

Mesa's hydroelectric project delivery capabilities and experience are enhanced by numerous former utility employees and retirees. This experience to produce quality designs correctly has resulted in huge growth of projects and clients.

COMPANY DATA

History: Founded in 1988 Utility Work Since 1990 **Staff:** 380 Employees 53 Professional Engineers

Utility Industry Sales: 2007 - \$29 MM (Design Only) 2006 - \$29 MM (Design Only)

Clients:

- APGI
- Duke Energy
- E-ON U.S.
- Progress Energy
- Tennessee Valley Authority
- Voith Siemens

COMPANY EXPERIENCE

Civil/Structural:

- Siting
- Soils/Drainage
- Boiler Analysis
- Duct Design/Analysis
- Foundations: Cooling Towers, Fans, SCR
- Platforms
- Dam Safety Instrumentation

Mechanical:

- Piping Systems:
 - B31.1 – Steam, Compressed Air
 - B31.3 – NH₃, Propane, Acids/Caustics
 - B31.8 – Natural Gas, Propane
 - B31.9 – Cooling Water
 - HVAC Systems:
 - Control Room Upgrades
 - Plant Cooling/Ventilation
 - Conveying Systems:
 - Pneumatic Transfer – Dibasic Acid
- Mechanical Transfer – Coal, Clay
- NFPA 101 Life Safety Upgrades

Electrical:

- Modernization:
 - Generator Upgrades
 - Switchgear/MCC/Breaker Replacement
 - Transformer Replacement
 - Protection Relaying
 - UPS Design
- VFD Installation
- Smoke Detection Design
- Studies/Analysis:
 - Load
 - Short Circuit
 - Arc Flash
- Plant Upgrade Assessment
- Equipment Evaluation
- Equipment Specifications

Instrumentation & Controls:

- Automation & Monitoring:
 - Generator/Exciter
 - Synchronization
 - Breakers
 - Aux Equipment
 - Tailwater & Spillway Warning Systems
 - Spillway Gate Control
- Upgrades:
 - Soot Blower Controls
 - Precipitator Controls
 - SOE
 - BMS/CCS
 - Coal Handling Controls

Integration:

- PLC – AB, GE, Modicon, Siemens, Automation Direct
- HMI – Intellution, Wonderware, RS-View, CTC Interact, Lookout
- DCS – ABB, Foxboro, Honeywell
- Machine Control, Continuous Process, Batch