



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

August 2, 2016

NOTE TO: FILE

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

The minutes of the subject meeting were certified on March 25, 2016 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, 2016

MEMORANDUM TO: ACRS Members

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

SUBJECT: CERTIFICATION OF THE MEETING MINUTES FROM
THE ADVISORY COMMITTEE ON REACTOR
SAFEGUARDS 632nd FULL COMMITTEE MEETING
HELD ON MARCH 3-5, 2016, IN ROCKVILLE, MARYLAND

The minutes of the subject meeting were certified on March 25, 2016 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 18, 2016

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

FROM: Dennis C. Bley */RA/*
ACRS Chairman

SUBJECT: MINUTES OF THE 632nd MEETING OF THE ADVISORY
COMMITTEE ON REACTOR SAFEGUARDS (ACRS),
MARCH 3-5, 2016

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/SUNSI Review
NAME	SMeador	SMeador
DATE	3/18/16	3/18/16

OFFICIAL RECORD COPY

MINUTES OF THE 632nd MEETING OF THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

ROCKVILLE, MARYLAND

The 632nd 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 3-5, 2016. A copy of the meeting agenda is attached.

The summary report [ML16085A306] 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. Dennis Bley (Chairman), Dr. Michael Corradini (Vice-Chairman), Dr. Pete Riccardella (Member-at-Large), Dr. Ronald Bellinger, Mr. Charles Brown, Dr. Dana A. Powers, Mr. Harold B. Ray, Dr. Joy Rempe, Mr. Gordon Skillman, and Mr. John W. Stetkar.

ACRS Staff

E. Hackett
M. Banks
Q. Nguyen
W. Wang
H. Nourbakhsh
K. Weaver
D. Widmayer

A list of other attendees is attached.



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

**AGENDA
632nd ACRS MEETING
MARCH 3-5, 2016
11545 ROCKVILLE PIKE, ROCKVILLE, MD**

THURSDAY, MARCH 3, 2016, CONFERENCE ROOM T-2B1

- | | |
|----------------------------|--|
| 1) 8:30 AM – 8:35 AM | <u>Opening Remarks by the ACRS Chairman</u> (Open) (DCB/EMH)
1.1) Opening Statement
1.2) Items of Current Interest |
| 2) 8:35 AM – 10:30 AM | <u>Non-Power Production and Utilization Facilities Proposed License Renewal Rulemaking</u> (Open) (DAP/QTN)
2.1) Remarks by the Subcommittee Chairman
2.2) Briefings by and discussions with representatives of the NRC staff regarding the NPUF proposed license renewal rulemaking |
| 10:30 AM - 10:45 AM | *** BREAK *** |
| 3) 10:45 AM – 12:00 PM | <u>Biennial Review and Evaluation of the NRC Safety Research Program</u> (Open) (MLC/HPN)
3.1) Discussion regarding the NRC Safety Research Program |
| 12:00 AM - 1:00 PM | *** LUNCH *** |
| 4) 1:00 PM – 3:00 PM | <u>Group 2 Fukushima Tier 2 and 3 Closure Plans</u> (Open) (JWS/KDW)
4.1) Remarks by the Subcommittee Chairman
4.2) Briefings by and discussions with representatives of the NRC staff regarding Group 2 Fukushima closure plans |

- 5) 3:00 PM – 6:00 PM Preparation of ACRS Reports (Open)
- 5.1) Non-Power Production and Utilization Facilities Proposed License Renewal Rulemaking (DAP/QTN)
 - 5.2) Biennial Review and Evaluation of the NRC Safety Research Program (MLC/HPN)
 - 5.3) Group 2 Fukushima Tier 2 and 3 Closure Plans (JWS/KDW)

FRIDAY, MARCH 4, 2016, CONFERENCE ROOM T-2B1

- 6) 8:30 AM – 9:45 AM Preparation for Meeting with the Commission
- 6.1) Members will discuss preparation for the March Commission Meeting

9:45 AM – 10:00 AM

***** BREAK *****

- 7) 10:00 AM – 12:00 PM Meeting with the Commission
- 7.1) The Committee will discuss topics of mutual interest with the Commission

12:00 PM – 1:00 PM

***** LUNCH *****

- 8) 1:00 PM – 2:30 PM Future ACRS Activities/Report of the Planning and Procedures Subcommittee (Open/Closed) (DCB/EMH)
- 8.1) Discussion of the recommendations of the Planning and Procedures Subcommittee regarding items proposed for consideration by the Full Committee during future ACRS meetings
 - 8.2) 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 the ACRS, and information the release of which would constitute a clearly unwarranted invasion of personal privacy.]

- 9) 2:30 PM – 2:45 PM Reconciliation of ACRS Comments and Recommendations
(Open) (DCB/EMH/MLB)
9.1) Discussion of the responses from the NRC Executive Director for Operations to comments and recommendations included in recent ACRS reports and letters
- 10) 2:45 PM – 6:00 PM Preparation of ACRS Reports (Open)
10.1) Continue discussion of the proposed ACRS reports listed under Item 5

SATURDAY, MARCH 5, 2016, CONFERENCE ROOM T-2B1

- 11) 8:30 AM – 11:30 AM Preparation of ACRS Reports (Open/Closed)
11.1) Continue discussion of the proposed ACRS reports listed under Item 5

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

- 12) 11:30 AM – 12:00 PM Miscellaneous (Open) (DCB/EMH)
12.1) 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, 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, 2016

The Honorable Stephen G. Burns
Chairman
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: SUMMARY REPORT – 632nd MEETING OF THE ADVISORY COMMITTEE ON
REACTOR SAFEGUARDS, MARCH 3-5, 2016

Dear Chairman Burns:

During its 632nd meeting, March 3-5, 2016, the Advisory Committee on Reactor Safeguards (ACRS) discussed several matters and completed the following reports:

REPORTS

Reports to Stephen G. Burns, Chairman, NRC, from Dennis C. Bley, Chairman, ACRS:

- “Non-Power Production or Utilization Facilities Proposed License Renewal Rulemaking,” dated March 15, 2016
- “Closure of Fukushima Tier 3 Recommendations Related to Containment Vents, Hydrogen Control, and Enhanced Instrumentation,” dated March 15, 2016

HIGHLIGHTS OF KEY ISSUES

1. Meeting with the Commission

On March 4, 2016, the Committee met with the Commission to discuss the following topics:

- Overview
- Draft Final Rule for 10 CFR 50.46c, “Emergency Core Cooling System Performance During Loss-of-Coolant Accidents”
- Maximum Extended Load Line Limit Analysis Plus (MELLLA+)
- Plans for Resolving Fukushima Near-Term Task Force Tier 2 and 3 Recommendations

2. Report on “Non-Power Production or Utilization Facilities Proposed License Renewal Rulemaking,” dated March 15, 2016

The Committee met with representatives of the NRC staff to discuss the Non-Power Production or Utilization Facilities (NPUF) proposed license renewal rulemaking. The staff discussed the purposes of the proposed NPUF rule: 1) Implement Commission direction to streamline the license renewal process by establishing a more efficient, effective, and focused regulatory framework and 2) Fix existing short comings in regulations for non-power licensees.

Committee Action

The Committee issued a report to Chairman Burns on this matter dated, March 15, 2016, recommending that the staff should proceed with the proposed NPUF rulemaking.

3. Closure of Fukushima Tier 3 Recommendations Related to Containment Vents, Hydrogen Control, and Enhanced Instrumentation

The Committee met with the NRC staff to discuss the staff’s proposed plans for closure of the Fukushima Near Term Task Force Tier 3 recommendations related to containment vents, hydrogen control, and enhanced instrumentation. The staff discussed the related White Paper and enclosures documenting its proposed closure plans and conclusions.

Committee Action

The Committee issued a letter report to the NRC Chairman on this matter, dated March 15, 2016, with the following conclusion and recommendations: 1) No further regulatory action is warranted for closure of the Fukushima Near Term Task Force Tier 3 recommendations related to containment vents, hydrogen control, and enhanced instrumentation, 2) The staff should perform a more complete examination of the mechanisms and pathways for unmitigated releases of hydrogen from each major containment design into surrounding structures and the consequences of hydrogen combustion, and 3) The staff should continue to participate on standards committees, revise applicable regulatory guidance, and actively engage in ongoing activities that are examining needs for enhanced severe accident instrumentation.

RECONCILIATION OF ACRS COMMENTS AND RECOMMENDATIONS

- The Committee considered the Executive Director for Operations’ response of January 22, 2016, to a conclusion and recommendations included in the December 14, 2015 ACRS letter on “Report on the Safety Aspects of the Duke Energy Carolinas, LLC, Combined License Application for William States Lee III Nuclear Station, Units 1 and 2.” The Committee was satisfied with the Executive Director for Operations’ response.

SCHEDULED TOPICS FOR THE 633rd ACRS MEETING

The following topics are scheduled for the 633rd ACRS meeting, to be held on April 7-9, 2016:

- AP1000 Generic Design Changes
- Regulatory Guide 1.229, "Risk-Informed Approach for Addressing the Effects of Debris on Post-Accident Long-Term Core Cooling"
- Spent Fuel Storage and Transportation
- Biennial Review and Evaluation of the NRC Safety Research Program

Sincerely,

/RA/

Dennis C. Bley
Chairman

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

632nd FULL COMMITTEE MEETING

March 3-5, 2016

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TODAY'S DATE: March 3, 2016

NAME

Liz Gormsen
 Andi Mervitt
 Robert Beall
 Kevin Folk
 Tony Bowers
 Rich Clement
 KOSMAS LOIS
 Nan Gilles
 Justin Fuller
 Howard Schwartz
 Robert Kresel
 NATAN SIE
 Sud Basu
 Joe Sebrosky
 ERIC BOWMAN
 TIM REED
 Raj Anilude
 Ed Fuller
 Deirdra Spaulding-Yerman
 Thom Herrity
 Edward Roach
 UNPINE SHUP
 DINESH TANEJA
 Pang Chung
 RICHARD LOT

NRC ORGANIZATION

ICF International
 ICF International
 NRR
 NRR
 NRC/NRR/DIES
 NRC
 NRC
 COMM/OCM
 COMM/OCM
 OGC
 NRC/COM LINE
 NRC/RES
 NRC/RES
 NRC/NRR/JLD
 NRR/JLD
 NRR/DPR
 NRR/JLD
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 NRR/DE/ETCB
 RES/DE/SGSRB
 NSIR/DPR/IRIB
 NRC/DRA/ARCB
 NRC/NRO/DEIA/ICE
 RES/ICEEB
 RES/DSA/FSCB

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
632nd FULL COMMITTEE MEETING

March 3-5, 2016

PLEASE PRINT

TODAY'S DATE: March 3, 2016

	<u>NAME</u>	<u>AFFILIATION</u>
1	Bill Williams	TVA/BWR OG
2	JEFF CARBAL	Jensen Hughes
3	Andrew Dercher	JENSEN HUGHES
4	Damian Minzio	PVROG
5	N. Reed LaBarge	PWROG
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