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## PROFESSIONAL PIPELINE ENGINEERING CAREER PHILIP SHER

✤ PIPELINE CONSULTANT - gas pipeline safety (1990 - present), providing accident analysis and expert witness service; code compliance; plans, procedures and operator qualification; integrity management programs, coordinating emergencies with public officials; pipe replacement programs; underground damage prevention - 1-call systems; training programs & special projects.

MANAGEMENT OF THE GAS PIPELINE SAFETY UNIT of the State of Connecticut Department of Public Utility Control (1979 - 2009) responsible for the formulation, promulgation and administration of the Department's gas pipeline safety program and underground damage prevention (CALL BEFORE YOU DIG) program. Liaison to and agent of U.S. DOT OFFICE OF PIPELINE SAFETY. Experience includes: incident investigations; testimony at NTSB hearings; cross-examination of witnesses at NTSB hearings; formulation, promulgation and application of gas pipeline safety standards, including the Minimum Federal Safety Standards (49 CFR 191, 192); development and implementation of pipeline safety inspection program including field inspections and records reviews; the application of engineering enforcement techniques in furthering compliance with safety standards; and damage prevention programs. Extensive cross-examination of expert witnesses at hearings.

Program function reviews include design, construction including welding and joining, operations and maintenance including corrosion control, excavation damage, emergency response including coordinating with other emergency responders, operator qualification and integrity management programs.

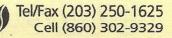
Pipeline facilities covered under the program include gas transmission lines, gas distribution lines including extremely high pressure (750 psig) distribution lines, propane distribution lines, liquefied natural gas facilities (full plants and satellites), propane storage facilities, propane peak shaving facilities, hortonspheres, and gas holders.

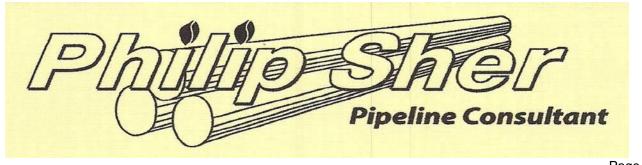
Experience also includes economic regulation including: rate structures; expansion of plant and equipment; cost of service studies; utility research programs; customer load analysis including normalization and annualization; gas supply planning and analysis; cost of gas analysis, pipeline refunds, deferred gas costs, fuel adjustment clauses; depreciation studies; master metering; cogeneration; and utility diversification.

CORESPONSIBILITY for the management of the Connecticut Department of Public Utility Control Gas Section (1976-1978).

**CALC** ENGINEERING ADMINISTRATOR (1975-1976) responsible for the American Society of Mechanical Engineers' codes and standards activities for gas pipelines.

✤ BACHELOR OF SCIENCE in Engineering, New York University School of Engineering and Science (1970).





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# PROFESSIONAL AFFILIATIONS PHILIP SHER

★ SECOND VICE CHAIRMAN American National Standards Institute (ANSI) GAS PIPING TECHNOLOGY COMMITTEE (GPTC) (1989 - present). The GPTC has responsibility for developing guidelines for compliance with the minimum Federal Safety Standards that are published in the ANSI Z380.1, "Guide for Gas Transmission and Distribution Piping Systems." The GPTC also has responsibility for petitioning the federal government for changes in standards, and for commenting on proposed rulemakings.

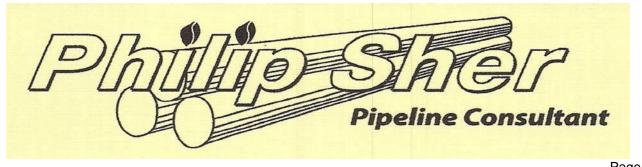
- Member of the GPTC EXECUTIVE COMMITTEE (1989 present)
- Member of the *GPTC MAIN BODY* (1976 present) which has technical responsibility and policy oversight of the GPTC.
- Member of the GPTC DISTRIBUTION COMMITTEE (1976 1990).
- Member of the *GPTC DI GUIDANCE TG* (2006 2008) developing guidelines for the pending Distribution integrity management federal safety standards.
- Secretary of the GPTC EDITORIAL SECTION (1975 1990).
- Chairman of the *GPTC PROCEDURES* committee that revised the committee operating procedures and organization (1980 1981) and member (1989 1991).
- Coresponsible for revising the "Guide for Gas Transmission and Distribution Piping Systems" 1976 Edition, including the development of technical material, and revising and reorganizing material for clarity, correctness, consistency and logical presentation.
- Secretary GPTC (1975 1976).

SECRETARY OF THE 831.8 American National Standards Committee for Gas Transmission and Distribution Piping Systems (1975 - 1976).

✤ SECRETARY OF THE B31.3 American National Standards Committee for Chemical Plant and Petroleum Refinery Piping (1975 - 1976).

✤ Member of *THE B31* American National Standards Committee for Pressure Piping *CONFERENCE GROUP* (1976 - 2009).





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PROFESSIONAL AFFILIATIONS	
(CON'T)	
PHILIP SHER	

Member of the US OPS LIQUEFIED NATURAL GAS regulations review committee (1992) dealing with portable and temporary LNG facilities.

◆ INSTRUCTOR at the New England Pipeline Safety Representatives/US Department of Transportation's Transportation Safety Institute PIPELINE SAFETY SEMINAR., "Distribution IMP" (2008), "PIPES Act of 2006 + Integrity Management Programs" (2007), "Integrity Management Overview & Update" (2005 and 2006), "Emergency Plans" (2006), "Yankee Gas LNG Plant Waterbury, CT" (2005), "Integrity Management - Update" (2004), "Integrity Management" (2003), "Data Processing and 1-Call Enforcement" (2001), "Initial Responder Actions" (2001), "PBR and Safety" (2000), "Pressure Testing" (1999), "High Pressure Distribution Lines" (1998), "Accident Investigation" (1997), "Emergency Plans" (1996) and "Coordinating Emergency Response With Local Officials" (1995).

✤ INSTRUCTOR at the U.S. Department of Transportation's TRANSPORTATION SAFETY INSTITUTE - gas service lines and meter installations (1988 - 1989).

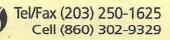
✤ INSTRUCTOR at the NORTHEAST GAS ASSOCIATION GAS OPERATIONS SCHOOL. "Federal and State Pipeline Safety Regulations" (1978 – 1997, 1999 - 2011), Coordinating Emergency Response with Local Officials" (1996 - 1998), and "DOT Overpressure Protection Regulations" (1980 - 1981). Member Distribution Integrity Management Program (DIMP) panel (2005) and presentation on status of DIMP (2006).

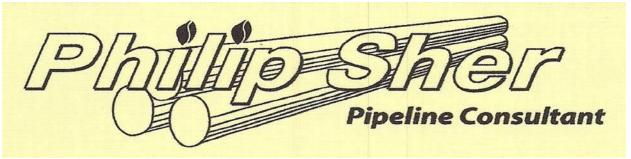
- **PRESENTER** Northeast Gas Association 2009 Fall Operations Conference:
  - Preparing for and Responding to State and Federal Audits
  - Distribution Integrity Rule and Quality Assurance
  - Corrosion Control & the Distribution Integrity Management Plan

PRESENTER US DOT Office of Pipeline Safety DISTRIBUTION INTEGRITY MANAGEMENT PROGRAM WEBCAST on DIMP process and response to Notice of Proposed Rulemaking (2008).

PRESENTER US DOT Office of Pipeline Safety DIRECT ASSESSMENT WORKSHOP (November 2003) and Integrity Management Workshop (2004).

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#### PROFESSIONAL AFFILIATIONS (CON'T) PHILIP SHER

- \* NATIONAL ASSOCIATION OF PIPELINE SAFETY REPRESENTATIVES (NAPSR)
  - NAPSR National Past Chairman (2007 2008)
  - NAPSR National Chairperson (2006 2007)
  - NAPSR National Vice Chairman (2005 2006)
  - NAPSR NATIONAL SECRETARY (2004-2005)
  - **NAPSR Board of Directors** (2003 2008)
  - CHAIRMAN NAPSR EASTERN REGION (2004 2005)
  - VICE CHAIRMAN NAPSR EASTERN REGION (2003 2004)
  - CHAIRMAN NAPSR INTEGRITY MANAGEMENT PROGRAM COMMITTEE (2003 2007)
  - Member **NAPSR Distribution Integrity Government-Industry Team** (2003 2005)
  - Member NAPSR SECURITY COMMITTEE (2002 2006).
  - Charter member and member NAPSR (1982 2009)

Chairman of the New England Conference of Public Utility Commissioners Staff Committee on Gas (1980).

Vice Chairman of the New England Pipeline SAFETY Representatives (1988 - 2009) and member (1979 - 2009).

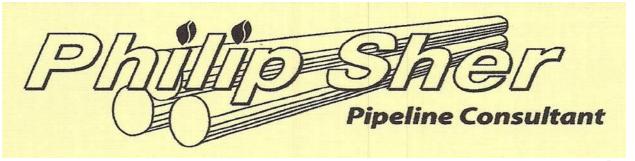
✤ Member of the NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS (NARUC) Staff Committee on Pipeline Safety (1986 - 2009).

Member of the AMERICAN SOCIETY OF MECHANICAL ENGINEERS (1979 – present).

✤ Recipient of the American Society of Mechanical Engineers BOARD OF GOVERNORS CERTIFICATE OF APPRECIATION (1989).

PRESENTER New England Gas Association Operating Division Meeting "PIPELINE SECURITY" (2002).





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#### UNDERGROUND DAMAGE PREVENTION ACTIVITIES PHILIP SHER

## \* Establishment of Connecticut Underground Damage Prevention Program

- Assisted Commissioner during testimony before Connecticut Legislature to pass Connecticut's mandatory program (1977)
- Connecticut's underground damage prevention is the oldest, Statewide, mandatory one-call system.
- Responsible for the oversight of the establishment of the mandatory Statewide one-call system (1977)
- Responsible for oversight of development of bylaws and operating procedures, including establishment of a non-stock, non-profit corporation (1977)
- Responsible for development of State regulations to implement Statewide, mandatory one-call system (1977)
- \* Establishment of Enforcement program for Connecticut Underground Damage Prevention Program
  - Active in development and passage of PA 81-46 one-call enforcement (1981)
  - Developed enforcement program to implement Public Act 81-46 (1981)
- \* DEVELOPMENT OF REINVIGORATED ONE-CALL UNDERGROUND DAMAGE PREVENTION ENFORCEMENT PROGRAM
  - o Oversaw the development of in-house computerized system for enforcement
  - Simplified procedure for negotiated settlement of civil penalties.
- OVERSIGHT OF OFFICE OF PIPELINE SAFETY RECOGNIZED COMPREHENSIVE ONE-CALL UNDERGROUND DAMAGE PREVENTION PROGRAM
  - Over 33 years overseeing the Connecticut one-call underground damage prevention program.
  - Recognized by the US Department of Transportation Office of Pipeline Safety Integrity Management for Gas Distribution Pipelines Report of Phase 1 Investigations (December 2005) as one of five state damage prevention programs identified as having a "comprehensive" program
  - "Analysis of five individual states with comprehensive damage prevention programs that include effective enforcement by the state agencies with responsibility for pipeline safety (Connecticut, Georgia, Massachusetts, Minnesota, and Virginia) shows a material improvement in gas distribution excavation damages per 1000 tickets compared to individual states that do not have effective enforcement programs." (Phase 1 Report)

