



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

January 11, 2016

NOTE TO: FILE

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

The minutes of the subject meeting were certified on May 22, 2015 as the official record of the proceedings of that meeting.



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

May 22, 2015

MEMORANDUM TO: ACRS Members

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

SUBJECT: CERTIFICATION OF THE MEETING MINUTES FROM
 THE ADVISORY COMMITTEE ON REACTOR
 SAFEGUARDS 624th FULL COMMITTEE MEETING
 HELD ON MAY 7-9, 2015, IN ROCKVILLE, MARYLAND

The minutes of the subject meeting were certified on May 22, 2015 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**

May 15, 2015

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

FROM: John W. Stetkar */RA/*
ACRS Chairman

SUBJECT: MINUTES OF THE 624th MEETING OF THE ADVISORY
COMMITTEE ON REACTOR SAFEGUARDS (ACRS),
MAY 7-9, 2015

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	SUNSI Review
NAME	SMeador	SMeador
DATE	05/15/15	05/15/15

OFFICIAL RECORD COPY

MINUTES OF THE 624th MEETING OF THE
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

ROCKVILLE, MARYLAND

The 624th 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 May 7-9, 2015. A copy of the meeting agenda is attached.

The summary report ML15155B013 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

Mr. John Stetkar (Chairman), Dr. Dennis Bley (Member-at-Large), Dr. Sanjoy Banerjee, Dr. Ronald Bellinger, Mr. Charles Brown, Dr. Michael Corradini, Dr. Pete Riccardella, Dr. Dana A. Powers, Dr. Joy Rempe, Dr. Michael Ryan, and Dr. Stephen Schultz.

ACRS Staff

E. Hackett
M. Banks
W. Wang
P. Wen

A list of other attendees is attached.



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

**AGENDA
624th ACRS MEETING
MAY 7-9, 2015
11545 ROCKVILLE PIKE, ROCKVILLE, MD**

THURSDAY, MAY 7, 2015, CONFERENCE ROOM T-2B1

1) 8:30 AM - 8:35 AM Opening Remarks by the ACRS Chairman (Open) (JWS/EMH)
1.1) Opening Statement
1.2) Items of Current Interest

2) 8:35 AM – 10:30 AM Grand Gulf MELLLA+ License Amendment (Open/Closed)
(JLR/WW)
2.1) Remarks by the Subcommittee Chairman
2.2) Briefings by and discussions with representatives of the Entergy and the staff regarding the safety evaluation associated with the Grand Gulf MELLLA+ license amendment request

[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)]

10:30 AM - 10:45 AM

***** BREAK *****

3) 10:45 AM – 12:15 PM RG 1.27, "Ultimate Heat Sink for Nuclear Power Plants," Rev. 3
(Open) (HBR/PCW)
3.1) Remarks by the Subcommittee Chairman
3.2) Briefings by and discussions with representatives of the staff regarding the latest proposed revision to RG 1.27

12:15 PM - 1:15 PM

***** LUNCH *****

4) 1:15 PM - 2:15 PM Update on Reactor Oversight Process (ROP) (Open) (GRS/DAW)
4.1) Briefing and discussion by Member Skillman regarding the ROP

5) 2:15 PM – 6:00 PM Preparation of ACRS Reports (Open/Closed)
5.1) Grand Gulf MELLLA+ License Amendment (JLR/WW)
5.2) RG 1.27, "Ultimate Heat Sink for Nuclear Power Plants," Rev. 3 (HBR/PCW)

[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).]

FRIDAY, MAY 8, 2015, CONFERENCE ROOM T-2B1

6) 8:30 AM – 10:00 AM Future ACRS Activities/Report of the Planning and Procedures Subcommittee (Open/Closed) (JWS/EMH)
7.1) Discussion of the recommendations of the Planning and Procedures Subcommittee regarding items proposed for consideration by the Full Committee during future ACRS meetings
7.2) 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.]

8) 10:00 AM – 10:15 AM Reconciliation of ACRS Comments and Recommendations (Open) (JWS/EMH/CS)
8.1) Discussion of the responses from the NRC Executive Director for Operations to comments and recommendations included in recent ACRS reports and letters

10:15 AM - 10:30 AM

***** BREAK *****

- 9) 10:30 AM – 12:00 PM Preparation for the June Meeting with the Commission (Open) (JWS/EMH)
9.1) Committee preparation for June meeting with the Commission

12:00 PM - 2:00 PM

***** LUNCH *****

- 10) 2:00 PM – 6:00 PM Preparation of ACRS Reports (Open/Closed)
10.1) Continue discussion of 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).]

SATURDAY, MAY 9, 2014, 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) (JWS/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**

June 9, 2015

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

SUBJECT: SUMMARY REPORT – 624th MEETING OF THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS, MAY 7-8, 2015

Dear Chairman Burns:

During its 624th meeting, May 7-8, 2015, the Advisory Committee on Reactor Safeguards (ACRS) discussed several matters and completed the following memoranda:

MEMORANDA

Memoranda to Mark A. Satorius, Executive Director for Operations, NRC, from Edwin M. Hackett, Executive Director, ACRS:

- Draft Final Regulatory Guide, dated May 11, 2015
 - Regulatory Guide 1.27, Revision 3, “Ultimate Heat Sink for Nuclear Power Plants”
- Interim Staff Guidance, dated May 11, 2015
 - NSIR/DPR-ISG-02, “Emergency Planning Exemption Requests for Decommissioning Power Plants”

HIGHLIGHTS OF KEY ISSUES

1. **Grand Gulf MELLLA+ License Amendment**

The Committee met with representatives of the NRC staff and Entergy Operations, Inc. to discuss a license amendment request for operation of the Grand Gulf Nuclear Station (GGNS) Unit 1 in the expanded Maximum Extended Load Line Limit Analysis Plus (MELLLA+) domain and the associated NRC staff draft safety evaluation.

GGNS currently operates in the Maximum Extended Load Line Limit Analysis domain. The MELLLA+ operating domain increases operating flexibility by allowing control of reactivity at maximum power by changing flow rather than control rod insertion and withdrawal. The discussion included the GGNS MELLLA+ safety analysis and proposed solutions to maintain the safety margin under the MELLLA+ operation domain. The licensee evaluated stability during Anticipated Transient Without Scram events, including those initiated by turbine trip and recirculation pump trip. Analysis results showed that mitigating actions in emergency operating procedures (e.g., flow runback to uncover the feedwater spargers and early boron injection) are effective in the MELLLA+ operating domain if operator actions are accomplished within a specified time. The Committee requested additional information about analytical uncertainties in the timing of operator responses, the onset of core power oscillations, and the magnitude of consequential peak cladding temperatures.

Committee Action

The Committee is expecting additional technical information from the applicant and plans to further discuss this issue during the June ACRS Full Committee meeting.

2. Draft Final Regulatory Guide 1.27, Revision 3

The Committee met with the NRC staff to discuss draft final Regulatory Guide (RG) 1.27, Revision 3, "Ultimate Heat Sink for Nuclear Power Plants." The staff provided an overview of RG 1.27 and discussed reasons for the revision. The staff indicated that stakeholder comments on the draft RG 1.27, including comments from the ACRS Subcommittee were addressed. The staff concluded that the draft final Regulatory Guide 1.27, Revision 3, is ready for final publication.

Committee Action

The Committee reviewed draft Final Regulatory Guide 1.27, Revision 3, and concluded that the staff had satisfactorily addressed comments raised during the March 4, 2015 ACRS Regulatory Polices & Practices Subcommittee meeting. The Committee has no objection to the staff's proposal to issue this Guide.

3. Interim Staff Guidance

The Committee considered the following Interim Staff Guidance, and decided not to review it. However, the Committee requested an opportunity to review future guidance documents associated with the decommissioning rulemaking. The Committee has no objection to the staff's proposal to issue the guidance.

- NSIR/DPR-ISG-02, "Emergency Planning Exemption Requests for Decommissioning Power Plants"

4. RECONCILIATION OF ACRS COMMENTS AND RECOMMENDATIONS

- The Committee considered the Executive Director for Operations' response of March 27, 2015, to comments and recommendations included in the February 20, 2015 ACRS letter on draft final Generic Letter 2015-XX, "Treatment of Natural Phenomena Hazards at Fuel Cycle Facilities." The Committee was satisfied with the Executive Director for Operations' response.
- The Committee considered the Executive Director for Operations' response of April 2, 2015, to comments and recommendations included in the February 19, 2015 ACRS letter report on the safety aspects of the Nuclear Innovation North America, LLC Combined License Application for South Texas Project Nuclear Station, Units 3 and 4. The Committee was satisfied with the Executive Director for Operations' response.

SCHEDULED TOPICS FOR THE 625th ACRS MEETING

The following topics are scheduled for the 625th ACRS meeting, to be held on June 10-12, 2015:

- Grand Gulf MELLLA+ License Amendment
- PSEG Early Site Permit
- Documents that Support the Mitigation of Beyond-Design-Basis Events Rulemaking
- Update on Reactor Oversight Process
- Meeting with the Commission
- Meeting with the Executive Director for Operations

Sincerely,

/RA/

John W. Stetkar
Chairman

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
624th FULL COMMITTEE MEETING

May 7-9, 2015

PLEASE PRINT

TODAY'S DATE: May 7, 2015

NAME

AFFILIATION

LARRY KING
VIKRAM SHAH
Kevin Bortm
Greg Broadbent
Michael Cook
Bryan Ford
Jose March-Leube
Ricky Liddell
Nobuyuki Tsukabe
RON REYNOLDS
Dale Goodney
DAN CIRONELLI
Ken K. Jensen
Bob Close

GE-HITACHI
Exelon
Exelon
Entergy
GE-Hitachi
Entergy
ORNL / NRC consultant
Entergy - GGNS
JAZZ
EXELON
Exelon
EXELON
Exelon
EXELON

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
 624th FULL COMMITTEE MEETING
 May 7-9, 2015

PLEASE PRINT

TODAY'S DATE: May 7, 2015

	<u>NAME</u>	<u>NRC ORGANIZATION</u>
1	Rick Ennis	NRR/DORL
2	Brian Green	NRR/DRA
3	Ashley Guzetta	NRR/DSS
4	Karl Sturzebecher	NRR/DE
5	Diego Saenz	NRR/DSS/SRXB
6	Jose Barron	NRR/DSS/SRXB
7	AHSAN SALLMAN	NRR/DSS/SCVB
8	Stephen Koerick	NRR/DORL
9	Sunil Weerakody	NRR/DRA
10	C. Basavanaju	NRR/DE/EMCB
11	GEORGE THOMAS	NRR/DSS/SRXB
12	Dave Rudland	RES/DE/CIB
13	ANGELO STUBBS	NRO/DSRA
14	LARRY WHEATER	NRR/DSS
15	Chang-Yang Li	NRO/SPSB
16	Harry Wagage	NRO/DSRA/SCVB
17	Antonio Dices	NRO/DSRA/SPSB
18	John McKinnon	NRO/DSRA/SRSB
19	Brad Harvey	NRO/DSEA/RHM1
20	Brian Thomas	NRC/RES/DE
21	Bruce Lih	NRC/RES/DE
22		
23		
24		
25		
26		
27		
28		