



with industry custom and practice regarding the installation and conversion of propane and natural gas appliances.

4. I have reviewed the Missouri Propane Gas Association's "Motion for Partial Summary Disposition" dated May 13, 2016 and related exhibits and attachments (the "Motion").

5. I have reviewed the "Partial Stipulation and Agreement as to Dual Fuel and Conversion of Appliances" (the "Stipulation") dated August 18, 2014 filed with the Public Service Commission of the State of Missouri in connection with "In the Matter of Summit Natural Gas of Missouri Inc.'s Filing of Revised Tariffs To Increase its Annual Revenues For Natural Gas Service," GR-2014-0086, which stipulation contemplates that conversions will be performed.

6. The Stipulation, paragraph 1, states: "For converting appliances from propane to natural gas, [Summit Natural Gas of Missouri, Inc.] agrees to follow all applicable national and local codes and manufacturers' specifications relating to the conversion of appliances."

7. Based on my experience in the propane and natural gas industries, the reference to "manufacturers' specifications" in this context generally means that the person converting an appliance from propane to natural gas will use components and procedures to ensure that following conversion, the appliance will continue to perform at a level equal to or better than its original performance specifications.

8. Based on my experience in the propane and natural gas industries, the language in paragraph 1 of the Stipulation is most reasonably read to allow conversion of appliances from propane to natural gas, provided that the manufacturer's technical details are followed on critical operational points such as (a) supply pressure, (b) operating pressure, (c) the dimension of the opening in the pilot orifice spud, and (d) the dimension of the opening in the main burner orifice

spud. These are the few technical differences in the propane / natural gas versions of the four appliances referenced in the Motion -- all other components and settings of the appliances are identical, regardless of whether the appliance is fueled by propane or natural gas.

9. Based on my experience in the propane and natural gas industries, the phrase “manufacturers’ specifications” in this context would not include general warnings or instructions against conversion set forth in the “Owner’s Operation and Installation Manuals” attached as exhibits to the Motion. Such general warnings and instructions are intended for layperson homeowners who are not expected to have knowledge or experience in proper conversion from one fuel to another. Such general warnings and instructions are not directed to experts such as natural gas suppliers and would not be considered “manufacturers’ specifications” in this context for purposes of a natural gas supplier’s conversion of appliances.

10. Under the custom and practice in the propane and natural gas industries, general warnings or instructions in an owner’s manual against conversion from propane to natural gas would not prohibit a natural gas supplier such as Summit Natural Gas of Missouri, Inc. (“Summit”) from performing such conversions. Instead, conversions are safe and acceptable so as long as the manufacturer’s technical details are followed on critical points such as (a) supply pressure, (b) operating pressure, (c) the dimension of the opening in the pilot orifice spud and (d) the dimension of the opening in the main burner orifice spud, and as long as that the appliance’s post-conversion performance is equal to or better than its pre-conversion performance.

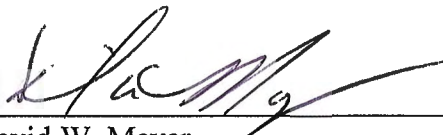
11. All four appliances referenced in the Motion may be operated safely on either propane or natural gas, as indicated by the fact that the owner’s manuals include technical specifications for supply pressure and operating pressure for both propane and natural gas, and identify component parts for the pilot orifice spud and the main burner orifice spud having

dimensions appropriate for both propane and natural gas.

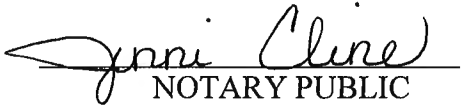
12. Based on my experience in the propane and natural gas industries, Summit properly performed the four conversions referenced in the Motion because Summit's conversion practices appropriately addressed the key operating criteria, following the manufacturers' specifications. Additionally, the actual performance of the appliances following conversion was equal to or better than the appliance manufacturer's performance specifications, with no adverse effect on operating safety, as confirmed by independent third-party inspections of appliances converted by Summit, a summary of which was produced in response to a data request made by the Commission's Gas Safety Staff.

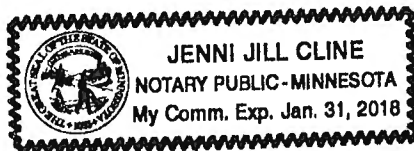
13. Conversion of appliances from propane to natural gas has been routinely and safely done since at least 1945, and there is nothing in the language of the Stipulation or in the Owner's Manuals attached to the Motion which should preclude Summit from performing such conversions in accordance with its appropriate and safe procedures.

Further affiant sayeth not.

BY:   
David W. Meyer

SUBSCRIBED AND SWORN TO  
BEFORE ME THIS 13<sup>th</sup> DAY  
OF June, 2016.

  
NOTARY PUBLIC





## **Curriculum Vitae**

**David W. Meyer**

### **Propane, Natural Gas, & Other Gases Industries, Codes, Equipment, and Systems Specialist**

#### **Professional Summary:**

Forty-three years of active participation in the propane and natural gas industries - from LP-Gas delivery to LP-Gas and Natural Gas Utilization Equipment Installation and Service Technician; to domestic and commercial piping system design, engineering, installation, inspection and maintenance, including single family dwellings, multiple family dwelling complexes and distribution systems for communities of up to three thousand people to multiple plant management - from Regional Manager of Sales and Service for an industry equipment manufacturer to Director of Technical Services for a major equipment manufacturer with world-wide distribution and service centers.

**Primary areas of consultation:** Propane and/or natural gas product application analysis. Propane hazard and safety evaluation. Site and equipment analysis of suspected gas involved incidents. Gaseous fuel equipment design and development. Development and presentation of gaseous fuels safety and service training programs for specific industry needs. Interpretation and application of codes, standards, and industry practices relative to the gaseous fuels industries. Company & employee policy and procedure development, implementation and over-site.

Extensive experience in gaseous fuel system field applications of valves, regulators, pumps, compressors, vaporizers, containers, gas utilization equipment and other related equipment, whether agricultural, commercial, industrial, recreational, or residential.

Experience in the development and field application of gaseous fuels carburetion and injection equipment for use as an alternative to gasoline for internal combustion engines from 1 - 10,000 horsepower.

## **Consultation and Lecture:**

Internationally recognized in gaseous fuels, delivering in excess of two thousand seminars in the areas of the characteristics of gaseous fuels, gaseous fuel system design and application for internal combustion engines, storage and handling of Natural and LP-Gases, domestic and commercial installations and uses, gas utilization equipment installation and service, codes applicability, codes certification testing system design and/or gaseous fuel safety procedures and practices.

Lecturer on Gaseous Fuels and Fuel Systems for:

- Australian LP-Gas Association
- New Zealand LP-Gas Association
- European LP-Gas Association
- Propane Gas Association of Canada
- National Propane Gas Association
- Western Liquid Gas Association
- Numerous State LP-Gas Associations
- Delivered paper at the 1986 World Expo in Vancouver, B.C. on "High Tech Fuel Management Systems".

## **Employment History:**

**4/89 – Present**

**Gas Training & Development LLC, Aitkin, MN,**

Consultant - Individual & Company Safety Policy & Procedures Development, Training & Employee Development Consultant.

Development of training curriculum, employee knowledge & skills assessments and certified testing. Implementation of training seminars relating to Natural gas, LP-gas, compressed gas mixtures for propellants, and various cryogenic gases utilized in industrial and manufacturing applications. Provide gaseous fuel system design and application analyses. Development of equipment application guides, catalogs and service literature. Provide consulting services relative to business and employee development strategies.

Gas Industry, Codes and Systems Specialist.

Provide consultative services as needed for equipment & systems design and installation as well as incident investigation with gaseous fuels involved. Analysis of gas equipment & system failure. Safety program analysis, development & implementation. Site & equipment analysis. Interpretation of gas industry and gas utilization equipment codes and standards and explanation of gas industry custom &

practice. Develop test question data bases for qualification and/or certification in specific areas of the gas industry.

**1/85 - 3/89**

**IMPCO Carburetion, Inc.**, Cerritos, CA, Director of Technical Services & Sales Support.

Duties included: Management of Technical Services Department, Customer Services Department, Technical Training and all support literature. Perform investigative work as required regarding loss and/or damage claims. Provide technical assistance to both direct and indirect customers and legal counsel.

**1/85 - 3/89**

**IMPCO Carburetion, Inc.**, Cerritos, California, Manager of Technical Training.

Duties included: Manage all activities of Application Engineering group. Develop and coordinate training programs for world-wide distribution network, as well as OEM accounts. Development of employee education programs. Locate and develop outside training facilities. Develop technical service bulletins, equipment installation procedures and warnings, equipment safety warning labels, sales brochure photographic artwork and customer newsletters. Technical in nature.

**10/83 - 12/84**

**Texgas Corporation**, New Brighton, Minnesota, Coordinator of LP-Gas Carburetion. Oversee all technical support and Customer Service functions for gaseous fuels motor fuel accounts, as well as develop new accounts.

**8/82 - 10/83**

**Vialle USA, Inc.**, Regional Manager of Sales & Service. Duties included: Locate and develop warehouse distributors throughout the U.S. and provide technical support including developing installation procedures, instructions, warnings and training development and implementation.

**8/76 - 8/82**

**Northwest LP-Gas Co.**, Aitkin, Minnesota, District Manager/Serviceperson.

Duties included: Perform and/or manage all functions to maintain complete operation of LP Gas plant. Including: Accounts receivable; Hire and train employees; service and safety training; Piping systems design, installation and maintenance; Gas utilization equipment installation and service; Purchase and maintain all vehicles and equipment.

**8/78 - 8/82**      **Auto-Tech, Inc., Automotive Technician Instructor** (part-time).  
Duties included: Instruct auto mechanics classes entitled; Scope & Infra-red Interpretation, Tune-up I & II and Computer Controlled Fuel Management.

**4/73 - 8/76**      **Great Plains Gas Co.,** LP-gas delivery, appliance installation & service, container & gas piping systems design, installation and maintenance.

### **Professional Association Memberships:**

National Fire Protection Association - Current Member  
Current member of 58 Technical Committee on Gases  
Previously served on the 37, 52, & 58 Technical Committees

National Propane Gas Association  
Former member of Technology & Standards, Education, and Safety Committees

Propane Gas Association of Canada  
Past Technical Committee Member

American Gas Association  
Past Technical Committee Member

American Management Association

### **Education:**

#### **National Fire Protection Association**

- NFPA 58, The Liquefied Petroleum Gas Code;
- NFPA 54, The National Fuel Gas Code;
- LP-Gas Emergency Planning and Response;
- Propane Facilities Risk Management Assessments;

#### **National Propane Gas Association,**

- **Certified Employee Training Program.** Courses of Study; Basic Principles & Practices, Propane Delivery, Plant Operations, Distribution Systems Operations, Appliance Installation, Appliance Service and Large Industrial/Commercial Gas-Fired Equipment Connection and Service. Certified and Instructor.
- **Gas Check Program.** Certified and Instructor.
- **Propane Emergencies Training Program.** Certified and Instructor.



### **Propane Resources Certified CBT;**

- The Consumer's System, Bulk Truck Delivery,
- Fundamentals of Propane, Hazardous Materials, and Dispenser Operations;

### **University of Minnesota** Extension Division, St. Paul, MN

- Course of Study; Gaseous Fuels Utilization;

### **University of Texas** Extension Division

- Course of Study; Gaseous Fuels Production, Utilization & Safety;

### **National Training Services/National Training Associate**

- LP-Gas Operations and Safety;
- LP-Gas Transportation and Delivery;
- LP-Gas Tanks, Cylinders, and Equipment;
- LP-Gas Liquid and Vapor Distribution Systems and Equipment;
- LP-Gas Liquid Transfer Systems and Equipment;
- LP-Gas Carburetion;
- Water Heating Service Training;
- Gas Water Heating, Cooking, and Heating Service;
- Field Service and Adjustment of Gas Space Heating Equipment;

### **Automotive Technology Institute**, Roseville, MN

- Internal Combustion Engine Theory and the Applied Use of Computer-Aided Technology,
- Engine Systems Tune-up I & II and Scope & Infra-Red Interpretation,
- Application of Gaseous Fuels as Alternatives to Gasoline and Diesel.

### **Pine County Vo-Tech Institute, Pine City, MN**

- Principles of Effective Communication;
- Applied Sales & Motivational Management

### **American Management Association**

- Training the Trainer, Training the Trainer II;
- Designing Training and Development Systems;
- Successful Technical Writing, Curriculum & Training Program;
- Development and Sales Management;

### **Technical Service Schools**

- American Gas Association:
  - Fundamentals of Gas Combustion;
  - Fundamentals of Gas Appliance Venting and Ventilation;

- Fundamentals of Electricity;
- Fundamentals of Gas Controls;
- Fundamentals of Gas Appliances;
- Fundamentals of Service to the Customer;
- American Society for Training and Development:
  - Understanding the Practice of Training & Development in Business, Industrial and Other Organizations;
- Anode Systems Company:
  - Underground Propane Tank and Pipe Corrosion Protection Systems;
- Blackmer, Inc.:
  - Theory of Gaseous Liquids Transfer;
  - Compressors and Pumps Designs, Operation and Maintenance;
  - Designing, Installing & Maintaining Liquid and Vapor Transfer Systems;
- Carrier: Applied Heating; Ventilation & Combustion Air;
- Corken International:
  - Principles of Gaseous Liquids Transfer;
  - Compressors and Pumps Operation and Maintenance;
  - Designing Liquid and Vapor Transfer Systems;
- Empire Comfort Systems, Inc.:
  - Gas Space Heating Installation and Service;
- Engineered Controls International, Inc. (RegO):
  - Introduction to LP-Gas Internal Valves;
  - Introduction to Propane Container Valves;
  - LP-Gas Regulators;
  - Pull-Away Valves;
- Fisher:
  - Fundamentals of LP and Natural Gas Pressure Regulation and Regulators;
  - Selection, Installation and Maintenance of Gas Flow Control Valves;
- Gas-Tite:
  - Design, Installation & Testing CSST;
- Gas Vent Institute:
  - Proper Gas Venting;

- Heath Consultants:
  - Accident Prevention
  
- Honeywell:
  - Basic Electricity;
  - How to Read ASA and Home Appliance Wiring Diagrams
  
- The Hydronic Institute:
  - Heat Loss Calculation;
  - Designing, Installing, and Maintaining Water & Steam Heating Systems;
  
- Illinois Propane Gas Association:
  - Risk Management for Propane Bulk Plants and Transfer Facilities;
  
- Lennox:
  - Principles of Forced Air Heating;
  
- Manchester (England) Open Learning:
  - Fundamentals of AC/DC;
  - Electrical Principles N and NII;
  - Basic Electronics;
  
- Maxitrol:
  - Gas Appliance Regulators;
  - Line Pressure Regulators w/Over Pressure Protection;
  - Line Pressure Regulators w/o Over Pressure Protection;
  - 2 – PSIG Piping System Design & Installation;
  
- MESA:
  - Cathodic Protection – Underground Propane Tanks;
  
- Midwest Energy:
  - Leak Classification;
  - Recognizing and Reporting Natural Gas Leaks;
  - Customer Leak Investigation;
  
- International Association of Arson Investigators, MN Chapter:
  - Propane and Natural Gas Migration and Ignition;

- National Electrical Manufacturers Association:
  - ANSI Z535.1: Safety Colors;
  - ANSI Z535.2: Environmental and Facility Safety Signs;
  - ANSI Z535.3: Criteria for Safety Symbols;
  - ANSI Z535.4: Product Safety Signs and Labels;
  - ANSI Z535.5: Safety Tags and Barricade Tapes (for Temporary Hazards);
  - ANSI Z535.6: Product Safety Information in Product Manuals, Instructions and Other Collateral Materials;
  
- National Oil Heat Research Alliance: Oil Heat Technician Training;
  
- Parker PGP: Design, Installation & Testing CSST;
  
- PERC:
  - Communication & Facilitation Skills for Trainers;
  
- Perfection:
  - Application & Installation of PE Mechanical Fittings;
  
- Prentice-Hall, Inc.:
  - System and Product Safety;
  
- Robertshaw Controls:
  - Heating, Water Heating & Cooking Controls and Control Systems, Volumes I, II, III, & IV;
  
- Rheem:
  - Gas Heat;
  - Fundamentals of Air Flow;
  
- R. W. Lyall:
  - Application & Installation of PE Mechanical Fittings;
  
- Sensit:
  - Gas Detection Equipment;
  - Principles of Gas Leak Investigation;
  
- Trac-Pipe: Design, Installation & Testing CSST;
  
- Turpin Communication:
  - Powered Industrial Truck Operators Training;

- U.S. DOL (OSHA):
  - Hazardous Materials Communication;
  - Developing and Implementing a Hazardous Materials Communications Program;
  
- U.S. DOT:
  - Ensuring Safety: The Cylinders Retesters Guide;
  - Hazmat Transportation and Security Awareness;
  
- Ward-Flex: Design, Installation & Testing CSST;
  
- Westinghouse Electric Corporation:
  - Danger - Warning - Caution; - Product Safety Label and Warnings Development;
  
- WI Blue Flame Council: 2 psig Natural Gas Piping