UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

OFFICE OF THE
SECRETARY

June 14, 1979

MEMORANDUM FOR: Lee V. Gossick, Executive Director for Operations
Leonard Bickwit, Jr., General Counsel
Albert P. Kenneke, Acting Director, Policy Evaluation

FROM: John C. Hoyle, Federal Advisory Committee Management Officer

SUBJECT: ANNUAL REVIEW OF ADVISORY COMMITTEES

The Office of the Secretary, in its role as NRC's Advisory Committee Management Office, has completed the annual comprehensive review of NRC's advisory committees in existence on December 31, 1978. The annual review is conducted in accordance with the Federal Advisory Committee Act and is submitted to GSA each year.

The NRC had two committees in existence on December 31, 1978, the ACRS and the Advisory Committee on Medical Uses of Isotopes. However, in accordance with guidance received from GSA committee management, this year's review was not meant to cover agency committees recently established (October 1 to December 31, 1978) or those renewed or reestablished between October 1, 1978, and March 31, 1979. Therefore, since the Advisory Committee on Medical Uses of Isotopes was renewed by the Commission for a two year period commencing on February 1, 1979, we have limited this year's review to the ACRS.

The attached Review Coversheet and Justification Statement, prepared on the basis of information supplied by the ACRS, is submitted to you for comment prior to review by the Commission. I would appreciate any comments, particularly on item(4) beginning on page 9, by Tuesday, June 19.

Attachments:
As stated

FEDERAL ADVISORY COMMITTEE REVIEW COVERSHEET Calendar Year 1978	1. Department or Agency: Nuclear Regulatory Commission

2. Name of committee (and subcommittee, if appropriate):

Advisory Committee on Reactor Safeguards

3. Date of establishment, or last reestablishment or renewal (most recent): 1957 (Rechartered every 2 years thereafter)	4. For closed or partially closed meetings, list for each meeting the date and number(s) of all FOIA exemptions used: See Attachment I

5. Agency recommendation for this committee:

a. ☐ Termination. If this is a committee established by statute, attach a brief explanatory statement for the recommendation and indicate whether legislation is required to carry out the recommendation and whether such legislation is contemplated or pending (include bill number and proposed or effective date).

b. ☒ Continuation. See Attachment II Attach a justification statement describing what this committee does, why there is a compelling need for its continuation, and how it has a truly balanced membership. The statement should be on numbered bond sheets with the name of the agency and the committee on each. The justification should include details on the following and any other relevant factors:

(1) The number of times the committee has met in the past year and the relevance of that number to its continuation.

(2) The number of reports submitted by the committee in the past year.

(3) A description of how the committee's reports, recommendations, or advice have been used in agency policy formulation, program planning, decision-making, achieving economies, etc.

(4) An explanation of why the recommendations or information cannot be obtained from other sources, elsewhere within the agency, from other agencies or existing committees, public hearings, consultants, etc.

(5) An explanation of any degree of duplication of functions, purpose, etc., with other committees, or within the agency, or with other agencies.

(6) The relationship of the cost of the committee to the reports, recommendations, or information provided.

(7) In consideration of (a) the functions to be performed and (b) the points of view to be represented, specifically how the membership is balanced--the views, areas of expertise, etc., included.

AS A ZERO BASE REVIEW, THE JUSTIFICATION SHOULD BE BASED ON THE PREMISE THAT THE COMMITTEE IS NOT GOING TO BE CONTINUED.

ATTACHMENT I
March 1979

CY-1978

ACRS FULL COMMITTEE MEETINGS

Exemptions Used for partly closed sessions:
Federal Advisory Committee Act, PL 92-463, 10(d),
Government in the Sunshine Act, PL 94-409 - -

		5 USC 552b(c)	(1)	(3)	(4)	(6)	(10)
1.	213th, 01/05-07		x		x		x
2.	214th, 02/09-11		x		x		x
3.	215th, 03/09-11				x	x	x
4.	216th, 04/06-07		x		x	x	
5.	217th, 05/04-06					x	
6.	218th, 06/01-03		x		x	x	
7.	219th, 07/06-08		x	x			x
8.	220th, 08/03-05		x			x	x
9.	221st, 09/07-09		x				
10.	Special 9/18-20 (French)		x				
11.	22nd, 10/05-07				x	x	
12.	223rd, 11/02-04 (Open)						
13.	Special 11/9-11 (Germans)		x				
14.	224th, 12/07-09					x	

SUMMARY: 1 ACRS Full Committee Meeting, CY-1978 (Open)
13 ACRS Full Committee Meetings, CY-1978 (Partly Closed)

13 — 10(d), PL 92-463, and
3 — 5 USC 552b(c) (1)
1 — " (1)(3)(10)
2 — " (1)(4)(6)
2 — " (1)(4)(10)
1 — " (1)(6)(10)
1 — " (4)(6)
1 — " (4)(6)(10)
2 — " (6)

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(1) To preserve the confidentiality of classified and proprietary information related to safeguarding of special nuclear material and the arrangements for physical protection of nuclear facilities. In regard to the special meetings with the French and Germans, to insure the security of information identified and supplied by a foreign government as confidential.
(3) To protect classified information.
(4) To protect proprietary information.
(6) To protect information the release of which would represent an undue invasion of personal privacy.
(10) To permit discussion of matters involved in an adjudicatory proceeding.

ACRS Subcommittee and Working Group Closed/Partly Closed Meetings CY-78	Exemptions Used: Subsection 10(d), PL 92-463 5 USC 552b(c)	(1)	(4)	(6)
1.	Reactor Fuel Subcommittee, 1/27		x	
2.	Hatch Subcommittee, 1/28		x	
3.	Fluid/Hydraulic Dynamic Effects Subcommittee, 1/31		x	
4.	ANO-2 Subcommittee, 2/2		x	
5.	ECCS Subcommittee, 2/16		x	
6.	Working Group on Safeguards & Security, 2/22		x	
7.	Procedures Subcommittee, 3/08			x
8.	Power & Elect'l Sys/ANO-2 Subctes. Joint Mtg., 3/20		x	
9.	Working Group on Safety of Operating Reactors, 3/22		x	
10.	McGuire Subcommittee (with site visit)		x	
11.	Indian Point No. 3 Subcommittee, 4/24		x	
12.	Siting Evaluation Subcommittee, 5/03		x	
13.	Vermont Yankee Subcommittee (with site visit), 5/19		x	
14.	Fluid/Hydraulic Dynamic Effects Subcommittee, 5/23		x	
15.	Maine Yankee Subcommittee, 5/25		x	
16.	Diablo Canyon Subcommittee, 6/14-15		x	
17.	Diablo Canyon Subcommittee. 6/21-22		x	
18.	Naval React./Opns. Subcte.(w/site visit) 6/28	x*		
19.	NEP 1 & 2 Subcte., (w/site visit) 6/28-29		x	
20.	Electrical Systems Subcommittee, 6/29		x	
21.	Davis Besse, 2 & 3, Subcommittee, 6/30		x	
22.	Rad. Effects & Site Eval. Subcommittee, 7/11		x	
23.	ATWS Subcommittee, 7/13		x	
24.	Erie Subcommittee (with site visit), 7/17-18		x	
25.	Elect'l Systems Cont'l & Inst'mt Subcte., 7/20		x	
26.	Westinghouse Water Reactors Subcommittee, 7/24		x	
27.	ATWS Subcommittee, 8/01-02		x	
28.	Safeguards & Security Subcte., 9/26	x	x	
29.	Regulatory Sctivities Subcommittee, 10/04		x	
30.	Surry, 1 & 2, Subcommittee, 10/28		x	
31.	Zimmer Subcommittee (with site visit)		x	
32.	Fluid Dynamics Subcommittee, 11/28-29-30		x	
33.	Generic Items Subcommittee, 12/05		x	

*Closed Meeting

SUMMARY: 30 ACRS SUBCOMMITTEE MEETINGS CY-1978 (Partly Closed)
2 ACRS WORKING GROUP MEETINGD CY-1978 (Partly Closed)
1 ACRS SUBCOMMITTEE MEETING CY-1978 (Closed)
33

Exemptions for Closed Sessions
33 10(d), PL 92-463, and
28 5 USC 552b(c)(4)--Subcommittee Meetings
2 5 USC 552b(c)(4)--Working Group Meetings
2 5 USC 552b(c)(1)--Subcommittee Meetings (1Closed/1Partly Closed)
1 5 USC 552b(c)(6)--Subcommittee Meeting

ATTACHMENT II
TO
ANNUAL COMPREHENSIVE REPORT TO GSA FOR 1978

The following information is provided as background in support for the recommendation that the Advisory Committee on Reactor Safeguards be continued.

The Committee's establishment, objectives and the scope of its activities and duties are prescribed by statute, Section 29 of the Atomic Energy Act of 1954, as amended, provides:

> "There is hereby established an Advisory Committee on Reactor Safeguards consisting of a maximum of fifteen members appointed by the Commission for terms of four years each. The Committee shall review safety studies and facility license applications referred to it and shall make reports thereon, shall advise the Commission with regard to the hazards of proposed or existing reactor facilities and the adequacy of proposed reactor safety standards, and shall perform such other duties as the Commission may request. One member shall be designated by the Committee as its Chairman. The members of the Committee shall receive a per diem compensation for each day spent in meetings or conferences, or other work for the Committee and all members shall receive their necessary traveling or other expenses while engaged in the work of the Committee. The provisions of Section 163 shall be applicable to the Committee."

Also, Section 182 b. of the Atomic Energy Act of 1954, as amended, provides:

> "The Advisory Committee on Reactor Safeguards shall review each application under Section 103 or Section 104 b. for a construction permit or an operating license for a facility, any application under Section 104 c. for a construction permit or an operating license for a testing facility, any application under Section 104 a. or c. specifically referred to it by the Commission, and any application for an amendment to a construction permit or an amendment to an operating license under Section 103 or 104 a., b., or c. specifically referred to it by the Commission, and shall submit a report thereon which shall be made part of the record of the application and available to the public except to the extent that security classification prevents disclosure."

Public Law 95-209 (NRC Authorization Act for 1978) changed the Atomic Energy Act of 1954 as follows:

> Section 29 of the Atomic Energy Act of 1954 is amended by adding the following at the end thereof: "In addition to its other duties under this section, the Committee (ACRS), making use of all available sources, shall undertake a study

of reactor safety research and prepare and submit annually to the Congress a report containing the results of such study. The first such report shall be submitted to the Congress not later than December 31, 1977."

Public Law 95-209 also provided:

"To assist the Advisory Committee on Reactor Safeguards in carrying out its function, the Committee shall establish a fellowship program under which persons having appropriate engineering or scientific expertise are assigned particular tasks relating to the functions of the Committee. Such fellowship shall be for 2-year periods and the recipients of such fellowships shall be selected pursuant to such criteria as may be established by the Committee."

Section 1.20 10 CFR Part 1 provides:

"Upon request from the Department of Energy (DOE) the ACRS performs reviews, provides reports, and advises DOE with regard to the hazards of DOE nuclear activities and facilities.

(1) Number of Meetings

The ACRS, its subcommittees and working groups held 96 meetings during 1978. The number of meetings held is directly related to the number of reactor projects referred by the Nuclear Regulatory Commission to the Committee for review; the number of generic issues which arose during the year; the number of criteria and guides referred to the Committee for review and comment; the number of DOE and DOD reactor projects referred; and the number of special reviews (the NRC) requested by the NRC. The full Committee normally meets once a month for a three day session to consider projects, generic and special reviews, and criteria and regulatory guides that are ready for full Committee consideration. ACRS subcommittees meet as necessary with license applicants, NRC Staff, and others to develop information for the Committee on the particular matter under review and to identify those matters warranting particular attention by the full Committee.

(2) Number of Reports

The ACRS submitted 43 reports during 1978; 2 were quarterly reports on ACRS activities; 22 were reports to the Chairman of NRC on specific nuclear power projects and other matters of special interest. One was a report to the House Committee

on Interior and Insular Affairs on the establishment of an independent, quasi-judicial board for accident analysis; one was a report to the North Anna Environmental Coalition on Asymmetric Loads on Pressure Vessel Structures and Pump Performance; one was the recently established annual report to the U.S. Congress on the review and evaluation of the NRC Safety Research Program; and 16 were letters to the NRC Executive Director for Operations on proposed amendments to regulations, regulatory guides and other matters.

(3) Agency Utilization of ACRS Recommendations

The ACRS reports and recommendations to the Commission have been used extensively in NRC policy formulation and decision making since the establishment of the agency on January 19, 1975. In those cases where a license application is submitted under Section 103 or 104 of the Atomic Energy Act, an ACRS report is required by statute. In each such case, the NRC Staff, following the receipt of an ACRS report, prepares a supplemental safety evaluation report which outlines in detail the actions the NRC Staff has or is taking to carry out the ACRS recommendations. These reports are entered into the public docket file for each facility case.

On several occasions, substantive restrictions and/or requirements have been imposed by the NRC on nuclear facility operations, including power level limitations, augmented test programs, and added engineered safety features, based on the recommendations of the Committee. In addition, specific attention is given to ACRS recommendations with respect to other generic or selected safety issues and appropriate action is implemented by the NRC Staff. Additionally, ACRS recommendations are implemented in regulations, guides and regulatory policies and practices promulgated by the Commission. For example, proposed NRC safety related regulatory guides are not normally promulgated for public comment or for final implementation without the concurrence of the ACRS.

The action taken to implement specific ACRS recommendations regarding individual licensing application is published in an NRC Staff Supplementary Safety Evaluation Report for consideration at the related public licensing hearing. In addition, the status of ACRS recommendations with respect to specific projects is checked on a 6 month basis by a detailed report to the ACRS from the NRC Staff relating point by point what Staff action has been or is being taken on each ACRS recommendation. A similar status check procedure is followed for

generic items on which the Committee has made recommendations or raised questions. In addition, frequent status and final reports regarding resolution of ACRS comments and recommendations are given during monthly ACRS meetings and recorded in the minutes of these meetings. In the event the ACRS considers NRC Staff action inadequate with respect to its recommendations, a mechanism is available to bring these matters directly to the attention of the Commissioners.

With regard to the development of proposed regulatory guides and criteria, the ACRS subcommittee and full Committee meetings provide a public forum where differences of opinion between interested groups may be presented.

In the area of reactor safety research, the ACRS periodically examines the thrust and magnitude of the overall NRC safety research program and conducts annual in-depth reviews of the effectiveness of the 10 to 15 separate major NRC research programs. The conclusions of these reviews are reported to the Nuclear Regulatory Commission and to the Congress as mandated by Public Law 95-209. For both RSR reports prepared by the ACRS to date a specific reply has been or will be provided by

the NRC Research Staff regarding the action taken to implement ACRS recommendation. The ACRS recently provided testimony to the House Committee on Environment and Public Works, Subcommittee on Nuclear Regulation regarding the NRC authorization for its FY-1980 Reactor Safety Research Budget.

In the area of policy formulation, the ACRS often suggests initiation of staff studies and participates in the formulation of technical policy on important safety issues. The Committee's overall knowledge and advice with respect to the resolution of specific safety issues and generic issues is useful to the Commission both in decision making for individual cases and in program planning for the NRC Staff's resources. Additionally, the Committee's continuing review of both industrial and governmental research programs provides the valuable perspective of an independent body of technical experts with respect to the scope and content of the program and the assignment of priorities to individual research efforts.

(4) Why ACRS Recommendations and Information Cannot Be Obtained From Other Sources

As established by the Atomic Energy Act of 1954, the Advisory Committee on Reactor Safeguards is an independent organization which is mandated to perform certain specific functions and provide advice to the Nuclear Regulatory Commission with regard to the potential hazards of proposed or existing nuclear facilities and the adequacy of proposed reactor standards. The Committee is unique in that there exists no comparable body composed of acknowledged experts in the field of nuclear reactor safety whose Congressional mandate is to provide the Commission with independent advice in this area. The Commission necessarily has its own expert staff on whom it relies in the day to day regulation of nuclear power facilities. However, there is no other advisory committee, either within the Commission or in other agencies, which could be called upon for independent assessments of reactor safety issues.

In addition, since ACRS members are primarily part-time advisors with other full-time interests and activities in related fields, they bring to bear in an organized manner a breadth of experience and current technical knowledge which would be difficult to duplicate with full-time government employees.

A continuing committee such as the ACRS also remains current with respect to nuclear safety issues, including related reactor operating experience and safety research, and provides a collegial judgment regarding these issues that would be impossible to duplicate by use of individual, part-time consultants on a case-by-case basis.

Through the ACRS, the public and the Congress are provided assurance that an independent technical review and evaluation of nuclear reactor projects and safety issues is accomplished.

(5) Degree of Duplication of Effort

As noted above, ACRS efforts are not duplicated by other committees or agencies within the government. However, due to the independent nature of the Committee's statutory responsibilities, the ACRS review and that of its consultants does duplicate, to some degree, as intended by law, some aspects of the NRC Staff's review of applications for nuclear power facility licenses and of the monitoring of operating reactors. In this regard, the ACRS effort is largely directed at new and improved reactor safety features, an exploration of the basis for NRC

Staff decisions as they relate to reactor safety, and assurance that all factors that could endanger the public health and safety have been adequately considered in making licensing decisions.

(6) Relationship of the Annual Costs of the ACRS to Reports, Recommendations, and Information Provided

The direct cost of the ACRS activities in CY 1978 was approximately $2,148,000. As noted earlier, the Committee conducted 96 meetings during CY 1978 and submitted 43 reports. Twenty-two of these reports were required for independent reviews of specific nuclear power plant projects, standardized plant designs or generic issues. Two were reports to Congress, two were quarterly reports to the NRC Chairman on ACRS activities, one was a report to a citizens environmental group and sixteen were directed to the NRC Executive Director regarding proposed regulatory guides, amendments to regulations and related matters.

It should be noted that, while the ACRS reports serve as the mechanism by which the Committee fulfills its legal mandate, the Committee provides invaluable assistance in many other areas. Principally among these is service to the NRC as a sounding and review board on many issues which arise in the conduct of NRC business. For example, in 1978, the Committee

provided special reports to NRC on the Qualification of Plutonium Air Transportable Packages, [Reactor Safety] Proposed Research on Systems to Improve Safety, Decommissioning of Nuclear Facilities, Nuclear Plant Reliability Data Systems, and Evaluation of Alternative Sites for Those with High Population Densities.

In addition to providing technical advice to the Committee and the Congress on specific issues, the Commission has sought advice from the Committee in five special generic areas: nuclear safeguards and the possible wide-scale use of mixed oxide nuclear fuels; shipment of radioactive materials by air; nuclear waste management; nuclear reactor inspection; and reactor safety research.

(7) Balance in Membership on ACRS

The Nuclear Regulatory Commission, on the basis of the technical review functions outlined in the statutory mission of the Committee, appoints ACRS members from the scientific and engineering disciplines with three indispensable prerequisites in mind: outstanding scientific and technical ability, balanced and mature judgement, and willingness to devote the time required (approximately 100 days each year) to the demanding work involved. The pool of persons so qualified is limited. At the end of 1978, the

Committee included a number of university professors and department chairmen, two employees of national laboratories and five members who have retired from active employment with nuclear and non-nuclear backgrounds. There has been a conscious effort to obtain members trained in both nuclear and the non-nuclear disciplines who have had considerable experience in various fields needed to evaluate proposed construction and operation of nuclear power plants and related facilities. This permits and fosters a concentration within the Committee of scientific and engineering proficiency, together with a diversity of viewpoints and perspectives, which provides assurance that adequate independent, open discussion and analysis of the potential hazards of nuclear reactors and the adequacy of safety standards can take place.

During 1978, the membership included those experienced in radiation safety, electrical engineering, chemical engineering, civil engineering, materials engineering, mechanical engineering, nuclear engineering, reactor operations, heat transfer and fluid flow and reactor physics. Anticipated membership needs include individuals knowledgeable in probabilistic analysis and reliability of large equipment.

In order to proivde for public involvement in the nominating process for ACRS members, the NRC issues public announcements soliciting nominees when vacancies arise. In response to these announcements, a number of nominations have been received from the public, including organizations such as public interest groups and technical societies. These nominations are presently being evaluated for the one vacancy which now exists on the Committee. Although this will expand the list of candidates for consideration, the diversity of viewpoints presently represented by current ACRS members is broadly based from the standpoint of special fields of interest, employment experience and scientific or technical specialty. These membership characteristics provide the Committee with a balance of highly qualified technical experts in the nuclear and non-nuclear fields which are necessary to carrying out the Committee's statutory requirements.

In summary, the ACRS is composed of nationally and internationally recognized experts, knowledgeable in the various disciplines needed to evaluate nuclear facility safety. The Committee's statutory review of applications for nuclear power plant licenses and certain other nuclear facility licenses is an essential element in the Commission's regulatory review process. The Committee's expert judgement and recommendations are invaluable ingredients

in the final NRC decision on each license application as to whether reasonable assurance is provided for the protection of public health and safety. This judgement must be based not only on specific technical aspects of facility design and operation but also must consider the total integrated nuclear program and its relationship to the other potential hazards inherent in a highly developed society. The ACRS' independence from the NRC Staff and the additional opportunity for public awareness afforded by the ACRS meeting process provide an added dimension to the Commission's efforts to achieve a high level of public confidence and participation in regulation.