Workforce Challenges for Natural Gas Field Operations

Developing Effective Training to Fill the Gap

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The Gas Technology Institute: 75-year History of Energy Solutions & Effective Training

FOR A BETTER ECONOMY AND A BETTER ENVIRONMENT

SUPPLY  CONVERSION  DELIVERY  UTILIZATION

RESEARCH & DEVELOPMENT  PROGRAM MANAGEMENT  TECHNICAL/ANALYTICAL  CONSULTING  TRAINING  360+ EMPLOYEES
GTI Education Programs

Training the next generation workforce
• Over 40 courses offered annually
• Over 70,000 industry professionals trained
• Open enrollment and onsite courses around the globe with students representing 20+ countries

Topic areas:
• Gas distribution & transmission
• Gas utilization & marketing
• LNG
• E&P
• Workforce Development

Delivery options:
• Classroom courses or open enrollment
• Onsite for energy industry customers
• Online & self-guided programs

NATURAL GAS FIELD SKILLS TRAINING PROGRAM
77 instructor-led courses now available for the classroom or online
Training Program Context

Appalachia’s

**Major Employment Challenges**

> Since 2011, over 23,000 coal jobs lost
> Economic challenges in Appalachia span from Alabama to New York

The Natural Gas Industry’s

**Workforce Gap**

> Major distribution and pipeline upgrades and build-outs
> Many new hires needed – workforce gap

Training Program

**Solutions**

> The Appalachian Regional Commission (ARC) funds training programs that strengthen the economy
> GTI builds education content and team collaboration to deliver effective training programs
The Program

The numbers:
• Training program fully-funded by Appalachia Regional Commission
• 156 hour, pre-employment 4-week training program
• 23 counties in SW Pennsylvania & SE Ohio
• Multiple training venues
• 100 students to be trained
• 10 – 15 students per class
• 20+ organizations comprise the team
The Program Team

INDUSTRY ORGANIZATIONS
- American Gas Association – AGA
- Interstate Natural Gas Association of America – INGAA
- Foundation

WORKFORCE DEVELOPMENT AREAS
- Southwest Corner (PA)
- Westmoreland/Fayette (PA)
- Tri-County (PA)
- Three Rivers (PA)
- Ohio Areas 1, 7, 14 & 15

Delivery Venues
- Armstrong County Industrial Development Council (PA)
- Belmont College (OH)
- UMWA Career Center (PA/WV)
- Others to be added

INDUSTRY COMPANIES, UTILITIES, MIDSTREAM & CONTRACTORS
- Peoples Natural Gas
- NiSource
- National Fuel Gas
- Miller Pipeline
- EOG
- MarkWest
- Columbia Pipeline Group
- Team Fishel
- Washington Greene County Job Training Agency (WGCJTA)
- GAS TECHNOLOGY INSTITUTE (GTI)
Industry Engagement is Key

Supported by Industry:
Curriculum Components

- Introduction to Natural Gas
- Employability Skills, Customer Service, & Interaction Skills
- OSHA 10
- Fire Safety
- Utility Specified Field Equipment Overview
- Basic & Industry Specific Construction Tools & Equipment
- Tools, Instruments & Measures
- Underground Pipeline Locating
- Leak Survey
- Heavy Equipment Operator
- Excavation Safety Training
- Excavation Near a Gas Pipeline
- Vacuum Excavation
- Keyhole Technology
- Horizontal Directional Drilling
- Pipeline Installation & Maintenance (37 modules)
- Field Experiences
- Safe Driving Course
- Traffic Control Flagger, Hauler Safety & Cargo Securement
The Jobs

Potential jobs with natural gas utility, pipeline and contractor companies

- Pipeline Construction Crew
- Pipeline Operation & Maintenance Crew
- Pipeline Welders
- Equipment Operators
- Other field construction, operation & maintenance support including truck drivers, inspectors, mechanics, pavers, landscapers, etc.
- Compressor Station Maintenance & Repairman
- Leak Survey Technician
- Line Locator Technician
- Corrosion Control Specialist
- Gas Measurement Specialist
- Gas Pressure Regulation Specialist
- Meter Readers
- Gas Control Room Operators
- Field Customer Service Representative (Emergency First Responders)
Class Attributes

• *Diverse experience/background* – coal, pipeline, welding, farming, veteran, computers, surveying, nursing care, paving, lawn care, home care and facilities management

• *Met qualifications* – drug test, background check, H.S. diploma, and driver’s license requirements

• *Commitment and work ethic* – showed up for classes, actively engaged in class, jumped-in for hands-on portions, asked good questions and approached class as active learners
Training Program Components

- Funding
- Program Team
- Contracts
- Venue
- Curriculum
- Instructors
- Industry/Company Support
- Field Trips / Hands-on
- Marketing Collateral
- Recruiting/Marketing/Media
Training Program Components

- Applicant Management
- Student Selection Criteria
- Qualifications
  - Drug Test
  - Criminal Background Check
- Communication
- Graduation Day Job Fair
- Job Search Support
- Pictures / Videos
- Surveys
Lessons Learned

• You must build awareness of industry, career path.

• Local, regional media exposure is BIG (articles, postings/feeds, interviews, pics) for driving awareness.

• Recruiting is critical and one of the biggest challenges.

• Expert, effective instructors are essential.

• The program needs to have as much hands-on and field trips as possible.
Lessons Learned

• Improving employability skills (interpersonal skills, priorities, resumes) is very valuable.

• Mobility of workforce can be limiting, so proximity to venue and employer can be an issue.

• Potential employer (industry / company) support is essential.

• Curriculum must be informed by industry and companies need to be involved in field trips and job fair.
Classroom
Training Facilities Tours
Natural Gas Fire Safety Demonstrations
First Class
What’s Next for the Program

• Track participants to employers
• Broaden participation and area
• Grow the team and delivery venues
• Pursue additional funding and support
• Generate more impact
What’s Next for the Graduates

JOBS!

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