Joseph Irace
Senior Designer

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EDUCATION

B.S. Mechanical Engineering, 2002 University of Maine, Orono

PROJECT EXPERIENCE

xNG Lake Forest CNG Compressor Station - *Lake Forest, PA*

Lead mechanical designer for compressed natural gas station. Responsible for P&IDs, Site GA, and AutoPlant 3D piping models and all mechanical drawings. NavisWorks was used in online meetings with contractor, owner and the rest of the design team to "walk" areas of the site and review potential interferences and pinch points.

Bates College Renewable Fuel Oil Conversion - *Lewiston, ME*

Lead mechanical designer for a fuel conversion and burner change-out. Designed four separate skids for fuel unloading, fuel heating, and fuel forwarding. Isometric drawings were generated for the skids and orthographic drawings for all interconnections. The skids had to be designed to work in very tight quarters. Also, provided construction assistance during final phases.

Shawville Generating Station Natural Gas Conversion - *Shawville, PA*

Lead mechanical designer for re-powering power plant project converting from coal to natural gas firing. Designed 24 inch natural gas pipeline entering the plant. Design included both above and underground piping. Coordinated with field surveyors to route yard piping due to lack of existing drawings.

Mill Creek Plant Wet Flue Gas Desulfurization – *Louisville, KY*

Mechanical designer for major air quality control system. Installed three WFGD systems for the plants four coal fired units. Fiberglass piping was used in several instances and specialty supports were designed. Construction was completed in June 2016 and met or exceeded all performance testing guarantees. The project also won Power Engineering Coal Fired Project of the Year 2016.

Big Cajun II Natural Gas Conversion– *New Roads, LA*

Mechanical designer for plant's 590 MW Unit 2 conversion from coal to natural gas. Designed routing and supports for over 2,000 ft of 16" natural gas header through the existing plant. Designed unique siphon system to remove any condensation in underground low points.

Landfill Gas to Energy Projects, DCO Energy - *Providence, RI and Olinda, CA*

Mechanical designer for two 30 MW landfill gas to energy projects. Designed steam, condensate, feedwater, landfill gas, and cooling water piping for both plant locations. Used Bentley AutoPlant for all piping design and deliverables included P&IDs, site GA, orthographic drawings, and pipe support details.

Selective Catalytic Reduction Piping – *Various Plants*

Mechanical designer for several SCR installations. Designed piping and supports for ammonia, urea, ash, steam, condensate, potable water, and instrument air systems. Construction support was needed on several sites.

Irving Tissue – *Fort Edward, NY*

Mechanical designer for $150 million expansion at the existing Fort Edward paper mill. Project included the demolition of nine old buildings and construction of three new buildings (68,000 sq ft) to house new tissue machine and pulp and paper roll storage.

Georgia-Pacific – *Cedar Springs, GA*

Designed new steam and condensate system, including new thermocompressors and safety relief system for existing paper machine. Designed new black liquor piping system and pipe supports. Provided construction assistance during final stages of projects.

Catalyst Paper (formerly NewPage Inc) – *Rumford ,ME*

Relocated black liquor tank and air compressor. Designed new piping and supports to tie-in relocated equipment back to existing plant.

Verso Paper – *Jay ,ME*

Designed piping and supports for warm water modifications. Completed project in short window to take advantage of limited mill shut-down.