

Mark Koegel, PE

Personal summary

Education:

BS, Civil Engineering,
 University of Notre Dame,
 2009

Registrations:

Professional Engineer:
 NC #042071, 2014
 GA #PE041690, 2017
 VA #0402060355, 2019
 LA #43340, 2019
 MD #54236, 2019

Professional memberships:

American Society of Civil
 Engineers (ASCE) – Energy
 Infrastructure Adaptation
 Committee

Key skills:

Storm water management;
 erosion and sediment
 controls; site layout; grading;
 drainage; hydrology;
 horizontal directional drilling;
 permitting

Years in practice:

10

Mr. Koegel has over 10 years of experience in a variety of power generation, power delivery, oil and gas, solar PV, and industrial projects. His experience includes design of storm water management systems, erosion and sediment control devices, sustainable site features, roads, railroads, material storage and waste facilities, and associated permitting support. Mr. Koegel has also provided field construction support for power generation and oil and gas projects.

Employment history

2019 - Present	Mott MacDonald
2016 – 2019	Kleinfelder
2013 – 2016	Black & Veatch
2009 – 2013	Burns and McDonnell

Selected projects

Thermal projects

Eagle Valley, Indianapolis Power & Light, Martinsville, IN (2014): Lead Civil-Site Engineer. Created preliminary permit package in support of Indiana Department of Environmental Management Rule 5 Construction/Land Disturbance Storm Water permit for new 680MW combined cycle gas-fired power plant. Oversaw creation of narrative report along with supporting calculations and permit drawings. Design included multiple pumped stormwater ponds along with associated storm sewer system. Preliminary permit package was then provided to selected EPC contractor.

Edwardsport IGCC Project, Duke Energy, Edwardsport, IN (2009-2010): Civil-Site Engineer. Supported design activities for grading and drainage for a new 6.5-mile rail spur connecting an existing short line railroad to the new integrated gasification combined cycle (IGCC) power plant. Project also included a new storage siding, ladder tracks within the plant, and material loading and unloading tracks. Provided hydrologic and hydraulic studies in coordination with the permitting of three new water body crossings, as required by the Indiana Department of Natural Resources, Division of Water.

Kent Substation, FirstEnergy, Ohio (2016): Civil-Site Engineer. Provided support for detailed civil design and construction for new substation located in Kent, Ohio. Developed calculations and narrative documentation supporting the creation of Storm Water Pollution Prevention Plan (SWPPP) for the new substation.

Line 6 Replacement Project, Piedmont Natural Gas, North Carolina (2017-2019): Civil Engineer/Assistant Project Manager. Civil task lead and project permitting coordinator for 70-mile, 16-inch natural gas transmission line. Project included 24 regulator stations, 9 over-pressure protection facilities, 8 main line valves, 7 launcher/receivers and 23 horizontal directional drills. Permitting included 404 permits through the US Army Corps of Engineers, 401 water quality and erosion and sediment control permitting through the state of North Carolina, as well as encroachment and driveway permits through NCDOT

Cypress Eagle, TECO/Peoples Gas, Jacksonville, FL (2016-2017): Civil Engineer/Project Manager: Project manager and civil design lead for a meter and flow control skid project with an associate 1800-foot, 6-inch natural gas transmission line. Project included site constraints such as on-site wetlands, 100-year floodplains, and restricted easements. Permitting included Nationwide Permit 12 through the US Army Corps of Engineers, floodplain mitigation through the City of Jacksonville, stormwater permitting through the Florida Department of Environmental Protection, and driveway permits through FDOT.

Great Plains and Grant County Substations; Oklahoma Gas and Electric, Oklahoma (2013): Lead Civil Engineer. Provided detailed design and permitting for two (2) 138-kV substations as well as construction support. Design included grading and drainage, retaining wall, site access and fencing.

Lansing Generating Station, Alliant Energy, Lansing, Iowa (2013): Lead Civil Engineer. Provided detailed civil-site design and construction support for EPC team on Air Quality Control System (AQCS) upgrade to existing 275MW coal-fired power plant. Project included the installation of a semi-dry flue gas desulfurization system and ancillary equipment. Civil design included site layout, grading and drainage, construction laydown, and road improvement.

Solar projects

Community Energy Solar PV Projects, Duke Energy Renewables, North Carolina (2015-2016): Engineer responsible for OE review and site inspections for all civil and geotechnical aspects of eight (8) solar projects located throughout eastern North Carolina. Primary review components consisted of: grading and drainage design, erosion and sediment control design, roadway design and alignment, PV support post design.

Jasper Solar 1, Dominion Energy, South Carolina (2016): Lead Civil Engineer. Provided technical due diligence on civil and geotechnical aspects of the proposed 71 MWac Jasper-1 PV facility. Conducted site visit during the due diligence review period to meet with local design teams and EPC firm. Challenges for this project included extensive wetlands and transmission line corridor constructability.

Ridgeland Solar, Dominion Energy, South Carolina (2016): Lead Civil Engineer. Provided technical due diligence on civil and geotechnical aspects of the proposed 10 MWac Ridgeland PV facility. Conducted site visit during the due diligence review period to meet with local design teams and EPC firm. Challenges for this project included designing for up to 7-foot-deep flood depths during the 100-year storm event.

Coral Farms Solar Farm, Florida Power & Light, Florida (2016): Civil Engineer. Provided civil detailed design support for 74.5 MWac solar farm. Tasks included review of local solar ordinances and building regulations, compiling GIS data, development of preliminary site plans and drainage memos for zoning approval, incorporation of survey data, development of building permit drawing sets and SWPPPs which incorporate electrical and structural design to develop IFC civil drawings

Horizon Solar Farm, Florida Power & Light, Florida (2016): Civil Engineer. Provided civil detailed design support for 74.5 MWac solar farm. Tasks included review of local solar ordinances and building regulations, compiling GIS data, development of preliminary site plans and drainage memos for zoning approval, incorporation of survey data, development of building permit drawing sets and SWPPPs which incorporate electrical and structural design to develop IFC civil drawings.

Quinto Solar Project, Sunpower Corporation, Merced County, CA (2014): Civil Engineer. Provided a preliminary hydrology and hydraulic study to establish a floodplain map for the proposed 108 MWac Quinto Solar Plant located in Merced County, CA.