

# Power Generation Support

The power generation industry continues to evolve as environmental regulations and the economics of supply and demand drive conversion to cleaner, more efficient power generation facilities. GAI Consultants works closely with clients in electric, gas, nuclear, and wind energy generation and distribution to provide professional consulting services in a broad range of environmental and engineering disciplines. With more than 50 years of specialized experience supporting power generation, our staff specialists know how to meet the demands of the industry.

**Proven solutions for production and distribution systems means efficiency, reduced costs, and safer operations.**

GAI covers the entire spectrum of environmental engineering from comprehensive planning and site assessment to facility design and permitting. We are uniquely qualified to solve regulatory compliance issues and to develop strategies for maintaining healthy environments for employees and surrounding communities.

Our hazardous and industrial waste management specialists design disposal sites, acquire permits

and develop beneficial re-use concepts that meet industry and agency standards. GAI's reputation in water and wastewater engineering is built upon years of experience dealing with groundwater, water resources, and water treatment issues. We also have a team that decommissions facilities, working closely with clients to obtain regulatory approval for closure. Whether advancing new projects, improving facilities, or retiring operations, GAI brings a wealth of field-tested knowledge and experience to each project.

GAI's geotechnical and structural engineering professionals have years of academic training, research, and field experience. Our depth of experience and knowledge in geotechnical engineering, geology, and structural mechanics represents a viable and valuable solution for unforeseen foundation issues, load and stress testing, vibration and seismic analyses, and structural analysis and design.

The mechanical engineers at GAI bring career-long familiarity with industrial processes to power generation challenges. From gas compressors to nuclear power plants, our solutions for production and distribution systems improve efficiency and reduce costs while increasing safety. Our services



gai consultants®

## Service Profile



include design, layout, and safety reviews for machines, instruments, processes, and water and wastewater treatment systems. We deliver practical design and specification packages for PBE piping systems and equipment that adhere to ASME codes/standards and API standards for pipe, vessel, and tank design. With the support of GAI's process and mechanical engineering professionals, power generation facilities get the design, maintenance, review, and safety support they need to operate efficiently.

GAI brings electrical, mechanical, structural, geotechnical, and environmental engineering applications together to deliver comprehensive solutions to the power generation industry.

### Power Generation Support Services

- Coal Combustion Residuals (CCR) Management
- Environmental and Civil Engineering
- Environmental Planning and Studies
- Environmental Compliance Support
- Air Quality and Noise Analyses
- Permitting and Geographic Information Systems (GIS)
- Decommissioning and Plant Closures
- Cultural Resources Management
- Geotechnical and Foundation Engineering
- Structural Engineering
- Mechanical Engineering
- Process Engineering
- Piping, Pipe Support, and Equipment Design
- Electrical Engineering and Control Systems Design
- Aquatic and Water Resources
- Water Quality Support
- Waste and Wastewater Management
- Transportation Engineering
- Surveying and GPS
- Construction Management
- Construction Inspection and Testing
- Project Scheduling
- NQA-1 Certified Engineering

### GAI Services Summary

- Airport Planning and Design
- Bridge and Structure Inspection and Design
- Coal Combustion Residuals Management
- Construction Inspection and Management
- Cultural Resources Management
- Economic Analyses and Strategies
- Electric Transmission Design and Siting
- Environmental Engineering
- Environmental Studies, Species Studies, Permitting
- Gas Pipeline Surveying and Mapping
- Geographic Information Systems (GIS)
- Geotechnical Engineering and Geology
- Impoundment and Landfill Permitting and Design
- Land Development Engineering
- Landscape Architecture and Design
- Master Planning and Urban Design
- Mechanical, Electrical, Structural Engineering
- Natural Gas FERC Certification and Permitting
- Nuclear Energy Engineering Support
- Right of Way and Appraisal Support
- Land Surveying and Mapping
- Transportation Planning and Design
- Utility Management Consulting
- Water, Stormwater, Wastewater Management

The scope of professional services that are provided by or offered out of each GAI office including, but not limited to, engineering and surveying services, is governed by the professional and business licensing requirements of each individual State or jurisdiction in which the GAI office is located and whether GAI has the requisite professional and business licenses for that State or jurisdiction. Nothing on GAI's Web Site or marketing materials is intended to be interpreted or construed as offering to perform professional licensed services where prohibited unless the licensing requirements have been met. Engineering services are not offered out of GAI's Northern Kentucky (Florence) office location. Surveying services are not offered out of GAI's Illinois location or by our New York subsidiary.

