

**CPGA Gas Engineers Forum  
A Gas Utilities Engineering Forum  
for  
CPGA Member's Gas Utilities Engineers and Technical Staff**

**Presentations by Gas Industry Engineers and Sr. Technicians**

**Location:** YCNGA Training Facility, Rock Hill, SC

**Date:** Wednesday March 26, 2025 **Class Size Limited to first 25 Registrants**

**Agenda:**

**9 A.M. Welcome**

Brandon McCurley – Ft Hill Natural Gas Authority - CPGA Chair Operations Committee

**CPGA Gas Engineering Forum Program Overview**

Fred Hanna, P.E. – Engineering Curriculum Program Facilitator

Introductions of Attendees and Sign In

Professional Engineering Ethics and Definition of Responsible Charge

Training Needs for Gas Engineers and Long-Term Needs Assessment Tools

Engineering Roles in Gas Utilities and Engineer's Career Paths

Today's Learning Objectives

**Subject Matter Presentations, Lessons Learned and Discussion Forums**

**9:45 A.M**

**Forum #1 Horizontal Directional Drilling for Gas Utilities Steel, MDPE and HDPE Gas Pipelines**

Fred Hanna, P.E. GMC Regional Technical Leader Gas Engineering

**10:30 AM**

**Break** 15 minutes

**Forum #2 Pipeline Pigging Operations – Code Requirements, Lessons Learned, Tips**

Terryn Adams, PEG Superintendent and Sr Engineer 30 minutes

**Forum #3 Pipe Stress Calculations and Design Considerations + MTR's and Record Keeping**

Terryn Adams, PEG Engineer 30 minutes

**Lunch**

**12:30** 30 minutes

**Lunch Sponsored by GMC**

**Forum #4 Relief Sizing and Overpressure Protection**

Trey Dacus YCNGA, PEG 45 minutes

**Forum #5 Large Gas Projects - Risk Assessment, Risk Management, Lessons Learned**

Fred Hanna, P.E. GMC Regional Technical Leader Gas Engineering, and Terryn Adams PEG Superintendent and Sr Engineer 30 minutes

**Follow Up Needs Assessment Survey**

Fred Hanna, P.E. GMC Regional Technical Leader Gas Engineering, and Brandon McCurley Ft Hill Natural Gas Authority - CPGA Chair Operations Committee 15 minutes

**2:30 PM**

**Adjourn**

## Speaker Bios:



**Fred Hanna, P.E.**  
**Regional Technical Lead – Gas Utility Engineering**  
**Goodwyn Mills Cawood, LLC**  
**Columbia, SC**

### **CAREER SUMMARY**

Fred has over forty (40) years of experience in natural gas operations, engineering, management, and consulting, including executive management of gas operations, engineering, and customer service functions as an operator. As a gas engineering consultant, he has successfully managed numerous integrated engineering services projects for investor owned, municipal and public gas transmission and distribution entities including integrating multiple engineering and environmental disciplines and sub consultants for both pipeline and facilities projects.

### **KNOWLEDGE AND EXPERIENCE BASE**

- Gas Pipeline and Facilities
- Utilities Strategy
- Master Plan Development and Modeling Development
- Horizontal Directional Drilling
- Integrated Project Management
- FERC Certificated Projects
- Pipeline and Facilities Engineering Design
- Compressor Stations
- Permitting Gas Projects
- Strategic Planning and Leadership Development
- Route and Site Selection
- Infrastructure Development
- Utility Operational & Capital Improvement Programs
- Systems Integration and Training
- Organizational Effectiveness
- Public/User Involvement and Feedback Programs
- Emergency Response
- Site Due Diligence Assessments
- Project and Construction Management
- Sub Consultant Integration and Management

### **PROFESSIONAL ENGINEERING LICENSES :**

- SC # 9598
- NC # 029818
- GA # 044933

### **EDUCATION:**

Bachelor of Science, Agricultural Engineering, Clemson University, 1978

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## Speaker Bios:



**Terry Adams, EIT**  
**PEG Superintendent & Sr. Engineer**  
**Patriots Energy Group (PEG) & York County Natural Gas Authority (YCNGA)**  
**Rock Hill, SC**

### CAREER SUMMARY

Terry has over thirty-five (35) years of experience in natural gas design, operations, engineering, management, and consulting, including a diverse background while employed by a Municipal Gas Utility, multiple Investor-Owned Utilities, and a long-standing Operations position with a Natural Gas Authority. He has successfully designed, estimated, specified materials for and managed numerous construction projects on pipelines, meter and regulator stations, Pipeline Interconnects, and other natural gas facilities.

### KNOWLEDGE AND EXPERIENCE BASE

- Extensive Gas Pipeline and Facility design experience
- Welding Procedure Development and Qualifications
- Pipeline Pigging and Repair Assessments
- Hot Tap and Tie-in Design and Equipment Specification
- Load Identification and Estimation (residential and industrial)
- Modeling Development and Model Utilization
- Transient Modeling of Transmission Pipelines
- Project Cost Estimating and Project Management
- Facility Design in accordance with DOT Part 192 standards
- Implementation of Engineering Standards for Utilities
- Control Valve Sizing and Selection
- Compressor Station Design & Expansion
- SCADA system Integration with Field RTU's
- Programming Field RTU's and Flow Computers
- Pipeline Routing and Facility Site Selection
- Rights-of-way Acquisition and Owner Issue Resolution
- Development of Engineers and Technicians
- Contract Preparation and Construction Management

### EIT ENGINEERING LICENSE:

- NM # 4000

### EDUCATION:

Bachelor of Science, Mechanical Engineering, New Mexico State University, 1987

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