

October 22, 1982

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

Before Administrative Judges:
Marshall E. Miller, Chairman
Gustave A. Linenberger, Jr.
Dr. Cadet H. Hand, Jr.

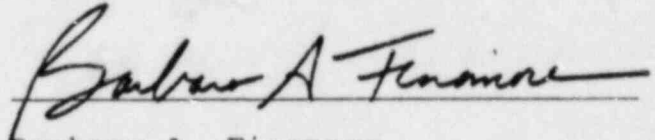
_____)
In the Matter of)
)
)
)
UNITED STATES DEPARTMENT OF ENERGY)
PROJECT MANAGEMENT CORPORATION)
TENNESSEE VALLEY AUTHORITY)
)
)
(Clinch River Breeder Reactor Plant))
)
_____)

Docket No. 50-537

STATEMENTS OF QUALIFICATION
FOR INTERVENORS' EXPERT WITNESSES

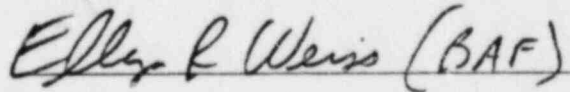
Enclosed are the Statements of Qualification for
Intervenors' expert witnesses Dr. Thomas B. Cochran and
Dr. Carl Johnson. A copy of Dr. Cochran's statement of
qualifications was inadvertently omitted from the Affidavit
of Thomas B. Cochran filed on October 20, 1982.

Respectfully submitted,



Barbara A. Finamore
S. Jacob Scherr

Natural Resources Defense
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(202) 223-8210



Ellyn R. Weiss
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(202) 833-9070

Dated: October 21, 1982

October 1, 1981

RESUME

Thomas B. Cochran, Ph.D.

Business Address:

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Washington, D.C. 20006
(202)223-8210

Home Address:

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

EMPLOYMENT HISTORY

April 1973-present: Natural Resources Defense Council, Inc.

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 U.S. Department of Energy (DOE) on nuclear nonproliferation and nuclear R&D strategy; consultant to the Comptroller General on (a) U.S. 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 the 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, West Germany, to serve as an International Expert in the Review of the Gorleben Nuclear Fuel Cycle Center. Served as a member 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 Consultation on Ecumenical Concerns in Relation to Nuclear Energy. Also served as a consultant to Resources for the Future 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.

1969-1981: 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

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

1965-1967: Vanderbilt University, Nashville, TN. Doctorate. Major: Physics. Minor: Mathematics. Research in high energy (bubble chamber) physics. NASA Fellowship. Guest Research Associate in Physics Department at Brookhaven National Laboratory, Upton, NY, studying synchrotron radiation shielding problems.

1962-1965: Vanderbilt University. MS 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.

1958-1962: Vanderbilt University. BE degree in Electrical Engineering, cum laude. NROTC.

PROFESSIONAL AFFILIATIONS

American Physical Society	Health Physics Society
American Nuclear Society	Sigma Xi

PERSONAL

Age: 40. Birth date: 18 November 1940. Birth place: Wash. DC.
Wife: Carol J. Cochran. Two children.

42 Hillside Drive
Denver, CO 80215
(303) 232-2328
August, 1982

Summary of Bio-Data for Carl Johnson

Dr. Johnson is an associate clinical professor at the University of Colorado School of Medicine and was formerly Director of the Jefferson County Health Department in Colorado. He is past-president of the Colorado Public Health Association, and is active at the national level in the American Public Health Association on the Governing Council, the Health Administration Section Council (Chairman, 1979-80), the Action Board, the Program Development Board (Chairman), the Joint Policy Council (Co-chairman), and the Executive Board (ex-officio). He is board-certified in public health and a fellow of the American College of Epidemiology, the American College of Preventive Medicine, and the American Association for the Advancement of Science. He is a member of the Society for Epidemiologic Research, the International Epidemiological Association, the Epidemiology Section of the American Public Health Association, and the Health Physics Society. He has been active in local and state medical societies.

He was formerly a district health officer in Seattle, and an assistant clinical professor of epidemiology and international health at the University of Washington. He did graduate work in epidemiology and health administration at the University of California at Berkeley (MPH in 1969) and has been elected to Phi Kappa Phi and Delta Omega (Public Health). He has published about 70 scientific articles and abstracts, of which about half are in the area of epidemiology and half concern the study of environmental contamination with radionuclides and their biomedical effects.

In 1965 he did medical research under a National Institute of Health grant at the Ohio State University College of Medicine, receiving an MS degree concurrently with his MD. He has also worked as a pathologist for DuPont's Haskell Laboratory for Toxicology and Industrial Medicine, evaluating the biomedical effects of chemical agents, and taught pathology at Cornell University as an acting associate professor. While a medical student, he worked as a research assistant in neurophysiology, in studies of the distribution of radiocarbon-labeled compounds in tissue.

Currently he is the principal investigator in a project funded by the National Institutes of Health to study health effects in the Denver area downwind from a nuclear installation. Reports of his work have been presented at national and international meetings and at a number of universities, including Harvard, Columbia, and Stanford, and the University of Edinburgh, University College of London, the University of Copenhagen, and the Karolinska Institute in Stockholm.

In Colorado he was chairman of an inter-agency committee which developed the school health standards for the State of Colorado, helped organize the Jefferson County Emergency Medical Services Council and an EMS program, and chaired an Interim Working Committee which developed plans for the alcoholism program. He developed the first strep surveillance and control program in the schools in the Denver area and has been active in the area of health planning and the investigation and resolution of environmental problems. In 1978 he was selected "Man of the Year" by the Denver area Sentinel newspapers.

Dr. Johnson married Kathryn Van Deusen in 1956. They have three children, and live in Wheatridge, Colorado.

CERTIFICATE OF SERVICE

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USNRC

I hereby certify that copies of INTERVENORS' NATURAL RESOURCES DEFENSE COUNCIL, INC. AND THE SIERRA CLUB SUPPLEMENTAL RESPONSE TO APPLICANTS' SECOND SET OF ADMISSIONS AND SEVENTH SET OF INTERROGATORIES DATED OCTOBER 4, 1982 and STATEMENTS OF QUALIFICATION FOR INTERVENORS' EXPERT WITNESSES were served this 22nd day of October, 1982 to:

OCT 22 P4:07
BRANCH

* Marshall E. Miller, Esquire
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U.S. Nuclear Regulatory Commission
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Bethesda, MD 20814

* Mr. Gustave A. Linenberger
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- * Atomic Safety & Licensing Appeal Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
 - * Atomic Safety & Licensing Board Panel
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 - * Docketing & Service Section
Office of the Secretary
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Washington, D.C. 20555
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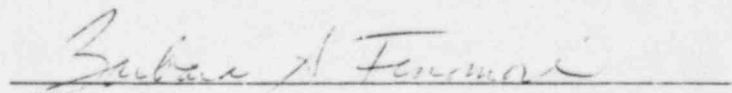
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Mr. Joe H. Walker
401 Roane Street
Harriman, Tennessee 37748

Commissioner James Cotham
Tennessee Department of Economic
and Community Development
Andrew Jackson Building, Suite 1007
Nashville, Tennessee 32219



Barbara A. Finamore

Dated: October 22, 1982