



KRISTIN GORDON, P.E.
GLOBAL CLIENT DIRECTOR

CREDENTIALS

- ◆ *Masters, Business Administration, Villanova University, 2005*
- ◆ *Graduate Environmental Studies, Pennsylvania State University, 2000*
- ◆ *B.S., Chemical Engineering, Ohio University, 1997*
- ◆ *Registered Professional Engineer in TX, PA, SC, LA*

PROFESSIONAL EXPERIENCE

- ◆ **2025-present:** *All4 LLC, Denver Metro, CO – Global Client Director*
- ◆ **2021-2025:** *All4 LLC, Houston, TX – Global Client Director*
- ◆ **2014-2021:** *All4 LLC, Houston, TX – Houston Office Director*
- ◆ **2004-2014:** *All4 LLC, Philadelphia, PA – Project Manager*
- ◆ **1998-2004:** *UAI Environmental, Inc., PA – Project Manager*
- ◆ **1997-1998:** *Roy F. Weston, Inc., West Chester, PA – Engineer*
- ◆ **1995-1996** – *Ohio EPA Intern – NEDO - DSW*

TECHNICAL EXPERTISE

- ✓ *State and Federal air permitting programs (NSR, PSD, NNSR, MACT, RACT, NSPS, NESHAP, Title V);*
- ✓ *New/modified source air permitting;*
- ✓ *Air emission inventory database software development and management;*
- ✓ *CAA 129 Solid Waste Combustion regulations;*
- ✓ *Air quality compliance assistance programs;*
- ✓ *Air program management consulting;*
- ✓ *MACT and NSPS Programmatic Implementation; and*
- ✓ *Environmental Training.*

PROFESSIONAL OVERVIEW

Ms. Kristin Gordon has over 25 years of experience in EHS consulting with an emphasis in air quality. Ms. Gordon has significant air permitting experience in over twenty-five states with emphasis on Title V, MACT, NESHAP, NSPS, and NSR. She has worked for a variety of industries including Chemical, Oil and Gas, Petroleum Refining, Medical Waste Incineration, Waste Combustion, Power Pharmaceutical, Pulp & Paper, Battery Manufacturing, Secondary Lead Smelting, Food and Beverage, Automotive, and Steel. Ms. Gordon is a registered professional engineer in several states.

Kristin has been with ALL4 for over 20 years, starting as a project manager in the Philadelphia area. Her roles have included starting and growing Houston's office, managing projects and leading key client accounts, leading marketing, and currently is a leader in our global growth team. As a member of the ALL4 global growth team, she connects our consultants with the regulated community and introduces them to our services including air quality; chemical reporting and management; digital solutions; sustainability; acoustics; investigation and remediation; occupational health and safety; waste management; and water quality. Kristin's role takes her all over the place geographically; however you'll typically find her in the Mountain West and the Gulf Coast.



PROJECT HISTORY

AIR QUALITY PERMITTING/MODELING EXPERIENCE

TX State Air Quality Analysis (AQA), Ethylene Copolymer Facility, East TX, Sr. Consultant: Led team and provided oversight on minor New Source Review (NSR) AQA to evaluate National Ambient Air Quality Standards (NAAQS) and Effects Screening Level (ESL) for changes to facility to increase capacity and improve performance. Utilized EPA's AERMOD air dispersion model and conducted modeling in accordance with TX Air Quality Modeling Guidelines (APDG 6232) and Modeling and Effect Review Applicability (MERA) Air Permit Reviewer Reference Guide (APDG 5874).

Minor NSR Permit Application, Wastewater Treatment Facility, TX, Sr. Consultant: Led team in development of a minor NSR permit application for multiple banks of nonemergency peak shaving reciprocating internal combustion engines in Harris County. Tasks included TCEQ interaction, development of draft and final application packages (emissions, forms, project description, Federal and state regulatory analysis review, etc.) and submittal to TCEQ.

TX State Air Quality Analysis (AQA), Wastewater Treatment Facility, TX, Sr. Consultant: Led team for a minor New Source Review (NSR) AQA to evaluate National Ambient Air Quality Standards (NAAQS), TX State Property Line standards, and TX Effects Screening Level (ESL) for the installation of multiple banks of new nonemergency generators. Utilized EPA's AERMOD air dispersion model and conducted modeling in accordance with TX Air Quality Modeling Guidelines (APDG 6232) and Modeling and Effect Review Applicability (MERA) Air Permit Reviewer Reference Guide (APDG 5874).

Minor NSR Permit Applications, Municipal Utility Districts, TX, Sr. Consultant: Led team in development of a seven minor NSR permit applications for nonemergency peak shaving reciprocating internal combustion engines in Harris County. Tasks included TCEQ interaction, development of draft and final application packages (emissions, forms, project description, Federal and state regulatory analysis review, etc.) and submittal to TCEQ.

TX State Air Quality Analysis (AQA), Municipal Utility Districts, TX, Sr. Consultant: Led teams for a minor New Source Review (NSR) AQAs to evaluate National Ambient Air Quality Standards (NAAQS), TX State Property Line standards, and TX Effects Screening Level (ESL) for the installation of new nonemergency generators at seven utility districts. Utilized EPA's AERMOD air dispersion model and conducted modeling in accordance with TX Air Quality Modeling Guidelines (APDG 6232) and Modeling and Effect Review Applicability (MERA) Air Permit Reviewer Reference Guide (APDG 5874).

PSD/NNSR Permit Application 3rd party review, Confidential Oil and Gas Company, multiple states, Sr. Consultant: ALL4 provided third party review of a construction permit application for installation of a flare which was to be utilized for control of multiple process units.

PSD/NSR Avoidance Permitting, Refining, PA, Project Manager: ALL4 developed a permit application for the installation of a new industrial boiler at the refinery, considering implications of the refinery's existing power complex. PSD/NSR was avoided through strategic permitting. Boiler MACT and NSPS requirements were also included as part of the project. ALL4 was involved with agency meetings as well as permit negotiation.



Hydrogen Plant Permitting, Refining, PA, Project Manager: ALL4 developed a permit application for the installation of a new hydrogen plant at the refinery. PSD/NSR was avoided through strategic permitting. ALL4 was involved with agency meetings as well as permit negotiation.

1-Hour SO₂ NAAQS SIP Air Dispersion Modeling Analysis, Refinery, PA, Sr. Consultant: Led team that conducted 1-hour sulfur dioxide (SO₂) National Ambient Air Quality Standards (NAAQS) AERMOD air dispersion modeling analysis to support State Implementation Plan (SIP) emission inventory for 1-hour SO₂ NAAQS nonattainment area. Utilized on-site meteorological data collected as part of a separate meteorological monitoring project. Conducted detailed review of SO₂ ambient monitoring data to develop representative background concentration not influenced by Refinery operations.

Permitting and Compliance Support, Chemicals, PA, Project Manager: ALL4 provides a variety of compliance and permitting support for a phenol, AMS and acetone manufacturer in Philadelphia, PA. ALL4 annually provides onsite assistance to prepare the facility's annual Title V Compliance certification. ALL4 has been involved with the negotiation of the facility's Title V Permit, a multiyear ongoing process. Chemical plant is subject to HON/MON MACT, hazardous waste combustor MACT (EEE), RICE and other chemical and misc NSPS/MACT standards. Additionally, ALL4 provides permit strategy assistance for new projects and developed a variety of permit strategy memos, installation permit applications, construction permit applications, etc. ALL4 has also assisted client with several reasonably available control technology (RACT) evaluations/projects.

PBR Submittal, Yard Waste Grinding Operations, TX, Sr. Consultant: Led team in development of a PBR submittal for a facility that grinds green yard waste in east Texas. Project tasks included developing emissions factors, performing a state regulatory applicability analysis, and organizing the Project team to meet internal and external deadlines.

PSD/NNSR Permitting for a Combined Cycle Gas Turbine Project, Power, PA, Project Manager: ALL4 was involved with all aspects (i.e., BACT/LAER, air dispersion modeling, etc.) of the development of an air permit application under both PSD and NNSR scenarios for multiple turbine vendors each operating under multiple scenarios (i.e., temperature, load, etc.). Multiple fuel types were ultimately permitted. ALL4 was involved with agency meetings as well as permit negotiation.

Air Quality Programmatic Support, Food and Beverage, PA, Project Manager: Managed and coordinated air quality support activities for facility. Permitting support includes Title V Permitting and New Source Permitting of new filling lines, boiler, new product expansion, etc. The filler line project triggered NNSR for VOC. ALL4 was involved with agency meetings and permit negotiation. ALL4 provided assistance with securing the emission reduction credit (ERCs) for the filler project. NNSR/PSD was avoided for all other projects. Compliance support includes development of annual emissions inventories, agency inspection follow-up, etc.

Air Quality Program Management Support, Power, PA, NJ, DE, MD and VA Facilities, Project Manager: Managed and coordinated on-site employees providing general environmental consulting services to client. Assistance included support to baseload, mid-range and peaking units. Consulting services included:

- Development of CO₂ permit applications and CO₂ monitoring plans;
- Developed and submitted comments on various states greenhouse gas regulations (based on RGGI model rule) on behalf of client;



- Assisted and prepared Title V annual compliance certifications, semi-annual deviations reports, and annual emission statements;
- Reviewed Title V permit and provided comments to site and corporate environmental contacts;
- Review and comment on various northeast state greenhouse gas rules.
- Corporate-wide NO_x and SO₂ allowance forecasting/budgeting and emission tracking;
- Economic feasibility determinations for installation of NO_x control technology for combustion turbines;
- Cost analysis for various monitoring and emission control systems;
- Determination of SO₂ offset requirements in accordance with Coastal Zone permit;
- NO_x SIP Call, Acid Rain Program, and NO_x RACT assistance; MACT Hammer (Section 112(j)) applicability;
- Compiled company specific asset details for a coalition of electric generating and electric distribution companies for use in an assessment of metal emissions from power plants;
- Regulatory tracking including various combustion based MACTs, MACT Hammer, and PM_{2.5} ambient air standard;
- Compiled document for company's trading group that summarized all facilities' pertinent environmental permit conditions. The intent of the document was for the trading group to be aware of the permit conditions (i.e., fuel limits, operating hours, etc.) that the facilities were required operate by which could not be affected by trading group activity;
- Provided comments on proposed regulations to regulatory agencies on behalf of client; and
- Attended various workshops on behalf of client, including EPA Region III – NO_x SIP/Section 126 Trading Program and DNREC i-STEPS emission reporting.

PM_{2.5} Emission Reduction Credit (ERC) Searches, Ambient Equivalency Demonstration and Interpollutant Trading, Power, Project Manager: Multiple projects that included the following tasks:

- Development of approach to assist clients with their search for fine particulate emission credits. Search also considered interpollutant trading (per 40 CFR Part 51 and Appendix S).
- Identification of any of client's own facilities and/or sources which may have shutdown, may have changed method of operation (i.e., fuel switch) or may have been able to change method of operation which would allow client to generate internal ERCs.



- Identification of third party facilities with potential PM_{2.5} ERCs that were available, or may have been made available, through a sequence of steps. ALL4 first looked facilities within the client's non-attainment area that may be able to generate ERCs based on retirement of units, change of operation or facility closure. The next step was to look at adjacent non-attainment areas. Steps associated with the task involved systematically narrowing down a large data set of facilities into a subset of facilities that possess potential PM_{2.5} ERCs. ALL4 analyzed facilities by examining their historical actual emissions data, specifically particulate matter (e.g., PM/PM₁₀/PM_{2.5}), NO_x, and SO₂. The list was further refined to include only facilities where significant particulate matter and/or sulfur dioxide emissions decreases have occurred in a given year and facilities that appear to no longer be operational.
- ALL4 assisted the selling and purchasing parties with the negotiation of the ERCs.
- During these various projects, ALL4 assisted clients with the transfer and use of the ERCs via permitting exercises. One project involved the first interpollutant trade under 40 CFR Part 51 as well as an ambient equivalency demonstration.

Plan Approval Applications, Food and Beverage, PA, Project Manager:

- Developed multiple construction permit applications for a coffee roaster for modification/expansion of operations and/or addition of air pollution control equipment, reviewed of proposed permits and negotiated permit conditions. Projects included addition of new process lines, addition of new control technology and were performed under a tight client schedule. Projects included meeting with PADEP to present the projects.
- Analyzed applicability of NSPS/NESHAP (i.e., MACT) regulations for emergency generators and fire water pump engine. Summarized requirements and developed recordkeeping forms for ongoing requirement.

NSR/PSD Construction Permit Application, Power, PA, Project Manager: Developed NSR/PSD permit application for 600 MW natural gas combined cycle turbine project. Tasks included development of emission inventory for three potential turbine vendors each operating under multiple scenarios (i.e., temperature, load, etc.); permitting strategy; multiple state agency meetings; permit application forms; etc. Project was not completed due to financial constraints however ALL4 effort continued to the draft construction permit application phase.

Title V and NSPS Compliance Program Management, Medical Waste Incineration, Multiple Locations (OH,IL, UT,NC,FL,MD,KS,MO,AZ), Project Manager/Project Engineer: Provided Hospital/Medical/Infectious Waste Incinerator (HMIWI) New Source Performance Standards (NSPS) regulatory assistance to client at a corporate and facility specific level. Assistance started with developing a corporate NSPS compliance strategy in the late 1990s and continues today with implementation of compliance mechanisms and renewal of Title V operating permits. Specifically,

- Prepared Summary of Emission Guidelines for Existing Hospital/Medical/Infectious Waste Incinerators (HMIWI) in accordance with 40 CFR 60 Subpart Ce for 13 states;
- Reviewed and commented on state HMIWI regulations. Established contacts at the state level to inquire about the status of the State Implementation Plan (SIP), compliance dates and requirements for the NSPS, extension requests, Title V requirements, and shutdown requirements;



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- Prepared Title V permit applications for eight Hospital/Medical/Infectious Waste Incinerator facilities in eight states, including emission calculations and applicable requirement evaluation and have managed the preparation of subsequent Title V Renewal applications;
- Acted as liaison between state/federal regulatory agency and client to negotiate Title V permit and construction permit conditions in ten states;
- Prepared Compliance Extension Requests and Notice of Intent (NOI) permit applications for retrofit activities to meet the compliance requirements of 40 CFR 60 Subpart Ce;
- Developed Startup, Shutdown, Malfunction (SSM) and Continuous Monitoring System (CMS) Plans;
- Prepared facility-specific NSPS Implementation Manuals and provided training for client's ESH employees on NSPS implementation including Federal HMIWI regulations, state, tribal and local HMIWI regulations, Title V, Emission Limitations, Waste Management Plan, SSM, CMS, Monitoring, Recordkeeping, and Reporting Requirements, Operator Training and Qualifications, Compliance and Performance Testing; and Performed 3rd party file search/compliance "audits."
- Evaluated and prepared comments on U.S. EPA proposed revised 40 CFR Part 60 Subparts Ce and Ec (2007 and 2008).

Title V Permit/Permit Renewal Applications and Permit Negotiation, Multiple Industries in Various States, Project Manager: Coordinated communication between project team, client, client program management team, client's legal counsel and local, state, and federal permitting agencies. Deliverables consisted of Title V application including application forms, establishment of periodic monitoring requirements, differentiation of federal and state-only applicable requirements and public hearing participation and compliance methods, application overview, development of application and permit shield and process flow diagrams.

Air Permitting, Food and Beverage, PA, Project Leader: Assisted with development of facility wide emissions inventory and coordinated/managed stack test program to determine site-specific emission factors. Conducted due diligence analysis of other similar facilities. Assisted with analysis of the above data to provide specific recommendations and conclusions to the facility with respect to applicable air quality permitting and regulatory requirements. Developed emissions statements and AIMS reports for a ten year period. Completed plan approval applications for various sources at the facility. Completed general facility and specific source process flow diagrams (PFDs). Developed VOC Reasonably Available Control Technology (RACT) proposal and prepared Title V operating permit application.



MACT/NESHAP/NSPS EXPERIENCE

HON, MON, Ethylene, OLD, Hazardous Waste Combustor and PVC MACT, Multiple Chemical Plants, Louisiana, Pennsylvania, Iowa, and Texas, Project Manager: Led various project teams that assessed applicability, compliance techniques, developed MACT compliance tools, provided stack test management assistance, as well as assisted clients with response to U.S. EPA Information Collection Requests (ICRs).

PVC MACT, Multiple Chemical Plants, Louisiana and Texas, Project Manager: Led project team that developed MACT compliance tools and provided stack test management assistance, as well as assisted clients with response to U.S. EPA Information Collection Request (ICR). Specifically, ALL4 assisted clients with selection of operating parameters for process vents and developed site specific monitoring plans (SSMP), developed stack test waivers to reduce emissions testing burden by successfully petitioning for identical units to be granted a test waiver, assisted with stack testing efforts through onsite quality assurance efforts. Prior to MACT compliance, ALL4 was involved with assisting several clients respond to the ICR. ALL4 assisted with emissions testing support and submittal of data to U.S. EPA.

Petroleum Refineries MACT 40 CFR Part 63 Subpart CC, Refining, TX, Sr. Consultant: Conduct technical support for the implementation of flare monitoring requirements and flare monitoring plans per the NESHAPs for Petroleum Refineries (Subpart CC) revisions as a result of the Refinery Sector Rules (RSR).

Medical Waste Incineration Clients, Various Locations, Project Manager: Aided clients in meeting the SSM Plan requirements of recently promulgated MACT/NSPS Regulations. Responsibilities included SSM Plan training, on-site data development sessions, process reviews, SSM Plan development, SSM Plan implementation and data management solutions.

Miscellaneous Metal Parts and Products MACT, Battery Mfg, PA, Project Manager: Management of a five person team tasked with implementation of the Miscellaneous Metal Parts and Products MACT. Several different operations are MACT applicable and the client has chosen to utilize several of the compliance options to demonstrate compliance, ranging from solvent and material reformulation to control. Assistance included applicability determinations; initial notifications, compliance option analysis; control device selection, bid specification and vendor selection, associated state permitting as well as alternative monitoring and operating parameter development and justification; development of monitoring, recordkeeping and reporting systems; performance test considerations; preparation of notice of compliance status; startup, shutdown, malfunction plan (SSM); and development of semiannual compliance report template.

Secondary Lead Smelting MACT, Battery Mfg, PA, Project Manager: Provided assistance to client with monitoring, recordkeeping and reporting requirements to demonstrate compliance with Subpart X, including startup, shutdown, malfunction plan (SSM) review.

Battery Manufacturing Area Source NESHAP, Battery Mfg, PA, IA, Project Manager: Provide assistance to client with monitoring, testing, recordkeeping and reporting requirements to demonstrate compliance with Subpart P P P P P P.

MACT Applicability Analysis, Power, Multiple facilities in PA, DE, VA, NJ, and MD, Project Manager: Reviewed and summarized proposed and final MACT regulations and potential applicability for multiple utility facilities, including coal-fired, oil-fired and gas-fired plants. MACT regulations included Combustion Turbine (CT) MACT, Industrial, Commercial, Institutional Boiler and Process Heater (ICIBPH) MACT and Reciprocating Internal Combustion Engine (RICE).



Industrial Boiler and Combustion Turbine MACT Applicability Analysis, Multiple Clients, Various Locations, Project Manager Reviewed and summarized proposed and final MACT regulations and potential applicability for multiple clients.

Startup, Shutdown, and Malfunction Plan (SSM Plan) Development, Various Pulp and Paper and Continuous Monitoring System Plan (CMS Plan) Development, Various Pulp and Paper and Medical Waste Incineration Clients, Various Locations, Project Manager: Aided clients in meeting the CMS Plan requirements of recently promulgated MACT and NSPS Regulations. Responsibilities included on-site data development sessions, process reviews, CMS Plan development, and CMS Plan implementation.

Aerospace MACT, Government, VA, Engineer: Assisted facility with development of a compliance program for the Aerospace MACT. Evaluated facility squadron and hangar work practices, coating and solvent usage and compliance with Aerospace NESHAP. Determined applicable coatings and solvents, calculated Volatile Organic Compound (VOC) and Hazardous Air Pollutant (HAP) content of primers and topcoats, and evaluated vapor pressures of solvents. Recommended alternative compliant coatings and solvents as well as alternate work practices in order to comply with the regulations.

REGULATORY COMPLIANCE **EXPERIENCE**

Chemical Facility Anti-Terrorism Standards (CFATS) SSP/ASP and SVA Surveys, Pulp and Paper Manufacturing and Power Industry, TX, VA, SC, NC, FL, GA, NY, AL, TN, PA, and MS, Sr. Consultant: Led multiple teams with federal CSAT requirements, resulting in the development of Security Vulnerability Analysis (SVAs) and Alternative Security Programs (ASPs). Facilitated multiple two-day on-site security assessments at sites.

Programmatic CEMS and Stack Test Audits, Refinery, TX, LA, IL, Project Manager: Managed the programmatic CEMS and Stack Test audits at three refineries. ALL4 was involved with the pre-audit activities as well as each of the week long audits. ALL4 presented findings to management at a closing meeting and completed the project with a findings report.

Air Quality Continuous Monitoring System (CMS) Audits, Cement, Texas, Florida, Alabama, Tennessee, Kentucky, Florida, Ohio and California, Sr. Consultant: Led an audit team assessing continuous monitoring system (CMS) compliance with Portland Cement MACT (PC MACT), consent decrees, Title V Operating permits and/or state-specific requirements. Attorney client privilege audits were performed for ten facilities in seven states. Opening and closing meetings were held and findings reports were issued following the audit program.

Environmental Audit via Texas Environmental Audit Privilege Act, Waste Industry, TX, Sr. Consultant: Led a team assessing compliance with Federal and state regulations. Program was completed under Texas Environmental, Health, and Safety Audit Privilege Act. Team developed findings, multiple disclosures of violations (DOVs) and assisted client in implementing solutions to compliance issues. Client received immunity from majority of disclosed violations.

TCEQ Preinvestigation Assistance, Waste Industry, TX, Sr. Consultant: Led a team responding to TCEQ preinvestigation, compiling requested records for TCEQ, and facilitating onsite meeting between TCEQ and client.

TCEQ and U.S. EPA Reporting, Waste Industry, TX, Sr. Consultant: Led a team that provided programmatic reporting assistance for TCEQ and Federal U.S. EPA requirements, including MACT, NSPS, TCEQ specific requirements, Title V, NSR.



Environmental Assessment, Power, NJ, Project Manager: Served as the environmental representative on a team tasked to assess both the short-term and long-term engineering and environmental implications for two baseload multi-fuel power plants. Assessment included air, stormwater, groundwater, surface water, waste, etc. Recommendations were made to senior management and were used for allocation of both capital and operations and maintenance (O&M) funds.

Environmental Compliance, Printing, OH, Project Manager/Engineer: Managed air, stormwater and wastewater compliance activities. Tasks included:

Developed compliance system for facility air monitoring, recordkeeping, and reporting requirements;

- Performed stormwater audit, summarized findings, and notified client of future stormwater permitting requirements;
- Provided wastewater classification assistance and asbestos regulatory/reporting requirements; and
- Provided corporate ESH training.

DATA MANAGEMENT SYSTEMS EXPERIENCE

Multimedia Environmental Regulatory Review Service, Multiple Clients in over 60 jurisdictions, Director: Developed and provided multimedia environmental regulatory review service to various clients in multiple industries. Service summarized current pertinent client-specific multimedia environmental events (e.g., final regulations, proposed regulations) on a Federal and state-by-state basis by addressing the citation name and code, date of action, action type and summary of regulatory action. Reports were provided monthly via e-mail as an Adobe Acrobat file with "live" web-based links, to obtain additional information. Reports were organized in a simple tabular format and were sorted by media and jurisdiction. Included a routine consulting call. Coordinated development of the SQLServer database to allow input of data and output of reports using Crystal Reports. Provided web-based introductory training to introduce client to new service.

Emission Reporting System, Power, NJ facilities, Project Manager: Created Microsoft Excel spreadsheet package of all New Jersey combustion turbine facilities as a tool for annual emissions reporting, compliance reporting, etc.

Database of Emission Factors Compilation for Pulp and Paper Industry, Various Locations, Project Engineer: Updated client's Emission Factor Database, which is a compilation of client-specific and industry-specific emission test results for criteria pollutants and hazardous air pollutants (HAPs). Existing database was converted from Lotus Approach to Microsoft Access. Recent client test data was added and obsolete data were purged, increasing the overall size of the database to 17,000 records. Emission factors for process equipment were grouped into emission unit emission factors (e.g. developed emissions factor by combining various discharge points from process). Enhanced filtering and sorting capabilities were added via Visual Basic programming as well as a startup menu to allow forms reports and data to be readily accessed.

Emission Reporting System, Pulp and Paper, AL; Engineer: Developed computerized emission reporting system to provide a facility-wide and individual source summary of emissions for this pulp and paper mill.

Emission Factor Database, Government, Various locations; Engineer: Created Microsoft Access data management system of historical and current jet engine emissions data. System linked engines to parameters including pollutants, fuel types, operating modes and emission factors.



TRAINING WORKSHOPS

Title V/NSPS/SSM/CMS Plan Implementation Workshop for the Medical Waste Incineration Industry, Various Locations, Project Manager: Presented customized training workshops that consisted of an overview of the Hospital, Medical, Infectious Waste Incineration (HMIWI) regulations, Title V Operating Permit requirements, SSM/CMS requirements, operator training requirements, waste management plans, state regulations, and operating permits. Preparation and presentation of the workshop was coordinated with client corporate and site personnel.

Title V Training, Power, NJ, Project Manager: Provided Title V Operating Permit training to facility personnel at a combined cycle combustion turbine facility. Training consisted of overview of regulations pertaining to the CAA and Title V program and specific permit requirements pertaining to monitoring, recordkeeping and reporting.

Title V and NPDES Training, Power, PA, Project Manager: Provided environmental training to power plant facility staff. Specifically, Title V operating permit and NPDES permit and their respective permit conditions were covered including monitoring, recordkeeping and reporting requirements.

Multimedia Corporate Environmental Training, Pharmaceutical, NJ, Project Manager: Provided multimedia environmental training to approximately 30 environmental, health and safety managers. Training session was organized as a case study atmosphere to encourage group work and open dialog. Cases were developed by ALL4. Cases were presented to the training group, small breakout groups were formed, cases were solved, and the solutions were discussed.

Environmental Training, Printing, Various Locations, Project Manager: Provided training to environmental, health and safety personnel. Topics included introductory material on the CAA, CWA and RCRA and specifics of air permitting, stormwater, and hazardous waste generation.



MONITORING AND TESTING **EXPERIENCE**

Monitoring System Siting, Installation, Startup, and Maintenance, Refining, PA, Project Manager: *Based on the SO₂ nonattainment status of the surrounding area, ALL4 worked with client, the Pennsylvania Department of Environmental Protection (PADEP) and U.S. EPA to strategically design and site the ground-up installation of a new meteorological monitoring system consisting of an instrumented (three (3) level) 58 meter tower and a separate Doppler Sound Detection And Ranging (SODAR) vertical wind profiling system. This installation was challenging because of the intricate and tight refinery footprint, set in the complex terrain of a river valley in northwest Pennsylvania. ALL4 is currently assisting with the ground-up installation of the new meteorological monitoring system. One year of PSD quality meteorological data will be collected to be utilized in air dispersion modeling to strategically determine if certain refinery sources are candidates for add-on air pollution controls or emission/operational limits to aid in bringing the area into attainment with the SO₂ NAAQS. Additionally it is anticipated that the meteorological tower will be utilized to fulfill the meteorological data requirements for benzene fence line monitoring program under the Petroleum Refinery Sector Rule.*

Stack Test Management, Refinery, TX, Project Manager: *Provided stack test management assistance for the refinery's fluid catalytic cracking unit (FCCU) and sulfur recovery units (SRUs) for a variety of pollutants. Specific assistance included Stack Test Strategy, Stack Test Protocol Review, Stack Test Notification, Site Stack Test Plan Review/Development, Stack Test Program Management, Stack Test Report Review, and Miscellaneous Supplemental Support.*

Ammonia Slip Alternative Monitoring Plan, Power, PA, Project Manager: *Developed SCR ammonia slip alternative monitoring plan for a nominal 1100 MW power complex consisting of six combined cycle turbines and associated heat recovery steam generators (HRSG) and two steam generators.*

NO_x SIP Applicability, Power, VA, Project Manager: *Determined applicability and summarized the requirements of the NO_x SIP Call (40 CFR Part 96) and Section 126 (40 CFR Part 97) regulations for a 33 MW Combustion Turbine. Reviewed unit's operation to assess qualification as a Peaking Unit. Reviewed and summarized VADEQ's proposed NO_x SIP regulation (9 VAC 5 Chapter 140). Differentiated between federal and state regulations and presented client with several monitoring and compliance options.*

CEMs and Acid Rain Program Assistance, Power, PA, Project Manager: *Provided assistance with Acid Rain Program reporting requirements and assistance with CEMs for boiler, combustion turbine and auxiliary boiler.*

NO_x Budget Program Monitoring, Pulp and Paper, OH, Project Leader: *Developed a Part 75 hardcopy and electronic monitoring plan for three coal fired power boilers that exhaust to a common stack at a Pulp and Paper Mill.*



PUBLICATIONS AND PRESENTATIONS

- Gordon, Kristin. TCC/ACIT Conference, Chemical MACTs. June 2021.
- Gordon, Kristin. 4C Conference, Chemical MACTs: Flare Monitoring and Data Management Challenges. August 2021.
- Gordon, Kristin. "Texas: Suspension of Certain 30 TAC Provisions and Power Emergency Procedure." ALL4's **4 The Record** February 2021.
- Gordon, Kristin. "Texas 2021 Look Ahead" ALL4's **4 The Record** January 2021.
- Gordon, Kristin, Philip Crawford, Amy Marshall, and Eric Swisher. Ethylene MACT (EMACT) and Organic Liquids Distribution MACT (OLD) Update Webinar. 2020.
- Gordon, Kristin, Philip Crawford, and Eric Swisher. Miscellaneous Organic NESHAP (MON) Update Webinar. 2020.
- Gordon, Kristin, Wei Liu, and Meghan Skemp. Texas Hot Topics Webinar. 2020.
- Gordon, Kristin and Wei Liu. Texas Air Quality 201. 12-part web-based training series. 2020.
- Gordon, Kristin. "Texas 2020 Look Ahead" ALL4's **4 The Record** January 2020.
- Gordon, Kristin. "What Happened: Air Quality Bills to Watch in the 86th Legislative Session" ALL4's **4 The Record** August 2019.
- Gordon, Kristin. "Air Quality Bills to Watch in the 86th Legislative Session" ALL4's **4 The Record** April 2019.
- Gordon, Kristin. "The 86th Texas Legislative Session: The Process and Implications for Texas Facilities with Air Permits" ALL4's **4 The Record** April 2019.
- Gordon, Kristin and Kaitlyn Bencosme. "33 Late Air Toxics Rules, 2 Court Decisions, Reduced U.S. EPA Resources, and 6 Things Industry Should Do" ALL4's **4 The Record** April 2017.
- Gordon, Kristin. "Benzene Fenceline Monitoring Panel" Presenter. 4C Environmental Conference. February 2017.
- Gordon, Kristin and Meghan Barber. "What's Being Reconsidered in the Refinery Sector Rule?" ALL4's **4 The Record** October 2016.
- Gordon, Kristin. "Ethylene MACT ICR Component II: It's Here! What's Your Game Plan?" ALL4's Blog, May, 2016.
- Gordon, Kristin. "Benzene Fenceline Monitoring: An Introduction and What the Regulations Don't Tell You." Moderator/Presenter. 4C Environmental Conference. February 2016.
- Gordon, Kristin. "The Petroleum Refinery Sector Rule: What's all the fuss about and what are the key implications for Texas (including other industry sectors)?" AWMA Central Texas Chapter Meeting, January 21, 2016.
- Gordon, Kristin and Mark Wenclawiak. "Ethylene Production – A Tale of Explosive Growth and Air Quality Compliance" ALL4's **4 The Record** September 2015.
- Gordon, Kristin, Dan Holland, Nick Leone, David Gratson. "Benzene Fenceline Monitoring: How to Get Ahead of the Curve." Presentation to International Petroleum Refinery, April 2015.
- Gordon, Kristin. "7 Important Details to Know about TCEQ's Expedited Air Permitting Program" ALL4's Blog, November, 2014.
- Gordon, Kristin. "U.S. EPA Proposes Overdue Refinery Air Rules" ALL4's Blog, August 11, 2014.
- Gordon, Kristin. "New EGU – MATS and NSPS Revisions Finalized by U.S. EPA" ALL4's Blog, April 16, 2013.
- Gordon, Kristin. "CSAPR: the Latest U.S. EPA Casualty" ALL4's Blog, August 27, 2012.
- Gordon, Kristin. "U.S. EPA Proposes the Long Awaited Amended HMIWI Federal Plan and Makes a Few Tweaks to the HMIWI NSPS" ALL4's Blog, April 16, 2012.



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