

## J MORGAN, P.E.

### Education

B.S. - Chemical Engineering, Clemson University  
MBA - Master of Business Administration, Winthrop University

### Professional Licenses

Professional Engineer Licensure, South Carolina, North Carolina, Georgia

### Professional Experience

Mr. Morgan has a diverse background in chemical and environmental engineering. He has over ten years of experience as an engineer in design, compliance, and investigations for landfill and landfill gas (LFG), environmental compliance, and site assessment projects with SCS. He has experience managing underground storage tank (UST) remediation projects prior to joining SCS. During school, his internships focused on efficiencies and environmental impacts of industrial power plants. Examples of his project experience include:

#### Landfill Gas Services

##### **Lenoir, NC, Republic Services Foothills Environmental Landfill**

- Constructed drawings and completed engineering for the expansion of the landfill gas system during multiple expansions from 2009 to present. Expansions include horizontal collectors, additional vertical wells, additional control devices, and associated piping;
- Prepared protocol and worked with site personnel and North Carolina Department of Environment and Natural Resources Mooresville Regional Office to perform performance testing for new 4,000 scfm flare;
- Managed Construction Quality Assurance and prepared Construction Documentation Reports;
- Prepared Annual Emissions Inventory, Title V and NSPS semi-annual reports and Annual Compliance Certification documents since 2009;

##### **Fayetteville, NC, Cumberland County Ann Street Landfill**

- Constructed drawings and completed engineering and submittals for the site to transition from Federal NSPS WWW rules to the new Federal NSPS XXX rule program. Submittals included working extensively with the state to navigate the appropriate compliance path.
- Assisted with Construction Quality Assurance and Construction Documentation Reports;
- Prepared Annual Emissions Inventory and Title V and NSPS semi-annual reports
- Prepared Initial NSPS XXX submittals.

- Worked with the Landfill Gas to Energy Developer to improve the LFGTE project.
- Evaluate the LFG GCCS system for NSPS compliance.

**Greensboro, NC, City of Greensboro White Street Landfill**

- Constructed drawings and completed engineering for the expansion of the landfill gas system during 2014 and 2007. Expansions include additional vertical wells and associated piping;
- Assisted with Construction Quality Assurance and Construction Documentation Reports;
- Prepared Annual Emissions Inventory and Title V and NSPS semi-annual reports
- Prepared Initial NSPS report for the White Street Landfill.
- Performed the Initial Performance test for the two candlestick flares and prepared the report.
- Evaluate the LFG GCCS system for NSPS compliance.

**Concord, NC, Republic Services Charlotte Motor Speedway Landfill**

- Constructed drawings and completed engineering for the expansion of the landfill gas system during multiple expansions from 2004 to present. Expansions include horizontal collectors, additional vertical wells, additional control devices, and associated piping;
- Prepared protocol and worked with site personnel and North Carolina Department of Environment and Natural Resources Mooresville Regional Office to perform performance testing for new 6,000 scfm flare;
- Managed Construction Quality Assurance and prepared Construction Documentation Reports;
- Prepared Annual Emissions Inventory, Title V and NSPS semi-annual reports and Annual Compliance Certification documents since 2006;

**Smithfield, NC, Johnson County**

- Constructed drawings and completed engineering for the expansion of the landfill gas system during 2010 and 2011 to support a Landfill Gas to Energy project. The expansion included assessing new and old phases of the landfill for LFG potential and considering a cost benefit analysis to guide the design. The expansion drawings included additional vertical wells, sumps and associated piping. to support a Landfill Gas to Energy project;
- Worked with State agencies to obtain all necessary permits prior to construction;

**Hudson, NC, Caldwell County, Mt Herman Landfill:** Constructed drawings and completed engineering for the expansion of the landfill gas system to support a greenhouse gas carbon credit project. Also prepared construction cost estimates to build the proposed system.

**Wilmington, NC, New Hanover County Landfill:** Constructed drawings and completed engineering for the expansion of the landfill gas system to support a gas to energy project. Also prepared construction cost estimates to build the proposed system.

**Polkton, NC, Waste Connections Anson County Landfill:** Constructed drawings and completed engineering for the expansion of the landfill gas system to include headers, laterals, and additional vertical wells. Also assisted with construction documentation report and asbuilt drawings.

#### Honea Path, SC, Greenville County Twin Chimneys Landfill

- Performed site assessment of the GCCS to reduce odors by improving the GCCS. Assessment included recommendations for capital improvements and operational changes;
- Constructed drawings and completed engineering for the expansion of the landfill gas system during 2017. Expansions include additional vertical wells and associated piping;
- Assisted with Construction Quality Assurance and Construction Documentation Reports;
- Prepared Title V and NSPS semi-annual reports;
- Prepared Permit to construct for additional flare capacity and addition of solar flares.

#### Jackson, SC, Three Rivers Solid Waste Authority

- Completed assessment of the GCCS system and provided recommendations to improve gas collection;
- Performed modeling and testing on mechanical evaporator;
- Performed assessment on operational effectiveness of the mechanical evaporator after 18 months of operation;
- Provided air permitting services.

**Novo Gramacho Landfill, Rio de Janeiro, Brazil:** Performed site visit and constructed drawings and completed engineering for the expansion of the landfill gas system during 2013 and 2014 to support a Landfill Gas to Energy project. The expansion included assessing obstructed wells and liquid levels in different areas of the landfill and considering a cost benefit analysis to guide the design. The expansion drawings included additional vertical wells of different materials, valves and associated piping to collect more LFG and improve operation of the GCCS;

#### Wellford, SC, Spartanburg County

- Constructed drawings and completed engineering for the expansion of the landfill gas system during 2009 to support a Landfill Gas to Energy project. The expansion included

assessing new and old phases of the landfill for LFG potential and considering a cost benefit analysis to guide the design. The expansion drawings included additional vertical wells, sumps and associated piping. to support a Landfill Gas to Energy project;

- Prepared bid package for Contractors and assisted the County with the bid process.

**Bishopville, SC, Republic Services Lee County Landfill:** Constructed drawings and completed engineering for the expansion of the landfill gas system. Also prepared Annual Emissions Inventory, Title V and NSPS semi-annual reports and Annual Compliance Certification documents.

**Enoree, SC, Republic Services Upstate Landfill:** Constructed drawings and completed engineering for the expansion of the landfill gas system. Performed Tier II sampling and also prepared Tier II report.

**Eastover, SC, Republic Services Northeast Landfill:** Constructed drawings and completed engineering for the expansion of the landfill gas system. Performed Tier II sampling and also prepared Tier II report. Completed Title V air operating permit renewal application.

**Belton, SC, Waste Connections Anderson Regional Landfill:** Constructed drawings and completed engineering for the expansion of the landfill gas system to include headers, laterals, and additional vertical wells. Also prepared Annual Emissions Inventory, Title V and NSPS semi-annual reports and Annual Compliance Certification documents.

- Performed extensive site analysis to determine the condition of the gas Collection and Control System. Collected data on the system and constructed report detailing system characteristics and outlined potential improvements to improve gas quality and flow for the gas to energy project at the site.

**Wellford, SC, Waste Management Palmetto Landfill and Recycling Center:** Constructed drawings and completed engineering for the expansion of the landfill gas system. Also prepared Annual Emissions Inventory, Annual Title V Certification and Title V and NSPS semi-annual reports documents.

**Dorchester, SC, Waste Management Oakridge Landfill:** Constructed drawings and completed engineering for the expansion of the landfill gas system. Also prepared Annual Emissions Inventory, Annual Title V Certification and Title V and NSPS semi-annual reports documents.

## Title V Services

**Mount Gilead, NC, Republic Services Uwharrie Regional Landfill:** Prepared Title V and NSPS semi-annual reports and Application for Title V permit renewal documents.

**Aulander, NC, Republic Services East Carolina Regional Landfill:** Prepared Application for Title V permit renewal and Title V and NSPS semi-annual reports documents:

**Rougemont, NC, Republic Services Upper Piedmont Landfill:** Prepared Title V and NSPS semi-annual reports documents.

**Lenoir, NC, Republic Services Foothills Environmental Landfill:** Prepared Title V and NSPS semi-annual reports documents.

**Concord, NC, Republic Services Charlotte Motor Speedway Landfill:** Prepared Annual Emissions Inventory, Title V and NSPS semi-annual reports and Annual Compliance Certification documents.

**Wellford, SC, Waste Management Palmetto Landfill and Recycling Center:** Prepared Annual Emissions Inventory, Annual Title V Certification and Title V and NSPS semi-annual reports documents.

**Ridgeland, SC, Waste Management Hickory Hill Landfill:** Prepared Annual Title V Certification and Title V and NSPS semi-annual reports documents.

**Dorchester, SC, Waste Management Oakridge Landfill:** Prepared Annual Title V Certification and Title V and NSPS semi-annual reports documents.

**Columbia, SC, Waste Management Richland Landfill:** Prepared Annual Title V Certification and Title V and NSPS semi-annual reports documents.

**Homer, GA, Waste Management R&B Landfill:** Prepared Annual Title V Certification and Title V and NSPS semi-annual reports documents.

**Bishopville, SC, Lee County Landfill, Republic Services:** Prepared Annual Emissions Inventory, Title V and NSPS semi-annual reports and Annual Compliance Certification documents.

**Greensboro, NC, City of Greensboro:** Prepared Initial NSPS report for the White Street Landfill. Performed the Initial Performance test for the two candlestick flares and prepared the report. Evaluate the LFG GCCS system for NSPS compliance.

**Belton, SC, Waste Connections Anderson Regional Landfill:** Prepared Annual Emissions Inventory, Title V and NSPS semi-annual reports and Annual Compliance Certification documents.

### **Solid Waste Experience**

**California Integrated Waste Management Board:** Recruited businesses in California to participate in a statewide study on solid waste disposal and recyclable material for businesses. Identified and contacted businesses based on characteristics of the business that fit criteria and parameters needed to compile a representative sample of businesses across the state.

**Throughout NC, Waste Management:** Primary engineer in preparing Spill Prevention, Control, and Countermeasures (SPCC) Plans for eight sites. Additionally, performed environmental monitoring and waste screening during these activities and prepared Stormwater Pollution Prevention Plans (SWPPP) for five sites

### **Landfill Post-Closure Care**

**Charlotte, NC, Renaissance Park:** Prepared construction drawings and specifications for the project. Assisted in implementation of improvements and remediation efforts and coordinated field changes to designs. Prepared report and drawings detailing improvements to the golf course and landfill cap.

- Performed periodic monitoring of the Golf Course Clubhouse landfill gas recovery system. Compile, analyze and report all measured data including trends regarding system performance.

- Managed improvements to the landfill gas recovery system at the Golf Course Clubhouse and at the Soccer and Softball complex. Prepared construction drawings, specifications, and installation for the improvements. Managed implementation of improvements and prepared resulting report.
- Prepared drawings for drainage improvements and landfill cap remediation for the softball and soccer areas.
- Managed well abandonment for unused landfill gas wells installed by previous consultants. Supervised onsite activities and prepared associated documentation report.

**Mecklenburg County, NC, C. T. Myers Golf Course:**

- Completed engineering for a leachate storage tank to replace the existing containment pond for the ash monofill landfill. Prepared construction drawings, specifications, and a project manual for the project.
- Prepared drawings for drainage improvements and landfill cap remediation for the Hole 7 area. Prepared construction drawings, specifications, and a project manual for the project. Observed implementation of improvements and remediation efforts and prepared resulting report.

**Charlotte, NC, City of Charlotte, Statesville Road Landfill:**

- Supervised geoprobe borings to delineate the former landfill's edge of waste and methane migration. Performed methane gas monitoring and prepared a report detailing results.
- Supervised sewer line installation through the closed landfill to accommodate site development. Performed methane gas monitoring and prepared a construction certification report for the sewer line.

**International Paper:**

**Lanvale, NC:** Coordinated and performed environmental site assessment for a 30-acre property containing a closed landfill. Supervised well and probe installation and performed monitoring. Prepared the Phase II report acquiring all required background and current information for the site to comply with industry standards for Phase II ESAs.

**Conway, SC, Conway Bombing and Gunnery Range:** Conducted a Phase I Environmental Site Assessment for two adjacent land tracts equaling approximately 1,000 acres of timberland in Conway, SC. Performed site visit and prepared the Phase I report acquiring all required background and current information for the site to comply with the ASTM standard for Forestland or Rural Property Phase I ESAs (E2247-02).

**Acworth, GA, Lakeside Market Place:** Perform ongoing routine monitoring and reporting since 2003. Assisted in implementation and remediation efforts and coordinated field changes to designs for methane mitigation system for original landfill redevelopment. Prepared update reports and pictures during the construction activities for the big box retail shopping center on

top of a closed landfill including Circuit City, Ross, Office Max, and a 200,000 square foot Super Target.

- Performed periodic monitoring of all the stores. Monitoring included indoor air monitoring, monitoring probes and monitoring the sub-slab vent system. Compile, analyze and report all measured data including trends regarding system performance.
- Manage monthly monitoring of the site and operation of the active landfill gas recovery system at the Super Target. Prepare monthly and quarterly reports for the local fire department and building inspector regarding the stores.