



MATT THOMAS

Principal Mechanical Engineer
Stanley Consultants
23 Total Years of Experience | 0 Years with Firm

Education

Bachelor of Science,
Mechanical Engineering,
Carnegie Mellon University

Professional Registrations

Mechanical Engineering:
IL, #062061767
CA, CO, DE, GA, IN, IA, KS,
MD, MI, MO, MT, NE, NV,
NY, OK, OR, PA, TX, VA

Matt is experienced with conceptual and detailed design of mechanical systems for thermal power plants of various types for utility, developer and institutional clients. He is proficient in complex calculations and analysis and the design of high-energy systems. His expertise includes the development of drawings, system descriptions, equipment specifications, and oversight of equipment procurement. He has had lead responsibilities for critical steam, water and gas systems. Matt is skilled in the design of natural gas systems for municipal utilities, and HVAC and plumbing systems for industrial and mixed-used buildings.

PROJECT EXPERIENCE

EPC Services, Orient Energy Center; McGough Construction; Creston, IA

Matt is the Lead Mechanical Engineer providing design services for the MEC Orient Energy Center. The project includes specifications for two Siemens frame combustion turbine generators and related facilities, such as GSUs, exhaust stacks, fuel storage, an administration and control building, warehouse, water treatment building, evaporation pond, stormwater pond, septic system, fuel gas yard and switchyard.

Pipeline Crossing Evaluation; Lower Colorado River Authority; TX

Matt was the Lead Mechanical Engineer evaluating the impact of a proposed roadway construction project on an existing high-pressure natural gas pipeline. Reviewed pipeline and roadway drawings, investigated Code requirements, and oversaw stress analysis. Contributed to a report that detailed the evaluation results, items of concern, and recommendations to mitigate the risks from those items.

Preliminary Design Services, Various Projects; Multiple Clients; USA

Matt is the Lead Mechanical Engineer developing the preliminary design of mechanical systems for power plants of various types, including water, steam, natural gas, and fuel oil. Produced sizing calculations, system schematic drawings, and preliminary piping routing drawings.

Various Projects; Nicor Gas; IL

Matt was the Project Manager responsible for many concurrent (30-40) design projects for a large natural gas utility client. Project types included replacement of aging pipelines, relocation of pipelines resulting from roadway modifications, and distribution network expansions. Responsibilities included design oversight, writing proposals for new projects and writing bid specifications for large projects. Reviewed and stamped final design drawings for construction, oversaw equipment and material specification development, and performed stress analysis for connections on high-pressure pipelines. Internal responsibilities included tracking, forecasting, and reporting of department financial information.

Refinery Power Plant Expansion; Confidential Client; NJ

Matt was the Mechanical Engineer responsible for designing new fuel gas supply systems for a captive power plant in a refinery. Two new gas utilities were connected to the plant, which allowed the owner to switch between different suppliers as needed based on pricing and capacity. Produced system schematic drawings and piping plan drawings, calculated pipe sizes and pressure losses, determined system behavior during transient scenarios such as switchover between gas suppliers, assisted with specification preparation, and incorporated gas utility information into the overall design.

Utility Compressor Station; Confidential Client; MI

Matt developed a proposal with an engineering and management team for services to design a new natural gas compressor station for a utility's transmission pipeline system. This proposal was successful in obtaining a multimillion-dollar contract.

Mary Combined Cycle; Confidential Client; Turkmenistan

Matt was the Lead Mechanical Engineer responsible for initial design of mechanical systems for a multi-unit combined cycle plant. Tasks included interfacing with the client, coordinating and reviewing engineering deliverables, and making project design decisions.

Balkhash Thermal Power Plant; Samsung C&T; Kazakhstan

Matt was the Mechanical Engineer responsible for the design of numerous critical systems for a 1,400 MW thermal plant. Tasks included production and review of design criteria, engineering calculations, drawings, specifications and system descriptions.

PACO Thermal Power Plant; SK E&C; Panama

Matt was the Mechanical Engineer responsible for the management of equipment vendors through procurement and manufacturing. Tasks included preparing contract specifications, leading design meetings, reviewing vendor deliverables for accuracy and adherence to contract documents, and incorporating vendor data into the final design.

Circulating Water System Renovation; Confidential Client; PA

Matt was the Mechanical Engineer responsible for the analysis of a circulating water system conversion from once-through to closed-cycle. Created an award-winning fluid-dynamics model and determined the system behavior during multiple transient scenarios to facilitate reliable operation.

Cycling Improvement Study; NV Energy; Las Vegas, NV

Matt was the Lead Mechanical Engineer responsible for investigating upgrades to improve cycling capability and reduce startup times for multiple combined cycle plants. Performed site walkdowns and analyzed existing systems. Developed preliminary designs for system modifications, cost estimates, construction schedules, and authored reports.

Ogden Avenue Expansion; BNSF Railroad; Cicero, IL

Matt was the Lead Mechanical Engineer responsible for the design of multiple office and workshop buildings for a railyard. Created system and equipment calculations, construction drawings, equipment specifications and schedules, and control sequences. Coordinated building service connections with yard and municipal utility systems. Managed construction issues and performed post-construction inspections for final approval.