



ROBERT NEEDHAM CONSULTING ENGINEER

CREDENTIALS

- ♦ B.S. Chemical Engineering (Minor in Chemistry), Virginia Polytechnic Institute and State University, 2015

PROFESSIONAL EXPERIENCE

- ♦ **2020 – Present:** All4 LLC., Herndon, VA – Consulting Engineer
- ♦ **2018 – 2020:** All4 LLC., Herndon, VA – Project Engineer
- ♦ **2015 – 2018:** Celanese Corporation, Narrows, VA – Process Improvement Engineer

TECHNICAL EXPERTISE

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| ✓ State and Federal air permit programs including Title V, construction permit applications, and minor source permitting | ✓ Air emissions modeling |
| ✓ Annual/semiannual compliance and emissions reporting | ✓ Best Available Control Technology (BACT) analyses |
| ✓ New Source Review (NSR) analyses including NNSR and PSD | ✓ Compliance Reporting |
| ✓ Air emissions inventories | ✓ Compliance Auditing |
| ✓ 40 CFR Part 60, Subpart Dc Compliance and Reporting | ✓ Emissions tracking for continuous compliance |
| | ✓ 40 CFR Part 98 Greenhouse Gas Emissions Reporting |
| | ✓ U.S. EPA Reference Method 9 Visible Emissions Testing |

PROFESSIONAL OVERVIEW

Mr. Robert Needham graduated from the Virginia Polytechnic Institute and State University in May 2015 with a Bachelor of Science in Chemical Engineering and a Minor in Chemistry. Prior to beginning his employment with ALL4, Mr. Needham spent three years working in chemical manufacturing for Celanese Corporation. Mr. Needham's current role with ALL4 is a Project Engineer, providing project support in air quality permitting and compliance. Mr. Needham has assisted with Title V permit applications, construction permit applications, new/modified source permitting, and other State and Federal air permit programs. Mr. Needham's compliance experience includes, greenhouse gas (GHG) reporting, Toxic Release Inventory (TRI) reporting, and annual emissions reporting. Beyond air compliance, Mr. Needham has experience in ensuring environmental compliance for other medias, such as wastewater, stormwater, and hazardous waste materials.

In his role at ALL4, Mr. Needham has served on a variety of project teams, gaining experience in several industries, such as chemical manufacturing facilities, healthcare centers, data centers, higher education institutes, automotive manufacturing facilities, and government facilities. Mr. Needham has experience working with clients across multiple states including Alabama, California, Maryland, Pennsylvania, Virginia, and Washington, D.C.