Dhaval Desai

PROJECT ENGINEER - CG POWER SOLUTIONS INC

Norristown, PA - Email me on Indeed: indeed.com/r/Dhaval-Desai/ac06f35039eeb9de

WORK EXPERIENCE

PROJECT ENGINEER

CG POWER SOLUTIONS INC - Collegeville, PA - 2011 to Present

o Managing & designing multiple transmission & distribution rebuild and upgrade projects ranging from 69kV to 500kV.
o Actively involved in estimating, scheduling and budgeting T-line projects. Generating office study estimates of substations for various utilities.
o Structural design and evaluation of the transmission line structures utilizing PLS Tower, PLS Pole, RISA & MathCAD.
o Proficient in T-line design using PLS-CADD. Engineered & designed the multiple T-Line rebuild & upgrade project. Engineered multiple conductor temperature and tension verification projects with SAG Coordination & galloping issues.
o Foundation design and evaluation of transmission line structures using finite element based software & MathCAD. Hands on experience with grillage foundation design.
o Experience in writing the technical specification for structural steel & concrete.
o Structural design and evaluation of microwave & communication towers using TIA codes.
o Assisting lead to develop the schematic layout for substation structures using electrical layout.
o Performing structural analysis & design of dead end structures, switch stands, terminator structure stands, rigid bus calculation, etc.
o Engineering and preparing "Preliminary Engineering Package" of substations up to 230kV for permitting & licensing. Also, involved with GIS layout and conceptual design in existing AIS yard.
o Familiar with NESC, IEEE, NEMA criteria.

PROJECT ENGINEER

ANS CONSULTANTS - South Plainfield, NJ - 2009 to 2011

o Engineered & inspected multiple transmission line projects ranging from 13kV to 230kV.
o Experienced in designing & inspecting various challenging foundations on a complex soil conditions and space limitations.
o In charge for the transmission line foundation inspection team, where my role was to look after the drilled shaft design & monitor the construction activities.
o Engineering restoration work for 230kV transmission line; including foundation specification book, line construction book and the ordering/expediting of long lead material.
o Engineered Line Reconductoring & Rebuilding projects for 230kV line.
o Designed multiple OPGW upgrade projects specialized engineering tools and techniques to efficiently solve the problems in the professional approach.

SUBSTATION DESIGN ENGINEER

DISTRAN LLC - Pineville, LA - 2009 to 2009

2009
o Site design for new substations and expansion of existing substations, 69kV to 230kV.
o Structural analysis and design of various substation equipments, box structures, dead end structures etc. using RISA 3D and MathCAD templates.

o Foundation design and evaluation for new and existing substations using LPILE, MFAD and other FEM based software or templates. Involved in SPCC design for transformers and site grading for effective site drainage.
o Performed rigid bus calculations.

DESIGN ENGINEER

Jacobs Engineering - Cincinnati, OH - 2006 to 2009

o Involved in structural analysis, modeling and design of industrial projects worth 600 million dollars with wind and seismic analysis as per latest design Codes.
o Structural analysis of utility and manufacturing buildings with crane runways up to 200 tons.
o Analyzed load distribution to develop most effective and economic designs using latest design software's. Involved in design and detailing of pipe racks, steel stairs, equipment skids, moment frames.
o Prepared design calculations for steel and concrete structures manually and using excel spreadsheets.
o Developed foundation layouts and drawings according to geotechnical reports and results.
o Engineered deep and shallow foundation designs including design of grade beams, slab on grades, base plate & anchor bolt design.
o Assisted lead engineers for concept development, modifications and preparing proposals.
o Coordinated effectively with different engineering departments on the project to save effort & time. I was also responsible for checking the contract drawings.
o Underwent training of engineering techniques and tools which gave an in depth understanding to handle complex & challenging problems with ease and efficiency.

JUNIOR ENGINEER

JENKINS AND CHARLAND: - Fort Lauderdale, FL - February 2006 to August 2006

o Involved in design of commercial and institutional buildings up to 25 floors by the bayside.
o Performed load analysis for the foundation design.
o Structural design & evaluation of Post Tension slabs with design of transfer beams.
o Actively involved in commissioning process, including equipment testing, functional performance tests and building integration of inter-related systems.
o Assisted the Construction manager in resolving construction issues involving architectural, civil, structural, plumbing, electrical, and mechanical issues.
o Draft Field Directives and Field Orders for RCM approval where needed to expedite the work and document direction given to contractor.
o Conduct daily observation of construction work for compliance with approved contract drawings, specifications, Requests For Information (RFIs), Change Orders, and approved submittals and shop drawings.

EDUCATION

MASTER'S in STRUCTURAL ENGINEERING

Lamar University - Beaumont, TX
December 2005

BACHELORS OF ENGINEERING in CIVIL ENGINEERING

M.S University - Gujarat, IN
July 2004

DIPLOMA in CIVIL ENGINEERING

M.S University - Gujarat, IN
July 2000

SKILLS

• Transmission Line design, PLS CADD, PLS POLE & TOWER, L-PILE, MFAD, STAAD, MATHCAD, RISA, ENERCALC, AUTOCAD, SAP2000, MICROSTATION, PRIMAVERA, MS PROJECT, RAM STEEL.

ADDITIONAL INFORMATION

QUALIFICATIONS PROFILE

Skilled Civil/Structural Engineer with over seven years of experience. Solid history of measurable accomplishments and results. Professional and articulate, with strong project management and technical expertise. Proven success in managing projects, schedules and budgets.

PROJECT WORK

• Engineered Re-Conductoring & Re-Routing of (230kV & 115kV) double circuit transmission line project between Moses Switchyard and Dodge's field to support NYPA in meeting the New York ISO and NPCC criteria for long term operational planning. Work includes, route selection, new structure spotting, lattice tower analysis & reinforcing, Steel pole analysis, foundation design (drilled shafts), OHGW upgrade, damper analysis, stringing charts, planning drawings, As-built drawings & creating permit drawing packages and construction support. NYPA, NY

• Engineered 6.2 miles of 69kV transmission line (with 13kV under built) rebuild & re-conductor project between Rumble town & Petersburg sub, including structure spotting, structure & guy wires analysis for strength, OPGW upgrade, damper analysis, stringing charts, planning drawings, As-built drawings & creating permit drawing packages. DUKE ENERGY, IN

• Foundation design for the double circuit 230kV transmission line for Brunner Island project, which includes design of drilled shafts & some special type of foundations in wetlands. PPL, PA

• Communication Tower analysis for the additional antennas with tower reinforcement design. Foundation analysis of the existing foundation & economical redesign for the additional loads. NYPA NY

• 765kV Vertical reach MOD's replacement for New York Power Authority. Work includes preparing the technical specification for vendors, reviewing vendor bids. Review & redesign the bracing support configuration for the new vertical reach MODs switch contact assemblies. Foundation & base plate design for new support structures. Review & redesign the existing bus & bracing connections. NYPA, NY

• Engineered 7.6 miles of 69kV transmission line rebuild & re-conductor project between Marshfield Sub & Flexel Junction, including structure spotting, structure & guy wires analysis for strength, OPGW upgrade, damper analysis, stringing charts, planning drawings, As-built drawings & creating permit drawing packages. DUKE ENERGY, IN

• Engineered and prepared "Preliminary Engineering Package" for system up gradation of existing 26Kv substation to 230Kv substation with high line tension & fault currents at Fairlawn Substation including design of GIS building, site grading, steel structure & foundation design PSE&G, NJ

• Engineered and prepared "Preliminary Engineering Package" for system up gradation of existing 13Kv substation to 69Kv substation with high line tension & fault currents Englewood & Teaneck Substation PSE&G, NJ

• Lattice Tower analysis and design for electrical & communication towers with OPGW & Antennas. Stabilizing the existing tower structures for up gradation. Foundation design for all kinds of towers & pole structures. PSE&G, NJ

• Foundation design & field inspection of 230 kV Double circuit Transmission line project for PJM. NJ

• Restoration work on utility building which includes platform design, reinforcing existing roof truss to

accommodate additional equipments & monorail on roof, connection design, reinforcing existing footings. Creating the MTO for steel & concrete structures. ConAgra

• Foundation design for the manufacturing, utility buildings, warehouse. Foundation design includes understanding of soil reports & deciding the type of foundations & design of all different kinds of foundations i.e. Pile, mat, spread, Combined footings. Prepared calculations & drawings for the grade beams, piers & foundations. The total project cost was around 600 million USD. Novartis Inc., Raleigh , NC

• Steel & Concrete analysis, modeling and design of manufacturing & utility buildings (under an observation of Lead engineer. Wind & seismic analysis for all structural members using latest design software's for the member optimization. Bolted & welding connection design for a moment & braced frames. Novartis Inc.

• Designed, analyzed & constructed the earthquake resistant structure with the number of straws considering criteria of load taking capacity versus self weight of the structure. (IIT MUMBAI) 2003.