NICHOLAS LEONE, P.E.
DIRECTING CONSULTANT

CREDENTIALS

- Bachelor of Chemical Engineering (Minor-Biochemical Engineering), University of Delaware, 2006
- Professional Engineer (Multi-State)
- Air and Waste Management Association (AWMA)

PROFESSIONAL EXPERIENCE

- 2006-Present: All4 LLC, Kimberton, PA – Directing Consultant

TECHNICAL EXPERTISE

- ✓ State and Federal Air Permitting Programs Including Title V And Various Construction Permit Applications;
- ✓ Multi-Media permitting including National Pollutant Discharge Elimination System (NPDES) and Beneficial Use Waste programs;
- ✓ Applicability analyses including thermal efficiency calculations for interstate transport rules;
- ✓ Development of NSPS/MACT/State CEMS emissions reporting;
- ✓ Development of Fuel Sampling and Initial Performance Test plans;
- ✓ Compliance Plan Development and Implementation for Area Source Subject to a Nation Emission Standard for Hazardous Air Pollutants (NESHAP);
- ✓ Environmental Program Management;
- ✓ Multi-Media Environmental Auditing;
- ✓ Toxic Release Inventory (TRI) Form R reporting;
- ✓ Multi-Media Environmental Compliance Assistance Including Stormwater Sampling and Analysis Program Implementation, Discharge Monitoring Report (DMR), Water Use Allocation, and Waste Program Compliance Inspections
- ✓ Site-Specific Monitoring Plan development;
- ✓ Experience working with industrial process software PI and data acquisition systems (DAS) for CEMS;
- ✓ Development of Environmental Emergency Response, Integrated Contingency, and Spill Prevention Control and Countermeasure (SPCC) Plan;
- ✓ Ambient and Meteorological Monitoring;
- ✓ Multi-Media Regulatory Review; and
- ✓ Development of Continuous Monitoring System (CMS) Compliance Approach and Compliance Auditing.

PROFESSIONAL OVERVIEW

Mr. Nicholas Leone is a Chemical Engineer with 15 years of experience in multi-media permitting and compliance. He has prepared air quality plan approval applications, permit-to-install applications, New Source Review (NSR) and Title V permit applications, emissions inventories, annual emissions statements, and strategic air compliance approaches. Experience has been gained in a variety of industries including Pulp & Paper, Pharmaceutical, Power Generation, Oil and Gas, Petroleum Refining, Medical Waste Incineration; and Cement and mineral processing, Brick, Steel, Metal Tubing, Food Product, Fabric, and Pigment Manufacturing.

He has experience assisting clients with complex multi-media permitting and developing compliance strategies. He has been responsible for overall environmental program management for various facilities, which covered air, water, and waste. His experience has led to conducting multi-media environmental auditing and compliance assessments for various types of industrial facilities, including but not limited to, cement and quarrying operations.

He has assisted clients with ongoing reporting and compliance requirements including Title V semiannual monitoring/deviation and annual compliance certifications, annual emission statement submittals, Toxic Release Inventory (TRI) Form R reporting, NESHAP reporting, greenhouse gas (GHG) emissions reporting, and DMR preparation and associated data collection programs. He has integral experience working with facility personnel developing and implementing a Title V compliance management system at a pulp and paper mill.

He has also gained Continuous Emission Monitoring System (CEMS) experience on a variety of projects including quarterly reporting, Pennsylvania's Revision 8 implementation, QA/QC and Site-Specific Monitoring plan development, CEMS troubleshooting, managing an ambient SO2 and meteorological monitoring station, etc.

Mr. Leone has assisted various facilities develop, review, and prepare environmental emergency response procedures. Both SPCC and integrated environmental contingency plans have been prepared in accordance with regulatory requirements. Additionally, he has completed ALL4's Environmental Training Programs AQ101 and AQ201. Mr. Leone also serves as a company-wide RegTech resource and tracks various State and Federal rule changes as printed in the registers.

PROFESSIONAL EXPERIENCE

Title V Renewal Application, Cement Manufacturing, SC, Project Engineer: *Prepared Title V Operating Permit Renewal Application for a cement manufacturing facility located in South Carolina. Activities included developing a facility-wide emissions inventory and preparing the appropriate forms.*

Permit Application, Oil/Gas Transport, CT, Project Engineer: *Prepared a Permit Application for a gasoline, distillate, and ethanol distribution facility that would allow the facility to utilize a portable vapor combustion control device on a temporary basis. Application included proposed permit conditions to allow the facility to bring the temporary control device onsite with minimal advance notice to the regulatory agency.*

Air Information Management System (AIMS) Annual Emissions Reports, Concrete/Cement Manufacturing, PA, Project Engineer: Compiled *and assisted in the submittal of Air Information Management System (AIMS) annual emissions reports, including all of the necessary forms and supplemental information.*

Permit Application, Miscellaneous Manufacturing, GA, Project Engineer: Prepared *a permit application to install a new latex backing line in a carpet manufacturing facility. Application also included proposed new permit conditions designed to ensure the facility will remain a Synthetic Minor facility for both volatile organic compounds and hazardous air pollutants.*

Boiler MACT Compliance Assistance, Paper Manufacturing, MI, Project Engineer: Prepared *an initial performance test and monitoring plan for two existing boilers operating at a pulp and paper mill. This was submitted to the Michigan Department of Environmental Quality (MDEQ) and the United States Environmental Protection Agency (U.S. EPA) to meet the Boiler MACT requirements for an existing large solid fuel category boiler.*

Boiler MACT Compliance Assistance, Paper Manufacturing, KY, Project Engineer: Prepared *an initial performance test and monitoring plan and a fuel sampling plan for an existing boiler operating at a pulp and paper mill. The plan was used to meet the Boiler MACT requirements for an existing large solid fuel category boiler.*

CAIR Applicability Analysis, Paper Manufacturing, VA, Project Engineer: Performed *a Clean Air Interstate Rule (CAIR) applicability analysis on all combustion units serving a generator. This included a comparison of power sales to CAIR thresholds and development of thermal efficiency calculations.*

CAIR Applicability, Paper Manufacturing, Various Facilities, Project Engineer: Assisted *in a Clean Air Interstate Rule (CAIR) applicability analysis on all combustion units serving a generator at four facilities. This included a comparison of power sales to CAIR thresholds and development of thermal efficiency calculations.*

CAIR Applicability, Pharmaceutical, PA, Project Engineer: *Performed a Clean Air Interstate Rule (CAIR) applicability analysis on all units serving a generator at the facility. The project focused on the development of thermal efficiency calculations.*

Malodor Abatement System, Food Manufacturing, PA, Project Engineer: Assisted *in the development of a plan approval application for the installation of a carbon adsorption system to aide in the abatement of malodor.*

Toxic Substance Control Act (TSCA), Concrete/Cement Manufacturing, PA, Project Engineer: *Developed the documents required for reporting purposes under TSCA.*

PADEP Quarterly Reporting, Concrete/Cement Manufacturing, PA, Project Engineer: *Assisted in the Pennsylvania Department of Environmental Protection (PADEP) quarterly CEMS reporting. The project included amending past CEMS reports and preparing submittal packages on a continual basis from July 2006 through the present.*

Permit Application to Install a Coal Crusher, Paper Manufacturing., VA, Project Engineer: *Assisted in the preparation and submission of a permit application for the installation of a coal crusher. The full regulatory review in the permit application included the New Source Performance Standards (NSPS).*

Pulp and Paper MACT I and II Routine Reporting Assistance, Paper Manufacturing., VA, Project Engineer: *Assisted in the preparation and submission of pulp and paper MACT I semi-annual CEMS reports and pulp and paper MACT II quarterly reports. This required coordinating with multiple mill personnel, obtaining process data using the mill's PI system, and collecting emissions data from the mill's CEMS software.*

Toxic Release Inventory (TRI) Reporting, Paper Manufacturing., VA, Project Engineer: *Served as the on-site lead for the development and submission of SARA-TRI Form R's at a pulp and paper mill. The project involved verifying or updating all emission factors; conducting threshold calculations for all applicable TRI compounds in the National Council for Air and Stream Improvement's (NCASI's) SARA Handbook (for Kraft mills); entering the Form R data (e.g. releases both on and off site) into U.S. EPA's web based reporting system (TRI-MEWeb); annotating the source of each emission factor, documenting all changes to emission factors or calculations made by ALL4; developing an instruction document for the Mill to use in preparing the TRI in future years.*

Annual Emission Inventory Reporting, Paper Manufacturing., VA, Project Engineer: Served *as the on-site lead for the development and submission of an annual emission inventory report at a pulp and paper mill. The project involved on-site interface with PI and data acquisition systems (DAS) to obtain process and emissions data. This included working with mill personnel to verify emissions calculations and formally document all updates to emissions calculation methodology.*

Title V Compliance Management System, Paper Manufacturing., VA, Project Engineer: Assisted *in the development and implementation of Microsoft Access-based Title V Compliance management system. The project involved a condition-by-condition compliance strategy used for semi-annual deviation reporting, annual compliance certification, and prompt deviation reporting.*

Emissions Tracking System Development, Fabricated Metal Manufacturing, PA, Project Engineer: Assisted *in the development and implementation of facility wide emissions tracking spreadsheet for process and combustion sources. The project focused on tracking monthly emissions against the monthly, annual, and rolling emission limits. It also included on-site training for ongoing facility use of the emissions tracking compliance spreadsheet.*

Acid Pickling Emission Factor Development, Primary Metal Manufacturing, PA, Project Engineer: Assisted *in the development of an emission factor for acid bath pickling operations representative of actual emissions. This project involved reviewing, interpreting, and correlating emissions test data to process parameters.*

Toxic Release Inventory (TRI) Reporting, Primary Metal Manufacturing, PA, Project Engineer: *Assisted in the submittal of the reporting year 2007 Toxic Release Inventory (TRI) Form Rs. This project involved reviewing threshold calculations for TRI compounds, working with plant personnel to quantify releases to the environment, documenting electronic supporting documentation and calculations on the plant's network, and entering the Form R data into U.S. EPA's SARA TRI-ME software. ALL4 assisted in generating the final submittal package including a cover letter and hard copy diskettes for submittal.*

Electric Generating Unit (EGU) Regulatory Applicability Analysis, Paper Manufacturing, SC, Project Engineer: *Assisted in the development of a regulatory applicability analysis for the installation of a turbine generator at an existing facility. The regulatory applicability analysis involved reviewing the requirements of the Clean Air Interstate Rule (CAIR), the NOx SIP Call (NOx Budget Trading Program), the Acid Rain Program, and/or Subpart Da of the New Source Performance Standards (NSPS).*

Acid Rain Program (ARP) Opt-In Permit Application, Gas/Electric Utility, PA, Project Engineer: *Assisted in the development of an acid rain program (ARP) opt-in permit application for a coal-fired boiler. This project emphasized developing an SO_2 emission inventory, evaluating permitted limits, and determining SO_2 allocations in accordance with ARP provisions.*

40 CFR 63, Subparts S and MM Information Collection Request (ICR), Paper Manufacturing, Various Mills, Project Leader: *Responsible for assisting and managing the process for various pulp and paper mills to respond to U.S. EPA's Pulp and Paper Information Collection Request (ICR) which was issued to evaluate the residual risk of Hazardous Air Pollutants (HAP) from the industry. The project involved responding to a comprehensive questionnaire regarding detailed process information for pulp and paper mills. This also entailed a comprehensive update to the National Emission Inventory (NEI) database for each facility. Facility-wide HAP emissions were calculated and detailed modeling information (emission points, stack characteristics, etc.) was developed and submitted to U.S. EPA.*

Gas/Electric Utility, PA, LLC, Project Leader/Project Manager: Developed *an air permitting strategy and prepared a Plan Approval PSD Application for a proposed combined heat and power (CHP) system that utilized tire derived fuel (TDF) as the primary fuel for the combustion unit. The project will utilize high pressure steam to drive a steam turbine to generate power for on-site use and for sale to the grid and the resulting low-pressure steam will be used by a host facility. The CHP was viewed as a support facility to the host facility. As a result, the project triggered the GHG "Tailoring Rule" provisions. A BACT analysis for GHG emission was prepared and included in the application. Emissions of other regulated NSR pollutants were less than PSD and NNSR significance levels due to the state-of-the-art air pollution control train for the project.*

Title V Renewal Application, Paper Manufacturing., Paper Manufacturing, VA, Project Manager: Prepared *a Title V Operating Permit Renewal Application for an integrated Kraft pulp and paper mill. The facility's method of determining compliance with various permit conditions has changed. The project involved reviewing approximately a half dozen underlying construction permits containing compliance requirements to identify obsolete conditions and associated recordkeeping and reporting requirements. Upon meeting with the State regulatory agency, a project approach was developed and agreed upon. Permit applications were developed for various underlying construction permits. A Title V Operating Permit Renewal Application was developed to include the recently modified construction permits providing the mill with the basis for a current flexible operating permit.*

Production and Emission Limit Increase, Paper Manufacturing, MI, Project Manager: Developed a permit application to increase a permitted production and emission limits that were inhibiting the facility from meeting production goals. Responsible for managing the project.

Title V Renewal Application, *Paper Manufacturing, MI, Project Manager:* Prepared *a Title V Operating Permit Renewal Application for an integrated Kraft pulp and paper mill. The project involved reviewing Compliance Assurance Monitoring (CAM) applicability, rolling in permit to install (PTI) conditions, and developing a redline version of the current Title V Operating Permit identifying requested changes to conditions. A Title V Operating Permit Renewal Application was developed to include conditions from PTIs providing the mill with the basis for a current flexible operating permit.*

Facility Wide Air Emissions Tracking Tool, Paper Manufacturing, MI, Project Manager: Developed a facility-wide air emission tracking and PSD applicability screening tool. The tool was designed to be a single location for production and operating data, air emissions factors, and air emissions calculations. The tool was also developed to evaluate the applicability of PSD for projects based on user inputs. Responsible for managing the project.

PSD Project Emissions Tracking Tool, Paper Manufacturing, VA, Project Manager: Developed an air emission tracking tool designed to track actual emissions from a project and compare them to the projected actual emission rates for a project prior to commencement. The tool was designed to meet the air emissions tracking requirements of the PSD regulations for projects in which baseline to projected actual emissions test was performed and the project did not trigger PSD. Responsible for managing the project.

Continuous Emission Monitoring System (CEMS) and Continuous Parameter Monitoring System (CPMS) Quality Assurance and Quality Control (QA/QC) Program, Paper Manufacturing, VA, Project Manager: This project involved identifying the CEMS and CPMS at a pulp and paper mill. The underlying regulatory basis for each environmental instrument was confirmed to determine applicable regulatory QA/QC requirements. Existing QA/QC procedures were reviewed to update and establish procedures as necessary.

Title V Renewal Application, Gas/Electric Utility, PA, Project Manager: Prepared *a Title V Operating Permit Renewal Application for a combustion turbine power generation facility. The project included reviewing the regulatory applicability of the Acid Rain Program (ARP), Clean Air Interstate Rule (CAIR), and Reciprocating Internal Combustion Engine (RICE) rules. The appropriate operating permit forms were prepared to incorporate the newly applicable requirements into the facility's operating permit.*

Plan Approval Application (PAA), Secondary Metal Manufacturing, PA, Project Manager: A Secondary Steel Making facility is considering changes to its melt shop operations which have the potential to impact air emitting sources both up and downstream. The project involved performing a prevention of significant deterioration (PSD) applicability analysis by quantifying facility-wide emissions of affected sources. A complete Plan Approval Application (PAA) to obtain the appropriate air construction permit was prepared. The application included a Pennsylvania Best Available Technology (BAT) analysis.

Boiler MACT Compliance Strategy, Paper Manufacturing, WI, Project Manager: *Developed a Boiler MACT Compliance Strategy for the boilers at a pulp and paper mill. The project involved evaluating the applicable Boiler MACT subcategory, identifying future applicable requirements, and reviewing facility data. Based upon this analysis, a compliance strategy for each boiler to comply with future applicable requirements was developed. The strategy identified suggested methods for determining compliance as well as alternatives. Responsible for managing the project.*

Boiler Fuel Conversion Project, Paper Manufacturing, WI, Project Manager: *Developed a construction permit application to convert an existing boiler to become natural gas fired at a mechanical pulp and paper mill. The project involved developing an emission inventory, performing a PSD applicability analysis, performing a State of WI and Federal air quality regulatory review, and developing a construction permit application for submission to the Wisconsin Department of Natural Resources (WDNR). Responsible for managing the project.*

Cogeneration Plant Reactivation, Gas/Electric Utility, PA, Project Manager: *The project involved permitting the reactivation of a cogeneration plant rated at ~90 MW. Successfully managed the shutdown and reactivation permitting procedures of the plant in accordance with Pennsylvania's reactivation procedures of 25 PA Code 127.11a. As the project manager, responsible for developing the permitting strategy, coordinating and conducting meetings with PADEP, evaluating emission control and CEMS options. The project involved developing a maintenance plan and documenting activities. A reactivation plan and air permit application were developed and an air permit to reactivate the plant has been issued. Also responsible for assisting the facility comply with their Title V Operating Permit and overall environmental program Management.*

Ethane Plant Air Permitting Assessment, Oil and Gas, OH, Project Manager: *The project involved an air permitting assessment for the installation of a proposed liquefied natural gas processing plant to produce ethane. The facility included the requisite processing equipment, storage facilities, loading facilities, and typical ancillary and supporting operations. The project involved the development of an air emissions inventory to determine air permitting requirements. Both State and Federal requirements including Standards of Performance for New Stationary Sources (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), New Source Review (NSR), etc. were part of the regulatory review. The air permitting assessment included an evaluation of source aggregation as it relates to NSR permitting, a recommended air permitting strategy, and a timeline for obtaining the appropriate air permits.*

Hazardous Medical Infectious Waste Incinerator (HMIWI) Continuous Monitoring System (CMS) Quality Assurance and Quality Control (QA/QC) Program, Pharmaceutical Manufacturing, PA, Project Manager: This project involved identifying the CMS on an HMIWI incinerator at a pharmaceutical plant subject to the requirements of 40 CFR Part 62, Subpart HHH (Federal Plan Requirements for HMIWI Constructed on or Before December 1, 2008). The underlying regulatory basis for each environmental instrument was confirmed to determine applicable regulatory QA/QC requirements. QA/QC, data validation, and calculation procedures were developed and documented.

Toxic Release Inventory (TRI) Reporting, Various Industries, PA and GA, Project Manager: *Assisted in the submittal Toxic Release Inventory (TRI) Form Rs. This project involved reviewing threshold calculations for TRI compounds, working with plant personnel to quantify releases to the environment, documenting electronic supporting documentation and calculations on the plant's network, and entering the Form R data into U.S. EPA's SARA TRI-ME software. Managed projects for a variety of industries including tube manufacturing and Pulp and Paper.*

Continuous Monitoring System Audit, Portland Cement Manufacturing, PA, Project Manager: Performed independent audit and verification of the CMS used to comply with the Portland Cement NESHAP. Project involved extracting monitoring data from the facility's data acquisition system and independently verifying the data collection, validation, and averaging. Findings and proposed corrective actions were reported. Worked with the facility to systematically implement solutions to resolve findings.

Environmental Program Management, Tubing Manufacturer, PA, Project Manager: The project involved providing multi-media environmental program management to comply with applicable air, water, and waste regulatory requirements. Served the function of interim environmental manager for the plant while position was vacant. This required tracking and ensuring Title V Operating Permit and site-specific NPDES water quality permit requirements were met. Successfully completed regulatory agency inspections. Responsible for communicating and interfacing with plant personnel, plant management, and senior leadership on environmental permitting and compliance activities. The project duration spans over multiple years.

Multi-Media Environmental Compliance Audits, Cement Manufacturing and Quarrying Operations, Multiple States, Project Manager: Managed and provided on-site auditing for facilities located in West Virginia, Missouri, and Pennsylvania. Projects involved pre-audit preparation and review, on-site file review and employee interviews, and preparing a written report of findings and recommendations.