

## 2025 Current Fiscal Year Report: Advisory Committee on Reactor Safeguards

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### 1. Department or Agency

Nuclear Regulatory Commission

### 2. Fiscal Year

2025

### 3. Committee or Subcommittee

Advisory Committee on Reactor  
Safeguards

### 3b. GSA Committee No.

207

### 4. Is this New During Fiscal Year?

No

### 5. Current Charter

12/02/2024

### 6. Expected Renewal Date

12/02/2026

### 7. Expected Term Date

### 8a. Was Terminated During Fiscal Year?

No

### 8b. Specific Termination Authority

### 8c. Actual Term Date

### 9. Agency Recommendation for Next Fiscal Year

Continue

### 10a. Legislation Req to Terminate?

### 10b. Legislation Pending?

Not Applicable

### 11. Establishment Authority

Statutory (Congress Created)

### 12. Specific Establishment Authority

42 U.S.C. Sect. 2039 &  
2232

### 13. Effective Date

01/01/1957

### 14. Committee Type

Continuing

### 14c. Presidential?

No

### 15. Description of Committee

Scientific Technical Program  
Advisory Board

### 16a. Total Number of Reports

No Reports for  
this Fiscal Year

### 17a. Open

23

### 17b. Closed

0

### 17c. Partially Closed

16

### Other Activities

0

### 17d. Total

39

### Meetings and Dates

#### Purpose

ACRS Subcommittee Meeting -

Thermal-Hydraulic Accident Analysis

#### Start

10/01/2024

#### End

10/01/2024

ACRS Subcommittee - NuScale Design-Centered	10/01/2024 - 10/01/2024
719th - ACRS Committee Meeting - Topical Report PWROG-18068, "Use of Direct Fracture Toughness for Evaluation of RPV [Reactor Pressure Vessel] Integrity"	10/02/2024 - 10/02/2024
719th - ACRS Committee Meeting -Palisades Restart Information Briefing	10/02/2024 - 10/02/2024
719th - ACRS Committee Meeting - Palisades Nuclear Plant Restart Information Briefing	10/03/2024 - 10/03/2024
ACRS Subcommittee - Regulatory Rulemaking, Policies & Practices - Draft White Paper on Nth-of-a-Kind (NOAK) Micro-Reactor Licensing and Deployment Considerations	10/17/2024 - 10/17/2024
ACRS Subcommittee - Design-Centered Review: NuScale	11/05/2024 - 11/05/2024
720th ACRS MEETING -Triennial Review and Evaluation of NRC Safety Research Program/Preparation of Reports	11/06/2024 - 11/06/2024
720th ACRS MEETING - TerraPower Natrium Topical Report on Plume Exposure Pathway Emergency Planning Zone	11/07/2024 - 11/07/2024
720th ACRS MEETING - Committee Deliberation and Preparation of Reports	11/08/2024 - 11/08/2024
ACRS Subcommittee - Fuels, Materials, & Structures: RG 1.183 - Technical Topics for the Proposed Revision 2 of Regulatory Guide 1.183 "Alternative Radiological Source Terms for Evaluating Design Basis Accident at Nuclear Power Reactors"	11/19/2024 - 11/19/2024
ACRS Subcommittee - Joint Human Factors Reliability & PRA, and Digital I&C - Implementing the NRC's Artificial Intelligence (AI) Strategic Plan Fiscal Years 2023-2027	11/20/2024 - 11/20/2024
ACRS Subcommittee - Fuels, Materials, & Structure: MRP 227 - Materials Reliability Program: Pressurized Water Reactor Internals Inspection and Evaluation Guidelines (MRP-227, Revision 2)	11/21/2024 - 11/21/2024
ACRS Subcommittee - Fuels, Materials, & Structure: ASME Code Relaxation	11/21/2024 - 11/21/2024
721st ACRS MEETING - Material Reliability Program: Pressurized Water Reactor Internals Inspection and Evaluation Guidelines (MRP-227, Revision 2)	12/04/2024 - 12/04/2024
721st ACRS MEETING - Committee Deliberation and Preparation of Reports (Open)	12/05/2024 - 12/05/2024
721st ACRS MEETING - Committee Deliberation and Preparation of Reports	12/06/2024 - 12/06/2024

ACRS Subcommittee - Regulatory Rulemaking, Policies and Practices: Increased Enrichment Draft Rule - Increased Enrichment of Conventional and Accident Tolerant Fuel Designs for Light-Water Reactors	12/17/2024 - 12/17/2024
ACRS Subcommittee- Regulatory Rulemaking, Policies and Practices: Increased Enrichment Draft Rule - Increased Enrichment of Conventional and Accident Tolerant Fuel Designs for Light-Water Reactors	12/18/2024 - 12/18/2024
Fuels, Materials, and Structures: RG 1.183, Rev. 2 - Proposed Revision 2 to Regulatory Guide 1.183 (DG-1425), "Alternative Radiological Source Terms for Evaluating Design Basis Accident at Nuclear Power Reactors"	12/19/2024 - 12/19/2024
ACRS Subcommittee - Fuels, Materials, and Structures: RG 3.78, Rev. 0 - Acceptable ASME Section XI Inservice Inspection Code Cases for 10 CFR Part 72 (RG 3.78, Rev. 0)	12/19/2024 - 12/19/2024
ACRS Subcommittee - Regulatory Rulemaking Policies & Practices: Part 53 - 10 CFR Part 53, "RISK - INFORMED, TECHNOLOGY- INCLUSIVE REGULATORY FRAMEWORK FOR COMMERCIAL NUCLEAR PLANTS."	01/14/2025 - 01/14/2025
ACRS Subcommittee - NuScale - Staff Evaluation of NuScale Standard Design Approval Application (SDAA) Chapters 3, 16 and Loss-of-Coolant Accident (LOCA) Evaluation Model Topical Report	01/15/2025 - 01/15/2025
ACRS Subcommittee - Regulatory Rulemaking, Policies and Practices: Increased Enrichment Draft Rule - Increased Enrichment of Conventional and Accident Tolerant Fuel Designs for Light-Water Reactors	01/16/2025 - 01/16/2025
ACRS Subcommittee - Regulatory Rulemaking, Policies and Practices Subcommittee- Increased Enrichment of Conventional and Accident Tolerant Fuel Designs for Light-Water Reactors	01/17/2025 - 01/17/2025
722nd ACRS MEETING - Regulatory Guide (RG) 3.78, Revision 0, Regarding Acceptable ASME Section XI Inservice Inspection Code Cases for 10 CFR Part 72, and Increased Enrichment Draft Rule Language and Associated Draft RGs Including RG 1.183, Revision 2	02/05/2025 - 02/05/2025
722nd ACRS Meeting	02/06/2025 - 02/06/2025
722nd ACRS Meeting	02/07/2025 - 02/07/2025
723rd ACRS Meeting	03/05/2025 - 03/05/2025
723rd ACRS Meeting	03/06/2025 - 03/06/2025
724th ACRS Meeting	04/02/2025 - 04/02/2025

724th ACRS Meeting	04/03/2025 - 04/03/2025
724th ACRS Meeting	04/04/2025 - 04/04/2025
725th ACRS meeting	05/06/2025 - 06/06/2025
725th ACRS Meeting	05/07/2025 - 05/07/2025
725th ACRS Meeting	05/08/2025 - 05/08/2025
726th ACRS Meeting	06/04/2025 - 06/04/2025
726th ACRS Meeting	06/05/2025 - 06/05/2025
726th ACRS Meeting	06/06/2025 - 06/06/2025

**Number of Committee Meetings Listed: 39**

	<b>Current</b>	<b>Next</b>
	<b>FY</b>	<b>FY</b>
<b>18a(1). Personnel Pmts to Non-Federal Members</b>	\$0.00	\$0.00
<b>18a(2). Personnel Pmts to Federal Members</b>	\$0.00	\$0.00
<b>18a(3). Personnel Pmts to Federal Staff</b>	\$0.00	\$0.00
<b>18a(4). Personnel Pmts to Non-Member Consultants</b>	\$0.00	\$0.00
<b>18b(1). Travel and Per Diem to Non-Federal Members</b>	\$0.00	\$0.00
<b>18b(2). Travel and Per Diem to Federal Members</b>	\$0.00	\$0.00
<b>18b(3). Travel and Per Diem to Federal Staff</b>	\$0.00	\$0.00
<b>18b(4). Travel and Per Diem to Non-member Consultants</b>	\$0.00	\$0.00
<b>18c. Administrative Costs (FRNs, contractor support, In-person/hybrid/virtual meetings)</b>	\$0.00	\$0.00
<b>18d. Other (all other funds not captured by any other cost category)</b>	\$0.00	\$0.00
<b>18e. Total Costs</b>	\$0.00	\$0.00
<b>19. Federal Staff Support Years (FTE)</b>	0.00	0.00

**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 committee-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. Also, 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 <https://www.nrc.gov/reading-rm/doc-collections/acrs/agenda/2024/index.html>. The ACRS and its Subcommittees held 27 meetings during FY 2024, including 10 Full Committee meetings that were attended by a majority of ACRS members of which there were 6 closed and 19 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. In FY24, the ACRS completed licensing reviews associated with license applications and license renewals for advanced and new reactors; the NRC safety research program; digital instrumentation and control matters; metallurgy and reactor fuels issues; thermal-hydraulic phenomena; regulatory policies and practices; reliability and probabilistic risk assessments; rulemaking; cyber security, research activities,

international outreach, and engagement with DOE on requested activities.

**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. The members of the Committee are appointed by the Commission. In accordance with Section 29 of the Atomic Energy Act, the term of an appointment to the Committee is four years. The Act does not specify a maximum number of terms. While members do not have a fixed number of terms, an attempt is made to maintain a mix of new and experienced members. Absent unusual circumstances, they serve four-year terms and are eligible for reappointment. 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 2024, 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; 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 a 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 37 meetings during FY 2024, 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 committee-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 closed 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

Andrea Torres DFO

Committee Members	Start	End	Occupation	Member Designation
Ballinger, Ronald	08/04/2021	08/03/2025	Professor Emeritus	Special Government Employee (SGE) Member
Bier, Vicki	04/12/2021	04/11/2025	Professor Emerita	Special Government Employee (SGE) Member
Dimitrijevic, Vesna	11/12/2021	11/11/2025	Retired Technical Consultant	Special Government Employee (SGE) Member
Halnon, Greg	04/12/2021	04/11/2025	Independent Consultant	Special Government Employee (SGE) Member
Harrington, Craig	06/17/2024	06/16/2028	Nuclear Engineer and Thermal Science	Special Government Employee (SGE) Member
Kirchner, Walt	06/12/2024	06/11/2028	Retired Nuclear Reactor Technologist and Nuclear Engineer	Special Government Employee (SGE) Member
Martin, Robert	06/07/2023	06/06/2027	Professional Engineer	Special Government Employee (SGE) Member
Palmtag, Scott	07/03/2024	07/02/2028	Research Professor and Nuclear Industry	Special Government Employee (SGE) Member

Petti, Dave	05/20/2023	05/19/2027	Chief Scientist	Special Government Employee (SGE) Member
Rempe, Joy	10/07/2022	10/06/2026	Principal of Rempe & Associates	Special Government Employee (SGE) Member
Roberts, Thomas	07/03/2023	07/02/2027	Professional Engineer	Special Government Employee (SGE) Member
Sunseri, Matthew	06/12/2024	06/11/2028	Independent Consultant	Special Government Employee (SGE) Member

**Number of Committee Members Listed: 12**

### **Narrative Description**

The ACRS develops an Operating Plan each year which describes the accomplishments of the Committee for the past fiscal year and planned activities for the current fiscal year and beyond. The ACRS staff provides feedback on the Agency's draft Strategic Plan and its goals. The mission of the ACRS is to support the NRC's mission in the area of reactor safety.

### **What are the most significant program outcomes associated with this committee?**

Checked if  
Applies

Improvements to health or safety	<input checked="" type="checkbox"/>
Trust in government	<input checked="" type="checkbox"/>
Major policy changes	<input type="checkbox"/>
Advance in scientific research	<input checked="" type="checkbox"/>
Effective grant making	<input type="checkbox"/>
Improved service delivery	<input type="checkbox"/>
Increased customer satisfaction	<input checked="" type="checkbox"/>
Implementation of laws or regulatory requirements	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

## Outcome Comments

NA

## What are the cost savings associated with this committee?

Checked if Applies

None	<input type="checkbox"/>
Unable to Determine	<input checked="" type="checkbox"/>
Under \$100,000	<input type="checkbox"/>
\$100,000 - \$500,000	<input type="checkbox"/>
\$500,001 - \$1,000,000	<input type="checkbox"/>
\$1,000,001 - \$5,000,000	<input type="checkbox"/>
\$5,000,001 - \$10,000,000	<input type="checkbox"/>
Over \$10,000,000	<input type="checkbox"/>
Cost Savings Other	<input type="checkbox"/>

## Cost Savings Comments

Unable to Determine

## What is the approximate Number of recommendations produced by this committee for the life of the committee?

0

## Number of Recommendations Comments

The Advisory Committee on Reactor Safeguards pre-exists FACA and a cumulative number of recommendations over the lifetime is not possible. During the current fiscal year, Committee issued 12 reports with 20 conclusions and approximately 19 recommendations.

## What is the approximate Percentage of these recommendations that have been or will be Fully implemented by the agency?

%

## % of Recommendations Fully Implemented Comments

NA

## What is the approximate Percentage of these recommendations that have been or will be Partially implemented by the agency?

%

## **% of Recommendations Partially Implemented Comments**

NA

**Does the agency provide the committee with feedback regarding actions taken to implement recommendations or advice offered?**

Yes ☒ No ☐ Not Applicable ☐

## **Agency Feedback Comments**

The Memorandum of Understanding between ACRS Executive Director and the NRC Executive Director for Operations states that NRC Office Directors should ensure “consideration of ACRS comments by the NRC staff.” The Executive Director for Operations typically responds to each ACRS report by describing how each of the committee’s recommendations were addressed.

**What other actions has the agency taken as a result of the committee's advice or recommendation?**

Checked if Applies

Reorganized Priorities	<input checked="" type="checkbox"/>
Reallocated resources	<input checked="" type="checkbox"/>
Issued new regulation	<input type="checkbox"/>
Proposed legislation	<input type="checkbox"/>
Approved grants or other payments	<input type="checkbox"/>
Other	<input type="checkbox"/>

## **Action Comments**

Issuance of guidelines, procedures, regulations for operation of the Licensing Support Network (LSN) and electronic submittal of documents to the NRC.

**Is the Committee engaged in the review of applications for grants?**

No

## **Grant Review Comments**

NA

**How is access provided to the information for the Committee's documentation?**

Checked if Applies

Contact DFO	<input checked="" type="checkbox"/>
Online Agency Web Site	<input checked="" type="checkbox"/>

Online Committee Web Site



Online GSA FACA Web Site



Publications



Other



### **Access Comments**

All Committee documents are in the NRC Public Documents Collection at  
<https://www.nrc.gov/reading-rm/doc-collections/acrs/agenda/2024/index.html>