

DAVID A. CROSBIE

5830 Morrowfield Avenue
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412-521-0449

PROFILE

Mr. David A. Crosbie is a Chemical Engineer registered as a Professional Engineer in Pennsylvania. His experience spans environmental – production process aspects in the Specialty Chemicals, Iron and Steel, Oil Recycling, and Plating industries. In the context of his many project engagements, Mr. Crosbie focuses on modifying the process to use its inherent secondary chemistry to minimize emissions, control corrosion, or limit waste. Mr. Crosbie applies his analytic capabilities in the development of procedures that allow operators the latitude they need to compensate for failed equipment while producing on-specification material by maintaining critical parameters within the control plan.

Mr. Crosbie has favorably resolved and managed environmental regulatory issues combining effective installations with penalty reductions. Here, his experience in the development of regulations and conceptual understanding of the regulatory maze facilitates efficient compliance. His design and operation of biological waste treatment as a chemical process resulted in successful operation far beyond conventional rules of thumb.

Mr. Crosbie holds both B.S. and M.S. degrees in Chemical Engineering from Carnegie Mellon University. His graduate work in filtration and colloids engendered a microscopic perspective in the specification of filters and scrubbers. His English minor has fostered technical writing and communications focused on an understanding the needs of his audience.

Mr. Crosbie began his career with NUS Corporation working in the area of industrial water and wastewater. His career progressed through dispersed phase coal gasification engineering at Frummerman Associates and a variety of industrial processes in his independent practice. At Eastman Chemical Company, he has moved from an environmental position to one more focused on engineering and operation than regulation.

Thesis work included dynamic fluid mechanical modeling of a dispersed phase coal gasification reactor which terminated for lack of support. He then completed an experimental thesis based on original laboratory study of oil coalescence in a granular bed applying the theories of filtration and colloids. Technical writing and communications focused on an understanding the needs of his audience were fostered by a minor in English.

A detailed résumé follows:

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SUMMARY

A hands-on leader and technical expert in Process Engineering with experience in plant start-up, throughput optimization, process control, industrial wastewater, hazard analysis, environmental permits and compliance. A collaborator in team environments and also an initiator, effective in independent roles such as technical expert in litigation situations. A project and process problem solver focused on strategic planning, innovating, and creating effective solutions.

PROFESSIONAL EXPERIENCE

EASTMAN CHEMICAL COMPANY, West Elizabeth, PA
Previously HERCULES INCORPORATED

2001 – 2004
1986 – 2001

Process/Production Engineer (2000-2004) -- Technical department responsibility for process engineering associated with several production areas. Key accomplishments include:

- Developed concise WWTP Control Plan and extensive hyperlinked reference Operating Manual.
- Implemented cost saving automatic pH control with lime slurry eliminating bicarbonate.
- Completed Changeover Flush and Start-Up Evaluation mapping to 3% throughput improvement using PI database.
- Led Process Hazards Analysis and developed Documentation as Study Leader for proprietary polymerization unit.
- Eliminated "Rag" layer (a three phase emulsion accumulating at the interface in storage tanks).
- Optimized filter cycle for biological solids reducing operating and disposal cost.
- Resolved several pH-related data quality issues with internal self-monitoring programs.
- Implemented remote process tracking through direct instrumentation to network connection without extensive PLC upgrade.
- Flammable liquid area Electrical Classification of misclassified existing facilities per NFPA recommendations

Senior Environmental Coordinator – Environmental Coordinator (1986-1999) – Responsible for all areas of plant environmental compliance and associated process design. Key accomplishments include:

- Negotiated NPDES Permits including development and implementation of Facility Response Plan.
- Managed Solid Waste including definition of Analytical Requirements and Contract Development.
- Worked with consultants in the development of the Title V Permit Application.
- Resolved EPA-RMP issues for Boron Trifluoride and Ammonia.
- Established a Boiler or Industrial Furnace burning hazardous waste permit and compliance (RCRA) allowing continued on-site use of by-products.
- Designed and implemented plant-wide passive containment systems and controlled emission wastewater collection system.
- Negotiated a Consent Order for groundwater contamination and directed consultants in completion of its requirements.
- Supervised pilot study and completed the process design for a biological treatment plant that has operated in compliance with the OCPSF Pretreatment Standard since its 1991 start-up.
- Prepared process specification for aluminum chloride scrubber.

CROSBIE ENGINEERING, Pittsburgh, PA

1982 – 1986

Consultant – Provided diversified project consulting in areas of problem definition and resolution, project coordination and management, cost control, regulation compliance, and implementation of process improvements.

- Prepared environmental permit applications and design of a coal preparation recovery system with Chatham Engineers.
- Coordinated a laboratory automation robot gripper design development with Carnegie Mellon - Robotics Institute.
- Developed computer programs for job shop estimating, production reports, geometry calculations, CNC program plotting, and plating shop modernization for Hall Industries, Inc.
- Negotiated landfill closure compliance for a sanitary landfill.
- Instructor for CCAC employee training on Hazard Communication Standard 29 CFR 1910.1200 sponsored by SMC and SBA. Developed all program materials.
- Developed and instructed a seminar on wastewater treatment plant operation at Westinghouse Industrial Electronics Division.
- Interpreted nuclear QA specifications for a small business.

WISEMAN OIL COMPANY, INC., Coraopolis, PA

1980 – 1981

Manager Engineering – Specified and procured process equipment and all permits for this oil recycling facility. Managed electrical, civil and piping construction contracts. Developed process design for plant wastewater treatment system. Streamlined batch lube oil-bleaching process. Reduced installed costs through application of used equipment. Designed a heat exchanger network to reduce plant fuel use by 50%.

FRUMERMAN ASSOCIATES, INC., Wilkinsburg, PA

1977 – 1980

Consulting Chemical Engineer – Responsible for evaluation, design, project management, client development, and detail engineering. Consulted on coal gasification projects for DOE involving control and instrumentation modification. Petrochemical projects requiring NPDES permits, air pollution permits, SPCC plans, fire protection vapor emission control, and heat exchanger specification. Other projects included glass plant discharge, solid waste handling and blast furnace scrubber systems.

FERRO-TECH, INC., Pittsburgh, PA

1976 – 1977

Project Engineer – Responsible for proposals, report preparation, estimating, supervision of designers, and project management. Wrote operating manuals and field supervised blast furnace scrubber system start-up. Developed and taught operator training programs. Evaluated performance of a plating line cascade rinse system. Developed coating specifications and design of acid mine drainage neutralization systems.

NUS CORPORATION, Greentree, PA

1971 – 1975

Process Engineer – Established in water and wastewater management programs for industry and government. Developed flow charts, mechanical and functional specifications, and client processes to conserve water and energy. Specific projects included process design of a blast furnace scrubber water recycle system, rubber plant water treatment design, EPA Iron and Steel Guideline development, a large industrial cooling system, and several zero discharge projects.

EDUCATION and PROFESSIONAL DEVELOPMENT

Carnegie Mellon University, M.S., Chemical Engineering
Carnegie Mellon University, B.S., Chemical Engineering

ISO 9000/14001, Root Cause Analysis, Visual Basic, Microsoft Office, Time Management, Six Sigma, SCBA, Hazmat, Change Management, SAP database, Hazards Analysis Techniques, Training Program Design, Conflict Management, Asbestos, Centrifugal Pump, PSM/Mechanical Integrity, Facilitation, American Bar Assoc. – Protecting Your Company,

REGISTRATION

Professional Engineer, Pennsylvania, 1980
Certified Six Sigma Black Belt, ASQ, 2005

AFFILIATIONS

American Institute of Chemical Engineers
Society for Analytical Chemists of Pittsburgh
National/Pennsylvania Society of Professional Engineers
American Society for Quality
Western Pennsylvania Water Pollution Control Association

PUBLICATIONS

- Crosbie, D.A., "Discharge Elimination and Energy Recovery Through Integrated Reuse of Process Wastes," Sixth National Conference on Energy and the Environment, May 24, 1979.
- Troy, J.C. and Crosbie, D.A., "Second Generation Blast Furnace Recycle Systems," Ninth mid-Atlantic Industrial Waste Conference, August 8-9, 1977.
- Crosbie, D.A., "Oil Coalescence in Granular Beds As An Extension of In-depth Filtration," M.S. Thesis, Dept of Chemical Engineering, Carnegie Mellon University, March 1977.