

# JEROME Q. BANAL

69 Winstanly Crescent, Scarborough, ON M1B 1N3,  
Canada  
jqbanal@yahoo.com  
4164351815

## SUMMARY

- Canada Working Experience: 1-1/2 month experience as machine operator.
- Philippines Working Experience: 2 months experience in alarm management rationalization, 1 year experience in construction and commissioning of Binary Power Plant, 10 years' experience of operation and maintenance of geothermal power plant, 5 years' experience on contract management, 8 years' experience in maintaining electrical and instrumentation equipment, and 2 years' experience in the construction of mechanical pipelines.
- Computer skills: MS Word, Excel, Power Point, Basic Autocad, CMMS software
- Industrial Automation: Knowledge in PLC (Allen Bradley) & basic understanding on Ladder Program, ABB MODCELL & Basic Function Block Program, can read and interpret schematic diagram of mechanical, PIDs, electrical and instrumentation as well as pneumatics and hydraulics.
- Proficiency in communication skills in English Language.
- Electrical/Mechanical/Instrumentation Skills: Strong background in the maintenance electrical and instrumentation Equipment as well as testing and commissioning, and operation of power plant.
- Licensed Electrical Engineer in the Philippines.
- Certificate of completion on Work and Health Safety Awareness – Ontario, Canada
- Certificate of completion on Workplace Hazardous Materials Information System (WHIMS) – AixSafety.com – Canada
- Certificate of completion on Canadian Electrical Code CEC 2021 (STO Online Training) – Canadian Standard Association (CSA)

## WORK EXPERIENCE

### Construction Associate

July 1, 2023 – Present

Caspian Interiors  
25 Park Lane Circle, North York  
Ontario, Canada

- Learned about general construction duties.
- Responsible for assisting tradesmen on construction sites such as carpenters, plumbers, bricklayers, demolition experts, drywallers, cement finishers, and roofers.
- Worked at this construction business multiple jobs from just sweeping the house to installing dry walls.
- Learned how to frame, utilize a nail gun, skill saw, electrical inputting, door hanging and plumbing.
- Perform various tasks as needed such as demolition, interior framing, sheetrock installation, and finishing, wood trim, flooring (including tile, carpet, tongue and groove and decking) painting and job site cleanup.
- Clean and prepare construction sites to eliminate possible hazards.
- Erect and disassemble scaffolding, shoring, braces, traffic barricades, ramps, and other temporary structures.

## **Machine Operator**

January 17, 2023 – March 9, 2023

Joriki, Incorporated  
3431 McNicoll Avenue, Scarborough  
Ontario, Canada

- Operates as trainee of labelling machines and help maintenance troubleshoot technical problems on the line production.
- Helps the line maintenance in troubleshooting and repair of pneumatic controlled palletizing machine.

## **Alarm Management System Documentation & Rationalization Consultant** Aug. 1, 2022 – Sept. 30, 2022

Dimension All Vetyard, Incorporated  
Mt. Apo Geothermal Power Plant  
Barangay Ilomavis, Kidapawan City, Cotabato  
Philippines

- Crafting and rationalization of operating procedures of alarm management system for start-up and shutdown of steam field and power plant.
- Crafting of emergency response procedure of alarm management system in the event of any alarms and tripping of the steam field and power plant.

## **Construction Engineer – Electrical**

July 30, 2021 – July 31, 2022

Energy Development Corporation  
M3 Binary Gas Power Plant  
Mt. Apo Geothermal Power Plant  
Barangay Ilomavis, Kidapawan City, Cotabato  
Philippines

- Supervise the maintenance, installation, modification, testing and operation of electrical and electronic systems.
- Lead construction & commissioning of electrical and process automation of M3 Binary Gas (Butane) Power Plant project.
- Lead the testing, commissioning of electrical and instrumentation equipment Performed
- MV/LV motors & pumps Solo Run test and recording the Voltage, Starting Current, Vibration test, Rotation test, Temperature and Speed.
- Testing of emergency generator and its Automatic Transfer capability.
- Checking the electrical installation Panels & Preparing punch list reports.
- Monitoring control panel wiring, Termination, cable routing & cable tray Installation .
- Supervise & carry out effective implementation of work schedule to clear Punch list.
- Inspection of MV /LV Switch gear, Power Transformers & Auxiliary Transformers, NGR, MCC Panels, MV/LV Motors, VSD Panels, Lighting Panels and all Electrical Equipment's.
- Witness of the various test of electrical equipment: process automation logic check of binary power plant, Insulation resistance/HIPOT Test for MV cables and as per NEC Specification, Splicing of LV, MV and HV Cables, and potheads, contractor conducting the Various Tests for MV /LV Switch gear, MCC, Transformers, NGR, and VSD Panels, confirm that all equipment testing & commissioning conform to NEC standards.
- Verifying the MV /LV switchgear and MCC Schematic Diagram.

## **Plant Shift Head**

June 18, 2009 – July 30, 2019

Energy Development Corporation - Philippines  
Mindanao I & II Geothermal Plant Power Plant  
Barangay Ilomavis, Kidapawan City, Cotabato  
Philippines

- Operate automated or computerized control systems, stationary engines and auxiliary equipment such as geothermal turbines, generators, pumps, compressors, black start generator and emergency system devices and other equipment to provide air-conditioning, light and power for buildings, industrial plants and other work sites.
- Monitor and inspect plant equipment, computer terminals, switches, valves, gauges, alarms, meters and other instruments to measure temperature, pressure and fuel flow, to detect leaks or other equipment malfunctions and to ensure plant equipment is operating at maximum efficiency
- Analyze and record instrument readings and equipment malfunctions
- Troubleshoot and perform corrective action and minor repairs to prevent equipment or system failure
- Conduct daily, weekly, and monthly monitoring of performance of generators, turbines, pumps and compressors and perform other routine equipment maintenance duties.
- Maintain a daily log of operation, maintenance and safety activities, and write reports about plant operation
- Crafting and development of operation, maintenance and safety procedures.
- Supervise the start-up, shutdown, and operation of 2 unit – 50 Mw Turbine/Generator and auxiliary systems (Black-start Generators, Emergency Diesel Generator, Hot-well pumps, Vacuum Powers, Cooling tower equipment's, etc.).
- Supervise the safe execution of daily safe work permits – NFPA & BOSCH standards and CMMS related activities.
- Crafting the outage reports and root cause analysis and investigation.
- Conducted Classroom instructor for the in-house training of plant engineers.
- Ensured the safe execution of work permits and isolation clearances (energy isolation, heat isolation, gas isolation, and hazardous chemical isolation).

## **Electrician**

July , 2009 – May 28, 2021

Arcmen Consult - Philippines  
Quezon Boulevard, Kidapawan City, Cotabato  
Philippines

- installation, termination commissioning and troubleshooting of manual and automatic transfer switches three-phase/single-phase electric motors, including but not limited to across-the-line starters, reversing starters, wye-delta starters, dual voltage termination, and wiring of control circuits at motor control center.
- Preparation of plans and estimates and in the installation of a building, equipment and wiring devices such as conduit, pull boxes, panelboards, switchboards, circuit breakers, switches and convenience outlets, lighting fixtures, emergency lightings, underwater lighting, and solenoid valves,
- Testing and commissioning pf Programmable logic controllers input/output devices including their interlocks
- Installation of equipment grounding for residential, commercial, institutional, and industrial building.
- Installation of telephone PABX, cable TV systems, network communication systems, surveillance camera (CCTV) systems, fire alarm systems and fire suppression sprinkler systems, and computer networking.

## **Plant Monitoring Engineer**

May 15, 2004 – June 18, 2009

Philippine National Oil Company - Energy Development Corporation  
Mindanao I & II Geothermal Plant Power Plant  
Barangay Ilomavis, Kidapawan City, Cotabato  
Philippines

- Coordination with Build Operate Transfer (BOT) contractor in terms of contractual agreements and obligations.
- Investigate the problem encountered during plant operations and conduct root cause analysis.
- Monitor the performance of turbine-generator and plant auxiliary equipments (medium voltage switchgears, Multilin and Basler Relays, data loggers, electro pneumatic/hydraulic valves, process instruments, blackstart generators, and emergency generators, cooling tower, etc.
- Monitor the operation and maintenance activities of the mechanical, electrical and instrumentation equipments.
- Oversee operation and maintenance of power plant.
- Coordination with Build Operate Transfer (BOT) contractor and our customer in terms of contractual agreements and obligations.
- 100% compliance on the execution of outage report, daily/monthly operations and maintenance reports.
- Conducted reviewed on the design of the Process and Instrumentation Diagram – P and I D.
- Head the team to resolve some contractual issues of Marubeni Energy Services Corporation, National Grid Corporation (NGCP), and National Power Corporation (NPC)

## **Electrical and Instrumentation Engineer/Technician**

July 24, 1996 – May 15, 2004

Philippine National Oil Company - Energy Development Corporation  
Mindanao I & II Geothermal Plant Power Plant  
Barangay Ilomavis, Kidapawan City, Cotabato  
Philippines

- Consult manufacturer's manuals, circuit diagrams and blueprints to determine tests and maintenance procedures for instruments used for measuring and controlling flow, level, pressure, temperature, chemical composition and other variables in geothermal plant processes.
- Inspect and test operation of instruments and systems to diagnose faults using pneumatic, electrical and electronic testing devices and precision measuring instruments
- Repair and adjust system components, such as sensors, transmitters and programmable logic controllers, or remove and replace defective parts
- Calibrate components and instruments according to manufacturers' specifications
- Perform scheduled preventive maintenance work and complete test and maintenance reports
- Install control and measurement instruments on existing and new plant equipment and processes
- Responsible for the preventive maintenance of the electrical and instrumentation system - Medium Voltage Liquid filled transformer for power supply of FCRS system. (500 kva – 1 unit, 300 kva – 3 units, 150 kva – 6 units, Batteries and uninterruptible power supplies – UPS for process out station and workstation, medium Voltage switchgears (General Electric Multilin – 4 Units),
- Maintenance of electrical and Instrumentation equipment - Automatic Transfer Switches (Thompson, and Zenith ), Medium voltage generators (Detroit diesel, Murphy Generator control,, FG Wilson), 125 HP brine pump motor commissioning, Motorized Valve Actuator ( ROTORK), Electro-pneumatic valves ( Fischer), Instrument Transmitters ( Fischer Rosemount, ABB), 3 Pjase welding Machine (LINCOLN)
- Conduct or supervise the installation, commissioning, and operation of electrical and electronic equipment and systems at M1GP and M2GP steam-field systems
- Carry out applied research in fields of electrical and instrumentation engineering and physics under the direction of design engineers.
- Set up and operate specialized and standard test equipment to diagnose, test and analyze the performance of electrical and electronic components, assemblies and systems.

- Manage the maintenance of electrical and instrumentation equipment (low/Medium voltage switchgears, Rosemount transmitter – pressure, level, flow, backup generators, PLC 5/40, HMI workstations, Fischer Pneumatic control valves, Rotork Motorized valves, etc)
- Read and interpret drawings, blueprints, schematics and electrical code specifications to determine layout of industrial electrical equipment installations.
- Install, examine, replace or repair electrical wiring, receptacles, switch boxes, conduits, feeders, fibre-optic and coaxial cable assemblies, lighting fixtures and other electrical components.
- Test electrical and electronic equipment and components for continuity, current, voltage and resistance
- Maintain, repair, install and test switchgear, transformers, switchboard meters, regulators and reactors
- Maintain, repair, test and install electrical motors, generators, alternators, industrial storage batteries and pneumatic electrical control systems.
- Troubleshoot, maintain and repair industrial, electrical and electronic control systems and other related devices.

### **Field (Piping) Engineer**

February 1, 1995 – January 30, 1995

South East Asia Sugar Mill Corporation  
Kilada, Matalam, Cotabato  
Philippines

- Monitor the problems encountered that are needed to have a solution during construction.
- Prepare any equipment that are needed during construction such as heavy equipment cranes, boom trucks, and diesel generators and various welding equipment machinery.
- Inspection of welding preparation and welding joint repair.
- 100% completed on leading the construction and installation of mechanical piping at M1GP steam field.
- Supervise the construction team – compose of industrial pipefitters, welders and foreman on the problems encountered that needed a solution during construction of pipelines.
- Lead the team to comply the required material take-off.
- Lead the team on continuous supply of heavy equipment, electrical/mechanical machinery and consumable materials.
- Supervise and inspect the installation, modification and commissioning of mechanical piping systems at steam field construction sites.

### **Plant Electrician**

August ,6 1994 – January 24, 1996

South East Asia Sugar Mill Corporation (SEASUMCO)  
Barangay Kilada, Matalam, Cotabato  
Philippines

- Commissioning, troubleshooting and repair of various part of the electrical controls system of the sugar plant (Heavy-duty cane yard cranes, cane knives, Cane Kicker, and High Grade/Low Grade Systems)
- Inspection, installation and assembly of electrical panelboards and setting of controls and protections.
- Installation of conduits, bus bar trolleys, and wiring of 4 units heavy duty cane yard cranes
- Conduct electrical Testing, Cleaning, disassembling and baking of electric motors (squirrel cage and wound rotor induction motors).
- Cleaning, inspection and installation of resistor banks of cane yard cranes and Cane knives

## **EDUCATION**

Bachelor Science in Electrical Engineering, University of San Carlos – Technological Centre, Cebu City, Philippines

## **MEMBERSHIP**

Integrated Institute of Electrical Engineers in the Philippines – IIEE

Armed Forces of the Philippine Reserve Forces – Technical Admin Services – AFPRESCEN 6<sup>th</sup> TAS