



# Professional Profile

## Neil Fox

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### Fields of Expertise

- Engineering Data Analysis
- Air Emission Permit Compliance
- Greenhouse Gas Emission Calculations
- Chemical Process and Equipment Emissions
- Hazardous and Toxic Chemical Facility Reporting
- Hazardous Waste Management

### Experience Summary

16 years experience designing manufacturing processes, analyzing data, managing and reporting environmental regulatory compliance.

As a Staff Engineer at TORF Environmental Management, assess and calculate process emissions, evaluate air quality permit compliance, evaluate and inventory chemical materials, processing equipment and waste, and prepare written reports and regulatory notifications that comply with regulatory requirements.

As a Process Engineer for Micron Technology, managed deposition processes, resolved defects, implemented special projects, trained new process engineers. Co-developed automatic adjustment algorithms and developed specifications, processes and charts demonstrating equipment compliance and operations.

### Experience Summary Cont.

As a Customer Service Engineer for Applied Materials, installed equipment, resolved problems and repaired sophisticated semiconductor equipment, including robot, computer, gas delivery, electrical, radio-frequency, vacuum, pneumatic, water, and mechanical systems.

As a Customer Service Engineer for Itron, worked with hardware and software engineering, customer support, and nationwide customers to analyze and troubleshoot electronic hardware, computer, software and phone line problems. This included field diagnoses at customer locations and computer system setup with customer training.

### Credentials

- Registered Engineering Intern Idaho #7522
- Certified Visible Emissions Measurement
- 40/49 CFR DOT Hazardous Waste Training
- Masters Civil Engineering, Environmental and Water Resources, Boise State University, 2011
- B.S. Engineering Physics, Northwest Nazarene

## Key Projects

### Environmental Engineering

- Developing an Air Quality Permit Application for a building materials painting facility. The facility uses 100's of paint products and includes both automated and manual spray equipment. The project includes calculating potential air emissions, coordinating air dispersion modeling, and documenting that the facility's emissions comply with air quality standards and deserve a Permit to Construct.
- Ongoing work calculating and documenting monthly air emissions at a specialty coatings facility. The work helps the facility comply with its air quality permit and air quality regulations.
- Developed air emission source inventory at a semiconductor manufacturing facility, collecting data and information for each emission source and stack.
- Mapped client's solvent waste system and developed detailed descriptions and photographic documentation.
- Collected greenhouse gas emission data, calculated emissions and developed regulatory report for a semiconductor manufacturer.
- Developed regulatory report documenting air emissions from plating processes at a semiconductor manufacturer.
- Developed a hazardous materials inventory report for a facility's gas delivery system that included hundreds of units.
- Implemented a maintenance and readiness testing system for a client's emergency generators that complies with new air quality

regulations.

- Prepared a U.S. Department of Homeland Security toxic material screening report for client that hundreds of chemicals.

### High Technology Systems

- Developed an algorithm to provide automatic adjustment of deposition chemical composition ingredient recipes. This saved a considerable amount of labor previously devoted to this task and led to more consistent process performance.
- Developed data collection specifications, processes, and charts for repeatability tests which allowed reliable tests to be run by production post-maintenance or for troubleshooting. The data was then accessible to all, so that data was not lost and trends were identified.
- Repaired a failure-prone switch on several machines and saved the company at least \$20,000. Developed a procedure that enabled the company to complete its own future repairs.
- Installed remote meter reading equipment throughout a natural gas supplier's service area. Managed and monitored system equipment, resulting in a successful demonstration of the new remote meter reading equipment and system.
- Analyzed apartment locations and coordinated highly successful installation of electric modules for a utility in Pittsburgh, PA.