



CREDENTIALS

- ◆ B.S., Chemical Engineering, University of Virginia, 2004

PROFESSIONAL EXPERIENCE

- ◆ **2019-Present:** ALL4 LLC, Herndon, VA – WDC Office Leader
- ◆ **2015-Present:** ALL4 LLC, Herndon, VA – Project Manager
- ◆ **2004-2015:** URS Corporation (now joined with AECOM), Herndon, VA – Senior Engineer

TECHNICAL EXPERTISE

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| ✓ State and Federal air permitting | ✓ Project management |
| ✓ Air emissions inventories, including criteria pollutants, HAPs, and GHGs | ✓ Ozone depleting substances |
| ✓ Air quality regulatory compliance support, including auditing, resource development, reporting, and training | ✓ Performance testing oversight |
| | ✓ Multi-media, including SPCC and tanks |
| | ✓ Regulatory analysis, including state-specific, NSPS, and NESHAP |

PROFESSIONAL OVERVIEW

Ms. Sharon Sadler has 20 years of professional experience in environmental consulting with a focus in air quality. Ms. Sadler has expertise in preparing minor New Source Review, synthetic minor, and Title V permitting; negotiating draft permit conditions with regulatory agencies; compiling comprehensive air emissions inventories; conducting greenhouse gas reporting; assisting with ozone depleting substances and refrigerant management; and performing regulation review and applicability determinations. Her extensive air compliance experience encompasses auditing facility programs for compliance with air regulations and air permit conditions, conducting customized training for facility personnel to better understand air quality requirements and how their responsibilities impact compliance, developing tools to assist with compliance such as tracking spreadsheets, and preparing semi-annual and annual reports for clients. Ms. Sadler has also prepared EPCRA reporting, conducted SPCC and fuel storage tank projects and training, provided performance testing coordination and oversight, and managed other multi-media projects.

Ms. Sadler is practiced in a variety of industries, primarily data centers, healthcare, higher education, Department of Defense (DoD), and small manufacturing. She has experience with combustion sources including generators and boilers; evaporative sources such as paint spray booths, chemical processes, and cold cleaners; manufacturing such as brick and solar cell; refineries and fuel terminals; shipyard; woodworking; metal plating; and others. She has completed projects in numerous states and for three (3) DoD bases located in Europe.

As a data center subject matter expert, her data center experience includes air permitting for new and/or expanding data centers across 20 states, including several states with a robust air toxics and/or Environmental Justice modeling program. This often requires permitting strategy consulting, strong relationships with regulatory agencies and engine manufacturers, and diligent project management to ensure collaboration among all stakeholders to meet the desired schedule. She has also provided air permit compliance support, stack testing oversight, SPCC plan development and training, multi-media compliance auditing, ownership transfer support, and/or regulatory enforcement consulting to numerous companies.



PROJECT HISTORY

AIR QUALITY **PERMITTING EXPERIENCE**

Permit to Construct and/or Operate Applications and Renewals, Multiple Clients, Multiple States, Project Manager and Technical Lead: Managed, prepared, and provided technical guidance and review of air permit applications for facilities in numerous states, including VA, MD, DC, IA, IL, NJ, NC, OH, PA, TX, CA, WY, KS, AZ, NV, NM, WI, and CO for various industries, including data centers, healthcare, Federal facilities, museums, real property management, pharmaceutical, higher education, and solar cell and electronic components manufacturing. Efforts ranged from permitting the installation of one emergency generator to comprehensive permit strategy and permitting of an entire campus consisting of multiple buildings with equipment.

Title V Operating Permit Renewal Applications, Multiple Clients, Multiple States, Project Manager and Technical Lead: Managed, participated in, and provided technical guidance and review for the preparation of Title V Operating Permit renewal applications for facilities in states such as VA, MD, DC, IL, and PA for various industries, including healthcare, Federal facilities, higher education, shipyard, and brick and paper manufacturing.

Requests for Determination (RFDs), Multiple Clients, Multiple States, Project Manager and Technical Lead: Managed and participated in the development and submittal of numerous RFD-equivalents for facilities in VA and MD for Federal and other industries, and e-RFDs for multiple facilities, including data centers and brick manufacturing facilities in PA to request exemption from Plan Approval requirements.

AIR QUALITY **COMPLIANCE EXPERIENCE**

Stack Testing and Method 9, Multiple Clients, Multiple States, Project Manager and Technical Lead: Provided oversight of several permit-required performance tests for a variety of pollutants, such as NO_x, CO, PM, and air toxics, and U.S. EPA Method 9 visible emissions observations of primarily boilers and emergency generators in numerous states, including VA, MD, DC, and OR. Efforts included preparation or review of protocols and reports, pre-test coordination and strategy, test management during testing, and regulatory agency communications.

Annual Emissions Inventories and Reporting, Multiple Clients, Multiple States, Project Manager and Technical Lead: Conducted site visits, coordinated data collection with facility personnel, and/or documented all air emissions sources and refrigerant-containing equipment. Calculated actual and potential air emissions and prepared supporting text. Submitted operational, compliance, and/or emissions data where required for semi-annual and annual reporting. Efforts conducted for data centers, Federal, higher education, healthcare, pharmaceutical, brick manufacturing, and shipyard industries in numerous states.



Comprehensive Air Quality Support, Healthcare Systems, Multiple Locations in VA and MD, Project Manager:

- Developed air quality compliance materials, including PowerPoint training slides, air compliance manuals, and compliance calendars, and conducted air quality compliance training. Created standardized air compliance binders for organization of records, template recordkeeping logs, and Microsoft Excel tracking spreadsheets.
- Coordinated data collection and submittal of annual and semi-annual air quality compliance reports. Track submittals for all facilities in system to monitor compliance status.
- Conducted multiple air quality compliance audits, focused on air quality permit requirements, Federal and state regulations, and refrigerants. Presented results and recommendations to the facilities and system management and assisted with corrective action implementation.
- Negotiated terms of Consent Order with the regulatory agency on behalf of the system.
- Provided air permitting assistance, and on-call support as needed, including regulatory inspection preparation, input on internal record retention policy, etc.

Comprehensive Air Quality Support, Data Center, VA, TX, CA, IL, WI, AZ, OR, Project Manager or Technical Lead:

- Developed air quality compliance materials, including template recordkeeping logs, requirements summaries, and Microsoft Excel tracking spreadsheets.
- Coordinated data collection and submittal of annual and semi-annual air quality compliance reports. Track submittals for all facilities in system to monitor compliance status.
- Conducted multiple air quality compliance audits, focused on air quality permit requirements, Federal and state regulations, and refrigerants. Presented results and recommendations to the facilities and system management and assisted with corrective action implementation.
- Negotiated terms of Consent Order with the VA regulatory agency on behalf of the system.
- Provided air permitting assistance, and on-call support as needed, including regulatory inspection preparation and regulatory agency notice requirements.

MULTI-MEDIA AND OTHER EXPERIENCE

Comprehensive Multi-Media Support, Data Center, VA, TX, CA, IL, WI, AZ, OR, Project Manager or Technical Lead:

- Conducted multiple environmental compliance audits, focused on air quality permit requirements, air/storage tank/waste/hazardous materials/water Federal and state regulations, and refrigerants. Presented results and recommendations to the facilities and system management and assisted with corrective action implementation.
- Prepared EPCRA Tier 2 reports for several sites in various states.
- Negotiated terms of Consent Order with the VA regulatory agency on behalf of the system.
- Prepared Spill Prevention, Control, and Countermeasure Plans and training for several sites in various states.
- Provided compliance assistance, and on-call support as needed, including regulatory inspection preparation, input on internal record retention policy, etc.



Multi-Media Support, Healthcare Systems, Multiple Locations in VA and MD, Project Manager: Managed numerous multi-media environmental projects, including storage tank registrations and spill plans, oil handling training, Oil Operations Permits and Plans, Tier 2 annual reporting, and asbestos documentation and mold/indoor air quality assessments.

Comprehensive Regulatory Support, Multiple Federal Clients, VA, Technical Lead:

- Led teams in air emissions and refrigerant equipment surveys and equipment inventory updates.
- Led and prepared numerous air quality permit applications and letters of determination for the construction of new sources and modification of existing sources. Assisted in the preparation of two Title V Operating Permit renewal applications, which included a review of existing permits, incorporation of new sources and requirements, and strategies to standardize permit conditions. Prepared an air quality permit application for the entire installation, including both existing sources and proposed, due to a large installation expansion project.
- ◆ Assisted in applicability determination for Prevention of Significant Deterioration (PSD), assessing the total maximum heat input of all boilers and hot water heaters located on the installation and pursuing disaggregation of tenants. Developed operational limits to keep emissions below PSD, non-attainment new source review, and/or Title V major source thresholds.
- Participated in meetings with Virginia regulatory personnel to help streamline the air quality permitting process and to negotiate strategies to limit potential emissions.
- Developed air quality permit training materials (e.g., PowerPoint slides, handouts, quizzes), and conducted quarterly training sessions for several years to inform equipment operators and management of the importance of complying with air quality permit requirements and regulations.
- Conducted numerous air quality compliance audits.
- Led and prepared numerous annual compliance reporting efforts including annual air emissions inventories for permitted equipment and activities and MRR.
- Prepared compliance tracking tools and other materials, such as compliance calendars.
- Conducted General Conformity analyses for several proposed construction and demolition projects and prepared Records of Non-Applicability where appropriate.
- Provided technical and project management oversight to perform actual and potential emission calculations, and draft corresponding text, for 25-30 air emissions source categories for an air emissions inventory.
- Conducted regulatory applicability determinations for Federal engine, boiler, gasoline dispensing, and refrigerant regulations.

Greenhouse Gas Emissions Inventory and Reporting, Multiple Clients, Multiple States, Technical Lead: Managed, and provided technical guidance and review for, the preparation of greenhouse gas emissions calculations and accompanying text to support 40 CFR Part 98 Mandatory Reporting Rule (MRR) applicability determinations and/or provide a baseline for Executive Order (EO) 13514, Federal Leadership in Environmental, Energy, and Economic Performance. MRR annual reporting conducted for MD facility. Efforts conducted for Federal, higher education, and shipyard industries for VA, MD, and NC.

Toxic Release Inventory Reporting, Refinery and Fuel Terminal, VA, Technical Lead: Conducted evaluation of annual releases and prepared Form Rs for toxic release inventory reporting.



Field Survey, Air Compliance Audit, and Air Emissions Inventory, Federal, Greece, Italy, Spain, Technical Lead: Conducted site visits to survey and document all air emissions sources and refrigerant-containing equipment, collect operational data to quantify air emissions and interview base personnel, review recordkeeping and reporting procedures, and observe equipment and operations to evaluate the compliance status with the Final Governing Standards (FGS) for Greece and Spain, respectively, in addition to the applicable requirements of Federal Operations Instructions. Participated in, and provided technical guidance and support for, the preparation of air emissions calculations and supporting text, generation of an equipment inventory and photo log, and compilation of a compliance audit report based upon findings from the site visit. Managed in-office efforts for Italy also, with compliance status evaluated for the FGS for Italy. Performed technical review for completeness and accuracy of all deliverables.

Regulatory Applicability Determination, Multiple Clients, Multiple States, Project Manager and Technical Lead: Conducted applicability evaluation and determination of state regulations and Federal regulations such as 40 CFR Part 60, Subparts IIII and JJJJ, 40 CFR Part 63, Subparts ZZZZ and JJJJJJ, and 40 CFR Part 60, Subpart Dc for generators and boilers. In addition, painting, plating and polishing, and metal finishing regulations, 40 CFR Part 63 Subparts HHHHHH, WWWWWW and XXXXXX.

TRAINING WORKSHOPS

Various Air Training, Federal, Healthcare, VA, DC and MD, Technical Lead and Presenter: Prepared and provided variety of training covering general Clean Air Act and site-specific air permit training, General Conformity, and ozone-depleting substances

Data Center Webinar Series for ALL4, Technical Lead and Presenter of two webinars:

- <https://www.all4inc.com/insights-webinars/so-youve-built-your-data-center-now-what/>
- <https://www.all4inc.com/insights-webinars/air-quality-permitting-and-planning-for-data-centers/>

PUBLICATIONS/ PRESENTATIONS

Sadler S.L., **Avoid Violations and Fines! My Top 5 Environmental Compliance Issues.** Higher Education Conference, August 2016, FL.

Sadler, S.L. and Atkins, S.G., **Facilities, Start Your Engines!** January 2016: Co-authored article for ALL4's 4 The Record newsletter discussing the relevant regulatory activity involving engines for facility managers.

Sadler, S.L. and Atkins, S.G. **Emissions Regulations.** Annual Meeting, Engine Manufacturer, October 2012, MN.

Sadler, S.L. **Guidance and Helpful Hints for Non-Engine Sources.** DoD Air Managers Roundtable, May 2012, GA.

Sadler, S.L. and Kendall, M.W. **Air Permitting Strategies.** DoD/EPA/State Region III Environmental Colloquium, October 2007, MD.