NCRP

National Council on Radiation Protection and Measurements

President: Charles B. Meinhold, **Vice President:** S. James Adelstein, **Executive Director:** William M. Beckner
7910 Woodmont Avenue, Suite 800, Bethesda, Maryland 20814-3095 Voice: (301) 657-2652 Fax: (301) 907-8768 http://www.ncrp.com

Scientific Vice Presidents:

Basic Criteria, Epidemiology Radiobiology and Risk
S. James Adelstein
Harvard Medical School
25 Shattuck Street
Boston, MA 02115
(617) 432-3997

Environmental Issues
John E. Till
Radiological Assessments Corporation
417 Till Road
Neeses, SC 29107
(803) 536-4883

Metabolism and Dosimetry
Bruce B. Boecker
Inhalation Toxicology Research Institute
P.O. Box 5890
Albuquerque, NM 87185
(505) 845-1090

Nonionizing Radiation
Thomas S. Tenforde
Battelle, Pacific Northwest Laboratories
P.O. Box 999 (K1-50)
Richland, WA 99352
(509) 375-3738

Operational Radiation Safety
Kenneth R. Kase
Stanford Linear Accelerator Center
Environmental, Safety and Health
MS 84, P.O. Box 4349
Stanford, CA 94309
(415) 926-2045

Public Decision Making
Paul Slovic
Decision Research
1201 Oak Street
Eugene, OR 97401
(503) 485-2400

Radiation Measurement
Harold L. Beck
Environmental Measurements Laboratory
376 Hudson Street
New York, NY 10014
(212) 620-3616

Radiation Protection in Medicine
Fred A. Mettler, Jr.
Department of Radiology
University of New Mexico
915 Camino de Salud, NE
Albuquerque, NM 87131-5336
(505) 272-0011

Radioactive and Mixed Waste
Donald G. Jacobs
152 Glassboro Drive
Oak Ridge, TN 37830
(615) 483-9845

A nongovernment, not-for-profit, congressionally chartered, public service organization

September 5 1997

U.S. Nuclear Regulatory Commission
Division of Contracts and Property Management
Washington, D.C. 20555-0001

Reference: Grant No. NRC 04 95 086

Dear Sir:

The purpose of this letter is to report on the progress of the work being carried out by the National Council on Radiation Protection and Measurements' (NCRP) Scientific Committee 1-6 the on "Linearity of Dose Response" under the above referenced grant. The period covered by this report is April 1, 1997 through June 30, 1997. The comments provided herein are more detailed regarding the work of Scientific Committee 1-6 than that provided in the progress report for NRC Grant 04-94-057.

If there are questions regarding this progress report please call me at (301) 657-2652.

Sincerely,

William M. Beckner

William M. Beckner
Executive Director

WMB/mca

cc: C.B. Meinhold
Alan Roecklein
Mary Thomas
NRC Grant File

A152

Quarterly Progress Report

NRC Grant 04 95 086

Period covered by this report:	April 1, 1997 through June 30, 1997
Activity supported:	Scientific Committee 1-6 on Linearity of Dose Response
Total funding:	$225,000
Program outlays to June 30, 1997:	$106,812.64
Funds remaining as of April 1, 1997:	$121,920.82
Performance period:	October 1, 1995 through September 30, 1998

Narrative:

Scientific Committee 1-6 conducted its fourth meeting on April 11, 1997 and its fifth meeting is planned for July 1997.

The general outline for the Committee's report is as follows:

Section	Drafter	Comment
1. Introduction	Upton	To be written later
2. DNA Repair and Processing after Low Doses and Low Dose Rates of Ionizing Radiation	Painter	Outline provided earlier
3. Mutagenic Effects	Liber Kronenberg	Outline provided earlier
4. Chromosome Aberrations	Preston Adelstein	Outline provided earlier
5. Oncogenic Transformation *In Vitro*	Hall Brenner	Outline provided earlier
6. Carcinogenic Effects on Laboratory Animals	Clifton Upton	Outline provided earlier
7. Carcinogenic Effects on Human Populations	Shore Finch	Outline provided earlier

8. Interpretation of Adaptive Responses	Committee	To be drafted later
9. Conclusions	Committee	To be drafted later

Contributions received prior to March 31, 1997

1. Stuart Altman	DOE	Two volumes of reprints and the "International Radiobiology Archives of Long-Term Animal Studies"
2. Victor Archer		Letter to chairman
3. Elizabeth Balcer-Kibiczek	University of Maryland	Letter to chairman with eight reprints
4. Klaus Becker	ISO (Germany)	Letter to chairman with five reprints
5. Kenneth T. Bogen	LLNL	Letter to chairman with one reprint
6. John Cameron		Letter to chairman with three reprints
7. Walston Chubb		Letter to chairman
8. Bernard Cohen	University of Pittsburgh	Long letter to chairman with seven reprints
9. Diane D'Arrigo	Nuc. Info. & Res. Service	Questions and answers
10. Murray Finkelstein	Ontario Ministry of Labour	Letter to chairman and one reprint
11. John Gofman	Committee for Nuc. Resp., Inc.	Two books. Radiation Induced Cancer from Low-Dose Exposure and Preventing Breast Cancer
12. Raymond Gold	Battelle Northwest National Laboratory	Letter to chairman with note from "Physics Today" on Hiroshima neutron dosimetry
13. Sohei Kondo	Atomic Energy Res. Inst. (Japan)	Letter to chairman and two reprints
14. John Jagger		Letter and fact sheet

15. John Jagger		Second letter and revised fact sheet
16. Mark Little	NRPB (England)	Letter to chairman and one reprint
17. Gerold Looney	McDonnell Douglas	Letter to chairman with three reprints
18. T.D. Luckey		Long letter to chairman with reprints
19. M. Lupien	Advisory Com. Radiol. Prot (Canada)	ACRP-18 "Report on Biological Effects of Low Doses of Radiation at Low Dose Rate"
20. R.E.J. Mitchel	Chalk River Laboratories	Letter to chairman
21. Kenneth Mossman	Arizona State Univ.	Letter to chairman with one reprint
22. Otto Raabe	Univ. of CA at Davis	Letter to chairman and fourteen reprints
23. Warren Sinclair	NCRP	Letter to chairman
24. Narendra Singh	Environ. & Occ. Healt. Sci. Institute	Letter to chairman with twelve reprints
25. Tore Straume	LLNL	Five reprints on Japanese Dosimetry
26. Hiroshi Tanooka	Nat. Cancer Cen. Res. Inst. (J)	Letter to chairman with twelve reprints
27. Robert G. Thomas		Letter to chairman
28. John F. Thomson	ANL	One reprint
29. A.N. Tschaeche		Letter to president with copy to chairman
30. Dick Vetter	Mayo Clinic (HPS)	HPS position paper and references
31. E. W. Webster	Mass General Hos.	Letter and reprint to Committee members
32. Chris Whipple	ICF Kaiser	Note to chairman
33. Richard Wilson	Harvard	Reprints

34. Stuart Altman	DOE	Third volume of reprints

Additional contribution received since March 31, 1997:

1. Stuart Altman	DOE	Fourth volume of reprints
2. Victor Archer	University of Utah Medical Center	Second submission-note to chairman with two reprints
3. Allen Brodsky		Letter to chairman with a copy of his book "Review of Radiation Risk and Uranium Toxicity"
4. Bernard Cohen	University of Pittsburgh	Letter to chairman and one reprint
5. Leonard Hamilton	Brookhaven National Laboratory	Letter to chairman and one reprint
6. Sohei Kondo	Atomic Energy Research Institute, Kinki University, Japan	Second letter to chairman and one reprint
7. Bobby Leonard	International Academy of Hi-Tech Services, Inc.	Letter to chairman one reprint and one treatise
8. Jay Lubin	National Cancer Institute	One reprint
9. James A. Martin		Letter to chairman
10. Lars Persson	Swedish Radiation Protection Institute	One reprint
11. Jerome Puskin	EPA	Letter to Mr. Beckner forwarding one reprint
12. Richard Seltow	Brookhaven National Laboratory	Two reprints
13. Daniel Strom	Battelle Northwest National Laboratory	Letter to chairman and one reprint

A thank you note from Scientific Committee 1 to the scientific community has been sent for publication in the scientific journals that were asked to publish the request for data originally, "NCRP Call for Scientific Data." This note also extended the date for the Committee to receive material to June 30, 1997.

At the November 1996 meeting the Committee concluded that holding a scientific hearing or workshop was unlikely to provide significant scientific input to the Committee's deliberations. This issue was discussed again at the April 1997 meeting without agreement

being reached. The Committee has been encouraged by Scientific Committee 1 to take a more open stance. However, some members of Scientific Committee 1-6 maintain their job is to address the science that is against and in support of carcinogentic effects in humans from low-dose radiation exposure and not to engage in public debate at this time. The Committee decided to revisit the issue of holding a workshop at its July 1997 meeting. Due to Scientific Committee 1's encouragement, Scientific Committee 1-6 is leaning towards holding a small session of invited speakers to address the Committee at its October 1997 meeting.

The membership of Scientific Committee 1-6 is as follows:

Chairman: Upton, A.C.	Liber, H.
Adelstein, S.J.	Painter, R.B.
Brenner, D.	Preston, R.J.
Clifton, K.H.	Shore, R.
Finch, S.C.	Advisor: Kronenberg, A.
Hall, E.J.	NCRP Staff: Beckner, W.M.

Note: The National Council on Radiation Protection and Measurements (NCRP) has historically limited its publications to reports, commentaries, statements, proceedings and publication of its Annual Meeting Taylor Lecture. Now, on a trial basis, the NCRP is engaged in providing scientific review of the background information to be used by an agency for rule making. The result will be a letter report to the agency concerning the accuracy of the data, validity of assumptions, and overall usefulness of the background information for the intended use. Advice or recommendations regarding the proposed rule making will not be provided. This new activity will be carried out by a duly constituted NCRP scientific committee. It is expected, in some cases, the scientific committee performing such a review would later be funded to draft an NCRP document on the subject which would provide general guidance to the radiation protection community at large. Depending on the scope of the work involved, such letter reports will be provided in three to nine months.