

**BRUCE P. SEMONIAN, Ph.D.**91 Floral Hill Drive Washington PA 15301 724-225-6212 safetyconnection@comcast.net

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**SafetyConnection, LLC** [2019-Present]**Chemistry Expert**

- University of Georgia - Ph.D. Analytical Chemistry (Minors: Organic, Physical and Inorganic Chemistry); decades of highly successful problem solving (i.e., Industrial & Consulting projects)

**Chemistry Expert Witness**

- Expert Witness Investigations (e.g., Worker Exposure, Product Liability, Slips and Falls, etc.)
- Failure analyses
- Product Defect analyses
- Causation analyses

**Environmental Expert**

- Certified Chemical Analyses for all Federal and State Agencies
- Environmental Oversight Assurance Programs (e.g., Phase I, II & III Environmental Site Assessments & Site Decontamination/Remediation)
- Development and execution of Site Evaluations for Environmental Compliance Studies (UST's, RCRA, NPDES) Federal and State Agencies

**Washington & Jefferson College** [2009 – Present]**Chemical-Hygiene Officer**

- Manage the Chemical-Hygiene Program at Washington & Jefferson College
- Training lecturer for Laboratory-Assistant Safety procedures
- Created the SDS & Chemical-Inventory Instant-Access computer system
- Author of the Science Center Laboratory Chemical-Hygiene Plan

**Environmental & Chemical-Testing Services (ECTS)** [1989 - 2019]**Program Manager**

- Pennsylvania Department of Corrections [State Correctional Institution, Pittsburgh (SCIP)] – Phase I & Phase II Environmental Contamination at the State Penitentiary (SCIP) Pittsburgh, (Chemist & Project Manager)
- Provided Expert Witness Services (e.g., Worker Exposure, Product Liability, Environmental Contamination, etc.)
- Provided evaluations of United States Food and Drug Administration (FDA) Laboratory Validation programs
- Directed Fisher Scientific's (now Thermo Fisher) FDA cGMP Laboratory Validation program – Installation Qualification (IQ), Operational Qualification (OQ), Process Verification (PV) and Preventative Maintenance (PM) programs
- Developed and executed Site Evaluations for EPA Environmental Compliance Studies (USTs, RCRA, NPDES)
- Provided Environmental Oversight Assurance Programs (e.g., Phase I, II & III Environmental Site Assessments)
- Provided Quality Assurance (QA) Programs for sampling and chemical analyses

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**EG&G, Inc. -- US Department of Energy** [1985 - 1989]**Section Leader** – Analytical Chemistry Laboratories, Safety Department, Health Services and Environmental Group [Dec. 1985 - 1989]

- Director of the Department of Energy's (DOE) Analytical-Research Laboratory and Analytical-Service Laboratory
- Director of EG&G's Analytical Chemistry support of the fossil-fuel research program
- Developed the program for evaluating outside laboratories supplying analyses to DOE
- Director of the Environmental, Safety and Health programs (i.e., Safety Office and Occupational Health Unit - providing physician and nursing services)
- Analysis-Design Leader - Reactivation of DOE's Fixed-Bed Gasifier
- Provided scientific content evaluations/reviews for potential business/sales areas

**Group Leader- Analytical Support Group** [Sept. 1985 - Dec. 1985]

- Director of EG&G Analytical Laboratories
- Director of Analytical Research and Method Development for coal research products and by-products
- Instituted a Laboratory Analysis-Validation program for all site-contracted analyses

**Union Carbide Corporation** [1977-1985]**Major Career Projects**

1. Bhopal India, Union Carbide chemical plant explosion and disaster (Investigation Team Leader & Disaster-Investigation Chemist)
2. Unipol<sup>®</sup> Polyethylene – Plant explosion Investigation Team Leader
3. Unipol<sup>®</sup> Polyethylene – Chemical Specification & Licensing Team Leader

**Project Scientist** [1980-1985]

- Lead Analytical Chemist for UNIPOL<sup>®</sup> Polyethylene Processes (R/D & Licensing)
- International consultant for UNIPOL<sup>®</sup> Polyethylene analysis instrumentation and UNIPOL<sup>®</sup> Polyethylene process measurements
- Head of the UNIPOL<sup>®</sup> Polyethylene Production-Trouble-Shooting Group
- Lead Application Chemist to the Polyolefins Division

**Senior Chemist** [1977-1980]

- Managing and Contributory Analytical Chemist to the Syn-Gas Research Program
- Managing and Contributory Analytical Chemist to Ethylene Oxide Derivatives Research Programs and Production Facilities

**Publications**

1. B. P. Semonian, Development of Ultra-Trace-Level Metal Analyses Using High Performance Liquid Chromatography; UCC Analytical Research Grant (1984).
2. B. P. Semonian, Application of Cryo-Focusing to High Resolution Gas Chromatography; Union Carbide Corp. Analytical Research Grant (1980).

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3. B. P. Semonian, J. A. Lubkowitz and L. B. Rogers, Phosphorous Response Mode of the Thermionic Rubidium Silicate Detector, *J. Chromatogr.*, 151; 1 (1978)
  4. J. A. Lubkowitz, B. P. Semonian and L. B. Rogers, Preparation and Characterization of Glass Beads for Use in Thermionic Gas Chromatographic Detectors, *Anal. Chem.*, 50, 672 (1978).
  5. J. A. Lubkowitz, J. L. Glajch, B. P. Semonian and L. B. Rogers, Study of the Nitrogen Response Mode of the Thermionic Rubidium Silicate Detector, *J. Chromatogr.*, 133, 37 (1977).
  6. B. P. Semonian, Characterization of the Hall Conductivity Detector for Use as a Gas Chromatographic Halogen Counter; Union Carbide Corp. Analytical Research (1983).
  7. B. P. Semonian and L. B. Rogers, Unusual Gas Chromatographic Behaviors of Naphthalene, Pyrene and Phenanthrene Using Pressurized n-Pentane as a Carrier Gas, *J. Chromatogr. Sci.*, 16; 49 (1978).
  8. B. P. Semonian and Milton Manes, Flow Method for Determination of Desorption Isotherms and Pore Size Distribution, *Anal. Chem.*, 49, 991 (1977).
  9. B. P. Semonian, Analysis of Alcohols, Glycols and Glycol Ethers in 18-Crown-6 Ether; Union Carbide Corp. Analytical Research (1978).
  10. B. P. Semonian, Analysis of Ultra-Trace Levels of Ethylene Oxide; Union Carbide Corp. Analytical Research (1979).
  11. B. P. Semonian, Trace-Analysis of Titanium in Polyethylene Resins; Union Carbide Corp. Analytical Research (1982).

## Education

University of Georgia - Ph.D. Analytical Chemistry (Minors: Organic, Physical and Inorganic Chemistry)