Adam smith, pe

Education

B.S. – Civil Engineering, Clemson University, 2007

Registrations and Certifications

Professional Engineer, South Carolina License No. 31139

40-hour CFR §1910.120 Health and Safety

Professional Affiliations

Solid Waste Association of North America – South Carolina Chapter

American Society of Civil Engineers

Professional Experience

Mr. Smith is a Project Manager with over 15 years of experience in landfill engineering, landfill gas (LFG) engineering, environmental engineering, civil engineering, hydrology and hydraulics, and regulatory compliance. He is located in the Charlotte, North Carolina office.

Since joining SCS, he has worked on a variety of engineering projects involving landfill expansion, landfill closure, solid waste permitting, landfill gas collection and control systems (GCCS), LFG mitigation, LFG compliance and regulatory reporting, LFG modeling, leachate management and evaporators, stormwater management and regulatory compliance/reporting, and transfer stations. In addition, Mr. Smith has performed CQA services for transfer station and convenience center construction, LFG system expansion, cell construction, and landfill closure cap projects.

Representative examples of his project experience include the following:

**Landfill Gas and Landfill Gas-to-Energy Projects**

**Berkeley County Water & Sanitation Landfill, Moncks Corner, SC.** Assisted with the design and preparation of construction drawings for the 2009, 2010, and 2018 landfill gas collection and control system (GCCS) expansions. The GCCS expansions included over 50 vertical wells, associated piping and valves, horizontal collector piping, airline piping, condensate forcemain piping, and condensate sumps. The expansion also included the installation of a 2,500 scfm utility flare and blower station and 40-hp air compressor and compressor building. Prepared construction drawings and assisted with system layout, details, and well schedule.

**Republic Services, Lee County Landfill, Bishopville, SC**. Served as the lead engineer for LFG projects for the past seven (7) years. Assisted with the design and preparation of construction drawings for several landfill gas collection and control system (GCCS) expansions since 2007. In addition to designing the expansion/modifications to the existing GCCS, Mr. Smith reviews all GCCS and liquid level data to assess the health of the GCCS and make recommendations to improve its output. Mr. Smith also has been preparing the five (5) year LFG budget plans for the last four (4) years.

**Republic Services,** **Northeast Sanitary Landfill, Eastover, SC.** Served as the lead engineer for LFG projects for the past seven (7) years. Assisted with the design and preparation of construction drawings for several landfill gas collection and control system (GCCS) expansions since 2007. In addition to designing the expansion/modifications to the existing GCCS, Mr. Smith reviews all GCCS and liquid level data to assess the health of the GCCS and make recommendations to improve its output. Mr. Smith also has been preparing the five (5) year LFG budget plans for the last four (4) years.

**Republic Services, Upstate Landfill, Enoree, SC**. Served as the lead engineer for LFG projects for the past seven (7) years. Analyzed GCCS and liquid level data to develop each expansion/modification of the existing GCCS. In addition, was the lead engineer for the final GCCS layout for the NSPS Design Plan. Utilized KYPIPE to correctly size the LFG piping system.

**Republic Services, Charlotte Motor Speedway Landfill, Charlotte, NC.** Served as the lead engineer for LFG projects for the past six (6) years. Assisted with the design and preparation of construction drawings for several landfill gas collection and control system (GCCS) expansions from 2008 to the present. Analyze LFG wellfield data and liquid level data and work with OM&M contractor to improve the output of the GCCS. In addition, assisted with preparation of the construction drawings for the 2010 landfill gas transmission pipeline. The project consisted of a mile long 30-inch diameter pipeline from the site’s previous landfill gas energy plant to the site’s newly constructed landfill gas energy plant.

**Republic Services, Uwharrie Environmental, Mt. Gilead, NC.** Assisted with the design and preparation of construction drawings for several landfill gas collection and control system (GCCS) projects from 2009 to the present. Prepared as-built drawings following construction.

**Republic Services, Middle Point Landfill, Murfreeboro, TN**. Assisted with the design and preparation of construction drawings for several GCCS projects between 2018 and 2019. Projects included design of new LFG extraction wells and associated LFG piping, new LFG header and LFG infrastructure in new Cell 10, and a new blower-flare station.

**Republic Services, Uwharrie Environmental, Mt. Gilead, NC.** Assisted with the design and preparation of construction drawings for several landfill gas collection and control system (GCCS) projects from 2009 to the present. Prepared as-built drawings following construction.

**Republic Services, East Carolina Environmental, Aulander, NC.** Assisted with the design and preparation of construction drawings for landfill gas collection and control system designs in 2011, 2012, and 2014. Prepared as-built drawings following construction.

**Republic Services, Upper Piedmont Environmental, Rougemont, NC.** Assisted with the design and preparation of construction drawings for the 2011 landfill gas collection and control system (GCCS). Prepared as-built drawings following construction.

**Republic Services, Foothill Environmental, Lenoir, NC**. Assisted with the design and preparation of construction drawings for the 2011 landfill gas collection and control system (GCCS). Prepared as-built drawings following construction.

**Waste Management, Oakridge Landfill, Dorchester, SC**. Prepared the 2011 Landfill Gas Phasing Plans. Duties included analyzing the annual landfilling sequence for the site through 2015 and designing landfill gas collection and control system (GCCS) expansions to coincide with waste placement.

**Waste Management, Palmetto Landfill and Recycling Center, Spartanburg, SC.** Designed and prepared the construction drawings for the 2011 landfill gas collection and control system (GCCS) expansion. The GCCS expansion included vertical wells and associated piping.

**Waste Industries, Anson County Landfill, Polkton, NC.** Assisted with preparation of the construction drawings for the 2008 and 2009 landfill gas collection and control system (GCCS) expansions. The GCCS expansions included more than 20 vertical wells, associated piping and valves, condensate sumps, and 2,500 scfm utility flare and blower station.

**Spartanburg County, Wellford Landfill, Wellford, SC.** Supported the design and preparation of construction drawings for the 2009 landfill gas collection and control system expansion. The GCCS expansion included 60 vertical wells, associated piping and valves, and condensate sumps to support a LFG to energy project. Assisted with system layout, details, and well schedule. In addition, assisted with the preparation of the construction drawings for the LFGE pipeline from the landfill to the Miliken Dewey Plant approximately 6.5 miles away.

**City of Greensboro, White Street Landfill, Greensboro, NC.** Assisted with preparation of the construction and as-built drawings for the 2007 landfill gas collection and control system (GCCS) expansion. The GCCS expansion included 25 vertical wells and associated piping.

**Blue Source, LLC, Johnston County, Smithfield, NC.** Assisted with the design and preparation of construction drawings for the 2010 landfill gas collection and control system (GCCS) expansion. The GCCS expansion consisted of vertical wells, associated piping and valves, and condensate sumps to support a landfill gas to energy project.

**Department of Environmental Management, New Hanover County Landfill, Wilmington, NC.** Assisted with preparation of the Landfill Gas Master Plan. Duties included design of gas collection and control system (GCCS) and preparation of the well schedule.

**Cumberland County, Ann Street Landfill, Fayetteville, NC.** Assisted with the design and preparation of the construction drawings for the 2018 GCCS expansion. The project included fifteen (15) LFG extraction wells, LFG header and lateral piping, airline, and forcemain. In addition, assisted with the design of the final GCCS layout for the NSPS Design Plan.

**Gaston County Department of Public Works, Gaston County Landfill, Dallas, NC.** Assisted with the design and preparation of the construction drawings for the 2015 and 2017 GCCS expansion projects. The expansions included twenty-four (24) LFG extraction wells, LFG header and lateral piping, airline, and forcemain.

**Newberry County, Newberry County Landfill, Newberry, SC.** Assisted with the design and preparation of the construction drawings for a soil gas extraction system to mitigate groundwater contamination from LFG migration at the closed MSW landfill. The system included twenty-five (25) soil gas extraction wells, LFG piping, and blower station.

**Landfill Gas CQA Projects**

**Berkeley County Water & Sanitation Landfill, Moncks Corner, SC.** Performed construction quality assurance services for a landfill gas collection and control system (GCCS) expansion. Duties in the field included documenting daily construction progress for installation of landfill gas wells, associated piping, valves, and condensate sumps and maintaining a photographic record of work done. Prepared as-built drawings. Prepared construction certification report which included daily field logs, boring logs, construction photographs, and as-built drawings

**Republic Services, Lee County Landfill, Bishopville, SC.** Project Manager for all CQA projects during GCCS expansions for last seven (7) years. Prior to being Project Manager, performed construction quality assurance services for several landfill gas collection and control system (GCCS) expansions. Duties in the field included documenting daily construction progress for installation of landfill gas wells, associated piping, valves, and condensate sumps and maintaining a photographic record of work done. Prepared as-built drawings. Prepared construction certification reports which included daily field logs, boring logs, construction photographs, and as-built drawings.

**Republic Services, Northeast Sanitary Landfill, Eastover, SC.** Project Manager for all CQA projects during GCCS expansions for last seven (7) years. Prior to being Project Manager, performed construction quality assurance services for several landfill gas collection and control system (GCCS) expansions. Duties in the field included documenting daily construction progress for installation of landfill gas wells, associated piping, valves, and condensate sumps and maintaining a photographic record of work done. Prepared as-built drawings. Prepared construction certification reports which included daily field logs, boring logs, construction photographs, and as-built drawings.

**Republic Services, Upstate Landfill, Enoree, SC**. Project Manager for all CQA projects during GCCS expansions for last seven (7) years. Prior to being Project Manager, performed construction quality assurance services for several landfill gas collection and control system (GCCS) expansions. Duties in the field included documenting daily construction progress for installation of landfill gas wells, associated piping, valves, and condensate sumps and maintaining a photographic record of work done. Prepared as-built drawings. Prepared construction certification reports which included daily field logs, boring logs, construction photographs, and as-built drawings.

**Republic Services, Charlotte Motor Speedway Landfill, Charlotte, NC**. Project Manager for all CQA projects during GCCS expansions for last six (6) years. Prior to being Project Manager, performed construction quality assurance services for several landfill gas collection and control system (GCCS) expansions. Duties in the field included documenting daily construction progress for installation of landfill gas wells, associated piping, valves, and condensate sumps and maintaining a photographic record of work done. Prepared as-built drawings. Prepared construction certification reports which included daily field logs, boring logs, construction photographs, and as-built drawings.

**Waste Industries, Anson County Landfill, Polkton, NC.** Performed construction quality assurance services for landfill gas collection and control system (GCCS) expansions. Duties in the field included documenting daily construction progress for installation of landfill gas wells, associated piping, valves, and condensate sumps and maintaining a photographic record of work done. Prepared construction certification reports which included daily field logs, boring logs, construction photographs, and as-built drawings.

**Spartanburg County, Wellford Landfill, Wellford, SC.** Performed construction quality assurance services for several landfill projects. Duties in the field included documenting daily construction progress for installation of landfill gas transmission pipeline, landfill gas wells, associated piping, valves, and condensate sumps and maintaining a photographic record of work done. Prepared as-built drawings. Prepared construction certification reports which included daily field logs, boring logs, construction photographs, and as-built drawings.

**Landfill Closure, Design, Permitting, and CQA Projects**

**Berkeley County Water & Sanitation Landfill, Cell 9, Moncks Corner, SC.** Assisted the design, the preparation of the construction drawings, specifications, and bidding documents for a 5.5-acre MSW landfill cell. The cell is part of the Berkeley County Class 3 landfill. The liner system included a geosynthetic clay liner (GCL) and a 60-mil HDPE geomembrane liner.

**Berkeley County Water & Sanitation Landfill, Cell 13, Moncks Corner, SC.** Assisted the design, the preparation of the construction drawings, specifications, and bidding documents for a 6.5-acre MSW landfill cell. The cell is part of the Berkeley County Class 3 landfill. The liner system included a geosynthetic clay liner (GCL) and a 60-mil HDPE geomembrane liner.

**Berkeley County Water & Sanitation Landfill, Cell 14, Moncks Corner, SC.** Assisted the design, the preparation of the construction drawings, specifications, and bidding documents for a 6.6-acre MSW landfill cell. The cell is part of the Berkeley County Class 3 landfill. The liner system included a geosynthetic clay liner (GCL) and a 60-mil HDPE geomembrane liner. Managed CQA activities and prepared and certified the construction report.

**Berkeley County Water & Sanitation Landfill, Closure, Moncks Corner, SC.** Assisted the design, the preparation of the construction drawings, and bidding documents for a 10-acre closure of the east slope at the MSW Subtitle D Landfill. The closure system consisted of an 18‑inch thick compacted soil liner and the ClosureTurf lining system.

**Berkeley County Water & Sanitation Landfill, Class 1 Landfill, Moncks Corner, SC.** Certifying engineer for the design and permitting of a new Class 1 Landfill at the Facility. The approximate 14.3-acre landfill was designed and permitted to encompass an existing depleted soil borrow area that was used for on-site solid waste operations. The permit application included design drawings and stormwater calculations. The Class 1 Landfill was approved in July 2020.

**Berkeley County Water & Sanitation Landfill, Class 2 Landfill Expansion, Moncks Corner, SC.** Assisted with the preparation of the permit drawings for the proposed expansion of the C&D Landfill.

**Republic Services, Lee County Landfill, Bishopville, SC.**  Assisted with the design and preparation of construction drawings for two partial closures. In 2007, the 15-acre North Slope was closed, followed by the 20-acre East Slope in 2010. Assisted with construction and quality assurance for the 20-acre partial closure in 2010. The partial closures included landfill gas collection and control components along with leachate management systems under the final cap system.

**Progress Energy Carolinas, H.B. Robinson Plant, Hartsville, SC.** Performed construction quality assurance for the closure of Unit 1 and Unit 2 landfills. Duties in the field included documenting construction progress final cover system, erosion and control inspections, vegetation stability, and maintaining photographic record of work done. Prepared construction certification reports which included daily field logs, construction photographs, and as-built drawings.

**Duke Energy, Lee Steam Station, Pelzer, SC.** Assisted with the design of a 16-acre industrial landfill for the disposal of coal combustion products. Designed the stormwater management system, leachate management system, and prepared design drawings for the Permit Application.

**Waste Management, Inc., Great Oak Landfill, Cell 3, Asheboro, NC.**  Assisted with the design, the preparation of the construction drawings, specifications, bidding documents, and erosion & sediment control plan for the 8-acre cell. The cell’s liner system consisted of three geomembrane liners, geosynthetic clay liner (GCL), leak detection geocomposite, and leachate collection geocomposite. Provided in-house AutoCad support during construction activities.

**Waste Management, Inc., Great Oak Landfill, Cell 2, Asheboro, NC.**  Assisted with the design, the preparation of the construction drawings, specifications, bidding documents, and erosion & sediment control plan for the 10-acre cell. The cell’s liner system consisted of three geomembrane liners, geosynthetic clay liner (GCL), leak detection geocomposite, and leachate collection geocomposite. Provided in-house AutoCad support during construction activities.

**Waste Management, Inc., Great Oak Landfill, Cell 1, Asheboro, NC.**  Provided in-house support during activities associated with the construction and certification of the initial cell at the Great Oak Landfill in Asheboro, NC. Cell 1 is a 15.5-acre, triple-lined MSW cell constructed in 2016-17.

**Cumberland County, Municipal Solid Waste Landfill, Closure, Fayetteville, NC.** Assisted with the design and preparation of construction drawings for a 12-acre partial closure of the active MSW landfill. The closure system consisted of 1-ft of intermediate cover, 40-mil textured LLDPE geomembrane, double sided geocomposite drainage net, 18 inches of protective soil cover, and 6 inches of vegetative topsoil.

**Republic Services, Charlotte Motor Speedway Landfill, Phase 3, Charlotte, NC**. Assisted with the design and preparation of the construction drawings for the Phase 3 Landfill Permit Modification. Assisted with the design of the base and closure grade layouts.

**Waste Industries, Anson County Landfill, Cell 2B, Polkton, NC.** Performed construction quality control, on behalf of Anson County, during the construction of Cell 2B East, Cell 2B West, and Cell 2C South. The construction of the three cells encompassed approximately 13.1-acres. Duties were on a part-time basis to observe, test, and document the installation of the compacted soil liner, geosynthetics, protective cover layer, and leachate collection system and associated piping.

**Leachate Management Design, Permitting, and CQA Projects**

**Greenville County, Twin Chimneys Landfill, Honea Path, SC.** Permitted a 45,000 gallons per day leachate evaporator system that utilizes LFG from the existing GCCS to evaporate portions of the leachate generated by the Landfill each day. Designed the electrical pumps and sized the carrier pipes for the leachate and LFG.

**Three Rivers Solid Waste Authority, Three Rivers Landfill, Jackson, SC.** Permitted a 45,000 gallons per day leachate evaporator system that utilizes LFG from the existing GCCS to evaporate portions of the leachate generated by the Landfill each day. Designed the electrical pumps and sized the carrier pipes for the leachate and LFG.

**Waste Management, Richland County Landfill, Elgin, SC.** Permitted two (2) separate leachate evaporator system that utilizes LFG from the existing GCCS to evaporate portions of the leachate generated by the Landfill each day. The first leachate evaporator was a 45,000 gallons per day system and the second was a 50,000 gallons per day system. Designed the electrical pumps and sized the carrier pipes for the leachate and LFG. For the first leachate evaporator system, prepared the erosion and sediment control plans and conducted CQA services during the site preparation and construction of the foundations.

**Waste Management, Oarkridge Landfill, Dorchester, SC.** Permitted two (2) separate leachate evaporator system that utilizes LFG from the existing GCCS to evaporate portions of the leachate generated by the Landfill each day. The first leachate evaporator was a 45,000 gallons per day system and the second was a 50,000 gallons per day system. Designed the electrical pumps and sized the carrier pipes for the leachate and LFG.

**Solid Waste Transfer Station Projects**

**Union County, MSW Transfer Station, Wingate, NC**. Performed construction quality assurance services for the transfer station’s floor rehabilitation. Project included resurfacing the transfer station’s floor and installing structural steel for tipping floor edge and hopper.

**Environmental Services Projects**

**Lockhart Power, SC**. Prepared Spill Prevention Control and Countermeasures (SPCC) plans for variety of facilities, including two hydroelectric dams and two diesel peak electric power generation stations.

**Re-Community Recycling, Charlotte, NC.** Prepared a Spill Prevention Control and Countermeasures (SPCC) plan for a materials recovery facility (MRF). Petroleum-related activities at the facility included the storage and distribution of hydraulic oil for use in compactors and bailers as well as diesel fuel for heavy equipment.

**Electronic Recyclers, Badin, NC.** Prepared a Stormwater Pollution Prevention Plan (SWPPP) from industrial activities for an electronic equipment recycling facility.

**Berkeley County Water & Sanitation Landfill, Moncks Corner, SC.** Assisted with the Stormwater Pollution Prevention Plan (SWPPP) from construction activities for a new soil borrow area. The new soil borrow area encompassed approximated 33.5 acres. Assisted with the development of the erosion and sediment (E&S) control plans, pre and post development calculations, and the E&S control calculations.

**Republic Services, Swift Creek Landfill, Macon, GA**. Assisted with the Stormwater Pollution Prevention Plan (SWPPP) from industrial activities for the Landfill.

**Waste Management, Richland County Landfill, Elgin, SC**. Prepared the Stormwater Pollution Prevention Plan (SWPPP) from construction activities for a leachate evaporator. Prepared the erosion and sediment (E&S) control plans, pre and post development calculations, and the E&S control calculations.

**Republic Services, Foothills Landfill, Lenoir, NC**. Assisted with the erosion and sedimentation control plan drawings for a clay borrow area. The proposed material was used for the construction of a new cell.

**Scotts Miracle-Gro, Chester, SC.** Prepared a Stormwater Pollution Prevention Plan (SWPPP) from industrial activities associated with processing potting soil mixtures and bark mulch.