Kenton John Yang, PE

Education

ME - Environmental Engineering, University of Florida, 2000  
BS - Environmental Engineering, University of Florida, 1998

Professional Licenses

Professional Engineer – North Carolina, 2004

Professional Affiliations

Solid Waste Association of North America

Professional Experience

Mr. Yang is a Project Director in our Raleigh, North Carolina, office, providing landfill engineering and solid waste management consulting services to the Carolinas. He has over 19 years of experience in civil and environmental engineering, with expertise in landfill siting and permitting; and facility design, operations, and construction management for municipal solid waste landfills (Subtitle D), CDD landfills, utility coal ash landfills, household hazardous waste and customer convenience centers. He has Bachelor’s and Master’s Degrees in Environmental Engineering from the University of Florida at Gainesville, and is a licensed Professional Engineer in North Carolina.

Mr. Yang is experienced in solid waste facility site development projects, leachate management, and environmental regulatory compliance including air quality for landfills, landfill gas collection, control design, and operations. He has conducted a variety of solid waste management assessments and planning projects.

He has worked with numerous counties throughout North Carolina, serving as the client contact in addition to managing capital improvement projects, annual environmental compliance assistance, solid waste management plans, and on-call services.

Mr. Yang conducted landfill site selection and site suitability permitting for a coal ash landfill for a power utility in the southeast, as well as design, permitting, and construction management for two of its phases. He assisted in landfill operational issues, including stormwater control and leachate management, and was responsible for site compliance associated with EPA’s CCR rule.

Notable projects that Mr. Yang has been involved in are described below.

Solid Waste Planning and Engineering

**Project Manager and Engineer, Subtitle D Landfill Partial Closure, Wake County, North Carolina.** Mr. Yang worked as project manager and engineer for the permitting and design of the Unit A Partial Closure (24-acre area) at the South Wake Landfill.  The design included an innovative stormwater management system using pipes in rock trenches in lieu of berms and swales.  It also included a phased construction approach to allow for landfill gas to be maintain during construction to minimize down time of the landfill-gas-to-energy facility.  Mr. Yang served as the construction manager.

**Project Manager and Engineer, South Wake Landfill Improvements Project, Wake County, North Carolina.** Mr. Yang worked as project manager and engineer for the permitting and design of the Northeast District Improvements Project at the South Wake Landfill.  The design included demolition of portions of the existing structures and construction of a new field office building, a new 7-bay convenience center, relocation of the landfill operator trailer, a new office/toilet building, Household Hazardous Waste explosion-proof units, docks, and canopy, additional canopy and other improvements to the existing multi-materials recycling facility, minor renovations to the existing transfer station and site improvements.  Construction phasing was critical as customer services were maintained during construction. Bedrock and buried waste were both considerations during design as was construction around and near a County emergency service tower. Mr. Yang served as construction manager.

**Project Manager and Engineer, Wake County Site #3 Convenience Center Drop-off and Town of Morrisville Public Works Facilities Project, Wake County, North Carolina.** Mr. Yang is leading a diverse and multi-discipline design group to provide programming and site layout services for a joint project on a Town of Morrisville property with Wake County and Morrisville. The project is a development of a residential convenience center drop-off including a 7-bay drop-off area, multi-materials recycling, household hazardous waste area and other services for the County and a multiple department public works buildings including facilities, administration, streets, and others for Morrisville.

**Project Manager and Engineer, South Wake Landfill Exposed Geomembrane Cap, Wake County, North Carolina.** Mr. Yang worked as project manager and engineer for the design of the exposed geomembrane cap project at the South Wake Landfill.  The design included 40-mil and 20-mil HDPE geomembrane and geosynthetic ballast system.  Other components include stormwater management and landfill gas collection. Mr. Yang will continue to support to County through construction.

**Project Engineer, Subtitle D Landfill Cell Construction, Buncombe County, North Carolina.** Mr. Yang worked as project engineer on the construction of Cell 6 at the Buncombe County Solid Waste Management Facility. Cell 6 is an approximately 23 acre new municipal solid waste cell at an existing site. The project began with the completion and approval by the state of the Permit to Construct. After approval, he was involved in writing and compiling the specifications and the design drawings. Mr. Yang helped in the bidding services and was heavily involved in each step of the construction.

**Project Engineer, Subtitle D Landfill Landfill Gas to Energy Facility, Buncombe County, North Carolina.** Mr. Yang worked as project engineer on the design of the landfill gas collection system for the landfill gas to energy facility at the Buncombe County Solid Waste Management Facility. The design included gas generation rates, pipe sizing, and vertical well spacing.

**Project Manager and Engineer, Subtitle D Landfill Cell 7 Design and Construction, Buncombe County, North Carolina.** Mr. Yang worked as project manager and engineer on the design and construction of Cell 7 at the Buncombe County Solid Waste Management Facility. Cell 7 is an approximately 14-acre new municipal solid waste cell at an existing site. Mr. Yang led the design phase and assisted the County in pre-qualification of bidders. Mr. Yang served as construction manager.

**Project Manager and Engineer, C&D Landfill Phase 7 Design, Permitting and Construction, Buncombe County, North Carolina.** Mr. Yang worked as project manager and engineer on the design, permitting and construction of Phase 7 at the Buncombe County Solid Waste Management Facility. Phase 7 is an approximately 5-acre new C&D cell at an existing site. Mr. Yang led the design phase, submitted for state permitting, and assisted the County in pre-qualification of bidders. Mr. Yang served as construction manager.

**Project Manager and Engineer, Confidential Client, North Carolina**. In 2019, Mr. Yang was the primary client contact, project manager, and engineer for a confidential power utility in North Carolina for an evaluation of the plant’s landfill leachate system. The evaluation was conducted to enhance operations and minimize loss of containment risk. The evaluation included a system review, recommendations, and implementation plan with suggested priorities.

**Project Manager and Engineer, Confidential Client, North Carolina**. Mr. Yang was the primary client contact, project manager, and technical lead for a confidential power utility in North Carolina from 2008 through 2019. Mr. Yang was involved in the site evaluation and selection for a new CCP landfill at a power utility steam station. Once the site was selected, Mr. Yang was involved in the design, permitting, and construction management of Phase I, a 23-acre landfill cell. Subsequent to construction completion, Mr. Yang was the lead in all facets of the Phase II expansion which was a 15-acre landfill cell. Also during design and permitting, Mr. Yang was involved in various studies including a landfill maximization study involving a road relocation study, a rail hauling feasibility study that investigated alternative landfill sites and rail access, and a run-on/run-off plan to review stormwater and leachate control measures.

**Project Manager and Engineer, Entrance Facilities Evaluation, Transylvania County, North Carolina**. Mr. Yang was the primary client contact, project manager, and engineer for an evaluation of the landfill’s entrance facilities. The County has an aging vehicle scales and an adjacent customer convenience center. The evaluation included a scale assessment, new scale options, and new convenience center layout options to enhance customer safety and vehicle circulation.

**Project Manager/Project Engineer, Comprehensive Solid Waste Management Plan, New Hanover County, North Carolina.** In 2013, Kenton served as project manager for the Plan that evaluated solid waste management options. The study involved multiple stakeholder and County Commissioner Board meetings and helped provide guidance in ways to maximize landfill life. An important component of the Plan was the financial analysis of the enterprise fund. The financial analysis included the revenue from the tipping fee and operational and capital expenditures. A C&D characterization study was a follow-up to the Plan to determine the percent of available recyclable C&D waste that the County receives. This study was the foundation for the County to move forward with their C&D recycling facility.

**Project Engineer, Solid Waste Management Planning and Financial Analysis, Onslow County, North Carolina.** In 2009, Mr. Yang served as the project engineer to help evaluate long-term waste disposal options. A program financial analysis was developed and the possible management options were incorporated for comparison. In 2019, Mr. Yang was involved in the program rate study (i.e., tipping fee analysis ).

**Project Manager, Subtitle D Landfill Cell Permitting, Design, and Construction, Onslow County, North Carolina.** Kenton worked as project engineer for the permitting, design and construction of the Phase IV expansion (10-acre area). He also served as support and technical reviewer for several other County solid waste projects, including permitting and wastewater system design support for the new Vehicle Maintenance Facility and leachate pretreatment facility assessment.

**Project Manager and Engineer, Subtitle D Landfill Partial Closure, Onslow County, North Carolina.** Mr. Yang worked as project manager, engineer, and construction manager for the permitting, design, and construction of the Phase I Partial Closure (16-acre area). The design included an innovative landfill gas venting system since the landfill did not have an active landfill gas collection system. Also, the infrastructure for an active landfill gas collection system was installed under the closure cap so if the County decided to install an active system, the cap would not be disturbed.

**Project Engineer, Subtitle D Landfill Cell Permitting, Design, and Construction, Onslow County, North Carolina.**  Mr. Yang worked as project engineer for the permitting, design, and construction of the Phase III Subtitle D Landfill expansion (15-acre area) at the Onslow County Landfill Facility. Mr. Yang compiled, wrote, and coordinated various sections in order to complete and submit for approval the Permit to Construct Amendment Application. He worked on the construction specifications and drawings. He coordinated general construction services and compiled the Construction Quality Assurance report for submittal to NCDENR.

**Project Manager and Engineer, Landfill Gas Feasibility Study, Onslow County, North Carolina.**  Mr. Yang was the project manager and engineer for the Landfill Gas Feasibility Study for the Subtitle D Landfill at the Onslow County Landfill Facility. He prepared all landfill gas generation calculations, completed all gas piping size calculations and completed proposed collection system drawings.

**Project Engineer, Air Quality Permitting, Onslow County, North Carolina.** Mr. Yang served as the project manager for general air quality (Title V operating permit) permitting at the Onslow County landfill.  Air quality reports that have been completed for the past 9 years include, semi-annual monitoring reports, emissions inventories, rate reports, renewals, Tier 2 testing reports, quarterly deviation reports, and GHG reports.

**Project Engineer, Subtitle D Landfill Cell Design and Permitting, Delaware.** Mr. Yang was the project engineer for the permitting and design of the Cell 5 Disposal Area expansion (30-acre area) at the Delaware Solid Waste Authority, Southern Solid Waste Management Center. He compiled, wrote, and coordinated various sections in the Solid Waste, Air Pollution Control, and Stormwater and Sediment permit applications. Mr. Yang designed and modeled the active gas collection and control system for Cell 5. He coordinated bid documents submittal to the client.

**Project Engineer, Subtitle D Landfill Cell Design and Permitting, Delaware.** Mr. Yang was the project engineer for the permitting and design of the Area F Disposal Area expansion (60-acre area) at the Delaware Solid Waste Authority, Central Solid Waste Management Center. He compiled, wrote, and coordinated various sections in the Solid Waste, Air Pollution Control, and Stormwater and Sediment permit applications. Mr. Yang designed and modeled the active gas collection and control system for Area F.

**Project Engineer, Construction and Demolition Permit to Construct, Cabarrus County, North Carolina**. Mr. Yang worked as project engineer, compiling the Cabarrus County Construction and Demolition (C&D) Landfill Permit to Construct on a new C&D cell. His efforts concentrated on writing the permit and coordinating with the geotechnical/hydrogeological portions of the permit. He also completed the erosion and sedimentation control calculations required to size various erosion and sedimentation control measures.

**Project Engineer, Landfill Site Study, North Carolina.** Mr. Yang worked as project engineer, compiling the Black Bear Disposal Landfill site study for Waste Industries in North Carolina. This project was unique in the fact that it is a siting study for a new landfill. His efforts concentrated on contacting government agencies using the Solid Waste Regulations as a guide to the new landfill site. He also worked in compiling data for the site study using ArcView representation.

**Project Director, Preliminary Engineering Report for Third Shed Transfer Station, Henderson County, North Carolina.** In 2020-2021, Kenton oversaw development of a planning and conceptual design report (“PER”) for the third bay/shed (second expansion) of the County’s transfer station on Stoney Mountain Road. Considerations included siting (including development of options weighted criteria matrix), permitting, existing operations, site layout, grading, ingress/egress, master planning elements, and potential demolition of existing structures

**Project Manager and Engineer, Transfer Station Shed No. 3 Design, Permitting and Bidding, Henderson County, North Carolina.** In 2023, Kenton led the design and permitting of the County’s new Shed No. 3 transfer station on Stoney Mountain Road. Permits included the state solid waste permits and County permitting.

Other Experience

Project Director, Waste Disposal and Recycling Center Traffic Study, City of Durham, North Carolina. Mr. Yang served as a project director and engineer for an evaluation of the City’s transfer station, convenience center, and other solid waste management facilities located at its Waste Disposal and Recycling Center on Club Rd. The City has an aging scales and convenience center, as well as two transfer stations, one of which is underutilized. The evaluation included traffic assessments, recommendations of options, and various recommendations for new layout options or operational protocols to enhance facility efficiency and customer safety.

Presentations

Yang, Kenton J. “Use of Drainage Blankets for Leachate Recirculation in Subtitle D Landfills” Presented at the NC SWANA Fall Technical Conference, Wrightsville Beach, North Carolina, August 2008.

Yang, Kenton J. “Considerations in the Development of a Coal Combustion Products Landfill” Presented at the World of Coal Ash Conference, Lexington, Kentucky, April 2013.

Yang, Kenton J. and Welch, Matt “Biotic Soil Technology for Efficient Landfill Closure – A Southeast US Case Study”

Presented at the International Erosion Control Association Environmental Connection 2020, Raleigh, North Carolina, February 2028.