

Curriculum Vitae
Steven J. Winston

Independent Senior Technical Advisor 1999-Present

Clientele: Lockheed Martin, Raytheon, General Atomics, Idaho National Laboratory, US Department of Energy, Texas A&M University, University of Chicago, Long Island University, University of Alberta, Valvtechnologies, and Kellogg Brown and Root.

Chemical engineer/nuclear engineer with a very diverse hands-on experience base including large scale design/construction/startup of power plants, refineries, chemical plants, nuclear processes; development of advanced nuclear power systems; development of novel accelerator-based methods for medical isotope production; and managing major first-of-a-kind research and engineering projects.

Advocate/agent provocateur in exploring the intersection of molecular sciences and advanced materials. Host and organizer of Transcending Incrementalism, a series of internationally sponsored academic symposia on diverse subjects such as molecular scale manufacturing, computational modeling, artificial intelligence, extending additive and subtractive methods into nano- and atomic-scale domains, application of femto-second, high-energy pulsed lasers for ultra-precision cutting and bonding metals without a heat affected zone, use of laser wake-fields for particle acceleration, accelerator driven subcritical assemblies, and use of inorganic (boron nitride) nano structures as light-weight radiation shielding/reflectors to protect astronauts and electronics.

Prior Experience:

Research, engineering, and construction, serving in a variety of senior management and advisory roles for major corporations, academic institutions, and federal agencies:

- **Vice President, Lockheed Martin 1994-1999**
 - Technical and Management Integration of Idaho National Laboratory (\$5 B)
- **Expert testimony before US Congress Oversight Committees**
 - Barriers to Alternative Energy Deployment 1978
 - Pit 9 Contract Dispute 1998
- **Expert testimony in US Federal District Courts**
 - Witness on behalf of United States v. Plaintiff on Pit 9 2003
 - Witness in US Ecology v. State of California 1985
- **Vice President, Parsons Engineering 1992-1994,**
 - Remediation of Rocky Mountain Arsenal Chemical Weapons Depot
 - Bid Manager Pantex Nuclear Weapons Plant, Hanford Site
- **Vice President and General Manager, AWC-Lockheed (wholly owned Lockheed subsidiary) 1990-1992**
 - Uranium remediation of China Lake Naval Gunnery Range
 - Plutonium remediation of Johnston Atoll from nuclear weapons testing

- **Manager Power Plant Design Engineering, Westinghouse Electric Corporation 1984-1990**
 - Balance of Plant/Nuclear Island interface KORI-2 Nuclear Plant, Angra Nuclear Plant/Brazil, Bataan Nuclear Plant/Philippines
 - Core dismantlement systems for TMI-2 response
 - WtE Power Plants in York PA, Chester PA, Panama City FL
 - Gas-turbine/Co-generation Plants
 - California/Arizona LLW Compact winning bid
 - Savannah River Complex winning bid
- **Regional Director, Energy Incorporated 1975-1984**
 - Design of plutonium oxalate conversion process for Rocky Flats Plant
 - Design of nuclear fuel reprocessing systems for Tokyo Electric Power Company
 - Probabilistic Risk Assessment of Yankee Rowe Nuclear Power
 - Re-design of Kewaunee Nuclear Plant radioactive liquid waste processing system
 - Design and construction of multi-fuel fluidized bed cogeneration systems
 - Design and testing RWR-1 fluidized bed radioactive waste incineration system
- **Research Engineer, Allied Chemical 1973-1975**
 - Design and patent of system for Abatement of HCl from calcination of high-level radioactive waste
 - Principal Investigator on options for federal compliance on transuranic waste management

Direct oversight of major technical projects:

- nuclear sciences, nuclear medicine
 - transuranic waste management
 - instigated and currently providing oversight direction on sodium fast test reactor
 - design and assembly of fully integrated radiopharmaceutical production system
- environmental stewardship,
 - design, construction, start-up and operation of multi-million-dollar groundwater treatment systems in Redlands CA, Sarasota FL, and Baltimore MD, Burbank CA, Glendale CA
 - remediation of silts in Elliott Bay Seattle WA
 - remediation of cyanide waste and red mud from former aluminum smelters at The Dalles OR, Goldendale WA, St. Croix USVI
 - design and patent of SurePak for Arizona/California nuclear waste management complex
- large scale-complex design, construction, startup, and operations (>\$8 B Capex)
 - 10,000 barrel per day topping refinery in Jennings LA
 - 100 gallon per minute anhydrous ethanol production systems
 - 3000 ton per day waste to energy plants in York PA, Chester PA, Panama City FL,
 - More than 20 diverse industrial co-generation plants in Pacific Northwest
 - System for recovery, treating, and encapsulating transuranic waste buried in Pit 9
- R&D in advanced energy systems, waste treatment, materials science
 - Plasma-arc destruction of chlorinated hydrocarbons

- Fluidized bed coal-gasification
 - Radioactive waste processing and encapsulation
- principal author of 2 graduate level textbook/handbooks on industrial ethanol production