

# Charlie Cote

## Mechanical Engineer / Consultant

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30 Years of Experience: Mechanical System Design, Testing, Construction, Maintenance, Analysis, Retrofit, and Manufacturing.

### Core Competencies

- ⇒ Computer Modeling, System Simulations and Analysis (HYSAN, MathCAD)
- ⇒ Mechanical, Pneumatic, Hydro-Mechanical, and Electro-Mechanical Systems
- ⇒ Industrial Systems and Processes: Trouble-Shooting, Design and Manufacturing Support
- ⇒ Industrial Piping Design and Implementation (ASME B31.1, B31.3 and ASME BPV code)
- ⇒ Wiring, Cabling, and Conduit Design (NFPA 70, NEC 2002, UL 1604)
- ⇒ Design for Safety and Risk Management (ISO 12100, ISO 14121, MIL-STD-882D)
- ⇒ Project Management, BOM Development, Cost Estimating, Budgeting (MS Project, Excel)
- ⇒ Economic Cost/Benefit Analysis. Program and Enterprise Budgeting
- ⇒ Product Configuration Control and Documentation System Design
- ⇒ Process and Procedure Design
- ⇒ Specializing in Hands-On, Cost-Effective, Reliable Solutions, Designs and Implementation.

### Abbreviated Portfolio (partial list)

- Expert witness investigations, reports and services for 3 industrial litigation projects.
- Design of mechanical systems and instrumentation for microprocessor based control systems for gas and steam turbines.
- Modeling, simulation, design, installation and commissioning of emergency trip systems for industrial turbines.
- Design, application, and construction of fuel injection systems for modernizing large bore industrial reciprocating engines.
- Design of closed loop electro-mechanical governor systems for controlling the speed of trans-oceanic marine engines.
- Design and application of new product configuration and document control systems for two start-up Engineering Companies.
- Collaborative design, construction, and application of a railroad track panel manufacturing facility.

### Employment History (partial list)

- Sep. 2002 – Present      **President, BarnCat, Inc.** Engineering Services, Laporte, Colorado.
- May 2002 – 2008        **Director/Treasurer, Livermore Fire Protection District,** Livermore, Colorado.
- Mar. 2001 – Sep. 2002    **Principal Engineer. Enginuity LLC,** Fort Collins, Colorado.
- Jun. 2000 – Mar. 2001    **Senior Mechanical Engineer. General Electric, Global Controls Services,** Loveland, Colorado.
- 1997 – 2000      **Mechanical Application Engineer. Woodward Governor Company, Global Controls Division,** Loveland, Colorado.
- 1988 – 1997      **Mechanical Development Engineer. Woodward Governor Company,** Fort Collins, Colorado.
- 1980 -1988      **Journeyman Heavy Equipment and Diesel Mechanic. Denver and Rio Grande Railroad,** Grand Junction, CO.

### Education

Colorado State University, Fort Collins, Colorado: BS Mechanical Engineering, Minor in Mathematics.

### Computer Proficiencies

AutoCAD	Microsoft	Adobe
Inventor Pro	MS Word	Adobe Acrobat
MS Project	MS Publisher	Adobe Photoshop
Sigma Plot	MS Excel	

### Industry Standards Proficiencies

**I have an extensive (>\$30k) standards library collection including....**

ASME B16.5, B31, PTC,	ISA TR84	NACE	AWS
Boiler and Pressure Vessel Code	IEC 61508	ANSI	AISC
Power and Process Piping Codes	API 611, 612, 670	IEEE	ISO
National Electric code (NFPA 70)	ASTM	MIL STD	IEC, EN, DIN