

## CONSULTING RESUME OF TOM N. PETERSEN, P.E.

### Profile

I have 33 years of environmental engineering and health and safety experience in project management, process safety management, air quality compliance, strategic planning, and environmental control systems design. My services have included work in 22 states for the healthcare, food, chemical, pharmaceutical, printing and surface coating, electronics, metals, automotive, and other industries. I am trained as a Lead Auditor in ISO 14001 Environmental Management System and Responsible Care (RC) 14001.

### Professional Experience

#### President

1996-Present

*Environmental and Engineering Solutions, Inc.*, Pennsylvania

Management of company with overall responsibility for providing services to healthcare and industrial clients, marketing, contract negotiation, and administration. Consulting in the areas of air quality strategies and permitting; industrial hygiene; environmental management systems; industrial ventilation and air pollution control systems design; process safety management; dispersion modeling; and environmental litigation support. Clients include healthcare facilities and manufacturers of food products, integrated circuits, chemicals, HVAC equipment, specialty gases, adhesives, electronics, and aerospace systems.

#### Project Manager

1994-1997

*Roy F. Weston, Inc.*, Pennsylvania

Managed air quality projects in Title V, pre-construction permitting, pollution control system design, and source testing. Projects ranged in size up to \$200,000.

- Successfully obtained Reasonably Available Control Technology (RACT) permits for coal-fired and oil-fired boilers which minimized control requirements and saved money for a Pennsylvania university.
- Provided alternatives evaluation, design, contractor selection, construction oversight, start-up, and balancing services for a paint spray booth and make-up air system upgrade. New systems minimize worker exposure to solvent vapors.
- Managed project to assist seven bakeries to comply with RACT and Title V requirements. Conducted training sessions on air issues. Managed stack testing as part of air permitting process. Negotiations with state regulators allowed for extensions. Facility currently in full compliance.
- Revised chemical manufacturer's synthetic minor permit to reduce restrictive conditions, thus saving client \$100,000 initial and \$50,000 annual costs in testing, without compromising environmental protection.
- Provided litigation support and expert testimony for a chemical manufacturer regarding design errors and breach of contract for an industrial ventilation and air pollution control system installation.

**Senior Engineer** 1992-1994

*Dames & Moore, Pennsylvania*

- Provided air permitting and stormwater/spill planning services for multiple facilities for a metals industry material processor.
- Prepared air permit application, including dispersion modeling, for New Jersey bulk pharmaceutical manufacturer and negotiated with agency for favorable permit conditions. Conducted air emissions testing for VOC and ammonia.
- Provided expert testimony which supported client's position in air quality lawsuit. Provided recommendations for cost-effective control equipment.
- Developed and implemented sales and marketing plan to increase air consulting business.

**Supervising Engineer** 1991-1992

*McLaren/Hart Environmental Engineering Corp., Pennsylvania*

Directed air quality practice in regional office. Managed projects in air permitting, SARA Title III, and environmental assessments. Developed and implemented sales and marketing plan.

**Group Leader, Air Quality** 1991

**Project Engineer/Manager** 1987-1991

*RMT, Inc., Wisconsin*

Managed projects in industrial ventilation design, air pollution permitting, risk assessment, and emission evaluation.

- Obtained positive determination for 100% capture criteria, which minimized the need for future stack testing and saved \$50,000 in testing costs for flexographic printing and laminating operation.
- Conducted three-phased project to reduce carbon monoxide exposures. Phases included: breathing zone and area sampling surveys to assess CO levels; conceptual design of local exhaust ventilation and make-up air systems; final design plans and specifications of the ventilation system.

**Mechanical/Environmental Engineer** 1984-1987

*Mabbett, Capaccio & Associates, Inc., Massachusetts*

- Managed projects in air pollution control design, ventilation system evaluation, and environmental regulatory compliance.
- Served as senior engineer on air quality permitting, VOC source sampling, dispersion modeling, and clean room design projects.

**Mechanical Engineer** 1982-1984

*New York City Department of Environmental Protection, New York*

Designed and specified mechanical systems in wastewater treatment plants and pumping stations. Coordinated efforts of structural, electrical, and architectural divisions in producing contract drawings for plant upgrading.

**Design/Field Services Engineer** 1982

*Belco Pollution Control Corporation, New Jersey*

Designed electrostatic precipitators, baghouses, and cyclonic collectors. Developed computer program for optimizing pollution control device size, cost, and performance.

### Education

M.S., Environmental Systems Engineering  
CLEMSON UNIVERSITY, 1983

B.S., Mechanical Engineering  
CORNELL UNIVERSITY, 1980

ISO 14000-EMS Auditor (Cert. No. E052920)  
Responsible Care RC14001 Auditor Training  
40-Hour Health and Safety Training for Hazardous Waste Site Activities

### Professional Affiliations

Air and Waste Management Association (since 1980)  
National Society of Professional Engineers  
Healthcare Facility Managers Association of Delaware Valley  
Eastern Montgomery County Chamber of Commerce  
Hospital Fire Marshals' Association, Inc.  
Indoor Air Quality Association

### Publications

"Applying for and Complying With Air Permits," *Air Pollution Control*, March 2014.

"Case Study: Risk Management in Health Care Construction Projects," *Occupational Health and Safety Magazine*, January 2009.

"Assess Risk, Plan Ahead to Prevent Hospital-Acquired Infections," *Healthcare Building Ideas*, November 2008.

"Indoor Air Quality for Commercial and Industrial Facilities," presented at a client seminar in Cheltenham, PA in May 2001, at a NEBB recertification seminar in Hershey, PA in November 2001, at a Middle Atlantic Construction Safety Council meeting in February 2002 and published in *Manufacturing & Technology Magazine* in February 2006.

"Ventilation Design for Carbon Monoxide Control in an Iron Foundry," presented at Ventilation '91, 3rd International Symposium on Ventilation for Contaminant Control, September 1991.

"Design Specifications," presented at Controlling Particulates and Toxic Air Emissions With Baghouses and Scrubbers, University of Wisconsin-Madison, May 1989.

"Human Health Risk Assessment of Landfill Gas Emissions," *Eleventh Annual Madison Waste Conference-Proceedings*, September 1988.

"Ventilation and Air Pollution Control," *Metal Finishing Guidebook*, 1986.

"Update on Air Toxics Strategy," *Plating and Surface Finishing*, November 1985.

"Cleanliness Counts: A Guide to the Application of Clean Room Technology in the Printed Circuit Industry," *Printed Circuit Fabrication*, June 1985.

**Environmental, Health and Safety Presentations**

Healthcare Facility Managers Association of Delaware Valley  
Federal Express  
PA Society for Health Facility Engineering  
Hospital Fire Marshals' Association  
ISP Minerals  
Executive Enterprises  
Air and Waste Management Association  
Industry Council on the Environment, Safety, and Health  
University of Delaware  
Environmental Professionals Association of the Philadelphia Region  
National Environmental Balancing Bureau

**Registered Professional Engineer in Pennsylvania and New Jersey**