

**The Blacksmith Group**  
**&**  
**Process Performance Improvement Consultants, LLC**

**Summary and Bios**

**P-PIC**

Process Performance Improvement Consultants, LLC

A Wholly Owned Subsidiary of the **The Blacksmith Group**

# The Blacksmith Group

The Blacksmith Group is an independent firm created to provide management consulting and advice to energy pipeline operators. Process Performance Improvement Consultants, a wholly owned subsidiary, was started in December 2002 to build on work collectively performed at The Hartford Steam Boiler Inspection and Insurance Company, and collaboratively since 1994.

Our interest and work in the pipeline industry has not simply been periodic, or opportunistic; it has been our sole focus. We believe that it has not only served the needs of pipeline operators but has met the needs of the broader set of stakeholders by improving the way in which pipeline safety and reliability are managed.

Our senior leadership represents experience and perspectives from Operating Companies, Technical Services Firms, Financial Services Firms and the Government.

# P-PIC Overview

- Formed in 2002
- Three members were on API RP 1173 Work Group
- Two members were executives in companies that implemented and matured SMSs
- Developed background white papers on SMS and safety culture for INGAA
- Led INGAA Safety Culture Surveys and now CEPA in 2019
- Worked for Boards and Senior Executives following major incidents
  - PG&E, Colonial, Olympic, El Paso, Entergy
  - Many others pro-actively before incidents

# Pipeline Safety Management Systems

We provide assistance in developing and maturing pipeline safety management systems (PSMS). We bring unparalleled knowledge and experience with PSMSs and more broadly SMSs. Three of our people were on the work group that spent three years developing API RP 1173. Two of our people were senior executives in pipeline companies that led development of PSMSs. Three of our executives have been a part of developing and maturing SMSs in other industries including petroleum refining, petrochemicals, gas processing and chemical manufacturing.

- ❖ PSMS Gap Analyses
- ❖ Development of a PSMS Roadmap
- ❖ Development of Maturity Models
- ❖ Evaluation of PSMS Maturity
- ❖ Evaluation of Maturity of Specific PSMS Elements
- ❖ Benchmarking PSMS Practices
- ❖ Development of a process to define Performance Metrics
- ❖ Evaluation of Performance Metrics
- ❖ PSMS Training – Two-Day Overview Course
- ❖ PSMS Training – Half Day – Role of Leadership and Management
- ❖ PSMS Training – Two-Day Deep Dive into Requirements and Element Development
- ❖ PSMS Training – Role of Safety Culture in PSMSs
- ❖ Evaluation of Safety Culture
- ❖ Audit of a PSMS
- ❖ Audit of specific PSMS requirements

# Process and Technical Consulting

We support energy pipelines in facilitating development of processes to improve safety and reliability in operations, maintenance and system integrity, measurement and engineering project management. In addition, we bring the experience of having managed these functions as well as the broad knowledge and experience having critically reviewed numerous processes in litigation, auditing and due diligence. Our strength is the ability to facilitate improvements while working with people throughout organizations guided by our deep knowledge and experience. While we can relate to people throughout the organization, we have the ability to step back and provide an independent perspective. Project experience includes the following:

- ❖ Pipeline safety management systems
- ❖ Pipeline safety and regulatory analyses
- ❖ Risk management programs and solutions
- ❖ System integrity management programs
- ❖ Root cause analyses and failure investigations
- ❖ Product measurement and lost and unaccounted for minimization
- ❖ Nominations and transportation of product
- ❖ Product quality and control of quality
- ❖ Management of change programs
- ❖ Damage prevention
- ❖ Company organizational design
- ❖ Quality control and quality assurance of management processes
- ❖ Performance measurement
- ❖ Audits and effectiveness reviews of company programs
- ❖ Policies, Plans and Procedures gap analysis
- ❖ Pipeline design and construction specification development and compliance review
- ❖ Special permits and waivers from regulations
- ❖ Pipeline replacement programs
- ❖ Communication and engagement with stakeholders

# Technology and Standards Development

We support efforts at INGAA, AGA, API/AOPL, NYSEARCH, GTI and PRCI in developing the bridge that takes research and codifies the knowledge and technology into technical standards and other industry guidelines and practices. We also provide expertise in helping to frame regulatory development in the context of standards and technology. Our strength is being able to distill the technical content and place it in a context that can be used by an operator and understood by regulators and the public. Projects in this area include the following:

- ❖ Pipeline Safety Management Systems (API 1173)
- ❖ Integrity Management standards development (ASME B31.8S)
- ❖ Operator Qualification standard development (ASME B31Q)
- ❖ In-Line Inspection, Direct Assessment and pressure testing standards development (NACE)
- ❖ Leading Mechanical Damage Practices (API/AOPL Performance Excellence Team)
- ❖ Joint Industry Projects on Stress Corrosion Cracking (I and II)
- ❖ Joint Industry Project on Alternative Design with Life Cycle Management
- ❖ Gas quality and interchangeability standards
- ❖ Application of standards to support regulation
- ❖ Interpretations of regulations in a business context
- ❖ Leading Corrosion Prevention Practices (API/AOPL Performance Excellence Team)
- ❖ White Papers on technical issues (e.g. Waiver Process for Class Location Change; Fatigue in Energy Pipelines, Risk of a Gas Transmission Pipeline, Roadmap to Greater Capacity)
- ❖ International standards development support (Israel Pipeline Design, Operations and Maintenance Regulations)
- ❖ Training course development for consensus standards and regulations
- ❖ Ethanol transportation by pipeline

# Auditing, Litigation and Due Diligence

We provide independent auditing services based on our knowledge of regulations, international consensus standards and experience in the industry. We support energy pipeline companies in the defense of their company, their management and their business practices in litigation through use of our experience and knowledge of industry practices. We use that same experience and knowledge base in providing independent auditing services for senior executives and boards, as well as investors considering purchase of a set of pipeline assets. Our strength is applying critical independent perspectives in evaluating business operations and key points through the life cycle of a set of assets. Noteworthy cases and projects include the following:

- ❖ Entergy New Orleans bankruptcy litigation, insurance claim as well as metallurgical and corrosion control technical support following Hurricane Katrina
- ❖ Carlsbad, New Mexico - natural gas pipeline failure
- ❖ Baytown, Texas - natural gas pipeline failure
- ❖ San Bruno, California – natural gas pipeline failure
- ❖ South Carolina – hazardous liquid pipeline failure
- ❖ Northern Virginia – hazardous liquid pipeline failure
- ❖ Bellingham, Washington - hazardous liquid pipeline failure
- ❖ The first citizens lawsuit against a pipeline company under the Pipeline Safety Act (natural gas)
- ❖ Multiple due diligence reports on hazardous liquid and natural gas pipelines
- ❖ California market power cases
- ❖ Gas quality and interchangeability of LNG litigation
- ❖ Risk assessment for new pipeline construction
- ❖ Technical evaluations of conversion and change in service of pipelines – oil to gas and gas to oil
- ❖ Condemnation and landowner issues
- ❖ Bankruptcy and Force Majeure

# Blacksmith/P-PIC Personnel

## Mark Hereth

- Managing Director
- 39 Years in Energy Industry; 23 at Hartford Steam Boiler Inspection and Insurance Co.; 14 in engineering consulting; nine in financial services
- Consultant for INGAA, API/AOPL, AGA and SGA in development of Technical Reports and Standards – Technical lead on development of API RP 1173 PSMS
- Consultant for natural gas transmission and distribution, and oil pipeline companies
- Chairman, INGAA Foundation
- Served on Adjunct Faculty of Northwestern Transportation Institute; instructor for SGA and NGA
- M.S. Chemical Engineer

## John Zurcher

- Managing Director
- 40 Years in Energy – natural gas distribution and transmission pipelines and oil pipelines
- Colorado Interstate, Tennessee Gas, Texas Eastern and Columbia Gas
- Lead in development of ASME B31.S – Pipeline Integrity Management Standard
- Former Chair of ASME B31.8 and INGAA Pipeline Safety
- B.S. Electrical Engineer, MBA



# Blacksmith/P-PIC Personnel

## **Stacey Gerard**

- Senior Fellow
- 35 Years as a Federal Regulator
- Retired as Chief Safety Officer in Pipelines and Hazardous Materials Safety Administration of the U.S. Department of Transportation
- Served on the API RP 1173 PSMS Development Work Group
- Led an initiative on improving safety across multiple modes of ground transportation for Secretary of Transportation
- Worked on development of guidelines for management systems and incident management for INGAA

## **Perry DuFrene**

- Senior Fellow
- 36 years in natural gas engineering and operations – Entergy Gas Operations
- Led response and recovery following Hurricane Katrina for Entergy, New Orleans
- Led and oversaw design and replacement of approximately 500 miles of mains and associated services
- Managed operations and maintenance work within Entergy; developed DIMP
- Platts Global Award for Infrastructure – 2009; AGA – Hero of the Storm (Katrina)
- B.S. Industrial Technology, Southeastern Louisiana; MBA - Tulane

# Blacksmith/P-PIC Personnel

## Mike McGonagill

- Senior Fellow
- 40 Years in Energy – Oil Exploration, Production, Natural Gas and NGL Pipeline Operations & Engineering for Tenneco Oil, Tennessee Gas and Alliance Pipeline
- Retired as Senior Vice President & Chief Operating Officer of Alliance Pipeline
- Conceptualized and Led Implementation of Pipeline Safety Management Systems within Alliance beginning in mid-2000s
- Led Alliance through initial phases of an audit of PSMS by NEB in 2014
- Served on INGAA Board and as the Board liaison to Pipeline Safety Committee
- B.S. Petroleum Engineering

## Mark Weesner

- Senior Fellow
- 37 years in the Energy Industry; 22 with Exxon and Exxon Mobil corporations; 15 with Exxon Mobil Pipeline Company
- Retired as Safety, Security, Health and Environmental Manager/ Senior Advisor Operations
- Served on API RP 1173 Development Work Group
- Chairman of 2016/2017 API/ AOPL Strategic Planning Committee
- US Coast Guard Certified Incident Commander
- Registered Professional Engineer – Texas A&M, B.S. Mechanical Engineer

# Blacksmith/P-PIC Personnel

## John Hess

- Senior Fellow
- 27 years in the federal government in pipeline and hazardous materials regulation, including the US Department of Transportation and Department of Homeland Security
- 30 years as a volunteer firefighter
- Conducted and oversaw emergency response exercises, including development of US DHS standards
- Led nation-wide work group that developed best practices in underground utility damage prevention, “Common Ground,” and evolved into the National Common Ground Alliance

## Josie Long

- Regulatory Consultant
- 14 years in the energy pipeline industry
- Served in Gainesville (Florida) Regional Utilities – a municipal gas and electric utility
- Consultant at Cyera Strategies on energy pipeline regulatory compliance
- Leads the Safety Culture Survey for INGAA – 2016 and INGAA and CEPA for 2019
- Participated in PSMS Gap Analyses and Road Map Development for three gas utilities
- Led development of cost/ benefit analyses for the natural gas and liquid pipeline industries for comments prepared by INGAA, AGA, API and AOPL on transmission rulemakings in 2016.