

2014 Current Fiscal Year Report: Review of Federal Advisory Committee

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1. Department or Agency				2. Fiscal Year
Nuclear Regulatory Commission				2014
3. Committee or SubCommittee				3b. GSA Committee No.
Advisory Committee on Reactor Safeguards				207
4. Is this New During Fiscal Year?	5. Current Charter	6. Expected Renewal Date	7. Expected Term Date	
No	12/5/2012	12/5/2014		
8a. Was Terminated During Fiscal Year?	8b. Specific Termination Authority		8c. Actual Termination Date	
No				
9. Agency Recommendation for Next Fiscal Year	10a. Legislation Req to Terminate?	10b. Legislation Pending?		
Continue	No	Not Applicable		
11. Establishment Authority	Statutory (Congress Created)			
12. Specific Establishment Authority	13. Effective Date	14. Committee Type	14c. Presidential?	
42 U.S.C. Sect. 2039 & 2232	1/1/1957	Continuing	No	
15. Description of Committee	Scientific Technical Program Advisory Board			
16a. Total Number of Reports	30			
16b. Report Titles and Dates				
RG 1.79, "Preoperational Testing Emergency Core Cooling Systems PWRs," Rev 2, & RG 1.79.1, "Initial Test Program Emergency Core Cooling Systems for BWRs," Rev				10/8/2013
ISG JLD-ISG-2013-02, "Compliance w/ Order EA-13-109, Order Mod Lic w/ Regard to Reliable Hardened Containment Vents Capable Operation Under Severe Accident Cond				10/18/2013
Draft Final Revisions of Regulatory Guides 1.168 through 1.173, Software Processes for Digital Computers in Safety Systems of Nuclear Power Plants				11/20/2013
Draft Commission Paper, "NRC Staff Recommendation for the Disposition of Recommendation 1 of the Near-Term Task Force Report"				11/20/2013
ACRS Assessment of the Quality of Selected NRC Research Projects - FY 2013				11/21/2013
Interim ACRS Review of Watts Bar Nuclear Unit 2 Operating License Application				11/26/2013
Chpts 2, 3, 9, 13 & 14 of the Safety Evaluation Report W/ Open Items Associated w/ the Calvert Cliffs Nuclear Power Plant, Unit 3, Combined License Application				12/12/2013
Chapters 2, 6, and 7 of the SER with Open Items for the Comanche Peak Nuclear Power Plant, Units 3 and 4, US-APWR Reference Combined License Application				12/18/2013
Staff Evaluation and Recommendation for Japan Lessons-Learned Tier 3 Issue on Expedited Transfer of Spent Fuel				12/18/2013
Monticello Nuclear Generating Plant Maximum Extended Load Line Limit Analysis Plus (MELLLA+) License Amendment Request				12/18/2013
Chapters 6 and 7 of the Safety Evaluation Report with Open Items for Certification of the US-APWR Design and Related Long-Term Core Cooling Issues				12/24/2013
Safety Evaluation of US-APWR Topical Report MUAP-07001, Revision 5, "The Advanced Accumulator"				1/6/2014
Proposed Rulemaking on Station Blackout Mitigation Strategies				2/12/2014
10 CFR Part 61 - Revisions to Low-Level Radioactive Waste Disposal Requirements				2/19/2014
Chapters 3 (Partial) and 14 of the Safety Evaluation Report with Open Items for Certification of the US-APWR Design				3/13/2014
Chapters 3 (Partial), 9, and 14 of the Safety Evaluation Report with Open Items for the Comanche Peak Nuclear Power Plant, Units 3 and 4, US-APWR Reference Comb				3/14/2014
Review and Evaluation of the Nuclear Regulatory Commission Safety Research Program				4/15/2014
Supplemental Final Safety Evaluation Report on the General Electric-Hitachi Nuclear Energy (GEH) Application for Certification of the Economic Simplified Boilin				4/17/2014
Credit for Containment Accident Pressure to Ensure Operation of US-APWR Emergency Core Cooling System Pumps				4/21/2014

Human Reliability Analysis Models	5/14/2014
Chapter 6 of the Safety Evaluation Report with Open Items for Certification of the US-APWR Design and Related Long-Term Core Cooling Issues	5/20/2014
SECY-14-0016, "Ongoing Staff Activities to Assess Regulatory Considerations for Power Reactor Subsequent License Renewal"	5/22/2014
Revised Fuel Cycle Oversight Process	6/10/2014
Standard Review Plan Chapter 19 and Section 17.4	7/16/2014
Peach Bottom Atomic Power Station Units 2 and 3 Extended Power Uprate License Amendment Request	7/18/2014
Proposed Revisions for 10 CFR 50.55a to Incorporate by Reference IEEE-603-2009, "IEEE Standard Criteria for Safety Systems for Nuclear Power Generating Stations	8/5/2014
Draft Final Design Specific Review Standard for mPower iPWR Chapter 7, Instrumentation and Control Systems	8/6/2014
SECY-14-0087, "Qualitative Consideration of Factors in the Development of Regulatory Analyses and Backfit Analyses"	9/11/2014
Generic Letter 20XX-XX, "Monitoring of Neutron-Absorbing Materials in Spent Fuel Pools"	9/15/2014
Report on the Safety Aspects of the DTE Electric Company Combined License application for Fermi Unit 3	9/22/2014

17a Open: **47** 17b. Closed: **6** 17c. Partially Closed: **18** 17d. Total Meetings **71**

Meeting Purposes and Dates

US APWR	10/1/2013
	10/1/2013
Regulatory Policies and Practices	10/2/2013
	10/2/2013
Planning and Procedures	10/2/2013
	10/2/2013
608th Full Committee	10/3/2013
	10/5/2013
Fukushima	10/5/2013
	10/5/2013
US EPR	11/6/2013
	11/6/2013
Planning and Procedures	11/6/2013
	11/6/2013
609th Full Committee	11/7/2013
	11/8/2013
Materials, Metallurgy and Reactor Fuels	11/19/2013
	11/19/2013
Radiation Protection and Nuclear Materials	11/19/2013
	11/19/2013
US APWR	11/20/2013
	11/21/2013
Metallurgy and Reactor Fuels	11/21/2013
	11/21/2013
ABWR	11/22/2013
	11/22/2013
Power Uprates	12/3/2013
	12/3/2013
Radiation Protection and Nuclear Materials	12/3/2013
	12/3/2013
Materials, Metallurgy and Reactor Fuels	12/4/2013
	12/4/2013
Planning and Procedures	12/4/2013
	12/4/2013
610th Full Committee	12/5/2013

	12/7/2013
Metallurgy and Reactor Fuels	1/14/2014
	1/14/2014
Materials, Metallurgy and Reactor Fuels	1/14/2014
	1/14/2014
Reliability and PRA	1/15/2014
	1/15/2014
Radiation Protection and Nuclear Materials	1/16/2014
	1/16/2014
Planning and Procedures	2/4/2014
	2/4/2014
611th Full Committee	2/6/2014
	2/8/2014
Digital I&C Systems	2/18/2014
	2/18/2014
Reliability and PRA	2/19/2014
	2/19/2014
US APWR	3/4/2014
	3/4/2014
Reliability and PRA	3/5/2014
	3/5/2014
ESBWR	3/5/2014
	3/5/2014
Planning and Procedures	3/5/2014
	3/5/2014
612th Full Committee	3/6/2014
	3/8/2014
Regulatory Policies and Practices	3/19/2014
	3/19/2014
Reliability and PRA	3/20/2014
	3/20/2014
Plant License Renewal	4/8/2014
	4/8/2014
ABWR	4/9/2014
	4/9/2014
AP1000	4/9/2014
	4/9/2014
Planning and Procedures	4/9/2014
	4/9/2014
613th Full Committee	4/10/2014
	4/12/2014
Radiation Protection and Nuclear Materials	5/7/2014
	5/7/2014
Planning and Procedures	5/7/2014
	5/7/2014
614th Full Committee	5/8/2014
	5/10/2014
Digital I&C Systems	5/20/2014
	5/20/2014
Metallurgy and Reactor Fuels	5/20/2014
	5/20/2014
Digital I&C Systems	5/21/2014
	5/21/2014
Plant License Renewal	5/22/2014
	5/22/2014
Plant License Renewal	5/22/2014
	5/22/2014

Power Uprates	6/10/2014
	6/10/2014
Planning and Procedures	6/10/2014
	6/10/2014
615th Full Committee	6/11/2014
	6/13/2014
ESBWR	7/7/2014
	7/7/2014
Future Plant Designs	7/8/2014
	7/8/2014
Fukushima	7/8/2014
	7/8/2014
Planning and Procedures	7/8/2014
	7/8/2014
616th Full Committee	7/9/2014
	7/11/2014
Plant Operations and Fire Protection	7/22/2014
	7/24/2012
T-H Phenomena	8/19/2014
	8/19/2014
Regulatory Policies and Practices	8/19/2014
	8/19/2014
ESBWR	8/20/2014
	8/20/2014
Metallurgy and Reactor Fuels (am)	8/21/2014
	8/21/2014
Metallurgy and Reactor Fuels (pm)	8/21/2014
	8/21/2014
ACRS Joint Subcommittee on Reliability and PRA and Fukushima	8/22/2014
	8/22/2014
Joint SC on TH Phenomena and Reliability and PRA	9/3/2014
	9/3/2014
Planning and Procedures	9/3/2014
	9/3/2014
617th Full Committee	9/4/2014
	9/6/2014
Reliability and PRA	9/15/2014
	9/15/2014
Fukushima	9/16/2014
	9/16/2014
AP 1000	9/17/2014
	9/17/2014
Metallurgy and Reactor Fuels	9/17/2014
	9/17/2014
Reliability and PRA	9/18/2014
	9/18/2014
Joint SC Meeting on Plant License Renewal and Structural Analysis	9/19/2014
	9/19/2014
Regulatory Policies and Practices	9/29/2014
	9/30/2014

	Current Fiscal Year	Next Fiscal Year
18a(1) Personnel Pmts to Non-Federal Members	\$950,207	\$950,000
18a(2) Personnel Pmts to Federal Members	\$0	\$0
18a(3) Personnel Pmts to Federal Staff	\$4,601,941	\$4,832,038
18a(4) Personnel Pmts to Non-member Consultants	\$61,501	\$60,000
18b(1) Travel and Per Diem to Non-Federal Members	\$326,625	\$350,000
18b(2) Travel and Per Diem to Federal Members		

	\$0	\$0
18b(3) Travel and Per Diem to Federal Staff	\$42,058	\$45,000
18b(4) Travel and Per Diem to Non-Member Consultants	\$18,033	\$19,000
18c. Other (rents, user charges, graphics, printing, mail etc.)	\$5,083	\$30,000
18d Total	\$6,005,448	\$6,286,038
19. Federal Staff Support Years	33.3	31.4

20a. How does the Committee accomplish its purpose?

The Advisory Committee on Reactor Safeguards (ACRS) reports to the Nuclear Regulatory Commission (NRC) and provides the Commission with independent reviews of, and advice on, the safety of proposed or existing NRC-licensed reactor facilities and the adequacy of applicable safety standards. The ACRS was established as a statutory committee by a 1957 amendment to the Atomic Energy Act of 1954. With the enactment of the Energy Reorganization Act of 1974, the licensing functions of the Atomic Energy Commission (AEC) were transferred intact from the AEC to the NRC. The ACRS has continued in the same advisory role to the NRC with its responsibilities changing with the needs of the Commission. Some ACRS tasks are mandated by statute or regulation; some are in response to direction by the Commission, or requests from the NRC staff, or other stakeholders; and some are self initiated in response to ACRS concerns on important regulatory and safety-related matters. The ACRS, upon request from the Department of Energy (DOE), provides advice on the safety of U.S. naval reactor designs. Upon request, the ACRS also provides technical advice to the Defense Nuclear Facilities Safety Board. The ACRS and its Subcommittees meet regularly in public, Federal Advisory Committee Act (FACA)-regulated meetings to review matters within the scope of its responsibilities. ACRS meeting agendas, meeting transcripts, and letter reports are available for downloading or viewing on the Internet at <http://www.nrc.gov/reading-rm/doc-collections/#acrs>. The ACRS and its Subcommittees held 71 meetings during FY 2014, including 10 Full Committee meetings that were attended by all ACRS members of which there were 6 closed and 18 partially closed meetings. The ACRS members are chosen for their technical expertise relevant to the safety issues important to the Commission. Consultants are used on occasion to augment the expertise of the ACRS members. The Committee has a full-time staff that provides technical support and administrative services in compliance with FACA requirements. ACRS Subcommittees normally consist of three to six ACRS members with the expertise needed to review in detail the regulatory and safety issues and to formulate proposed positions and actions, as appropriate, for deliberation by the Full Committee. Stakeholders' participation in ACRS meetings is encouraged and routinely occurs. The Committee's advice, in the form of written reports, is only produced by the Full Committee, and reports on significant regulatory matters are discussed with the Commission in public meetings. The ACRS conducts an ongoing review of its priorities and schedules to ensure that regulatory matters within its scope of responsibilities are being properly addressed and within its resources, and timely advice is provided to the Commission. Input from the Commission, the NRC staff, and affected stakeholders is used in this process. A Memorandum of Understanding with the NRC Executive Director for Operations (EDO) provides a framework for NRC staff interaction with the ACRS. The ACRS conducts self-assessments to improve its effectiveness and efficiency. The focus of the ACRS work during FY 2014 included reviews of: design certification applications for the US Advanced Pressurized Water Reactor (US-APWR) and the Economic Simplified Boiling Water Reactor (ESBWR); combined construction and operating license applications; an operating license for one site; power uprate applications; proposed regulations regarding station blackout and low level radioactive waste disposal; NRC lessons learned activities related to the accident at Fukushima; the NRC safety research program; digital instrumentation and control matters; metallurgy and reactor fuels issues; and probabilistic risk assessments.

20b. How does the Committee balance its membership?

The Commission appoints ACRS members with the scientific and engineering expertise needed to address the safety issues of importance to the Commission. Members are sought who can provide an independent perspective on nuclear safety issues, outstanding scientific and technical ability, balanced and mature judgment, and a willingness to devote the time required to the demanding work involved. Members do not have fixed terms. However, absent unusual circumstances, they do not serve more than three, four year terms. Members are reappointed in excess of this period only if there is a compelling continuing need for their expertise. Vacancies in the ACRS membership are filled from the pool of applicants which exists after solicitations of interest are published in the Federal Register, trade and professional society publications, and in the press. Recommendations to the Commission as to the selection of qualified candidates from this pool are made by the ACRS Member Candidate Screening Panel. The ACRS provides input to this Panel. During FY 2014, the membership was comprised of individuals with diverse employment backgrounds and included those with expertise in the areas of nuclear power plant operations; probabilistic risk assessment; analysis of severe reactor accident phenomena; design of nuclear power plant structures, systems, and components; chemical engineering; digital instrumentation and control; materials and metallurgy; health physics; and thermal-hydraulics and computational fluid dynamics. The diversity of viewpoints represented by current members is based on special fields of interest, employment experience, and technical expertise. These member attributes provide the Committee with the balance of highly qualified technical expertise and diverse safety perspectives necessary to carry out the Committee's statutory

responsibilities effectively.

20c. How frequent and relevant are the Committee meetings?

The ACRS and its Subcommittees held 71 meetings during FY 2014, of which 10 were Full Committee meetings. The number of meetings held in a reporting period is directly related to the number of nuclear safety matters to be reviewed as required by statute; the number of rules and regulatory guidance referred to the Committee for review and comment; the number of special reviews requested by the Commission, EDO, or other Federal Government organizations; and other safety issues of particular concern to the Committee and its stakeholders. The Full Committee normally meets 10 times a year for 3 days to consider important safety-related nuclear issues, license applications, generic issues, significant regulatory matters, rules, and regulatory guidance. The ACRS Subcommittees, which are normally comprised of three to six members with the relevant expertise, meet as necessary with stakeholders to conduct in-depth reviews of particular matters for later consideration by the full membership during Full Committee meetings. Although not required by the revised FACA, Subcommittee meetings are conducted under the same FACA procedures as the Full Committee meetings to facilitate public participation and to provide a forum for stakeholders to express their views on regulatory matters being considered by the ACRS. Reviews are conducted during each Full Committee meeting to assess the relevance of proposed review topics, resource needs, and the priority of each activity. These assessments have the benefit of input from the Commission, EDO, and other stakeholders. All ACRS meetings for this reporting period addressed either matters for which ACRS review was required by statute or regulation, specific requests from either the Commission or the EDO, or other important regulatory and safety-related matters self-initiated in response to ACRS concerns.

20d. Why can't the advice or information this committee provides be obtained elsewhere?

The ACRS is an independent body of recognized experts in the field of nuclear reactor safety whose Congressional mandate is to provide the Commission with independent advice. Particular duties of the ACRS (e.g., review of operating reactor license renewal applications, extended power uprate amendments, new reactor designs, and rules and regulatory guidance) are dictated by statute or regulation. In addition, functional arrangements exist wherein, upon request, the ACRS provides advice to the Department of Energy and the Defense Nuclear Facilities Safety Board. The Commission has its own expert staff on whom it relies in the day-to-day regulation of nuclear power facilities. The ACRS provides the Commission and the NRC staff with an independent, critical review of high level regulatory issues under consideration by the NRC and independent technical insights as to important matters needing Commission attention. The ACRS members are part-time special government employees with other full-time interests and activities in related fields, and provide a breadth of experience, an independent perspective on issues, and technical knowledge that is not duplicated by the NRC's full-time government employees. A standing Committee such as the ACRS remains current with respect to nuclear safety issues of importance to the NRC, including those related to reactor operating experience, regulatory reform, and NRC's needs for safety research, and provides an independent, collegial judgment regarding these issues that other part-time consultants could not provide. The ACRS meetings provide an important forum for stakeholders to express freely their concerns on safety issues and the regulatory process. A number of important safety initiatives have had their origins in ACRS deliberations. Through the ACRS, the public and the Congress are ensured of an independent technical review and evaluation of the safety of NRC-licensed facilities, proposed reactor designs, significant regulatory and safety issues, and of providing an opportunity for stakeholder input.

20e. Why is it necessary to close and/or partially close committee meetings?

According to 5 U.S.C. 552b (c), ACRS meetings can only be closed for the following reasons: • Protect information classified as national security information • Discuss information relating solely to internal personnel rules and/or practices • Protect unclassified safeguards information • Protect proprietary information • Protect information provided in confidence by a foreign source • Prevent invasion of personal privacy • Prevent disclosure of information the premature disclosure of which would be likely to significantly frustrate implementation of a proposed Agency action

21. Remarks

None

Designated Federal Officer: **Jamila Perry DFO**

Committee Members	Start	End	Occupation	Member Designation
Armijo , Dr. Joseph S.	3/9/2010	3/8/2014	Adjunct Professor of Materials Science and Engineering, University of Nevada, Reno, NV	Special Government Employee (SGE)
Ballinger , Dr. Ronald	8/4/2013	8/3/2017	Professor of Nuclear Science and Engineering at Massachusetts Institute of Technology, Cambridge, MA	Special Government Employee (SGE)
Banerjee , Dr. Sanjoy	7/26/2014	7/25/2018	Distinguished Professor of Chemical Engineering and Director of the Institute for Sustainable Energy Technologies, The Grove School of Engineering at the City College of New York, NY	Special Government Employee (SGE)

Bley , Dr. Dennis C.	8/30/2011 8/29/2015	President of Buttonwood Consulting,Inc., Oakton, VA	Special Government Employee (SGE)
Brown Jr., Mr. Charles H.	4/28/2012 4/27/2016	Senior Advisor for Electrical Systems, BMT Syntek Technologies, Inc., Arlington, VA	Special Government Employee (SGE)
Corradini , Dr. Michael L.	9/7/2014 9/6/2018	Professor and Chairman of Department of Engineering Physics, University of Wisconsin, Madison, WI	Special Government Employee (SGE)
Powers , Dr. Dana A.	6/6/2014 6/5/2018	Senior Scientist, Sandia National Laboratories, Albuquerque, NM	Special Government Employee (SGE)
Ray , Mr. Harold B	6/23/2012 6/22/2016	Retired Chief Executive Vice President, Southern California Edison Company, Rosemead, CA	Special Government Employee (SGE)
Rempe , Ms. Joy	10/7/2014 10/6/2018	Directorate Fellow, Idaho National Laboratory, Idaho Falls, ID	Special Government Employee (SGE)
Riccardella , Dr. Peter	9/1/2013 8/31/2017	Founding Member, Structural Integrity Associates, San Jose, CA	Special Government Employee (SGE)
Ryan , Dr. Michael T	7/6/2012 7/5/2016	Principal, Michael T. Ryan and Associates, LLC, Lexington, SC	Special Government Employee (SGE)
Schultz , Dr. Steven	1/9/2012 1/8/2016	Consultant, International Atomic Energy Agency; Retired Engineering Manager, Nuclear Design Duke Energy Corporation, Charlotte, NC	Special Government Employee (SGE)
Skillman , Mr. Gordon	8/21/2011 8/20/2015	President and Principal, Skillman Technical Resources, Hershey, PA	Special Government Employee (SGE)
Stetkar , Mr. John W.	9/5/2011 9/4/2015	Principal, Stetkar & Associates, Lake Forest, CA	Special Government Employee (SGE)

Total Count of Committee Members

14