Kenneth E. armentrout, PE

### Education

B.S. – Civil Engineering, Virginia Military Institute, Lexington Virginia, 2001

### Professional Licenses

Professional Engineer, VA license no. 043843

### Professional Experience

Mr. Armentrout is a Project Manager and SCS’s National Expert on Transfer Stations. He has been at SCS Engineers for approximately 11 years. He has been the Project Engineer for a variety of engineering projects involving Transfer Stations, Household Hazardous Wastes, Landfill design, and LFG-to-energy. His particular expertise in civil design and land development has allowed him to successfully provide these services to a variety of design projects. Ken is also a SWANA-accredited Technical Associate for the Management of Transfer Stations. Examples of his project experience include:

Transfer Station and Facilities Engineering

**Prince Georges County, MD, Western Branch Composting Facility.** Project Engineer for designing and constructing a 12-bunker aerated static pile composting facility. The facility was designed to convert yard and food waste into compost for sale by the County. This ASP system expedites the process of producing compost and is the only system of its type in the County.

**Rockingham County, VA, Rockingham County Landfill Entrance, and Citizens Convenience Center.** Project Manager for the design of a new landfill entrance and citizens’ convenience center. The facility was designed to handle the County’s expected increase in waste volumes, and provide adequate space for residents to drop waste and recyclables. Space for compactors and rear load trailers was also provided, along with office and administrative space.

**Santa Cruz County, CA, Buena Vista Landfill Master Planning and Transfer Station Design.** Project Manager for the formulation of a site Master Plan for the Buena Vista Landfill. After Master Planning was adopted by the County, design began for 2 separate, on-site transfer trailer facilities for the County. Additionally, a compost facility is also being designed on-site. Permitting and design efforts are ongoing.

**Howard County, MD, Alpha Ridge Transfer Trailer Parking Facility.** Project Engineer for the design of a transfer trailer facility for the County Transfer Station and Expansion. The parking facility was designed to adequately contain and separate trailer leachate, as well as address the updated Maryland SWM regulations.

**City of Prescott, AZ, Sundog Transfer Station Tipping Floor Remediation.** Project Engineer for the design and evaluation of various alternative solutions for the rehabilitation/replacement of the existing transfer station tipping floor. The project also included scale and scale pit, load out floor, armoring, and cantilever slab replacement.

**Montgomery County, MD, Shady Grove Transfer Station Fire Detection and Suppression System Upgrade.** Project Manager for the design, construction, and permitting of a new fire detection and suppression system for the transfer station and facility maintenance building. The facility utilized both wet and dry pipe systems along with nitrogen generation equipment to prolong system life. In order to meet current NFPA standards, the facility was required to construct a new 240,000-gallon water storage tank and fire pump house to provide adequate water flow to the systems.

**Baltimore County, MD, Western Acceptance Facility.** Project Manager for the evaluation and conceptual design of the transfer station expansion. This project included the evaluation of waste throughput capability, traffic queueing, and floodplain mitigation measures. Additionally, conceptual design of the commercial vehicle and employee parking areas, and a new office facility were provided.

Landfill Engineering

**Rockingham County, VA, Rockingham County Landfill Phase 5A Expansion.** Project Engineer for the design of a new landfill expansion. Phase 5A was the first cell built in what will ultimately be a 3-cell expansion. Cell 5A is approximately 25.80 acres and is composed of a geosynthetic clay liner (GCL), a 60-mil textured HDPE liner, and a leachate collection geocomposite drainage net (GDN). Prior to the development of the Phase 5A Construction documents, the Virginia Department of Environmental Quality permitting of the 3-phase expansion was obtained.

**Shenandoah County, VA, Shenandoah County Landfill Phase 4 Expansion.** Project Manager for the design of a new landfill expansion. Phase 4 is approximately 6 acres and is composed of a clay soil liner, a 60-mil textured HDPE liner, and a leachate collection geocomposite drainage net (GDN). The leachate collection system for Phase 4 is connected to the existing Phase 3 system and will utilize the Phase 3 sump controls.

**Frederick County, VA, Frederick County Landfill Expansion Phase 3, Cell A, MSW Landfill.** Project Engineer to provide CQA services to Frederick County during the construction of an expansion to their MSW landfill. Assisted the County and Contractor with interpreting design drawings, answering engineering questions, attending progress meetings, and reviewing all contractor submittals for compliance.

**Harford County, MD, Spencer’s Rubble Landfill Closure.** Project Engineer for the design of the capping and closure of the existing rubble landfill. The closure design also included ADA-compliant trails, parking facilities, and a dog park, with the ultimate end use of the property being utilized as a County park.

**Prince William County, VA, Prince William County Sanitary Landfill Athletic Fields.** Project Engineer for the design of athletic fields on a closed portion of the landfill. A surcharge was placed in the areas of the proposed athletic fields to maximize settlement prior to athletic field construction. Once it was determined that the site area had settled adequately, a drainage layer, irrigation system, stormwater management facilities, and erosion and sediment control measures were designed and constructed.

**Wayne County, NC, Duke Energy Third Part Review Flood Evaluation at the H.F.Lee Steam Electric Plant.** Project Engineer responsible for performing a third-party review of a flood evaluation report of an existing active ash pond. Specifically, reviewed the hydrologic & hydraulic study and the proposed repairs to the pond’s outlet structures.

**Chatham County, NC, Duke Energy Third Part Review Flood Evaluation at the Cape Fear Steam Station.** Project Engineer responsible for performing a third-party review of a flood evaluation report of an existing active ash pond. Specifically, reviewed the hydrologic & hydraulic study and the design storm event capacity and discharge requirements for an existing ash pond with no serviceable outlet structures. Additionally, the proposed grading was reviewed to confirm adequate storage capacity was provided at the pond.