

## **Timothy J. Carlson** **Long Resume**

Mr. Carlson is a registered professional engineer in the State of Colorado and has over twenty-five years experience in the environmental engineering arena working in the private sector with various states, EPA regions, and Federal agencies (Energy, Defense, Corps of Engineers, and the National Park Service). Projects have included the planning, design, construction management, and operation assistance for a wide range of water, wastewater, and waste cleanup projects under the regulatory authority of the Clean Water Act and CERCLA. These have included numerous projects in Colorado, Utah, Idaho, and Wyoming. He is principally known for his abilities to gain acceptance by the public and regulatory agencies of difficult and controversial projects from planning and design through construction. These projects often times involved innovative approaches that required the acceptance by a public with diverse priorities and agendas. Several of these projects, received not only local acclaim, but also regional and national recognition for environmental engineering excellence.

Over the past twelve years, Mr. Carlson has worked on numerous U.S. Department of Energy (DOE) projects as a Principal Scientist for RUST Geotech Inc. at the Grand Junctions Projects Office, and as President of Sensible Environmental Solutions a small non-profit research company. Notable work on DOE projects have included:

- The first three CERCLA actions by DOE to receive Records of Decisions.
- Facilitated a cooperative working arrangement between the DOE Idaho National Engineering and Environmental Laboratory (INEEL), the U.S. Environmental Protection Agency, and the State of Idaho to develop a mutually agreed upon federal facilities agreement, action plan, and implementing guidance. The identification and acceptance of common-sense approaches was achieved in the face of historic animosities between the parties; these approaches remain as the foundation of a successful working relationship today for the site's \$19 billion cleanup effort. This was one of many activities provided to DOE-ID to support the jump start of INEEL's environmental restoration program.
- Compiled the first comprehensive listing of contaminated sites throughout the DOE complex; listed the needs and deficiencies for cleanup of each site and ranked the deficiencies to establish technology development priorities for environmental restoration.
- Organized, facilitated, and documented a four day forum for the INEEL buried waste program, EPA, and the State of Idaho which brought in 75 US and European corporations having direct relevant experience in the characterization, retrieval, handling, and treatment (in-situ and ex-situ) of buried mixed waste.
- Compiled a vetted list of commercially-available products and services for use by DOE project managers.

- Conceived and implemented a partnering between universities participating in an environmental design contest and DOE-site problem holders to take innovative technologies to a more field-implementable level — the Fast-track Advancement of Significant Technologies (FAST) program.
- Conducted an analysis of the DOE technology development program for environmental restoration. The findings identified significant shortcomings in the program's ability to meet the needs of cleaning up DOE's contaminated sites. Although this critical review was not viewed favorably by DOE, it was independent verified by the Congressional Office of Science and Technology and the National Academy of Science. Based on these three independent reports, DOE's environmental technology development program was materially revamped in 1998.
- Organized and conducted peer reviews on (1) existing technologies for DOE's radioactive and mixed-waste problems; (2) molten salt oxidation as an alternative to incineration; (3) a proprietary Russian technology, cobalt dicarbollide, to separate cesium and strontium from high-level wastes; and (4) engineered barriers to contain transuranic wastes at the Waste Isolation Pilot Plant.

#### SKILLS

- Systematic development of informed consent for a course of action on difficult and/or controversial projects.
- Innovative and creative approaches to environmental problems with solutions that provide protection without high costs or significant social impacts.
- Coaching of public officials in the development of informed consent on local projects.
- Facilitation of peer reviews.
- Critical analysis of programs and policies.
- Promotion of science in education through the development of hands-on learning programs.

#### EDUCATION

ARIZONA STATE UNIVERSITY  
*MSE, Environmental Engineering, 1974*

ARIZONA STATE UNIVERSITY  
*BS, Civil Engineering, 1972*

#### EXPERIENCE

SENSIBLE ENVIRONMENTAL SOLUTIONS  
*President, 8/1996 to present*

RUST GEOTECH, INC.  
*Principal Scientist, 5/1988 to 8/1996*

VERSAR, INC.  
*Senior Engineer, 6/1974 to 5/1988*