

GEM is a minority-owned, small disadvantaged business offering a full range of engineering and technical services. Our engineering capabilities include all major disciplines: mechanical, civil, structural, electrical, chemical, and nuclear engineering. GEM has provided support to federal and municipal government agencies, various universities, and private industry enterprises. Look to GEM to meet your needs for engineering and technical services.

CORE CAPABILITIES

GEM's engineering capabilities range from providing broad engineering and design services to very specialized engineering support. Major services include:

- Engineering Analyses and Design
- Maintenance Engineering and Planning
- Quality Assurance
- Safety Analyses
- Readiness Assessments
- Nuclear Materials & Waste Management
- Regulatory & Security Support

GEM PERSONNEL EXPERIENCE

The experience of the engineers in our Engineering and Technical Services Division typically averages more than 25 years. GEM currently employs approximately 35 engineers, and 7 are licensed Professional Engineers.



**GEM Manager of Projects
Warren Thomas**

MAJOR PROJECTS

Cold Source Design Support

GEM provided multidiscipline technical support to Oak Ridge National Laboratory (ORNL) for their High Flux Isotope Reactor. The project included thermodynamic and hydrodynamic analyses for cryogenic fluids; structural, civil, electrical, and mechanical design; preparation of component specifications; and QA inspections during fabrication.

Building Characterization for Demolition

GEM supported ORNL's demolition of original laboratory buildings. The first step was characterization of building materials, structures, and hazardous contaminants.



**GEM Structural Engineer
and ES&H Officer Assessing
Hazardous Materials & Structures**

Retrieval & Shipment of Nuclear Materials

Under contract to the U.S. Department of Energy (DOE), GEM retrieved nuclear fuel materials from several universities. GEM staff performed safety analyses, criticality analyses, design of transport containers, and project management of fuel removal and shipment.



**Nuclear Fuel Packaging
for Transport**

Maintenance Engineering & Planning Support

GEM provided technical support to the Y-12 National Security Complex in identifying critical equipment to be maintained, preventative maintenance actions, maintenance planning, post maintenance testing, and spare parts requirements.



**GEM President & CEO
Michael Evans**

Please contact GEM for further information about our full range of engineering & technical services.

GEM is a Minority-Owned Small Disadvantaged Business

408 North Cedar Bluff Road, Suite 451, Knoxville, TN 37923

Tel: (865) 560-9434 • Fax: (865) 560-9404 • Website: www.gemserve.com