

EDUCATION

1990 **Bachelor of Science, Mechanical Engineering**
Kansas State University, Manhattan, Kansas

EXPERIENCE

December 2002 to Present **Engineering Design and Testing Corp.**
Overland Park, Kansas

Consulting Engineer (December 2002 – Present)
District Engineering Manager (January 2008 – July 2011)
Central Region Manager (July 2011 – March 2017)
Associate Chief Engineer (March 2017 – February 2018)
Western Region Manager (February 2018 – June 2020)
Associate Chief Engineer (July 2020 – Present)

Specialized consulting in the areas of mechanical systems, equipment specification, pressure vessels, and piping design. Investigation and analysis of mechanical fractures of materials and components. Assessment of fire damage related to mechanical equipment. Preparation of repair and or replace cost estimates.

December 1990 to November 2002 **Taylor Forge Engineered Systems, Inc.**
Paola, Kansas

Project Engineer/ Senior Project Engineer Vessels

Experience in the design and construction of custom pressure vessels. Responsibilities included detailed design of pressure vessels and vessel components in accordance with ASME Section I, Section VIII, Division 1, and Division 2. Responsible for design of internal steam separation components of steam drums for combined cycle power plants. Provided technical support to production personnel during construction of vessels and steam drums. Responsible for establishing processes and procedures for the manufacture of pressure vessels and vessel components.

EXPERIENCE

Legal Consultation (partial list)

Commercial Construction — Saint Louis, Missouri

Consultation regarding soldered copper pipe joint – review depositions, conduct on-site examination and provide engineering opinion regarding the cause of separation.

Commercial Construction — Wichita, Kansas

Consultation regarding fire sprinkler system – conduct on-site examination, review construction drawings, review construction standards and provide engineering opinion regarding the cause of involuntary water discharge from sprinkler system.

Commercial Construction — *Hastings, Nebraska*

Consultation regarding fire sprinkler system – conduct on-site examination, review construction drawings, review construction standards and provide engineering opinion regarding the cause of involuntary water discharge from sprinkler system

Commercial Trucking — *Kansas City, Missouri*

Consultation regarding separated front wheel – conduct on-site examination and provide engineering opinion regarding the cause of the separation

Commercial Construction — *Lenexa, Kansas*

Consultation regarding roof drain system – conduct on-site examination, review construction drawings, review applicable building code and provide engineering opinion regarding the cause of involuntary water discharge from roof drain system

Commercial Trucking — *Kansas City, Missouri*

Deposition regarding slack adjuster attachment weld – conduct on-site examination and provide engineering opinion regarding the cause of weld fracture

Above Ground Storage Tank — *Marshall, Missouri*

Consultation regarding ruptured storage tank weld – conduct on-site examination and metallurgical examination of ruptured storage tank weld and provide technical opinion regarding the cause of weld fracture

Commercial Construction — *West Plains, Missouri*

Consultation regarding fire sprinkler system – conduct on-site examination and provide technical opinion regarding the cause of involuntary water discharge from sprinkler system valve

Wood-Fired Kiln — *Peirce City, Missouri*

Consultation regarding cause of wood-fired kiln fire – conduct on-site examination and provide technical opinion regarding the cause of kiln fire

Commercial Trucking — *Wichita, Kansas*

Consultation regarding cause of damage to dump truck transmission – conduct examination of vehicle and metallurgical examination of transmission components and provide technical opinion regarding the cause of damage to transmission

Commercial Aluminum Extrusion Plant — *Hayti, Missouri*

Consultation and metallurgical analysis regarding cause of fractured tie rods – conduct on-site examination and provide technical opinion regarding the cause of fractured tie rods in aluminum extrusion press

Residential Propane Discharge — *Sedalia, Missouri*

Consultation regarding cause of explosion to residence - conduct on-site examination

Residential CSST Piping Propane Discharge — *Manhattan, Kansas*

Consultation regarding cause of propane discharge - conduct on-site examination and provide technical opinion regarding cause of propane discharge involving CSST piping to residence

Residential Propane Discharge — *Raymore, Missouri*

Consultation regarding cause of propane discharge resulting in an explosion-conduct on-site examination

Commercial Industrial Plant — *Rolla, Missouri*

Consultation regarding cause of vibratory feeder collapse-conduct on-site examination

Antioch Family Worship Center — *Overland Park, Kansas*

Consultation regarding cause of involuntary sprinkler system discharge – conduct on-site examination

Residential Propane Discharge — *Newton, Kansas*

Consultation and metallurgical testing regarding cause of involuntary propane discharge from appliance connector

Ballard — *Lee's Summit, Missouri*

Consultation, examination, functional testing regarding heated car seat

Cole — *Bloomfield, Missouri*

Consultation, examination, functional testing and trial testimony regarding heated car seat

Smith — *Cameron, Texas*

Consultation, examination, functional testing and trial testimony regarding heating pad

Residential Propane Discharge — *Blue Springs, Missouri*

Consultation, examination, functional testing and deposition testimony regarding explosion due to underground propane leak

Commercial Construction Site — *Bradon, Florida*

Consultation and deposition testimony regarding fatality associated with dislodged pneumatic plug

Field Experience and Consulting Activity (partial list)**Holy Trinity Orthodox Church — *Overland Park, Kansas***

Fire Sprinkler System – determine cause of involuntary water discharge from sprinkler system

Industrial Construction Site — *Paola, Kansas*

Link-Belt Crane – Examine crane and provide technical opinion pertaining to cause of crane collapse

Mead Johnson Nutritionals — *Evansville, Indiana*

Food processing facility – determine scope of damage to stainless steel pressure vessels

Residential Construction — *Lindsborg, Kansas*

Plumbing system – determine cause of involuntary water discharge from polybutylene pipe, including review of class action lawsuit

Quivira Sports Center — *Overland Park, Kansas*

Natatorium enclosure – review contract drawings and construction specifications, examine enclosure and HVAC system and provide technical opinion regarding the cause of moisture related damage

Refuse Transfer Station — *North Platt, Nebraska*

Knuckle boom crane – conduct on-site examination to determine scope of fire related damage to knuckle boom crane

Enel North America — *Watertown, New York*

Hydroelectric power plant – conduct on-site examination to determine scope of damage to hydroelectric turbine and electric generator

The Woodward Bed & Breakfast — *Topeka, Kansas*

Steam boiler – conduct on-site examination, provide technical opinion regarding the cause of involuntary water discharge from boiler system

Commercial Construction Site — *Kansas City, Missouri*

Lull forklift – examine overturned forklift and provide technical opinion regarding the cause of forklift incident

Ethanol Plant — *Hastings, Nebraska*

Coal-fired Boiler – examine damage due to low-water incident and provide technical opinion regarding scope of damage

Hospital — *Mt. Vernon, Illinois*

Gas-fired Boiler – examine damage due to low-water incident and provide technical opinion regarding scope of damage and cause of low-water incident

Agricultural Sprayer — *Wichita, Kansas*

Consultation and metallurgical analysis regarding cause of front axle fracture – conduct on-site examination and provide technical opinion regarding the cause of fractured king pin on agricultural sprayer

Induced Draft Fan — *Friesland, Wisconsin*

Consultation and metallurgical analysis regarding cause of induced draft fan bearing failure

Derailment — *Lee's Summit, Missouri*

Consultation regarding cause of derailment at private rail spur

REGISTRATIONS and CERTIFICATIONS

Registered Professional Engineer in Alabama (#34514)
Registered Professional Engineer in Arizona (#46034)
Registered Professional Engineer in Arkansas (#13543)
Registered Professional Engineer in Colorado (PE-43424)
Registered Professional Engineer in Florida (#90315)
Registered Professional Engineer in Georgia (PE039395)
Registered Professional Engineer in Illinois (#062.061954)
Registered Professional Engineer in Indiana (PE11100145)
Registered Professional Engineer in Iowa (#18323)
Registered Professional Engineer in Kansas (#14171)
Registered Professional Engineer in Kentucky (#39552)
Registered Professional Engineer in Maine (#13717)
Registered Professional Engineer in Michigan (#6201057600)
Registered Professional Engineer in Minnesota (#47462)
Registered Professional Engineer in Missouri (PE2003004654)
Registered Professional Engineer in Nebraska (E-12125)
Registered Professional Engineer in New Mexico (#29157)
Registered Professional Engineers in North Carolina (#057787)
Registered Professional Engineer in North Dakota (PE-8291)
Registered Professional Engineer in Ohio (#75976)
Registered Professional Engineer in Oklahoma (#22493)
Registered Professional Engineer in Oregon (#89811PE)
Registered Professional Engineer in Pennsylvania (PE-074020)

Registered Professional Engineer in South Carolina (#43456)
Registered Professional Engineer in South Dakota (#12302)
Registered Professional Engineer in Tennessee (#116842)
Registered Professional Engineer in Texas (PE-113588)
Registered Professional Engineer in West Virginia (#25751)
Registered Professional Engineer in Wisconsin (#44461-6)
Registered Professional Engineer in Wyoming (#16372)

National Council of Examiners for Engineering and Surveying (Record #18-504-07)
Confined Space Certification by the National Safety Council – November 5, 2008
ITC Certified Infrared Thermographer (#156131069)

PROFESSIONAL ORGANIZATIONS

American Society for Nondestructive Testing
American Society of Mechanical Engineers
ASM Failure Analysis Society
ASM International (American Society for Metals)

PATENTS

“Manway For Pressure Vessel,” United States Patent Number 6,454,117

PUBLICATIONS

Minden, K.T., and Hanks, D. L. *“Infrared Cameras,”* The Stress Point, Volume 17, Number 4, Engineering Design and Testing Corporation, Columbia, South Carolina, December 2004.
Jur, T.A., and Minden, K.T. *“An Inadequate Weld Repair and Consequent Rupture of a Pressure Vessel,”* Journal of Failure Analysis and Prevention, Volume 7, October 2007.

PRESENTATIONS

2023 Presentation Given: *“Gas Leaks & Explosions,”* Arkansas IAAI 2023 Fall Conference, October 5-6, 2023, Harrison, AR
2019 Presentation Given: *“The Rogue Chicken Theory – Subrogation Lessons from an Egg Processing Facility,”* NASP 2019 Annual Conference, October 26-29, 2019, National Harbor, Maryland
Presentation Given: *“Inadequate Weld Repair and Rupture of a Pressure Vessel,”* MS&T 2019 Conference, September 29 – October 3, 2019, Portland, Oregon
Session Co-Chair: *“Failure Analysis: Industry Specific Failures – Boilers, Pressure Vessels, Welding & Joining Failures,”* MS&T 2019 Conference, September 29 – October 3, 2019, Portland, Oregon

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- 2017 Presentation Given: *"Determine Cause of Damage to Differential Gear Box,"* MS&T 2017 Conference, October 8-12, 2017, Pittsburgh, Pennsylvania
- 2016 Course Taught: *"Fuel Gas Systems,"* IAAI Kansas Chapter and Kansas State Fire Marshal's Office Fire Investigation Class, September 15, 2016, Salina, Kansas
- 2011 Presentation Given: *"Fatigue Analysis of Extrusion Press Tie Rods,"* MS&T 2011 Conference, October 16-20, 2011, Columbus, Ohio

CONTINUING EDUCATION

- 2010 *ASME Recommended Practice for Fitness-For-Service and Continued Operation of Equipment,* February 22-24, 2010, Houston, Texas
- 2008 *Fire Sprinkler Inspection Training & Certificate Program,* January 17-19, 2008, Stillwater, Oklahoma
- 2003 ASM International, *Principles of Failure Analysis,* March 2003
Boilers: An Operator's Workshop, September 9-11, 2003, Kansas City, Kansas
ASM International, *Metallographic Techniques,* May 12-16, 2003, Materials Park, Ohio
- 2002 ASME Section VIII, *Division 2 Rewrite Seminar,* Pressure Vessel Research Council, October 23, 2002, Houston, Texas