

Chauncey Starr Biography

BIRTH DATE AND PLACE: April 14, 1912 Newark, New Jersey **DATE OF DEATH:** April 17, 2007

EDUCATION

B.S. - Electrical Engineering (1932), Rensselaer Polytechnic Institute (RPI)
Ph.D. - Physics (1935), Rensselaer Polytechnic Institute
Research Fellow (1932-1935), Rensselaer Polytechnic Institute
Charles A. Coffin Fellow (1935-1937), Harvard University

AWARDS

- 1964 **Honorary Doctorate of Engineering**, Rensselaer Polytechnic Institute
- 1973 **Royal Swedish Academy of Engineering Sciences** (Foreign Member)
- 1974 **Atomic Energy Commission Award:** for Meritorious Contributions to the national atomic energy program
- 1975 **Pender Award:** for the Outstanding Research Director of 1975, The University of Pennsylvania
- 1978 **French Legion of Honor:** Nominated to rank of officer in recognition of efforts in promoting and furthering understanding between France and the United States in the field of scientific and industrial achievements
- 1979 **Walter H. Zinn Award:** by American Nuclear Society for outstanding contributions to the advancement of nuclear power
- 1980 **Founder's Award:** by the Seventh Energy Technology Conference in recognition of scientific planning and management talents leading to successful establishment of innovative concept of industry-wide energy technology R&D, the Electric Power Research Institute (EPRI)
- 1980 **Honorary Doctorate of Engineering:** by Swiss Federal Institute of Technology
- 1983 **Henry D. Smyth Award:** by the Atomic Industrial Forum, Inc. for contribution to nuclear energy
- 1984 **Distinguished Contribution Award:** by the Society for Risk Analysis for contributions to risk analysis
- 1986 **Honorary Doctorate of Science:** Tulane University
- 1988 **"Tommy" Thompson Award:** by the American Nuclear Society for contributions to nuclear reactor safety
- 1988 **Rockwell Medal:** by the International Technology Institute for excellence in technology and contributions to the betterment of mankind
- 1990 **United States Energy Award:** by the United States Energy Association for long-term contributions to energy and to international understanding
- 1990 **The National Medal of Technology:** by then President George H. Bush for contribution to engineering and the electric industry
- 2000 **George E. Pake Prize:** by the American Physical Society for visionary leadership and physics contributing to the establishment of a worldwide nuclear power industry for peaceful purposes.

- 2006 **George C. Laurence Pioneering Award:** by the American Nuclear Society for outstanding pioneering contributions to nuclear reactor safety
- 2006 **Arthur M. Bueche Award:** by the National Academy of Engineering of the National Academies, for leadership in the development of nuclear power, contributions to the creation of the field of risk analysis and leadership in electric power R&D as the founding president of EPRI

PROFESSIONAL EMPLOYMENT HISTORY

- 1987-2007 President Emeritus and Consultant, Electric Power Research Institute Palo Alto, California
- 1978-1987 Vice Chairman, Electric Power Research Institute
- 1973-1978 Founder and President, Electric Power Research Institute
- 1966-1973 Dean, School of Engineering and Applied Science, University of California at Los Angeles
- 1946-1966 North American Rockwell, Incorporated - Vice President,
Atomics International Division - Vice President
- 1942-1946 Manhattan District, including Radiation Laboratory, University of California at Berkeley, California;
Tennessee Eastman Corporation and Clinton Laboratories at Oak Ridge, Tennessee
- 1941-1942 Bureau of Ships, U.S. Department of the Navy research in electronics devices for study of transients in ship structures
- 1938-1941 Massachusetts Institute of Technology, Research Associate in properties of materials at low temperatures and the production of liquid hydrogen
- 1935-1937 Harvard University; Research Fellow engaged in physics of metals at high pressures, with P.W. Bridgman

PROFESSIONAL ACTIVITIES

Current

- National Academy of Engineering (past Vice President)
- Royal Swedish Academy of Engineering Sciences (Foreign Member)
- American Nuclear Society (Fellow; Founder; past Director and President)
- American Association for Advancement of Science (former Director)
- American Physical Society (Fellow)
- American Society of Engineering Education
- American Institute of Aeronautics and Astronautics
- Society of Sigma Xi
- Tau Beta Pi
- Office of Technology Assessment, Energy Advisory Committee
- School of Engineering and Applied Sciences, UCLA (Adjunct Professor)
- School of Engineering, Stanford University (Consulting Professor)
- National Council on Radiation Protection & Measurements (Associate Member)
- Society for Risk Analysis, Journal of Risk Analysis Editorial Board
- University of California at Los Angeles, Board of Advisors

Past

- U.S. Government, President's Task Force of Science Policy
- U.S. Government, President's Energy Advisory Committee
- Office of Science and Technology, Science and Technology Panel
- Office of Science and Technology, Sub-Panel on Research and Education
- U.S. Delegation to U.S. / U.S.S.R. Joint Committee on Cooperation on Peaceful Uses of Atomic Energy
- U.S. National Energy Conference for World Energy (Delegate)
- U.S. / Israel Bi-National Advisory Council for Industrial Research and Development, Energy Subcommittee
- U.S. Air Force Nuclear Panel, Scientific Advisory Board
- U.S. Congress, Board of Advisors to ad hoc Committee on the Environment
- Republic of China, Board of Advisors for Science and Technology
- The Rockefeller University, Rockefeller University Council
- National Academy of Engineering, Committee on Public Engineering Policy (former Chairman)
- National Academy of Sciences and National Academy of Engineering, Joint Environmental Studies Board
- National Academy of Engineering, Commission on Engineering Education
- National Academy of Engineering, Committee on Career-Long Education for Engineers
- Institute for Defense Analysis (Director)
- International Electric Research Exchange (Principal Representative)
- Atomic Industrial Forum (Director)
- NASA, Research and Technology Advisory Council
- NASA, Committee on Space Power and Electric Propulsion (former Chairman)
- Eta Kappa Nu (Eminent Member)
- Scientific Research Society, Board of Governors (former Chairman)
- Engineers Joint Council, Board of Directors

PATENTS

Title	Date Issued	Patent Number
Calutron structure	7/26/55	2,714,166
Apparatus for producing ions of vaporizable materials	11/19/57	2,813,979
Process of impregnating graphite with a uranium compound	7/26/60	2,946,699
Nuclear reactor	1/8/63	3,072,553

IMPACT OF ACCOMPLISHMENTS — Selected Significant Accomplishments

Engineering

- Early work on properties of materials, and techniques for measurements at liquid helium temperatures
- Contribution to the basic feasibility and performance of high current ion sources, and their use in large-scale isotope separation
- Development of sodium and polycyclic organics as practical coolants for reactors, which included building prototypes, and applications for satellite power units
- Pioneered the development and uses of Risk Analysis tools applied to large-scale engineering decisions

Management

- Founded Atomics International (Division of North American Rockwell) and two European subsidiaries
- Built up faculty and scope of the engineering program at the University of California at Los Angeles while Dean of Engineering

- Founded and managed the first five years of the Electric Power Research Institute, now the principal vehicle for electric utility industry R&D
- Distinguished service on at least eighteen boards and advisory committees, including service for DOD, DOE, OTA, AEC, NASA, ENC, Republic of China, NCRP, PSAC, OSTP, NAE, NAS and four universities
- Contributed fundamental insights to energy policy decisions involving the integration of resources, technology, and environmental options and constraints
- Contributed to the foundations of risk assessment as a basis for optimal risk management. Regarded as international “guru” in risk analysis

Dr. Starr has been indefatigable in publishing and speaking on a series of related topics and themes. EPRI's files list 280 titles and texts in just the last fifteen years, 66 in the last five years, and a total of over 400 documented papers.

The range of topics covered follow (ranked by frequency):

- Energy Supply, Demand, and Options
- Energy-Related R&D Strategies and Results
- Environmental Effects and Controls
- National Science Policies Related to Energy
- Risk Assessment and Risk Management
- Engineering Education Policies
- Fuels and Waste Disposal
- Proliferation of Nuclear Weapons
- Conservation and Effective Utilization of Resources

For the bibliography of Chauncey Starr's papers and presentations please see separate handout.

INTERVIEWS WITH CHAUNCEY

O'Neill, Russel. "Interview with Chauncey Starr, Ph.D.," - - UCLA, The Regents of the University of California, 2005.

Oehlberg, Lora. "Interview with Chauncey Starr," - - Ambidextrous Magazine, Inc., 2006.

ADDITIONAL CONTRIBUTIONS

2005-2007 Board of Directors, George C. Marshall Institute

1958-1959 President, the American Nuclear Society

BOOKS

- Starr, C. and Robert Dickinson, Sodium Graphite Reactors; Reading, Mass., Addison-Wesley. 1958.
- Starr, C., Current Issues in Energy: A Selection of Papers. Oxford; News York: Pergamon Press, 1979.
- Starr, C., Science, Technology and the Human Prospect: Proceedings of the Edison Electric Symposium New York: Pergamon Press, 1980.