Napoleon Maralit Dequito



Applying for :

Senior Instrumentation Engineer

Summary of Skills

- Creative problem-solving and troubleshooting skills
- Excellent critical thinking skills and a high level of numeracy
- Good communication and interpersonal skills
- Strong team working skills, with an ability to motivate others and to lead or manage teams and projects
- Flexibility and an ability to compromise
- A willingness to accept responsibility and make decisions
- A high level of attention to detail
- Excellent customer care skills and good commercial awareness
- An understanding of, and ability to work with, high-level computer technology.
- TECHNICAL: Strong knowledge of field instrumentation & controls including sensors, transmitters, final control elements, process control systems, communication protocols and wiring methods. Specify, purchase, install, commission & troubleshoot field instrumentation. Design instrument loops including selection & sizing of flow meters, control valves and other field instrumentation. Read, understand & develop drawings including P&IDs, schematics and connection diagrams. Evaluate & select suppliers for specific instrumentation applications.

Instrument Design & Engineering Experiences (Total 10 Years)

COMPANY **:** ***ATLANTIC GULF & PACIFIC OF MANILA***

Location : *28th Floor Insular Life Building Filinvest*

Duration : *November 20 2017 to 25 June 2021*

Discipline : *Instrument Lead Design Engineer*

Duties and Responsibilities

1. Prepare Engineering Deliverable List with Project Schedule
2. Preparation of Project Schedules & Project Man-Hours
3. Preparation of Material Requisitions for Main Cable Transits , Cable Trays , Sampling Systems , Fireproofing Boards
4. Field Instruments , Control Valves , Emergency Shutdown Valves, Pressure Regulator , Pressure Safety Relief Valves
5. Preparation of Technical Bid Evaluations , Technical Clarifications/ Document Comments sheets for Instrumentations
6. Preparation of Engineering Instrument Index , Instrument Datasheets
7. Preparation of Project Costings for Instrumentation Items
8. Attending Technical Clarification & Pre - Bid Meetings with Clients
9. Prepare Tender BOQ for submission based on customer RFQ and drawings.
10. Study and Review Contract Documents and Compliance of Subcontractors with Contract Specifications and Documents.
11. Prepare Project Manhours per Deliverables List and Project Durations.
12. Verify tender documents, drawings, specifications and PID from the customer to evaluate the scope of work
13. Preparations of Instrument Specifications for Custody Metering , ICSS – FGS/DCS/VMS/SIS , Instrument Bulk Materials, General Specs , Instrumentation Package Units,Electrical/Instrument Bulk Material Specifications ,
14. Prepare MTO for Fire Detection Alarm Systems.
15. Performed FAT for Fire Suppression Systems CO2 & FM 200
16. Proposal Material Take Off for Instrument Related Bulk Materials
17. Technical Bid Evaluation of Mechanical Package Equipments

COMPANY *:* ***GS East Asia Manila Inc***
Location *:* *Aeon Bldg Alabang Northgate Filinvest Muntinlupa City*
Duration *:* *Feb 2015 up to Feb 2017*
Discipline *:* *Sr Instrument Design Engineer*

Duties and Responsibilities

1. Responsible for Detailed Bulk Materials Take Off
2. Responsible for Bulk Materials QA/QC Works
3. Preparation of Instrument Index for Final IO list
4. Performed Vendor technical bid analysis and vendor document review
5. Prepared Drawings i.e. Instrument Process Hook Up,Instrument Air Piping Hook Up
6. Instrument Cable Tray Lay Out,Instrument Trench and Ductbank Layout,Analyzer Hook Up
7. Instrument Conduit and Perforated Tray Layout.

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COMPANY *:* ***FLUOR DANIEL INCORPORATED PHILIPPINES***
Location *:* *Asian Star Building Alabang Filinvest Muntinlupa City*
Duration *:* *April 2011 up to Feb 2015*

BASF Chemical Co. *:* *Lemongrass Project -Menthol*
Discipline *:* *Design Engineer*

Duties and Responsibilities

1. SPI Generated datasheet for field instruments (Pressure and Temperature Gauges, Pressure Transmitters, orifice plates and control valves)
2. Active role in P&ID Review meetings,Instrument Sepcifications and Control System Design and Review.
3. Collaborate with other Project Team members to comply with project requirements,its constructability & meeting project schedules.
4. Responsible for detailed hardware & wiring requirements for Plant control System Architecture,Instruments,wiring,VFDs,panels and PLC Hardware.
5. Evaluation of vendor offers and preparation of TQ/TBEs for field instruments including Control Valves,Level Transmitters,Tuning fork switches.in multi vendor competitive bidding environment.
6. Handling of Instrument package evaluation.
7. Coordination with Process/Piping/Mechanical Department prior to finalizing Instruments TBE

BASF Chemical Co. : *Lemongrass Project -Citral*
Discipline *:* *Logics Checker*

Duties and Responsibilities

1. Checking of Logics with the use of Process Control Narrative for Complex Loops,Cause and Effect Diagram,and Process Description.

DOW Chemical Co. : *Propylene De-Hydrogenation*
Position Held : *Control System Engineering and Design Checker*

Duties and Responsibilities

Engineering

1. Preparation of instrument and control system specification.
2. Checking of Piping Isometrics for all control system instruments i.e CV, Analyzer Probes,Flowmeters etc.
3. Checking PT,PDT,TW,AP,DP Flow(Orifice,Wedge,Venturi) Orientation of Pipe and Branch connections in ISO.
4. Control Valve sizing, PSV sizing,Rotameter sizing using Process conditions.
5. Design the review and verification of FEED document.
6. Preparation Material requisition for Analyzers and Instruments(Flow,Level, Pressure, Temp. and Valves)
7. Review of Mechanical Package unit vendor drawings.
8. Instrument DataSheets checking i.e. Flowmeters(Long Short Venturi,Single Dual Head Vortex,Magmeter,Single Dual beam Ultrasonic,Wedge,Micromotion-Krohne Coriolis,Metal tube Rotameters etc.)Pressure Transmitters/Gauges,Pressure Safety Valves,Control Valves,Automated Block Valves,Flare Ultrasonic.
9. Review of various Flowmeter required upstream/downstream meter runs using Client Specs and current SPR model i.e. Integral orifice,orifice meter run,vortex, Ultrasonic,Magmeters etc.
10. Review of PID design and prepare queries.
11. Review/approval of Piping Isometrics.

Design

12. Review/comments on Instrument Index based on the latest P&ID.
13. Review/commentson following Location Plan Drawings Instrument,Junction Box ,Air Plan and F&G.
14. Review/comments on Wiring Strip Report,Instrument Loop Diagram.
15. Review and Design/Preparation of Vessel Level Sketch Calculation for Interface and Non-Interface fluids for selection/calibration of DP Level Transmitter.
16. Review of Inline-Offline Instrument Dimensional Drawing(DDP) for Piping Modelling i.e. Meterrun Orifice Flanges and Plates,Wedge Sensor,Long short venturi,MOV's,Integral Orifice.
17. I/O list, JB schedule and Installation Details, cable schedule, process and pneumatic hook-up, cable route drawing, sizing report and calculation
18. SPI user for Index Module,Specification Module,and Wiring Module

Tasnee/Evonik : *Super Absorbent Polymer*
Position Held : *Mechanical Package Unit Engineer*

Duties and Responsibilities

1. Review of Mechanical Package Units.
2. Make sure all PU's Instrumentation will be implemented in the SPI databases.
3. User of Smart Plant Instrumentation Instrument Index ,Wiring Modules,Calculation,Specification module.
4. Update EPC P&ID'S per vendor P&ID's.
5. Update BlockDiagrams of each Mechanical Package Units.
6. Review of Instruments Index,Wiring Diagram,Logic Diagram,Vendor P&ID's,
7. Profibus Datamap List,Instrument Catalogues,Hook Up Drawings,GA Drawings,
8. Instrument DataSheets i.e. Pressure Transmitters,Flow Transmitters,Control Valves
9. Review and Develop Instrument Index and correct P&ID's for proper implementation in the design.
10. Co-ordinate work between the vendors and other discipline engineers within the organization .
11. Expedite vendor data and resolve vendor queries.Carry out technical review and evaluation of bids of all instrument equipment.

Instrument/Electrical Commissioning & Construction Experiences (Total 7.7 Years)

COMPANY : POSCO E&C POWERS

Location : 2x150MW Khabat Power Plant Kurdistan Iraq
Duration : April 2017 to Present
Discipline : Sr Instrument Lead Commissioning Engineer

Duties and Responsibilities

1. Commissioning of Field Instrumentation i.e Transmitters,Control Valves,On-Off Valves,Motor Operated Valves
2. Including performing Square root of Flow transmitters via 475 HART Communicator,Auto tuning/Auto adjust of Control Valves,Simulating 4-20mA Values for Transmitters and Digital Input/Output IOs
3. Commissioning of Vibration Monitoring Systems using signal Generator for Keyphasors,Accelerometers,Displacement Probes,Axial Probes.Verifying in VMS graphics Gap Voltages/alarm & Trip Status
4. Commissioning of Emerson DCS Ovation,review and comments on Graphics and Control Logics per Functional Block diagram
5. Review and Comments on Burner Management System,Boiler Protection System,Auto Plant Start Up/Shutdown & Sequence Logics
6. Update and reporting to Management the Loop Checking Progress.
7. Commissiong of Equipments like Condenser Pumps,Blowdown Pumps,Close cooling water and circulating water pumps,Boiler feedwater pumps,FDF and IDF motors,GAH,Flue Gas Desulphurization,CTCS,BTLDS
8. Punch listing of Field Instrumentations installations.

COMPANY : D.M. CONSUNJI INCORPORATED

Location : Rehabilitationof 2-300MW Batangas Coal Fired Thermal Power Plant
Duration : November 8 to January 17 2011
Discipline : Instrumentation Specialist

Duties and Responsibilities

1. Upgrading of Main Turbine & BFP Turbine EHC
2. Upgrading of Data Acquisition System (DAS)
3. Upgrading of Sootblower Control System
4. Upgrading of Boiler Unit Combustion Control System (UCC)
5. Upgrading of Ash Handling Control System
6. Upgrading of Coal Handling Control System
7. Rehabilitation of Burner Instruments
8. Rehabilitation of E.P. Silo & Bottom Ash Instruments & Valves
9. Rehabilitation of Water Treatment Plant Instruments & Valves
10. Rehabilitation of Feeder Control System & Instruments
11. Rehabilitation of Boiler & Turbine Instruments & Equipment

COMPANY : AL-OSAIS INTERNATIONAL HOLDING CO.

Plant : Replace Critical Substation at Riyadh Refinery
Location : Riyadh, KSA
Duration : April 2009 to Sept 2010
Discipline : Project Engineer Instrumentation & Controls

Duties and Responsibilities

1. Reviewed,Coordinate,and Prepared technical clarifications of ECD,E1L,CCS, and ILDIFC Drawings with the PMT and Saudi Consult Design agency.
2. Prepared Material Requisition and Inspection Assignment Packages for Procuring Major Materials.
3. Prepared Technical Clarification for the modification of the Existing DCS Graphics to show the new Substation Digital Inputs& Status.
4. Prepared Instrument Loop Folders
5. Commissioning of Upstream and Downstream Switchgears by Inter Tripping Test based on the IFC E1l Diagram.
6. Installation of Gas Detection System-LEL and H2s sensors.
7. Preparation of BOQ of Change Orders which is the result of TQ's raised.
8. Responsible for the Safe Demolition of individual motor critical signals/controls in the Existing Marshalling Cabinets.
9. Supervision of Loop Checking to DCS
10. Supervision of All Interconnection of Controls and Instrumentation.

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Plant : Electrical Distribution System Upgrade Phase-1 Yanbu Refinery
Location : Yanbu, KSA
Duration : September 2007 – March 17,2009
Discipline : Project Engineer Instrumentation & Controls

Duties and Responsibilities

1. Generated Field Designed/ARAMCO Approved Electrical Connection Diagram for Switchgear,LV/HV MotorControl Gears) by V8/SE Microstation/AutoCad2004/Aramco AutoSacs, Latest Aramco Borders.Assigned the Drawing the nos. for the Interconnection Details.
2. Requested to EDSD additional Control Cable nos. and Generated Cable and Conduit Layout (CCL) IFC Drawings using Microsoft Excel 2007.
3. Generated Document Control Index (DCI) to include new IFC drawings for the Switchgears and Motor ControlGears Interconnections Field Design reviewed and approved by Aramco Proponent Technical Support Units.
4. Field-Revision of Existing Plant Drawings in Vector, Hybrid , Raster, Pdf files Format.
5. Designed IFC Wiring Diagram for the installation of GE MIFII Relay and FT switches of an Existing Switchgear.
6. Reviewed and Prepared technical clarifications/correspondence Concerning Protection Schemes, required various signals for monitoring and controls.
7. Drawings Managements i.e. retrieved from Saudi Aramco On-Line Plant Docs Existing Plant Drawings thru Lead PMT Access .Retrieved Existing Drawings in the Plants Drawing Library.
8. Prepared Drawing Packages in reply to TSU comments/exception items regarding their affected Existing drawings.
9. Arranged technical meetings with the Proponent Technical Support Engineers/Operations to discuss technical issues concerning the scheduled shutdown.
10. Arranged technical meetings with the Equipment Vendor to discuss technical issues concerning discrepancies with their equipment and compatibility w/ the existing schemes and design.
11. As-built of Electrical One Line Diagram(E1L) , Instrument Loop Diagram(ILD's),Cable Routing Layout.
12. Responsible for the Safe Demolition of Protection Controls of Existing Switchgears,Marshalling Cabinets,LV/MV MCC's.
13. Modificationof the Protection Controls of the Existing and New Switchgear to suit the Existing scheme.
14. Responsible for the Development of the Safe Actual Switchover / Cutover Plans & Strategy of the existing 13.8KV Power Distribution Systems of Main Substation.
15. Installation of Electrical Equipments such as Saudi Diesel Genset with Emergency Distribution Panel,Automatic Transfer Switch Unit for Emergency Distribution System ,480V and 4.16 MCC with GE MMII relay , GE Intellysis 480V Swgr ,4.16KV and 13.8KV New Metal Clad Switchgear .Also Installation of Power Monitoring System Ethernet Switch/Hub Patch Panels.

16. Motor Current Indications Loop Checking to Existing Honeywell DCS system by current injection to New 4.16KV Medium Voltage MCC CT's passing thru the Current transducer with output signal of 4-20mA to the DCS Analog Card. Also Loop Checking of 4-20mA signal from GE Motor Management relay 369 Model to the DCS Analog Card.

Plant	*:*	*Control Systems Upgrade (Yokogawa DCS-FF Systems) Saudi Aramco GOSP 7,8& 10*
Location	*:*	*Uthmaniyah,KSA*
Duration	*:*	*December 2006 – August 2007*
Discipline	*:*	*Project Engineer Instrumentation & Controls*

Duties and Responsibilities

1. Supervision of Bench & Field Calibration of all new field instruments (FF & SMART).
2. Installation of Analyzer Skids i.e. Roxar Watercut Low cut Version Analyzer Transmitter, Endress-Hauser Proline Promass 83 Coriolis Mass Flowmeter, and Mass Flow Computer
3. Startup and commissioning all the Foundation Fieldbus and Hart Instruments and all systems related.
4. Loop checking from field to control room.
5. Responsible for the Installation/Loop Checking Commissioning of Valve mounted Fisher-Fieldvue Foundation Fieldbus /Smart-HART Double Acting Digital Valve Controllers series DVC-6010, DVC-6020, DVC-6030.Configuration and Calibration via DCS-FF methods/375 Handheld Communicator. Consist of Fisher, Masoneilan, and Valtek Mark1 Valves with volume tanks
6. Installation of Yokogawa EJX 110A Flow and Level Transmitters (Fieldbus/Smart),
7. Yokogawa Rotamass flowmeter, General Monitors H2s Monitoring System. Magnetrol
8. Guided Wave Radar level transmitters and Float type level switches.Supervise and assign job task for the technicians.
9. Provided a new Process Control System consisting of a DCS Yokogawa Centum CS3000 Foundation Fieldbus System, Invensys Triconex PLC based ESD system, Bently Nevada 3500 series VMS. Installation of all System cabinets, Marshalling cabinets, Operator Console, Auxiliary consoles.
10. Responsible for the Ethernet communication cabling activities as per overall DCS/VMS/ESD and Network-System Architecture (HIS, PRT, ONS, CNS, VMS, PRMS, DCS-ENG, VMS-ENG, ESD-ENG)
11. Functionality Checkout of DCS and ESD logics prior to Switchover. Commissioning of IAC loops, Motor and MOV field control station loops, Power Protection, loops, Temperature, Pressure, Control Valve loops.

Plant	*:*	*Control Systems Upgrade (Yokogawa DCS-FF Systems Saudi Aramco GOSP 5 & 6*
Location	*:*	*KSA Abqaiq*
Duration	*:*	*October 2005 – March 2007*
Discipline	*:*	*Project Engineer Instrumentation & Controls*

Duties and Responsibilities

1. Supervision of bench & Field Calibration of all new field instruments (FF & SMART).
2. Installation of Analyzer Skids i.e. Roxar Watercut Low cut Version Analyzer Transmitter, Endress-Hauser Proline Promass 83 Coriolis Mass Flowmeter, and Mass Flow Computer
3. Startup and commissioning all the Foundation Fieldbus and Hart Instruments and all systems related.
4. Instrument Loop checking from field to control room.
5. Responsible for the Installation/Loop Checking Commissioning of Valve mounted Fisher-Fieldvue Foundation Fieldbus Smart-HART Double Acting Digital Valve Controllers series DVC-6010, DVC-6020, DVC-6030.
6. Installation of Yokogawa EJX 110A Flow and Level Transmitters (Fieldbus/Smart),
7. Yokogawa Rotamass flowmeter, General Monitors H2s Monitoring System. Magnetrol
8. Guided Wave Radar level transmitters and Float type level switches.Supervise and assign job task for the technicians.
9. Provided a new Process Control System consisting of a DCS Yokogawa Centum CS3000 Foundation Fieldbus System, Invensys Triconex PLC based ESD system, Bently Nevada 3500 series VMS. Installation of all System cabinets, Marshalling cabinets, Operator Console, Auxiliary consoles.
10. Responsible for the Ethernet communication cabling activities as per overall DCS/VMS/ESD and Network-System Architecture (HIS, PRT, ONS, CNS, VMS, PRMS, DCS-ENG, VMS-ENG, ESD-ENG)

11. Functionality Checkout of DCS and ESD logics prior to Switchover. Commissioning of IAC loops, Motor and MOV field control station loops, Power Protection, loops, Temperature, Pressure, Control Valve loops.

Plant : *Saudi Aramco Juaymah Gas Plant (NGL)*
Location : *Oil Switches and Obsolete Switchgears Replacement KSA, Rastanurah*
Duration : *November 2003 – October 2005*
Discipline : *Electrical Control & Protection Engineer*

Duties and Responsibilities

1. Review, Comments & Rectify Substation Issued For Construction (IFC) Drawings like Auto-Transfer w/ NC Downstream, Bus Differential & Transformer differential Schemes & Breaker Failure Analysis.
2. Designed Contact Development for a 10-Deck LOR w/ Supervision for Bus Differential & Breaker Failure Protection of 230KV Bus 1 & 2 SF6 Breakers & to provide trip interlocks to the existing 13.8KV Switchgear Incomer Breakers. Termination design of Bus Differential Check Zone Relay Alstom High Impedance Differential Relay Type MFAC34 w/ METROSILS and associated CT supervision Relays Alstom Type MVTP with associated CT and control connections.
3. Termination design of 11-Units of New 245KV, 2000A SF6 Circuit Breakers at the existing 230KV Switchyard for the construction of a Breaker and a Half switchyard configuration and their associated 230KV Circuit Breaker Protection and Control Panels installed inside the Substations w/ associated CT, CCVT inputs, Inter-trips, control and alarm interface wiring.
4. Responsible for the Development of the Safe Actual Switchover / Cutover Plans & Strategy of the Existing 230KV Power Distribution Systems.
5. Modifications and Termination Design of Existing 230KV-13.8KV Protection System Configuration Westinghouse Type IRV Directional Relays, Westinghouse Type HU & HU-1 Transformer Differential Relays, Westinghouse Type CO Over current Relays, Westinghouse Type KAB Bus-Bar Differential Relays. Demolition of critical Inter trips between 13.8KV Switchgears of Substations 1, 2 & 3.
6. Demolition and wiring of existing PT circuit and extended to interconnect w/ new Dev 25 Synchrocheck relays of the new Bus-1 and Bus-2 Breaker and a Half 230KV circuit breakers via new breaker protection and control panels.
7. Modified the controls of the existing 13.8KV Indoor Metal-Clad Westinghouse Switchgear. Wiring and terminations in compliance w/ Saudi Aramco Engineering Standards & NEC.
8. Modified existing Incoming Breaker Control System to include new Tripping Relays Dev 94 for both 230KV Bus 1 & 2 and associated interlocks to outgoing Feeder Circuit Breaker's Interface Trip connections.
9. Installed 13-Units Motorized Air Break Disconnect switches rated 230KV, 1200A and wired it's associated controls to New 230KV Protection Panels.
10. Installation of Monitoring Equipment such as Digital Fault Recorders, Remote Terminal Unit with GPS and Power Monitoring System and RTK Annunciators.
11. Installed new PMS system w/c will monitor the Switchgear operating parameters at the substations reporting back to the Central Control Room (CCR) via a Fiber Optic Link, via a modem and via a telephone link.
12. Installed Medium and Low Voltage Siemens Arabia Electric Switchgear of NO/NC TIES arrangement.
13. Modification of Existing On-Load Tap Changer using Averaging Control Transformer signal to Voltage Regulating Relay.

Educational Attainments

Primary : Epifanio de los Santos (1982 – 1988)
Secondary : AdamsonUniversity (1988 – 1992)
Tertiary : Technological Institute of the Philippines (Manila)
Course : Bachelor of Science Major in Electrical Engineering
Board Exams : **Registered Electrical Engineer license no. 21291**
Registered Master Electrician license no. 2084

Technical Trainings

Yokogawa CentumVP Engineering	-	Yokogawa Philippines February 21-25, 2011
Instrumentation & Process Control	-	University of the Philippines January 4 – February 8, 2003
Calibration	-	Beamex / Uniwell
Programmable Logic Controller	-	University of the Philippines March 10 – 31,2001
Advance PLC	-	CATIA TESDA(November 20 – December 1,2001)
Air Compressor Technology	-	Atlas Copco Philippines. Inc. October 18, 2002
Building Wiring	-	Manila Manpower Development Center (September 30,1996)
Computer-Aided Design & Drafting	-	CADvision Engineering Technologies September 10-28, 2001

Affiliated Organizations

Philippine Instrumentation and Control Society (PICS)
Institute of Integrated Electrical Engineers (IIEE)

Character Reference

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Personal Data

Date of Birth	:	**October 24, 1974**
Place of Birth	:	**Malate , Manila**
Sex	:	**Male**
Citizenship	:	**Filipino**
Weight	:	75 **kgs.**
Height	:	**5'7"**

Napoleon Dequito
Electrical & Control Systems Engineer