

PROFESSIONAL RESUME OF C. MEL ADAMS, Sc. D., P.E.

I. General Information

Compendium:

Senior Technical Consultant

Metallurgist and Chemical Engineer specializing in refining, chemical processes and manufacturing technology, combustion, explosions and high intensity heat sources (flames, arcs and electron and laser beams); welding, casting and shaping of metals; and fracture, fatigue, and corrosion of engineering materials.

Dr. Adams has extensive testifying and litigation support experience.

II. Professional Summary

Education:

Bachelors of Science (B. S.)

Metallurgy
Massachusetts Institute of Technology
Cambridge, Massachusetts
May 1949

Masters of Science (S. M.)

Metallurgy
Massachusetts Institute of Technology
Cambridge, Massachusetts
May 1950

Doctor of Science (Sc. D.)

Metallurgy
Massachusetts Institute of Technology
Cambridge, Massachusetts
May 1953

Experience:

SC&A, INC. 1997 - present

Associate. Reviewing and critiquing DOE's Total Systems Performance Assessment for the Yucca Mountain spent fuel and high-level waste repository, and independently developing new analytical approaches to portions of the model.

Reynolds Engineering Corporation 1997 - present

Part Owner/ Vice President. Commercial implementation of a method for pressure casting of steel shapes using permanent metal molds,

FTI Corporation 1988 - present

Senior consulting metallurgist and chemical engineer. Major casework includes failure analysis of welds, generator failures, stress analysis. explosions, heat transfer, corrosion, and aircraft component failures.

Independent Consultant 1978 - present

Materials and Welding. Worked nationally and internationally. performing investigations involving primary metals manufacturing including primary and secondary extraction and refining of iron and nonferrous metals (copper, aluminum, lead and gold), coal to liquid fuel processes, beer production, vacuum processing of metals, structural, stress and failure analysis, underground tanks, casting and weldments, welded bridge construction, industrial explosions, and weld quality in nuclear power plants in the U. S. and South America.

Center For Joining Metals. Carnegie-Mellon University 1977 - 1978

Visiting Professor. Taught courses in Thermodynamics. Mechanics. Fluid Mechanics and Materials Engineering.

University Of Cincinnati 1974- 1977

Dean and Professor of Engineering. Taught courses in Chemical, Nuclear and Materials Engineering: coordinator of energy research and development: currently Adjunct Professor of Chemical and Nuclear Engineering.

University Of Wisconsin 1968 - 1974

Professor of Materials Engineering and Acting Dean of Engineering. Directed NASA sponsored research on Skylab.

Kintherm, Inc. 1968 - present

Part Owner / Consultant. Involved in new electron beam welding technology.

Applied Energy Company 1963 - present

Part Owner / Consultant. Involved in new electron beam welding technology.

Massachusetts Institute of Technology 1960- 1968

Director of Ice Research Laboratory. Research was sponsored by the U. S. Department of the Interior and U. S. Air Force and Navy. Laboratory and field research was conducted on the engineering properties of snow and ice; field research conducted in Point Barrow, Alaska, and Thule, Greenland.

Massachusetts Institute of Technology 1952- 1968

Professor of Metallurgy. Taught courses in Thermodynamics. Fluid Mechanics, Mechanics. Materials Engineering. Welding and Foundry Engineering.

Massachusetts Institute of Technology 1955- 1968

Director Welding Research Laboratory. Research as sponsored by U. S. Navy Bureau of Weapons, U. S. Army Ordnance and U. S. Steel Corporation on welding processes and properties of weldments.

Steel Founders' Society 1949

Wrote portions of the 1950 edition of the Steel Casting Handbook, which was an industry standard at the time of its publication.

Ingersoll Rand Corporation 1948

Foundry Engineer

FALK Corporation 1947

Foundry Engineer

U. S. Navy Construction Battalions (Seabees) 1943 - 1946

Navy Welder

III. **Professional Registration**

Registered Professional Engineer, Massachusetts

IV. **Fellowships, Honors And Awards**

American Vacuum Society "Best Research Paper Award, 1970

Sigma Xi - Honorary Scientific Society

Theta Beta Pi - Honorary Engineering Society

V. **Professional Societies**

American Chemical Society

American Foundrymen's Society

American Institute of Aeronautics and Astronautics

American Institute of Mining, Metallurgical and Petroleum Engineers

American Polar Society

American Society for Metals

American Vacuum Society

American Welding Society

Arctic Institute of North America

Combustion Institute

Glaciological Society (London)

Institute of Metals (London)

VI. **Publications**

Have authored 115 technical papers, details are available upon request.

VII. **Patents**

Ten Patents, listing is available upon request