

## D. Michael Dowdall, P.E.

### Senior Vice President



#### Summary

Mr. Dowdall has more than 30 years of experience in mechanical design and forensic mechanical engineering. He specializes in complex facilities, such as mission critical facilities and clean rooms. In addition to his knowledge of design and construction, he is experienced with forensic investigations and expert witness testimony, primarily for HVAC equipment failures and installation issues. Mr. Dowdall also is skilled at commissioning and life-cycle cost analysis.

#### Areas of Technical Expertise Include

- Mechanical Engineering – Piping, HVAC and Controls, Equipment
- Plumbing Engineering
- Forensic Mechanical Engineering
- Forensic Plumbing Engineering

#### Education

- B.S.M.E., 1982, The University of Kansas

#### Registrations

- Licensed Professional Engineer (Alabama, Arizona, Arkansas, California, Colorado, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, Washington, Washington DC, West Virginia, Wisconsin)

#### Professional Activities

- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
- National Society of Professional Engineers (NSPE)

#### Select Project Experience

##### Mechanical Engineering - Piping, HVAC and Controls

**ISP Chemicals, Clean Room**, Calvert City, KY.\* Design-build services for the design, construction, startup and commissioning of a Class 100 clean room for production of a hygroscopic powder.

**DJ Engineering, Inc., Clean Room**, Augusta, KS.\* Design-build services for the design, construction, startup and commissioning of a Class 1000 aerospace carbon fiber composite component production clean room.

**Boehringer Ingelheim Vetmedica, Inc., Boiler**, St. Joseph, MO.\* Design-build services for the installation, startup and commissioning of a 1,000-horsepower, 175 psi boiler.

##### Plumbing Engineering

**Wastewater Pump Stations 36 and 63**, Christchurch, NZL. Peer review for the development of temporary and permanent pump stations for the reconstruction associated with earthquake damage.

##### Forensic Mechanical Engineering

**North Shore Towers**, Floral Park, NY. Cause and origin investigation and validation of repair costs on a 2000 hp stationary 10-cylinder natural gas engine connected to a 2Mw generator.

**St. Clair Condominiums**, Houston, TX. Forensic investigation of a multistory PVC condenser water piping system failure.

**Allen Ritchey, Inc.**, Yuba, OK. Cause and origin investigation and validation of repair costs to repair a sunken sand dredge and diesel engines inundated by water.

##### Forensic Plumbing Engineering

**CAT 90-Sandy**, Multiple Locations. Damage assessments related to the inundation of water in multiple facilities in New York and New Jersey, specifically as it relates to HVAC, electrical, plumbing and fire protection equipment and systems.

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**Sworn Testimony**

**Deposition**, regarding an alleged cooling system failure resulting in water damage to a residence.

**Deposition**, regarding an alleged case of carbon monoxide poisoning due to a missing vent connector.

**Deposition**, Village of Pleasant Prairie vs. Partners in Design Architects, et al., regarding defects in a Natatorium.

**Deposition and Trial**, 455 Companies, LLC vs. Landmark American Insurance Co., regarding a building heating system.

**Litigation**

**Litigation**, support relating to alleged defective design and installation of a restaurant kitchen exhaust system.\*

**Litigation**, regarding a building Heating System and frozen pipes

**455 Companies, LLC v. Landmark American Insurance Co.**, Expert Report, Deposition, and Trial testimony. United States District Court, Eastern District of Michigan. Case No. 16 CV 10034

**Alternative Dispute Resolution**

**Dispute between an insurer and the insured**, regarding enhancements made during the rebuild of a grain elevator complex following an explosion. The scope involved review of more than 40,000 documents, development of a forensic information model (FIM) for both the pre-loss and reconstructed facilities, and exhibits for support of the arbitration.

**Dispute between a government agency and a design-build contractor**, to determine if delay damages were owed to a mechanical contractor for its work associated with the construction of a central utility plant, a research laboratory and an office building. The scope involved the review of thousands of documents and a report that summarized findings and recommendations.

**Contact**

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\* Denotes work performed with previous employer.