



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

August 15, 1983

MEMORANDUM FOR: Chairman Palladino
Commissioner Gilinsky
Commissioner Roberts
Commissioner Asselstine
Commissioner Bernthal

FROM:

J. E. Zerbe
John E. Zerbe

SUBJECT: COMMENTS ON THE AUDIT OF THE OFFICE OF POLICY EVALUATION

The Office of Inspector and Auditor made six recommendations to me concerning the operations of the office. With respect to the first, I am prepared to revise the appropriate sections of the NRC manual and prepare formal operating procedures to carry out OPE's functions based on any new guidance the Commission may give us on our role and functions. I should point out that in the past few months our priorities have been changing as work related to the safety goal and the waste confidence proceeding has been winding down. The office now has more resources to allocate to the review of Commission papers and we are doing so. Moreover, we will continue to respond to Commissioner requests in a timely manner.

With respect to the recommendation that we prepare an annual operating plan for Commission approval, I am prepared to do this if the Commission so desires and institute a formal record keeping system to accumulate the amount of time spent on the various categories of work as recommended by the auditors. I wonder, however, if such an approach would be of much utility. We work on those issues which the Commission is interested in and our priorities change as the Commission's change. We are aware of the major items of interest in the agency since we assist in the preparation of the Commission's annual policy and planning guidance to the staff.

We are currently improving our filing system and intend to consult with the Division of Technical Information and Document Control to obtain their advice they may have as to what additional records and files OPE should maintain. As to the recommendation that OPE update its position descriptions, we have already reviewed the non-managerial professional positions with the Division of Organization and Personnel and they are in the process of formally revising them. As to the final recommendation, we will adopt the appropriate work hours policy to be in compliance with Manual Chapter 4136.

cc: J. Cummings, OIA

BETWEEN

THE AMERICAN NUCLEAR SOCIETY (ANS)

AND

THE U.S. NUCLEAR REGULATORY COMMISSION

- A. The purpose of this Modification is to change the grant period in Block No. 3 to reflect a six-month no-cost extension.
- B. Specifically, of this Grant No. NRC-G-04-81-001:
1. Block No. 3, Grant Period, is extended by six (6) months from December 31, 1984 through June 30, 1985.
- C. All other terms and conditions under this Grant remain the same.
- D. In witness whereof, the parties have executed this document.

UNITED STATES OF AMERICA:

Date 2/11/85

By Paul J. Edgeworth for
PAUL J. EDGEWORTH
Kellogg V. Morton, Chief
Technical Contracts Branch
Division of Contracts
Office of Administration

GRANTEE:

Date February 15, 1985

By Peter J. DeTamples
Title Executive Director
American Nuclear Society

~~Dupe~~
8502270630

PROBABILISTIC RISK ASSESSMENT PROCEDURES GUIDE



A Joint MRC-Industry
Effort to Prepare
Guidelines for
Probabilistic Risk
Assessment

July 15, 1982

There is no ANS letter dated July 22, 1982 as was noted in Modification No. Four (4). This was a typographical error. The correct date of the letter regarding Modification No. Four (4) is July 15, 1982.

Mr. Levi D. Baisden, Contracting Officer
Division of Contracts
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

RE: Grant No. NRC-G-04-81-110

Dear Mr. Baisden:

You will find enclosed the description of a no-cost extension and modification to the above designated grant. The description details two functions to be undertaken: (1) a PRA review function and (2) a document on radioactive source terms. This extension is for a two year period starting January 1, 1983. Note that we have a previous request on record, dated May 27, 1982, to extend the grant to December 31, 1982.

Cost estimates for the two functions are included. It should be noted that the figure for ANS staff support to item 2 does not include estimates for editing, typing, copying, collating and distributing drafts of the document or tasks related thereto; it is impossible to estimate the magnitude of this portion of the work at this time.

We look forward to your prompt acceptance of this modification.

Sincerely,

Mrs. Marilyn D. Weber
Program Administrator

MDW:kp

cc: O. J. Du Temple
J. R. Heelan
L. M. Muntzing
W. R. Stratton

MODIFICATION NO. 4 TO GRANT NO. NRC-G-04-81-001
BETWEEN
THE AMERICAN NUCLEAR SOCIETY (ANS)
AND
THE U.S. NUCLEAR REGULATORY COMMISSION

- A. The purpose of this Modification is to change the grant period in Block No. 3, and incorporate the scope modification as proposed by ANS' letter dated July 22, 1982.
- B. Specifically, of this Grant No. NRC-G-04-81-001:
1. Block No. 3, Grant Period, is extended by two (2) years from December 31, 1982 through December 31, 1984.
 2. Block No. 9 shall include the work scope modification as proposed by ANS' letter dated July 22, 1982.
- C. All other terms and conditions under this Grant remain the same.
- D. In witness whereof, the parties have executed this document.

DATE:

10-18-82

UNITED STATES OF AMERICA:

BY:

[Signature]
Kellogg V. Norton, Grants Officer
Research Contracts Branch
Division of Contracts
Office of Assistant Director

GRANTEE:

DATE: October 19, 1982.

BY:

[Signature: Octave J. Du Temple]

TITLE: Executive Director

American Nuclear Society

Duplicate
8211050088

GRANT MODIFICATION

The American Nuclear Society hereby applies for a no-cost extension and modification to Grant No. NRC-G-04-81-110. This proposed modification would provide support to accomplish two functions:

1. Perform periodic reviews of the PRA Procedures Guide (NUREG/CR-2300) to determine if modifications are needed and appropriate: (a) to bring it into better conformance with state of the art techniques in risk assessment or (b) to provide descriptions of methods that are more suitable for then-current applications of risk assessment technology. If such changes or additions are needed, determine how and when to develop them.
2. Develop a white paper on the determination and use of accident-related radiological source terms. This paper would serve as a supplement to Chapter 7, Physical Processes of Reactor-Meltdown Accidents, of the PRA Procedures Guide. Source terms developed in the document or by methods presented in the document would be used for analyses of the type suggested in Chapter 7 of the Guide. This function is described in greater detail below.

This proposed extension would be for a period of two years: from January 1, 1983 to December 31, 1984.

ANS proposes to select an individual to act as the project director to accomplish these two functions; this person would possess a detailed knowledge of the PRA Procedures Guide and knowledge of the history and status of the regulatory use of radiological source terms. Furthermore, the person would be capable of and willing to exercise the management of the above two functions.

A. PRA Review Function

It is expected that the project director will convene a meeting of a few selected individuals (probably from the PRA Steering Committee)

who have expertise in risk assessment and knowledge of the PRA Procedures Guide to critically review the use and usefulness of the Guide every six to nine months. This review committee would include an appropriate representative of the NRC staff. The results of any review will be documented in a letter to the grant officer as designated by the NRC. Any work required to develop modifications or additions to the Guide will be financed by separate arrangements and is not covered under the provisions of this grant modification.

B. White Paper on Radioactive Source Terms

It is anticipated that the project director will work with a steering committee of about twelve individuals to manage the development of the white paper on radioactive source terms. The responsibility of this committee would be to set the scope of the effort, provide overall review of proposed drafts, and select individuals to develop the text of the document. The committee will determine an appropriate schedule for completion of the project along with appropriate intermediate milestones and interface tasks to best take advantage of other work on source terms, consistent with the completion date.

The project director and the steering committee will work together to select a set of peer reviewers. These reviewers will be selected from a broad spectrum of organizations and interests, but will all have expertise in the area for which they will perform the review. Every attempt will be made to gain consensus on each portion of the document.

C. Administrative Support

Administrative support required to fulfill the two functions will be provided by members of ANS Staff. This support will include meeting arrangements, preparation of meeting minutes, preparation and distribution of draft documents, managing and disbursing funds provided under the grant, maintaining records of all significant

activities that take place to fulfill the grant, and other related work that is reasonable to support the accomplishment of the two functions.

D. Cost Estimate

1. PRA Review Function

Costs for the review function will include administrative support as indicated in Paragraph C above and travel expenses for the project director, one representative of ANS Staff, and any committee member requiring this support (none is anticipated). No payment will be made for time spent by a committee member. The following estimate covers the period from October 1, 1982 through December 31, 1984:

2. Document on Radioactive Source Terms

Costs for developing a white paper on radioactive source terms will be shared by other organizations, including the Electric Power Research Institute, U.S. Department of Energy, and organizations who will agree to support their representatives. Costs for accomplishing this function will include all administrative support as indicated in Paragraph C above; reasonable consultation fees for the project director to provide management for the

function; and travel for the project director, representatives of ANS Staff as needed, and any individual involved in developing the document who cannot be supported by his organization. Payment from these grant funds will be made for time spent by any other individual only if not covered by other contributions. The following estimate covers the period from July 1, 1982 through December 31, 1983, but excludes payment for engineering time.

*This figure does not include estimates for editing, typing, collating, copying, and distributing drafts of the document or related tasks.

3. Priority Expenditures

Funds remaining under this grant will be used according to the following priority:

- a. Support to complete publication of the PRA Procedures Guide.
- b. Funds will be set aside to cover the full estimated cost of performing the review function (D.1 above).
- c. Support for development of the white paper on radioactive source terms, to the extent possible with remaining funds. If additional funding is required to complete this part of the project, a subsequent request for modification will be made.

MODIFICATION NO. 3 TO GRANT NO. NRC-G-04-81-001
BETWEEN
AMERICAN NUCLEAR SOCIETY
AND
THE U.S. NUCLEAR REGULATORY COMMISSION

- A. The purpose of this modification is to change the grant period in block No. 3 of the Notice of Grant Award.
- B. Specifically, block No. 3, Grant Period, of this Grant No. NRC-G-04-81-001 is extended from July 31, 1982 to December 31, 1982.
- C. All other terms and conditions under this grant remain the same.
- D. In witness whereof, the parties have executed this document.

UNITED STATES OF AMERICA

Date:

8/12/82

By:

Raymond F. Morton
Raymond F. Morton
Grants Officer
Research Contracts Branch
Division of Contracts
Office of Administration
U. S. Nuclear Regulatory Commission

GRANTEE

Date:

23 July 1982

By:

American Nuclear Society
Peter J. DeTempter
Executive Director
(Title)

~~82-03-001-001~~

MODIFICATION NO. 2 TO GRANT NRC-G-04-81-001
BETWEEN
AMERICAN NUCLEAR SOCIETY
AND
THE U.S. NUCLEAR REGULATORY COMMISSION

- A. The purpose of this modification is to change the dollar amount in block No. 15 of the Notice of Grant Award.
- B. Specifically, block No. 15, Funding Sources, of this grant No. NRC-G-04-81-001 is increased by \$45,000 from \$260,194.03 to \$305,194.03.
- C. All other terms and conditions under this grant remain the same.
- D. In witness whereof, the parties have executed this document.

United States of America

Date: 12/1/81

By Ronald D. Thompson
Ronald D. Thompson, Chief
Operations Support Branch
Division of Contracts
Office of Administration
U.S. Nuclear Regulatory Commission

Date: 4 JAN 1982

Grantee
By Peter J. R. Temple
(Title) Executive Director
American Nuclear Society

~~227000-163~~

MODIFICATION NO. 1 TO GRANT NRC-G-04-81-001

BETWEEN

AMERICAN NUCLEAR SOCIETY

AND

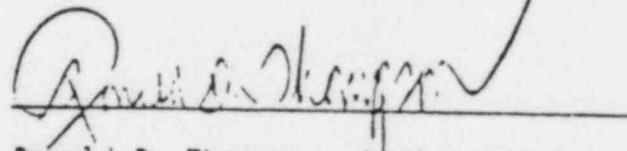
THE U.S. NUCLEAR REGULATORY COMMISSION

- A. The purpose of this Modification is to change the dollar amount in block no. 15 of the Notice of Grant Award.
- B. Specifically, block no. 15, Funding Sources, of this grant no. NRC-G-04-81-001 is increased by \$32,494.03 from \$227,700.00 to \$260,194.03.
- C. All other terms and conditions under this grant remain the same.
- D. In witness whereof, the parties have executed this document.

United States of America

Date: Aug 5, 1981

By

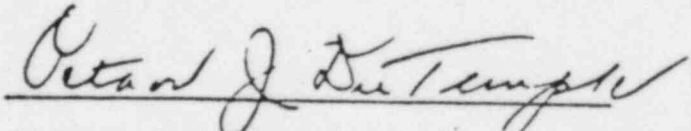


Ronald D. Thompson, Acting Chief
Operations Support Branch
Division of Contracts
Office of Administration
U.S. Nuclear Regulatory Commission

Grantee

Date: July 28, 1981

By



(Title) Executive Director
American Nuclear Society

DUE
8/02/170745

NUCLEAR REGULATORY COMMISSION
NOTICE OF GRANT AWARD

1. GRANT NUMBER NRC-G-04-81-001	2. MODIFICATION NUMBER ----	3. GRANT PERIOD FROM: 1/21/81 TO: 7/31
4. AUTHORITY Sections 31a. & 141b. of Atomic Energy Act of 1954, as amended	5. TYPE OF AWARD Grant	6. GRANTEE TYPE Professional Society Not-for-Profit
7. GRANTEE NAME AND ADDRESS American Nuclear Society 555 North Kensington Avenue LaGrange Park, IL 60525		8. PROJECT TITLE Support of the Nuclear Reliability Evaluation Program
9. PROJECT WILL BE CONDUCTED PER GRANTEE'S PROPOSAL(S), Entitled "Support of the Nuclear Reliability Evaluation Program" DATED October 31, 1980 and APPENDIX A - PROJECT GRANT PROVISIONS		10. TECHNICAL REPORTS ARE REQUIRED <div style="margin-left: 40px;"> <input checked="" type="checkbox"/> PROGRESS AND FINAL <input type="checkbox"/> FINAL ONLY <input type="checkbox"/> OTHER </div>
11. PRINCIPAL INVESTIGATOR(S) NAME AND ADDRESS Marilyn Weber 555 North Kensington Avenue LaGrange Park, IL 60525 312/352-6611		12. NRC PROGRAM OFFICE (Name and Address) Office of Nuclear Regulatory Research Washington, DC 20555 Louis Rib TELEPHONE NO. 301/427-4320
13. ACCOUNTING AND APPROPRIATION DATA B&R#: 60190310 FIN#: G1004 APPN#: 31X0200.601		14. METHOD OF PAYMENT <div style="margin-left: 40px;"> <input type="checkbox"/> ADVANCE BY TREASURY CHECK <input type="checkbox"/> REIMBURSEMENT BY TREASURY CHECK <input checked="" type="checkbox"/> LETTER OF CREDIT <input type="checkbox"/> OTHER (specify) </div>

FUNDING SOURCES

<u>SOURCE</u>	<u>AMOUNT</u>
NRC:	
THIS GRANT	\$ 227,700.00
PREVIOUSLY OBLIGATED	\$ --
GRANTEE SHARE:	
THIS GRANT	\$ -0-
PRIOR GRANT	\$ --
TOTAL FUNDING	\$ 227,700.00

AMOUNT OBLIGATED BY THIS GRANT ACTION: \$ 227,700.00

7. NRC ISSUING OFFICE (Name and Address)

Office of Administration
Division of Contracts
Washington, DC 20555

8. GRANTEE

Octave J. DuTemple 19 Jan 1981
(Signature) (Date)

NAME(typed) Octave J. DuTemple

TITLE Executive Director

TELEPHONE NO. 312/352-6611

19. NRC GRANT OFFICER

Ronald D. Thompson Jan 26 19
(Signature) (Date)

NAME(typed) Ronald D. Thompson

TITLE Acting Chief
Special Projects Staff

TELEPHONE NO. 301/427-4383

20. GRANT PAYMENT INFORMATION

The grantee shall receive payments under this grant by letter of credit drawn in amounts necessary to meet current needs pursuant to OMB Circular A-110, Attachment I, unless the grantee has failed to comply with the program objectives, grant award conditions or Federal reporting requirements.

21. Attached is a copy of the "NRC Project Grant Provisions for Institutions of Higher Education and Other Nonprofit Organizations." Acceptance of these terms and conditions is acknowledged when federal funds are used on this grant project.

QUESTION 23. (B) DOES THE NRC CONSIDER ANS TO BE AN
INDEPENDENT SCIENTIFIC ORGANIZATION WHOSE SOLE GOAL
IS PURE SCIENTIFIC AND ENGINEERING RESEARCH?

ANSWER.

THE AMERICAN NUCLEAR SOCIETY IS A PROFESSIONAL SOCIETY AND IS SO
RECOGNIZED BY THE INTERNAL REVENUE SERVICE. BY ITS OWN CHARTER,
SOME OF THE MAJOR OBJECTIVES OF THE SOCIETY ARE:

- O TO PROMOTE THE ADVANCEMENT OF SCIENCE AND ENGINEERING
RELATING TO THE ATOMIC NUCLEUS, AND OF ALLIED SCIENCES AND
ARTS.
- O TO AID IN THE INTEGRATION OF THE SEVERAL DISCIPLINES
CONSTITUTING NUCLEAR SCIENCE AND ENGINEERING.
- O TO ENCOURAGE RESEARCH IN NUCLEAR SCIENCE AND TECHNOLOGY AND
IN ALLIED FIELDS.
- O TO HOLD MEETINGS FOR THE PURPOSE OF DISSEMINATION OF THE
RESULTS OF RESEARCH IN NUCLEAR SCIENCE AND TECHNOLOGY.
- O TO PREPARE AND DISSEMINATE INFORMATION APPROPRIATE FOR THE
PROFESSION OF NUCLEAR SCIENCE AND ENGINEERING.

IN LINE WITH THIS CHARACTERIZATION, NRC CONSIDERS THE ANS AN
ORGANIZATION APPROPRIATE AS A FORUM OF SCIENTIFIC DIALOGUE AND
INDEPENDENT SCIENTIFIC REVIEW OF RESEARCH INFORMATION.

COMMISSIONER ASSELSTINE BELIEVES THAT THE GOALS OF THE ANS ARE NOT LIMITED TO PURE SCIENTIFIC AND ENGINEERING RESEARCH.

COMMISSIONER BERNTHAL ADDS:

INDUSTRY PEOPLE FORM A LARGE COMPONENT OF ANS MEMBERSHIP, AND THEREFORE, RIGHTLY OR WRONGLY, ANS IS VIEWED BY SOME AS A VEHICLE TO REPRESENT INDUSTRY VIEWS. COMMISSIONER BERNTHAL DOES NOT BELIEVE THAT NRC SHOULD PORTRAY ANS AS A BODY THAT NRC MIGHT RELY ON FOR "INDEPENDENT SCIENTIFIC REVIEW."

QUESTION 23. (C) DID ANY NRC EMPLOYEES PARTICIPATE IN THE RESEARCH OR WRITING OF THE ANS REPORT, AND IF SO, PLEASE EXPLAIN THE REASON WHY AND WHETHER THEY RECEIVED ANY COMPENSATION.

ANSWER.

THE ANS REPORT WAS BASED ON EXISTING SCIENTIFIC LITERATURE AND DOCUMENTATION. DR. WALTER PASEDAG, THEN AN NRC EMPLOYEE, WAS THE NRC DELEGATE TO THE ANS COMMITTEE. THIS ALLOWED NRC TO KEEP INFORMED ON THE PROGRESS AND OBJECTIVITY OF THE WORK. DR. PASEDAG'S SALARY AND TRAVEL EXPENSES WERE PAID BY THE NRC WHILE HE WAS ON THE COMMITTEE. THIS WAS NOT HIS FULL TIME OCCUPATION WHILE HE SERVED ON THE COMMITTEE. IN ADDITION, DR. C. N. KELBER WAS GIVEN A DRAFT OF THE ANS REPORT TO REVIEW PRIOR TO PUBLICATION. HIS COMMENTS WERE GIVEN TO ANS AND SOME OF THEM WERE INCORPORATED INTO THE REPORT. DR. KELBER IS AN NRC EMPLOYEE AND HIS SALARY WAS PAID BY THE NRC WHILE HE DID THIS WORK. PEER REVIEW OF TECHNICAL DRAFTS IS CONSIDERED TO BE A NORMAL PROFESSIONAL ACTIVITY IN THE EXECUTION OF DR. KELBER'S DUTIES.

NRC CONTRACTOR EMPLOYEES ALSO MADE SOME CONTRIBUTIONS. THEY ARE LISTED ON PAGE AC-3 OF THE REPORT. THESE CONTRACTOR EMPLOYEES RECEIVED NO NRC COMPENSATION OTHER THAN THE NRC SUPPORT OF THE CONTRACT.

QUESTION 23. (D) DOES THE COMMISSION HAVE A POLICY REGARDING GRANTS AND CONTRACTS WITH ORGANIZATIONS THAT EITHER COULD BENEFIT, OR WHOSE MEMBERS COULD BENEFIT, FROM THE OUTCOME?

ANSWER.

ONE OF THE USES WHICH THE OFFICE OF RESEARCH MAKES OF ITS GRANT AUTHORITY IS TO ASSIST IN FUNDING EFFORTS OF PROFESSIONAL SOCIETIES TO PROVIDE A FORUM FOR SCIENTIFIC DIALOGUE AND EFFECTIVE PEER REVIEW OF COMPLEX TECHNICAL QUESTIONS. SUCH SOCIETIES TYPICALLY HAVE SOME MEMBERS WHO ARE EMPLOYED IN THE INDUSTRY. SCIENTIFIC DIALOGUE AND OBJECTIVE PEER REVIEW ARE CONSIDERED TO HAVE GREAT VALUE IN ASSURING THAT REGULATORY DECISIONS RELYING ON THE APPLICATION OF RESEARCH RESULTS ARE BASED ON GOOD SCIENCE. PROFESSIONAL SOCIETIES ALSO PLAY AN IMPORTANT ROLE IN THE CONSENSUS STANDARDS PROCESS.

QUESTION 23. (E) DOES THE COMMISSION BELIEVE THIS GRANT POSES
ANY CONFLICT OF INTEREST QUESTIONS?

ANSWER.

THE COMMISSION DID NOT REVIEW THIS GRANT BECAUSE THE AMOUNT WAS
BELOW THE THRESHOLD FOR COMMISSION REVIEW. HOWEVER, QUESTIONS OF
ANY CONFLICT OF INTEREST ARE ALWAYS CONSIDERED BEFORE A GRANT IS
MADE. IN THIS CASE, IT WAS DETERMINED THAT THERE WOULD BE NO
CONFLICT OF INTEREST IN MAKING THE GRANT. IT SHOULD ALSO BE NOTED
THAT THE RESULTS WERE PUBLISHED AND PRESENTED IN THE PUBLIC ARENA
THEREBY SUBJECTING THE CONCLUSIONS OF THE STUDY TO REVIEW FROM
OTHER INTERESTED PROFESSIONAL EXPERTS.

QUESTION 23. (F) WAS THIS GRANT NECESSARY IN LIGHT OF OTHER
NRC FUNDED EFFORTS?

ANSWER.

IN THE LATE SPRING OF 1982 THERE WERE DISCUSSIONS OF THE POSSIBILITY OF ANS CONVENING A DIVERSE GROUP OF EXPERTS TO PREPARE A WHITE PAPER ON ACCIDENT-RELATED SOURCE TERM ISSUES. AT THE TIME IT APPEARED APPROPRIATE FOR NRC TO SUPPORT SUCH AN EFFORT TO EXPLORE VIEWS AND POTENTIALLY REACH A CONSENSUS WITHIN THE SOCIETY REGARDING THE CURRENT UNDERSTANDING OF TECHNICAL PHENOMENA IMPORTANT IN THE BEHAVIOR OF FISSION PRODUCTS UNDER ACCIDENT CONDITIONS. THE ANS REQUEST FOR A GRANT EXTENSION TO PREPARE A WHITE PAPER ON ACCIDENT-RELATED SOURCE TERMS WAS RECEIVED IN JULY, 1982. THIS ANS WHITE PAPER "REPORT OF THE SPECIAL COMMITTEE ON SOURCE TERMS," WAS PUBLISHED IN SEPTEMBER, 1984. THE ANS REPORT TO THE COMMISSION PRESENTED VIEWS ON THE TECHNICAL PHENOMENA RELATED TO ACCIDENT SOURCE TERMS AS WELL AS THEIR REGULATORY IMPLICATIONS. THE ASSESSMENT OF REGULATORY IMPLICATIONS WAS PREMATURE, IN THE STAFF'S VIEW.

THE REQUEST TO THE AMERICAN PHYSICAL SOCIETY (APS), ON THE OTHER HAND, WAS FOR AN INDEPENDENT, BROAD-BASED ASSESSMENT OF THE NEW SOURCE TERM METHODOLOGY AND THE SUPPORTING DATA BASE WITH

EMPHASIS ON INFORMATION DEVELOPED BY THE ONGOING NRC RESEARCH PROGRAM. THE STAFF FELT THAT SUCH A REVIEW WAS AN ESSENTIAL PREREQUISITE BEFORE BEGINNING TO ASSESS REGULATORY APPLICATIONS.

THE APS REVIEW WAS REQUESTED IN THE FALL OF 1983. A GRANT WAS ISSUED TO THE APS ON SEPTEMBER 9, 1983. THE REPORT ON THE APS REVIEW WAS PUBLISHED IN MARCH, 1985.

QUESTION 23. (G) WHAT OTHER NRC SOURCE TERM EFFORTS HAVE BEEN COMPLETED OR ARE UNDERWAY? WHAT IS THE TOTAL AMOUNT OF FUNDS ALLOCATED FOR SOURCE TERM WORK SINCE 1983?

ANSWER.

SOURCE TERM EFFORTS ARE PART OF THE SEVERE ACCIDENT RESEARCH PROGRAM. THE FOLLOWING TABLE REFLECTS FUNDING LEVELS FROM FY 83 TO PRESENT.

SEVERE ACCIDENT RESEARCH PROGRAM				
	(DOLLARS IN MILLIONS)			REQUEST
	<u>FY 83</u>	<u>FY 84</u>	<u>FY 85</u>	<u>FY 86</u>
ACCIDENT EVALUATION	<u>\$48.4</u>	<u>\$47.1</u>	<u>\$38.0</u>	<u>\$30.7</u>
SEVERE ACCIDENT				
ANALYSIS	4.8	7.1	5.3	3.5
DAMAGED FUEL	22.9	20.4	12.2	9.1
CONTAINMENT LOADING	10.5	9.0	8.8	6.6
FISSION PRODUCT SOURCE				
TERM	10.2	10.6	11.7	11.5
CONTAINMENT INTEGRITY	5.4	6.0	5.8	7.2
SEVERE ACCIDENT RISK	<u>8.1</u>	<u>7.8</u>	<u>5.8</u>	<u>5.2</u>
TOTAL	\$61.9	\$60.9	\$49.6	\$43.1

DETAILS OF THIS PROGRAM CAN BE FOUND IN THE ATTACHED REPORT, NUREG-0900 (JANUARY 1983).

Nuclear Power Plant Severe Accident Research Plan

U.S. Nuclear Regulatory
Commission

Office of Nuclear Regulatory Research

J. T. Larkins, M. A. Cunningham

