

Natural Resources Defense Council, Inc.

917 15TH STREET, N.W.
WASHINGTON, D.C. 20005

202 737-5000

RELATED CORRESPONDENCE

Western Office
2345 YALE STREET
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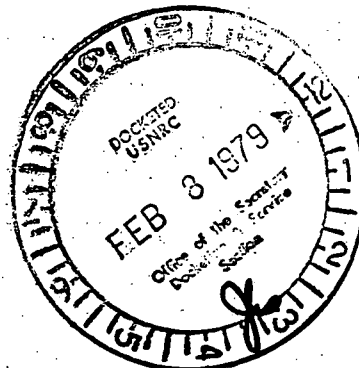
February 5, 1979

New York Office
122 EAST 42ND STREET
NEW YORK, N.Y. 10017
212 949-0049

Gary L. Milhollin, Esq.
1815 Jefferson Street
Madison, Wisconsin 53711

Mrs. Elizabeth B. Johnson
Union Carbide Corp.
Nuclear Division
P.O. Box X
Oak Ridge, Tennessee 37830

Dr. Quentin J. Stober
Fisheries Research Institute
University of Washington
Seattle, Washington 98195



Re: Commonwealth Edison, et al., Dkt.Nos. 50-237/249/254/265

Dear Board Members:

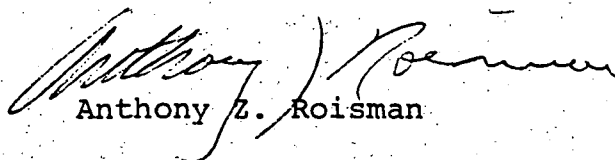
Enclosed are the vitae for Drs. Tamplin and Cochran. I have included the Cochran vitae for your convenience.

Two precedents which bear on the issue of standing have only recently come to my attention and I was not able to

Hunt v. Washington Apple Advertising Comm'n, 432 U.S. 333, 341-345 (1977).

Virginia Electric Power Company (North Anna Units 1 & 2), ALAB-522, decided January 26, 1979, slip op. pp. 3-4.

Sincerely,


Anthony Z. Roisman

cc: service list

October 2, 1978

RESUME

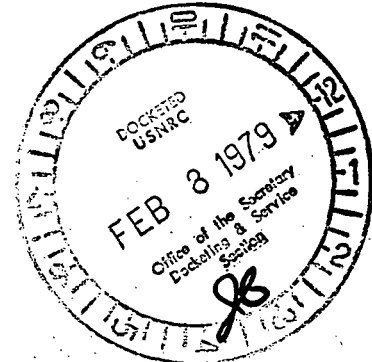
Thomas B. Cochran, Ph.D.

Business Address:

Natural Resources Defense Council, Inc.
 917 15th Street, N.W.
 Washington, D.C. 20005
 (202) 737-5000

Home Address:

4836 North 30th Street
 Arlington, Virginia 22207
 (703) 532-1044



EMPLOYMENT HISTORY

April 1973 - present: Natural Resources Defense Council, Inc., Washington, D.C., Senior Staff Scientist, focusing on national energy R&D policy, principally nuclear energy issues, the breeder reactor, plutonium recycle, nuclear weapons proliferation, safeguards and radiation exposure standards. Consultant to the Department of Energy (DOE) on nuclear nonproliferation and nuclear R&D strategy; consultant to the Comptroller General on (a) US and international controls over the peaceful uses of nuclear energy, (b) Advanced Nuclear Technologies, and (c) U.S. Liquid Metal Fast Breeder Reactor Program; Consultant to Office of Technology Assessment (OTA); Member of DOE's Energy Research Advisory Board, DOE's Nonproliferation Advisory Panel, OTA's Advisory Panel on Nuclear Proliferation and Safeguards, the Nuclear Task Group of OTA's Analyses of the ERDA Plan and Program, and OTA's Gas Curtailment Study Review Panel. Consultant to Governor of Lower Saxony, F.R.G. to serve as an International Expert in the Review of the
~~Correspondence. The following are also members of ERDA's~~
 LMFBR Review Steering Committee, the National Academy of Sciences' Panel on Strategy for Developing Nuclear Merchant Ships, the Task Force on Energy Conversion Research and Development of the Federal Power Survey, the United Nations' Environment Programme's International Panel of Experts on Energy and the Environment, the National Council of Churches' Energy Study Panel and the World Council of Churches' Energy Advisory Group and World Council of Churches' Consultation on Ecumenical Concerns in Relation to Nuclear Energy. Also served as a consultant to Resources for the Future, Washington, D.C. and numerous environmental organizations. Testified before Congress and Federal Agency hearings on numerous occasions including testimony before the Joint Committee on Atomic Energy, the House Committee on Interior and Insular Affairs, the Joint Economic Committee, the House Committee on Small Business and the Nuclear Regulatory Commission's Advisory Committee on Reactor Safeguards.

June 1971 - April 1973: Resources for the Future, Inc., Washington, D.C., Senior Research Associate. Quality of the Environment Program. Studying environmental effects of the U.S. civilian nuclear power industry; residuals management in the nuclear fuel cycle; liquid metal fast breeder reactor program; national energy policy; and radiation standards. Wrote a book, The Liquid Metal Fast Breeder Reactor: An Environmental and Economic Critique.

1969 - 1971: Litton Mellonics Division, Scientific Support Laboratory, Fort Ord, California. Modeling and Simulation Group Supervisor. Supervised the activities of 10 operation research analysts engaged in military research pertinent to the evaluation of proposed U.S. Army concepts and material by U.S. Army CDCEC.

1967-1969: U.S. Naval Postgraduate School, Monterey, California. Lt-USNR, Active Duty; Assistant Professor of Physics; Radiation Safety Committee; Part-time research involving computer studies of synchrotron radiation production in beam transport systems at Stanford Linear Accelerator, Stanford, California.

EDUCATION:

Post doctorate, Summer 1969: University of Colorado, Boulder, Colorado. Summer Institute of Theoretical Physics.

Doctorate, 1965 - 1967: Vanderbilt University, Nashville, Tennessee. Major: Physics; Minor: Mathematics. Research in high energy (Bubble Chamber) physics. NASA Fellowship. Guest Research Associate in Physics Department at Brookhaven National Laboratory, Upton, L.I., New York, studying synchrotron radiation shielding problems.

~~Degree in Physics; research in radiation chemistry; AEC Health Physics Fellow; Applied Health Physics training, Oak Ridge National Laboratory; Vanderbilt University Campus Radiation Safety Officer.~~

B.E., 1958 - 1962: Vanderbilt University, Nashville, Tennessee. Electrical engineering, Cum Laude, NROTC.

PROFESSIONAL AFFILIATIONS:

American Physical Society
American Nuclear Society
Health Physics Society
Sigma Xi

PERSONAL:

Age -- 37; Birth date -- 18 Nov. 1940; Birth place, Washington, D.C.; Wife -- Carol J. Cochran; Two children, ages 5 and 2.

BOOKS

The Liquid Metal Fast Breeder Reactor: An Environmental and Economic Critique. Resources for the Future, Washington, D.C., 1974. Reviewed in Science 176 (April 28, 1974), pp. 391-393.

CONGRESSIONAL TESTIMONY

1. Before the Subcommittee on Environment and Atmosphere, House Committee on Science and Technology, July 18, 1978
2. Before the Subcommittee on Energy and Environment, House Committee on Interior and Insular Affairs, Re: Mr. Conran's Allegations, July 29, 1977
3. Before the Subcommittee on Fossil and Nuclear Energy Research, House Committee on Science and Technology, June 10, 1977
4. Before the Subcommittee on Energy Research and Development, Senate Committee on Energy and Natural Resources, June 8, 1977
5. Before the Subcommittee on Energy and the Environment of the House Committee on Interior and Insular Affairs, April 29, 1977
6. Before the Subcommittee on Energy Research and Development, Senate Committee on Energy and Natural Resources, March 28, 1977
7. Before the Subcommittee on Fossil & Nuclear Energy R&D, House Committee on Science and Technology, March 4, 1977
8. Before the Subcommittee on Energy and the Environment, House Committee on Interior and Insular Affairs -- Adequacy of domestic safeguards, February 29, 1976
9. Before the Joint Committee on Atomic Energy, Subcommittee to Review the National Breeder Reactor Program -- Breeder reactor program economics, July 10, 1975
10. Before the Subcommittee on Energy and the Environment, House Committee on Energy and the Environment, House Committee on Interior and Insular Affairs -- Clinch River Breeder Reactor Demonstration Program, June 2, 1975
11. Before the Joint Economic Committee, Breeder Reactor Hearings -- Breeder reactor program economics, May 8, 1975
12. Before the Subcommittee on Energy and the Environment, House Committee on Interior and Insular Affairs, Hearings on Nuclear Energy -- Breeder reactor program, May 2, 1975

PUBLICATIONS RELATED TO PLUTONIUM TOXICITY AND OCCUPATIONAL WHOLE BODY RADIATION EXPOSURE

Petitions to the NRC to Amend 10 CFR 20.101 Exposure of Individuals to Radiation of Individuals in Restricted Areas, and report, "Radiation Standards for Occupational Exposure" (Sept. 26, 1976); with Arthur R. Tamplin

Comments on the draft report of the NAS-NRC Ad Hoc Committee on Hot Particles, (July, 1976).

Comments by NRDC on NRC's Denial of Petition for Rule Making Re: Petition to Amend Radiation Protection Standards (June 2, 1976); with Arthur R. Tamplin

Petition to EPA to Amend Radiation Protection Guides and Report, "Radiation Protection Guides for Whole Body and Gonad Exposure of Radiation Workers" (October 2, 1975); with Arthur R. Tamplin

NRDC Supplemental Submission to the Environmental Protection Agency Public Hearing on Plutonium and the Transuranium Elements (Feb. 24, 1975); with Arthur R. Tamplin

NRDC Statement at the Environmental Protection Agency Public Hearings on Plutonium and the Transuranium Elements (Dec. 10, 1974); With Arthur R. Tamplin and J. Gustave Speth.

"A Critique of the Biophysical Society's DRAFT Comments on 'Radiation Standards for Hot Particles,'" NRDC (Dec. 1974); with Arthur R. Tamplin.

~~"The Hot Particle Issue: A Critique of WASH-1320 as It Relates to the Hot Particle Hypothesis."~~ (November, 1974); with Arthur R. Tamplin.

Petition to Amend Radiation Protection Standards As They Apply to Hot Particles, submitted to The Environmental Protection Agency and The Atomic Energy Commission by Natural Resources Defense Council (Apr. 10, 1974); with Arthur R. Tamplin

Radiation Standards for Hot Particles: A Report on the Inadequacy of Existing Radiation Protection Standards Related to Internal Exposure of Man to Insoluble Particles of Plutonium and Other Alpha-Emitting Hot Particles (Feb. 14, 1974); with Arthur R. Tamplin.

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PUBLICATIONS RELATING TO NUCLEAR POWER

Radioactive Waste Disposal Criteria, May 31, 1978.

Nuclear Waste, Too Much, Too Soon, with Arthur R. Tamplin,
May 1, 1978

Testimony at the Windscale Inquiry, Whitehaven, Cumbria, Great
Britain, September 12, 1977.

Proliferation Resistant Nuclear Power Technologies: Preferred
Alternatives To The Plutonium Breeder, with Russell E. Train,
Frank von Hippel, Robert H. Williams (members of the LMFBR Review
Steering Committee), (April 6, 1977).

An Analysis of the FY 1977 ERDA Budget to Congress, with J. Gustave
Speth (March 12, 1976).

The Breeder Reactor: A Poor Buy: Costs Outweigh Benefits for the
Liquid Metal Fast Breeder Reactor (LMFBR) as a New Energy Source,
with J. Gustave Speth and Arthur R. Tamplin, (June, 1975).

Bypassing the Breeder: A Report on the Misplaced Federal Energy
Priorities (March, 1975) with J.G. Speth and Arthur R. Tamplin.

Plutonium Recycle: The Fateful Step, with J.G. Speth and Arthur
R. Tamplin, The Bulletin of the Atomic Scientists, Vol. XXX, No. 9,
(Nov. 1974).

The Plutonium Decision: A Report on the Risks of Plutonium Recycle,
with J. Gustave Speth and Arthur R. Tamplin (Sept. 1974).

~~OTHER SELECTED PUBLICATIONS, PAPERS, NOTES, LETTERS~~

Nuclear Weapons Proliferation - The State Threat and the Non-State
Adversary, by Thomas B. Cochran and Arthur R. Tamplin, with the
assistance of J. Gustave Speth, (March 2, 1977).

NRDC Comments on the DRAFT LMFBR Environmental Impact Statement,
with Arthur R. Tamplin and J.G. Speth (April 29, 1974).

"NRDC Comments on WASH-1327, Generic Environmental Impact Statement
on Mixed Oxide Fuels (GESMO)" Draft (Oct. 1974); with J.G. Speth
and Arthur R. Tamplin

Energy vs. The Environment, Part II: The Breeder Reactor.
Appalachia, June 1974, An "Advocates" debate at the Appalachian
Mountain Club Meeting held in Boston, January 20, 1973.

Health Effects Associated with Radiation, Chapter IX-E of Energy
Research Needs, a report to the National Science Foundation pre-
pared by Resources for the Future, Inc., in cooperation with MIT
Environmental Laboratory, October 1971.

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Project AMSIM Final Report, Volume I, Terrain Models, With R. Kelly, R. Marchi, P. Patchick, and B. Skipwith. Prepared for United States Army Combat Developments Command Experimentation Command, Fort Ord, California, August 1971.

Evidence for Production of the N^* (1400) and \bar{N}^* (1400) in the Reaction $\bar{p}p(n) \rightarrow \bar{p}p\pi^{\pm}\pi^{\mp}(n)$ at 2.8 GeV/c, with T.C. Bacon, F.M. Bomse, and others, Phys. Rev. Letters 22, 43 (1969).

Comparison of Isobar Production in $\bar{p}p$ and $\bar{p}n$ Interactions at 2.8 GeV/c., with T.C. Bacon, F.M. Bomse, and others, Phys. Rev. 162, 1320-1322 (1967).

M.S. and Ph.D. DISSERTATIONS

Soft X-Ray Irradiations of Acetylene Methylacetylene, and Ethylacetylene in the Gas Phase with and without Admixtures of Noble Gases.

M.S. Thesis (unpublished), Vanderbilt University (1965).

Antiisobar Production in Antiproton-Deuteron Interactions at 2.8 GeV/c.

Ph.D. Dissertation (unpublished), Vanderbilt University (1967).

Arthur R. Tamplin

Born in Peoria, Illinois - November 4, 1926

B.A. in Biochemistry - University of California, Berkeley,
Calif., 1953, Cum Laude

Ph.D. in Biophysics - University of California, Berkeley,
Calif., 1959

His graduate work included studies of the role of fats in the development of heart disease and the general problem of aging.

1959-1963 - RAND Corp. - Santa Monica, California

As a research associate he worked on various problems of national defense, primarily target search and identification and biological and chemical warfare. Also worked on problems associated with the Space program, in particular the biological effects of cosmic rays and oxygen regeneration.

1963-1975 - Lawrence Livermore Laboratory - Livermore, Calif.

As a Group Leader in the Biomedical Division he has been responsible for developing an adequate state-of-the-art ability to predict the ultimate distribution within the biosphere, particularly the concentration in man, of each and every radionuclide produced in the explosion of a nuclear device. In addition to determining the concentration of the radionuclides, this program is concerned with the effects of their radiation on man.

During the period June 1967 to January 1969 he was a member of the AEC's Division of Biology and Medicine Committee on Space Nuclear Systems Radiological Safety. The primary interest of this committee was the hazard of plutonium.

1974 - Natural Resources Defense Council - Washington, D.C.

While on a year's leave of absence from the Lawrence Laboratory, he worked with NRDC on problems associated with the Fast Breeder Reactor Program and plutonium toxicity.

1975 - Natural Resources Defense Council - Washington, D.C.
Miljocentrum - Uppsala, Sweden

After resigning his position at the Lawrence Laboratory in January 1975, he worked with both NRDC and Miljocentrum on problems related to nuclear power, alternative energy sources and energy conservation.

1976-Present - Natural Resources Defense Council, Washington, D.C.