO: ACRS Members

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

SUBJECT: CERTIFICATION OF THE MEETING MINUTES FROM  
THE ADVISORY COMMITTEE ON REACTOR  
SAFEGUARDS 602<sup>nd</sup> FULL COMMITTEE MEETING  
HELD ON MARCH 7, 2013, IN ROCKVILLE, MARYLAND

The minutes of the subject meeting were certified on March 22, 2013 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**

March 22, 2013

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

FROM: J. Sam Armijo */RA/*  
ACRS Chairman

SUBJECT: MINUTES OF THE 602<sup>nd</sup> MEETING OF THE ADVISORY  
COMMITTEE ON REACTOR SAFEGUARDS (ACRS),  
MARCH 7, 2013

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	03/22/13	03/22/13

**OFFICIAL RECORD COPY**

MINUTES OF THE 602<sup>ND</sup> MEETING OF THE  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

ROCKVILLE, MARYLAND

The 602<sup>nd</sup> 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 March 7, 2013. A copy of the meeting agenda is attached.

The summary report ML13087A328 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](mailto: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. J. Sam Armijo (Chairman), Mr. John Stetkar (Vice-Chairman), Mr. Harold Ray (Member-at-Large), Dr. Sanjoy Banerjee, Dr. Dennis Bley, Mr. Charles Brown, Dr. Michael Corradini, Dr. Dana A. Powers, Dr. Joy Rempe, Dr. Michael Ryan, Dr. Stephen Schultz, Mr. Gordon Skillman, and Dr. William Shack.

ACRS Staff

E. Hackett  
C. Santos  
Q. Nguyen

A list of other attendees is attached.



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

**AGENDA  
602<sup>nd</sup> ACRS MEETING  
March 7, 2013**

**THURSDAY, MARCH 7, 2013, CONFERENCE ROOM T-2B1, 11545 ROCKVILLE PIKE,  
ROCKVILLE, MD**

- |                          |   |
|--------------------------|---|
| 1) 1:00 PM - 1:05 PM     | <u>Opening Remarks by the ACRS Chairman</u> (Open) (JSA/EMH)<br>1.1) Opening Statement<br>1.2) Items of Current Interest  |
| 2) 1:05 PM - 2:30 PM     | <u>Proposed Draft Final Revision 1 to Regulatory Guide (RG) 1.163,<br/>“Performance-Based Containment Leak-Test Program”</u> (Open)<br>(WJS/QN)<br>2.1) Remarks by the Subcommittee Chairman<br>2.2) Briefing by and discussions with representatives of the<br>NRC staff regarding the proposed revision to RG 1.163,<br>“Performance-Based Containment Leak-Test Program.”  |
| <b>2:30 PM - 2:45 PM</b> | <b>*** BREAK ***</b>  |
| 3) 2:45 PM - 4:15 PM     | <u>Future ACRS Activities/Report of the Planning and Procedures<br/>Subcommittee</u> (Open/Closed) (JSA/EMH)<br>3.1) Discussion of the recommendations of the Planning and<br>Procedures Subcommittee regarding items proposed for<br>consideration by the Full Committee during future ACRS<br>meetings.<br>3.2) Report of the Planning and Procedures Subcommittee on<br>matters related to the conduct of ACRS business, including<br>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 the ACRS, and information the release of which would constitute a clearly unwarranted invasion of personal privacy.]**

- 4) 4:15 PM - 4:30 PM      Reconciliation of ACRS Comments and Recommendations  
(Open) (JSA/EMH/CS)  
Discussion of the responses from the NRC Executive Director for Operations to comments and recommendations included in recent ACRS reports and letters.
- 4:30 PM - 4:45 PM      \*\*\* BREAK \*\*\*
- 5) 4:45 PM - 7:00 PM      Preparation of ACRS Reports (Open)  
5.1)      Proposed Draft Final Revision 1 to RG 1.163,  
              "Performance-Based Containment Leak-Test Program"  
              (WJS/QN)

**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**

March 28, 2013

The Honorable Allison M. Macfarlane  
Chairman  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

SUBJECT: SUMMARY REPORT – 602<sup>nd</sup> MEETING OF THE ADVISORY COMMITTEE ON  
REACTOR SAFEGUARDS, MARCH 7, 2013.

Dear Chairman Macfarlane:

During its 602<sup>nd</sup> meeting, March 7, 2013, the Advisory Committee on Reactor Safeguards (ACRS) discussed several matters and completed the following letters and memoranda:

**LETTERS**

Letters to R. W. Borchardt, Executive Director for Operations, NRC, from J. Sam Armijo, Chairman, ACRS:

- Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," Revision 1, dated March 20, 2013
- Draft Design Specific Review Standard for mPower iPWR Chapter 7 Instrumentation and Control Systems, dated March 19, 2013

**MEMORANDA**

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

- Proposed Closeout - Generic Issue 189, dated March 11, 2013
- Proposed Regulatory Guides DG-1235 and DG-1300, dated March 12, 2013
- Draft Revisions to Standard Review Plan Sections, dated March 11, 2013

## HIGHLIGHTS OF KEY ISSUES

### 1. Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," Revision 1

The Committee met with representatives of the NRC staff to discuss the proposed Revision 1 to Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak-Test Program." The proposed revision of RG 1.163 endorses the guidance in NEI 94-01, Revision 3, for implementing Option B of Appendix J of 10 CFR Part 50, subject to the limitations and conditions in two safety evaluation reports (SERs): the SER for NEI 94-01, Revision 2, extending Type A test intervals up to 15 years (from up to 10 years) and the SER for NEI 94-01, Revision 3, extending Type C test intervals up to 75 months (from up to 60 months).

In their presentation, the staff provided background information for RG 1.163 that included the operating experience of extensions for the increased Type A testing intervals. Particularly, in the one-time approved 15-year Type A testing for approximately 75 plants, there were no reported test failures. Performance results from the extended test intervals that have been applied to date have not revealed any new failure modes. Furthermore, the staff stated that the EPRI methodology of evaluating the risk associated with the interval extensions was acceptable and consistent with the five key principles of RG 1.174. The Committee mostly asked questions for clarification.

### Committee Action

The Committee issued a letter to the Executive Director for Operations on this matter dated March 20, 2013, recommending that the proposed revision of RG 1.163 be issued.

### 2. Proposed Closeout – Generic Issue 189

The Committee considered the staff's bases for closing out Generic Issue 189, "Susceptibility of Ice Condenser and Mark III Containments to Early Failure from Hydrogen Combustion during a Severe Accident," and decided not to review it. The Committee has no objection to the staff's proposal to close this Generic Issue.

### 3. Proposed Regulatory Guides DG-1235 and DG-1300

The Committee considered the following proposed draft regulatory guides and decided not to review them. The Committee has no objection to the staff's proposal to issue these Guides for public comment but would like an opportunity to review the draft final versions of these Guides following the public comment period.

- DG-1235, "Qualification Tests for Safety-Related Actuators in Nuclear Power Plants"
- DG-1300, "Quality Assurance Program Requirements (Operations)"



#### 4. Draft Revisions to Standard Review Plan Sections

The Committee considered the following draft revisions to the Standard Review Plan and decided not to review them. The Committee has no objection to the staff's proposal to issue these revisions for public comment and waives its opportunity to review these revisions following the public comment period.

- Section 12.1, "Assuring that Occupational Radiation Exposures are as Low as is Reasonably Achievable"
- Section 12.2, "Radiation Sources"
- Sections 12.3-12.4, "Radiation Protection Design Features"
- Section 12.5, "Operational Radiation Protection Program"

#### RECONCILIATION OF ACRS COMMENTS AND RECOMMENDATIONS

- The Committee considered the EDO's response of February 11, 2013, to comments and recommendations included in the December 20, 2012 ACRS letter on Chapter 9 of the safety evaluation report with open items for the US-APWR design certification application. The Committee was satisfied with the EDO's response.
- The Committee considered the EDO's response of February 5, 2013, to comments and recommendations included in the January 2, 2013 ACRS letter on the Draft NUREG-1855, Revision 1, "Guidance on the Treatment of Uncertainties Associated with PRAs in Risk-Informed Decisionmaking." The Committee was satisfied with the EDO's response.
- The Committee considered the EDO's response of February 6, 2013, to comments and recommendations included in the December 18, 2012 ACRS letter on the draft design specific review standard for mPower iPWR Chapter 7 Instrumentation and Control Systems. The Committee concluded that the staff's disposition of the recommendations in the December 18, 2012 letter is satisfactory except for an essential element of recommendation 3. The Committee issued a letter to the EDO on this matter dated March 19, 2013, recommending that the staff incorporate the revision to the mPower DSRS Chapter 7, Section 7.2.9 Item 2 discussed in their December 18, 2012 ACRS letter. The Committee also identified three specific points in the EDO response with which it disagrees.

SCHEDULED TOPICS FOR THE 603<sup>rd</sup> ACRS MEETING

The following topics are scheduled for the 603<sup>rd</sup> ACRS meeting, to be held on April 11-12, 2013:

- WCAP-17116-P, "Westinghouse BWR ECCS Evaluation Model: Supplement 5 – Application to ABWR"
- Selected Chapters of the Safety Evaluation Reports with Open Items Associated with US-APWR Design Certification and the Comanche Peak Combined License Application
- Update on the Electric Power Research Institute (EPRI) Ground Motion Model Update Project

Sincerely,

*/RA/*

J. Sam Armijo  
Chairman

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
602<sup>nd</sup> FULL COMMITTEE MEETING  
March 7, 2013

PLEASE PRINT

TODAY'S DATE: March 7, 2013

	<u>NAME</u>	<u>NRC ORGANIZATION</u>
1	Bruce Lin	RES/DE/CIB
2	Antonio Zulu	NRR/DRA/APUB
3	JEFF ROTTON	NRR/DRA/APOB
4	GEORGE THOMAS	NRR/DE/EMCB
5	April Pulvirenti	RES/DE/CMCB
6	BRIAN LEE	NRR/DS/SCVB
7	Steve Jones	NRR/DS/SPB
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