

# SENIOR STAFF QUALIFICATIONS

---

**CHRISTOPHER J. DICK, P.E.**  
Manager of Air Quality Services

**Manager of Air Quality Services, Green Star Environmental, Lewisville, Texas**

Specializing in the following services:

- New Source Review Permits (PSD, Non-attainment and State Level)
- Title V Permits
- Air Dispersion Modeling
- Air Quality Compliance Assistance
- Emissions Inventories & TRI Reporting
- Opacity/Method 9 Observations
- RCRA Permitting
- Noise Analyses

## **SUMMARY OF PROFESSIONAL EXPERIENCE**

### **PSD / Non-attainment Permitting**

- Completed New Source Review permitting for three new landfill gas-to-energy (LFGTE) facilities in Texas. Each of the three facilities is classified as a major source with respect to both the non-attainment new source review (NNSR) program and the federal Prevention of Significant Deterioration (PSD) program. Permitting activities involved analyses of Best Available Control Technology (BACT) and Lowest Achievable Emission Rate (LAER) options, atmospheric dispersion modeling, and coordination with a diverse project team in development of multiple LFGTE projects.

### **Minor New Source Review Permitting**

- Assisted clients in obtaining minor new source review construction authorization in Texas for several industries (asphalt manufacturing, anaerobic wastewater treatment, batch chemical production, beef rendering, ceramic tile manufacturing, chemical blending, chemical distribution, chemical storage, drug incineration, grain handling, LFGTE facilities, natural gas transmission, painting operations, powder coating manufacturing, semiconductor manufacturing, and site remediation). These minor NSR activities included preparation of TCEQ applications for permits, alterations, amendments, standard permits, and permits by rule (exemptions). Many of these permitting activities required analyses of net emissions increases and securing of synthetic minor status with respect to NNSR.
- Completed synthetic minor NSR permitting for installation of new flares, engines, and turbines for LFGTE projects in severe ozone non-attainment areas throughout Massachusetts, installation and modification of electrical generating gas turbines in New Mexico, construction of aggregate transfer facilities in Louisiana, and modification of hard rock mining operations in Nevada.

### **Title V Permitting**

- Prepared comprehensive Title V operating permit applications for a beef slaughterhouse / tannery and a gasoline distribution terminal in Texas. Preparation of these applications included state and federal regulatory applicability assessments, compliance demonstration documentation, and permit application preparations.
- Assisted a ceramic tile manufacturer with identification of appropriate monitoring techniques to demonstrate compliance with applicable regulatory requirements under the Title V program.
- Assisted an OSB manufacturing facility in determining the appropriate Title V permit modification mechanism required to gain operating approval for a plant modification.



---

## SENIOR STAFF QUALIFICATIONS

### **Atmospheric Dispersion Modeling**

- Performed and supervised PSD air dispersion modeling for three new LFGTE sites, a major modification at a secondary aluminum smelting / rolling plant, and major modifications at two Oriented Strandboard mills. Modeling included:
  - PSD significance modeling,
  - PSD full-impacts modeling,
  - PSD increment modeling,
  - State-level modeling for criteria pollutants, and
  - State-level modeling for air toxics.
- Performed and supervised state-level air dispersion modeling analyses for criteria pollutants and state air toxics (e.g., Texas Health Effects Review) in support of state minor NSR permitting activities. These modeling projects have included various industries (e.g., LFGTE, spray coating, power generation, chemical blending, chemical distribution, fuel distribution, semiconductor manufacturing, and powder coating production operations) in several states (e.g., Texas, New Mexico, and Massachusetts).
- Performed air dispersion modeling analyses using the Offshore and Coastal Dispersion (OCD) model to determine coastal air quality impacts from off-shore oil exploration and production operations in the Gulf of Mexico. Modeling was performed in accordance with Minerals Management Service (MMS) guidelines and submitted for MMS review.

### **RCRA Permitting / RCRA Combustion Issues**

- Prepared RCRA Risk Burn and Trial Burn Test Plans, as well as the associated Quality Assurance Project Plans (QAPPs) for various hazardous waste combustion units.
- Assisted clients in preparing RCRA Part B permit renewals, including preparation of engineering reports and closure and post-closure plans.
- Performed independent technical review of RCRA Comprehensive Performance Test Plans (CPTPs) for multiple combustion units throughout the U.S. to verify conformance with applicable regulatory requirements and U.S. EPA technical guidance.
- Performed and supervised technical review of dispersion modeling protocols to ensure conformance with applicable U.S. EPA risk assessment guidance.
- Managed and performed closure activities for a RCRA-permitted hazardous waste storage tank under the provisions of TNRCC Risk Reduction Standard No. 1, the applicable closure plan, and specific permit conditions. Activities included field sampling, comparison of analytical results to background levels, and preparation of closure certification.

### **Air Quality Source Testing Issues**

- Planned and oversaw a Relative Accuracy Test Audit (RATA) on a VOC Continuous Emissions Monitoring System (CEMS) that monitors control device destruction efficiency on emissions from a batch coating process.
- Quantified emissions from semiconductor manufacturing facilities through the use of source testing methods.
- Prepared RCRA Trial Burn and Risk Burn test plans and QAPPs for hazardous waste combustion units.
- Conducted independent technical review of RCRA CPTPs for multiple combustion units throughout the U.S. to verify conformance with applicable regulatory requirements and guidance.
- Performed and supervised Method 9 opacity observations for various



# SENIOR STAFF QUALIFICATIONS

---

industries (rock crushing, portland cement manufacturing, snack food production) in Texas, Arkansas, Oklahoma, New Mexico, and Colorado. In some cases, observations were conducted under the on-site scrutiny of regional enforcement personnel. Observations provided initial determination of compliance with New Source Performance Standards (NSPS) and Maximum Achievable Control Technology (MACT) standards, and demonstrated compliance with applicable state regulatory limits under the Title V program.

## Compliance Audits / Compliance Management

- Performed air quality compliance audits focusing on all aspects of federal and state air quality regulatory requirements for the following industries in the following states:
  - Aerospace manufacturing facilities – 2 facilities (TX)
  - Rail yard maintenance shop – 1 facility (TX)
  - Bus maintenance/body shops – 4 facilities (TX, IL, KY, and VA)
- Assisted in a due diligence regulatory audit for a hazardous waste combusting portland cement plant in Missouri. The audit focused on state and federal air quality and RCRA regulatory requirements.
- Developed a spreadsheet record keeping system for painting operations at two rail yards in Texas to assist client with demonstrating compliance with permit by rule record keeping requirements.
- Developed a facility-specific record keeping system to assist a chemical distribution client with compliance management relative to the flexibility provisions in their NSR permit.

## EMPLOYMENT HISTORY

2003-Present, Green Star Environmental  
1997-2003, Trinity Consultants  
1996-1997, City of Englewood, Colorado – C. Allen Water Filtration Plant  
1994-1996, Colorado School of Mines – Graduate Research Assistant, Environmental Science & Engineering Division  
1992, U.S. Environmental Protection Agency - Region V, Office of Solid Waste and Emergency Response, Enforcement and Emergency Response Branch  
1991, City of Indianapolis, Department of Public Works

## EDUCATION

M.S., Environmental Science & Engineering, Colorado School of Mines  
B.S., Civil Engineering, Purdue University

## PROFESSIONAL CERTIFICATIONS & PUBLICATION

Professional Engineer (Environmental), Texas  
Environmental Professional Intern  
EPA Methods 9 and 22 Visible Emissions Evaluation Certification  
OSHA 40 Training Course and 8 Hour Annual Refresher

**Klusman, R. W., and C. J. Dick.** *Seasonal Variability in CH<sub>4</sub> Emissions from a Landfill in a Cool, Semiarid Climate*, Journal of the Air & Waste Management Association, 2000.

**Dick, C. J., and P. F. Greywall.** *Applicability Issues and Control Requirements Associated with the Presumptive MACT for Organic Liquids Distribution Facilities*, National Association of Environmental Professionals, 24<sup>th</sup> Annual Conference, 1999.

**Dick, C. J.** *Seasonal and Spatial Variability of Landfill Methane Fluxes Measured by Static Flux Chamber Methods*, M.S. Thesis, Colorado School of Mines, Golden, CO, 1996.

