



**Causey Engineering
LLC**

Gerald J. Hietpas, PE
President

Causey Engineering LLC

"Forensic and Investigative Services"

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Curriculum Vitae

JENNIFER MARRS, MSME, PE



Mrs. Marrs is an Associate of Causey Engineering, LLC. Causey Engineering has for over 18 years been providing forensic and investigative engineering services and litigation support, specializing in industrial, utility and construction issues. Mrs. Marrs has particular experience in the field of machine design, manufacturing processes, material handling, consumer products, industrial equipment, tool design, standards, and safety. She also has experience in Semi-conductor(FAB), Clean Room, and electronics manufacturing. Her credentials prequalify her to become a registered Professional Engineer in any state and most U.S. territories.

Education:

Northeastern University
MS, Mechanical Engineering, 1997

National Academy of Forensic Engineers
Seminars on Forensic Engineering

Worcester Polytechnic Institute
BS, Mechanical Engineering, 1992

Northwestern University Center for Public Safety
Accident Investigation 1 & 2

Ongoing Professional Education

Including:
Machinery Risk Analysis Ergonomics
Thermal Shock of Materials Lubrication
Hand-Tool Design Noise Control
Project Management Corrosion
Failure Modes & Effects Analysis

OSHA Training

General Industry Training: Over 28 hours
Including:
Machine Guarding Lockout/Tagout
Ergonomics Industrial Hygiene
Confined Spaces Hazard Communication
Personal Protective Equipment

Patents:

International Patent Holder (with four colleagues): WIPO #WO 2004/010474
"Liquid Flow Controller And Precision Dispense Apparatus And System"

Registrations:

NCEES - National Council of Examiners for Engineering and Surveying Record Holder
PE – Professional Engineer, currently licensed in New Hampshire and Massachusetts.

Work Experience:

Causey Engineering LLC, Austin, TX

2009 to Present

Forensic Expert: Provide Forensic and investigative work related to Mechanical Engineering, particularly machine design, manufacturing processes, material handling, consumer products and electronics manufacturing, industrial equipment, tool design, standards, and safety.

Long View Consulting LLC, Cornish, NH

2005 – To Present

Owner & Engineering Consultant: Provide mechanical engineering services, specializing in machine design, manufacturing process design, industrial equipment, factory automation, material handling, test equipment, gauge design, tool design, fixture design, factory layout planning, capacity analysis, work flow optimization, machinery safety, risk analysis, and documentation. Clients include Proctor & Gamble, Fujifilm Dimatix, and Pompanette LLC.

TASC Technical Services, Plaistow, NH

2004 – To 2007

Consulting Engineer: Provided mechanical engineering services, specializing in machine design, manufacturing process design, test equipment design, machinery safety, risk analysis, and documentation. Completed a number of projects, including several for The Gillette Company.

Fujifilm Dimatix Inc., Lebanon, NH

2002 – To 2004

Mechanical Engineer, Manufacturing Engineering - Process Design & Implementation: Provided Ink Jet Print Head manufacturing process design and support. Processes included Silicon wafer manufacture, chemical treatment, heat treatment, soldering, electronics manufacturing, clean assembly, testing, and packaging. Also responsible for material handling, machine, fixture, workspace, and tool design.

Sabbatical,

2001 – To 2002

Mykrolis Corp., Bedford, MA

2000 – To 2001

Mechanical Engineer, Liquids Dispense R&D Group: Product Design, R&D, and Manufacturing Process Design for High Precision Chemical Pumps, Flow Controllers, and Dispense Systems. Designed products for use in semiconductor manufacturing, chemical processes, optical disc manufacture, and high purity cleanroom environments. Responsible for product design, cost reduction, reliability testing, performance testing, life testing, characterization, and documentation.

The Gillette Company, Boston, MA

1992 – To 2000

Project Engineer, Engineering & Implementation Group: Designed and analyzed manufacturing machinery, equipment, and safeguards. Wrote machinery documentation and operator manuals. Performed machinery risk assessment & mitigation. Responsibilities included product engineering, machinery control system design, design for noise control, design for ergonomics & safety, design of pneumatic and detection systems. Supervised build and startup of new equipment, performed functional testing, resolved issues found in debug, and oversaw equipment qualification runs.

Professional Memberships:

ASME – American Society of Mechanical Engineers
(Executive Committee Program Chair of Upper Valley Subsection)
NAFE – National Academy of Forensic Engineers (Correspondent)
NHSPE – New Hampshire Society of Professional Engineers
NSPE – National Society of Professional Engineers
SME – Society of Manufacturing Engineers
NEA4WD - Northeast Association of 4WD Clubs

Presentations, Publications:

(Listed as Jennifer Wiley)

“Bearing Forces as a Function of Mechanical Stiffness and Vibration Isolation in a Fourbar Linkage” Norton, R. L., Ault, H. K., Wiley, J., Parks, T., Calawa, R., and Wickstrand, M. – Presented at Symposium on Effects of Mechanical Stiffness and Vibration on Wear, ASTM STP 1247, Raymond G. Bayer, ED., American Society for Testing and Materials, Philadelphia, 1995

“CAD and Mechanism Analysis of a Fourbar Linkage” Parks, T. J. Wiley, H. K. Ault, R. L. Norton. Presented at International Aries User’s Group Meeting, May 2-5 1992, Lowell, Mass., pp. 237 – 260

Use of this CV is prohibited until we have a mutually signed agreement concerning your engagement of Causey Engineering LLC. Pending such, the use of our name is also prohibited, and we reserve the right to accept assignment by others in lieu of your firm.