

Ajay Kumar Tiwary
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Summary: Having overall experience of 8.5 years in Design & Detail Engineering of Steel Structures as Process Unit, PIPE RACKS, Multi-Tier Skid (in-place and Lifting Analysis), Derrick Support Design for Flare Stack along with Foundation Design using RISA-3D, RISA FOUNDATION, SCIA ENGINEER, STAAD, STAAD FOUNDATION software. Connection design as Shear, Moment and Braced connection. Design of Base Plate, Anchor Bolt & Pedestal. Equipment Foundation Design as Horizontal Vessel, Vertical Vessel, Exchanger, Pump. RCC Structures as RCC building, Utility Tunnel, Culverts using Staad & ETABS. Preparation and checking of GA, RC & Steel drawings along with Design Calculation Report. Other works include Man Hour Estimation, Preparation of BOQ, Co-ordination with other disciplines, Model Review & Clash removal, Meeting with Clients.

Well conversant with the analysis software like STAAD Pro, STAAD Foundation, Scia Engineer, RISA -3D, RISA FOUNDATION, ETABS.

Review of vendor drawings as per technical specifications and relevant codes, coordination with other disciplines like Piping, Process, Electrical, Instrumentation, etc.

Software used: STAAD Pro, STAAD Foundation, Scia Engineer, Risa-3D, RISA Foundation, ETABS, SAFE, MS Excel, MS office.

Codes and Standards exposed to: EN 1993, EN 1992, ASCE 7-10, ASCE 7-05, AISC-360, ACI-318-05, IS456:2000, IS: 800, IS: 875, IS: 1893, IS: 13920, IRC 6:2000

Client and Project Experience Summary

BASRAH GAS COMPANY	North Rumaila NCS2 & NCS4 Compression Station, Iraq
SATERI VISCOSE INTERNATIONAL	WSA INDONESIA
BERGER ENGINES	FEED -Coega South Africa
IOCL	ENNORE LNG Project
PETRONAS	Petronas Rapid Project
KUWAIT OIL COMPANY (KOC) (NK)	Effluent Water Treatment & Injection Plant
IMG MIDSTREAM	Milan Energy LCC & Alpaca Energy LCC
EXXON MOBIL	Rotterdam Advanced Hydrocracker Unit
BASF – VILLANOVA	FEED Project - aPAM Complex Phase-1
PERTAMINA	BFS Study for PERTAMINA RDMP,L4
RELIANCE	RELIANCE J3 Project, Jamnagar, India
TATA Consultancy Services	IT-Park Rajarhat Kolkata, India.
Gujarat International Financial	Emergency Power Supply (EPS)
Tech City (GIFT)	& Utility Tunnel, India
TOTAL Energy	OML 58 upgrade, Nigeria

HIRCO
BWSSB

KUIDFC

Residential Building-ADAMS, India
Improvement of piped water supply in slums
of Bangalore city, India
Up-Scaling of 24x7 Water Supply Project to 3
ULB's in Karnataka, India

Specific Experience:

Sr. Structural Engineer
P-MECH CONSULTANT

Modelling, Analysis and Design of Steel Structures and their foundation as Compressor Shelter, Pipe-racks, Header Skid, Equipment Skid, Drain Tank Pipe Skid (Vessel Mounted), Slug catcher Piping Skid (Vessel Mounted), KO Drum, Pipe Sleepers using STAAD and STAAD Foundation, Co-ordination with other discipline, MTO, Checking Steel Fabrication drawing and Preparation of Design Calculation Report.

08/2017 to Present.

Responsible for Detailed Engineering of various Steel Structures including connection design and their foundations for NCS2 and NCS4 area using STAAD and STAAD Foundation as per US code, BOQ preparation, Co-ordination with other disciplines, Meeting with Client, Model checking / review using Tekla / Navisworks, Checking Steel Fabrication drawings and Preparation of Design Calculation Reports.

Modelling, Analysis and Design of Various Steel Structure including So2 Converter unit (Height -37 m), NaOH Scrubber Platform, Electrostatic Precipitator, WSA Condenser, interconnecting Piperack. (Foundation loading and Design of Super Structure only), Co-ordination with other discipline, Checking Steel Fabrication drawing and Preparation of Design Calculation Report.

01/2017 to 12/2017.

Responsible for Modeling, Analysis and Design of Various Steel Structure including 37 m height So2 Converter unit, NaOH Scrubber Platform, Electrostatic Precipitator, WSA Condenser, interconnecting Piperack (Using Staad Pro in US code), Meeting with client, providing Foundation loading input for foundation design, Co-ordination with other discipline, Model Checking in Tekla, Checking Steel Fabrication drawing and Design Calculation Report.

Modelling, Analysis and Design of 30 m External Support for Stack (feed design) , 3-Steel Skid including Lifting Analysis, Co-ordination with other discipline, Checking

Steel Fabrication drawing and Design
Calculation Report.

08/2016 to 12/2016.

Responsible for Modeling, Analysis and Design of 30-meter height External Support Structure for Stack using Staad Pro in US code. Skid Design and Lifting analysis in accord with IS Code, Co-ordination with other discipline. Checking of Steel Fabrication drawing and Preparation of Design Calculation Report

Modelling, Analysis and Design of Steel Stack (Derrick Supported) including Connection Design, Co-ordination with other discipline, Checking Steel Fabrication drawing and Design Calculation Report.

04/2016 to 08/2016.

Responsible for Modeling, Analysis and Design of 105 meter height Derrick Support Structure for Stack using Staad Pro. Connection Design in accord with Euro Code, Co-ordination with other discipline. Checking of Steel Fabrication drawing and Preparation of Design Calculation Report

Modelling, Analysis and Design of Foundation of Effluent Storage Tank, Gas Flotation Unit, Injection Pipeline Launcher & Receiver, Filters, Tanks, Exchangers using STAAD Foundation, Engineering drawing preparation and Design Calculation Report.

06/2016 to 08/2016.

Responsible for Modeling, Analysis and Design of Foundation of Effluent Storage Tank, Gas Flotation Unit, Injection Pipeline Launcher & Receiver, Filters, Tanks, Exchangers in STAAD Foundation using American Code, Engineering drawing preparation and Design Calculation Report.

Modelling, Analysis and Design of Multi-Tier Skid Frame. Co-ordination with other discipline Checking of Steel Fabrication drawing and Design Calculation Report.

04/2016 to 07/2016.

Responsible for Modeling, Analysis and Design of Multi-Tier Skid frame in-place and Lifting Analysis using Staad Pro. in accord with American Code, Co-ordination with other discipline. Checking of Steel Fabrication drawing and Preparation of Design Calculation Report.

Associate Design Engineer II
FLUOR DANIEL INDIA PVT LTD

Modelling Analysis and Design of Reactor Structure, Separator Structure, E-W Pipe rack, Finger Rack, Transfer line Pipe rack along with foundation, Vertical & Horizontal Vessel Foundation design, Exchangers

Foundation. Co-ordination with other discipline Engineering drawing preparation and Design Calculation Report.

03/2015 to present.

Responsible For Modeling Analysis and Design of Reactor Structure, Separator Structure, E-W Pipe rack, Finger Rack, Transfer line Pipe rack along with foundation design using scia Engineer in accord with EC3 and EC2, Co-ordination with other discipline. Vertical & Horizontal Vessel Foundation Design, Engineering drawing and Design Calculation Report.

Modeling Analysis and Design of Monomer (Steel Building) along with its Foundation and Tank Farm Pipe rack.

BFS Study for PERTAMINA RDMP Level 4, Design of Two and Three Tier Steel Pipe Rack, Design of Foundation for Rest Support / Anchor Support / Loop Support of Flare line Trestle in BRU/ SCANFINER unit, Design of Single and Double Bay Pipe Culvert. Along with Checking of GA Steel, RC Drawings and Design Calculation Report.

02/2014 to 03/2015.

Responsible for Modeling Analysis and Design of Monomer (Steel Building) and Tank Farm Piperack (Steel) using RISA 3D Software and RISA FOUNDATION in accord with ASCE7-10 and ACI-318. BFS Study for PERTAMINA RDMP, L-4, Modeling and Detail Engineering (*per Indian Standard*) of Steel Pipe Racks which include application of Loads, Model Analysis, Sizing of components, Design of Their foundations, Design of Base Plate, Anchor Bolt Selection for critical case, Check for Shear Requirement. Design of 2-Legged, 4-Legged and 6-Legged Foundation for Rest Support / Anchor Support / Loop Support of Flare Line trestle in BRU/ SCANFINER unit. Design of Single and Double Bay Pipe way Culvert. Preparation of GA, Steel and RC Drawings for all, along with Design Calculation Report.

Sr. Engineer

TATA CONSULTING ENGINEERS LTD

GIFT Emergency Power Supply (EPS) and Utility Tunnel, TCS IT Park, HIRCO Residential building ADAMS, TOTAL Energy OML 58 upgrade. Improvement of piped water supply in slums of Bangalore city, Up-Scaling of 24x7 Water Supply Project to 3 ULB's in Karnataka.

07/2010 – 02/2014

Responsible for Modeling and Detail Engineering (*Per Indian Standards*) of Emergency Power Supply Building, Preparation of longitudinal sections, sizing of components, analysis and design of Utility tunnel with vehicular loads and value engineering, Review of Models and Architectural and Structural Vendor Drawing of office and residential buildings. Design of structures and Preparation of Structural Calculation report (*as per BS Codes*), GA and RC drawings. Up gradation and design of Sewerage, and Water Supply network, Structural Condition Assessment of ESR's, GLSR's, WTP's, Pump houses & Jack wells, Preparation of checklist for data collection and Collection of data from the client and field staff and interpretation of the collected data as per the requirements of the projects.

Review of architectural drawings to meet functional requirements of the project. Review of the Model geometry, Applied loads, Load combinations considered in ETABs & SAFE submitted by the vendors. Review of Design Calculation Reports along with Model Analysis and as per DBR and relevant IS Codes. Review of Structural GA and RC drawings submitted by the vendors. Design of structures and Preparation of Structural Design Calculation report. Preparation of GA and RC drawings.

Data collection and analysis, estimation of water flows, design of water transmission and distribution network using Water Gems, Preparation of BOQ, Design and Cost Estimates and Bid documents.

Graduate Engineer Trainee (GET)

Adhunik Power & Natural Resources
Ltd (APNRL)

1080 MW Coal based Thermal Power plant.
Preparation of Daily Progress Report,
Site inspection and Quality Checking before
and after pouring, Checking of Bar Bending
Schedules.

06/2009 – 06/2010

Responsible for Grading of Site, Planning of works, Drawing checking, Site inspection before pouring, Quality Checking, BOQ preparation, Checking of Bar Bending Schedules.

Preparation of Daily Progress Report.