



## **INSTRUMENT MAINTENANCE TECHNICIAN**

# **ADRIAN AGUILA CATAPANG**

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### **Summary**

Dedicated and highly skilled Instrument Maintenance Technician with 12 years of experience in maintaining, troubleshooting, commissioning, and repairing a wide range of industrial instruments and control systems. Proficient in analyzing technical drawings, schematics, and diagrams to ensure the proper functioning of equipment. Adept at calibrating instruments to ensure precision and accuracy in measurement. Proven ability to work efficiently both independently and as part of a team, contributing to the seamless operation of complex industrial processes. Committed to safety protocols and continuously seeking opportunities for professional development to stay updated with the latest industry trends and technologies. Looking to leverage my expertise to drive operational excellence and reliability for future employer.

### **Skills**

Troubleshooting, repair (electrical and instrumentation)  
Calibration, Control Configuration, Testing and Commissioning

### **Work Experience**

#### **Instrument Maintenance Technician / Specialist**

##### **JGC Philippines Inc.**

Rio Tuba , Bataraza, Palawan, Philippines

#### **CBNC Line 1 Minor and Line 2 Major Maintenance Shutdown Oil and Gas Company**

October 17, 2023- December 7, 2023

##### Duties and Responsibilities

- Involved in the daily maintenance and repair activities of oil metering, oil shipping and tank farm facilities in the terminal.
- Hands-on experience of various type of metering instruments and control system used in oil metering and custody transfer such as meter provers (bi-directional), positive displacement meters (Brooks, A.O. Smith, Brodie), turbine flow meter, in-line and jetmix type oil sampler (Jiskoot) motorize operated valve (MOV), Flowboss flow computer etc.
- Calibrate and repair of pressure, temperature, level, flow transmitter on the field or on the workshop using standard and certified calibrators (Budenberg, Fluke, Thermo bath, Druck, HART Communicator 475).
- Repair and calibrate Smith automatic temperature gravity (ATG) and Brodie automatic temperature compensator (ATC) use in PD meters.
- Troubleshoot and repair of instrument use in meter proving system.
- Perform monthly meter proving on site and on other fields.
- Knowledge in programming and design logic for Siemens Simatic S7 PLC.
- Modify existing programs for changes in production.
- Calibrate and repair of pressure gauge, temperature gauge and level gauge.
- Repair pulse generator transmitter and calibrate using classic and new (Fluke) oscilloscope meter calibrator.
- Participate in equipment troubleshooting, design review, develops Predictive, Preventive and Corrective maintenance program.
- Input to and monitoring of Health Safety and Environmental yearly performance targets for maintenance activities.
- Daily reports of work accomplishment and percentage during the day.

**Instrument Technician**  
**R Square Consolidated Services Corporation**  
Santa Rita Karsada, Batangas City, Philippines  
August 27, 2023- October 15, 2023

### **Projects**

**Yokogawa Techno Philippine Incorporation**  
Manila, Philippines  
Oil & Gas Company

**Petron Polypropylene Plant**  
Bataan, Philippines  
Oil & Gas Company

### Duties and Responsibilities

- Involved in the daily maintenance and repair activities of oil and gas facilities.
- Repair and troubleshooting of Western Chemical Injection pumps (reciprocating pumps) assisted and supervise by the MOG corrosion department.
- Perform retrieval and installation of corrosion coupon (flash disc and strip type) using COSASCO hydraulic pump retriever.
- Conduct repair on any types of valves either motorized (MOV) or Control Valve for spare.
- Hands-on experience of various type of instruments and control system used in oil and gas facilities such as Production Separators, Liquid Recovery, Dehydration Units, Oil Gathering Tanks, Transfer Pumps and Oil Heaters.
- Knowledge and experience in various types of well heads such as free flow and submersible pumps.
- Involved in plant control system upgrade and major projects such as Water Injection.
- Repair and calibration of control valves (Fisher) either motorized or pneumatic for the workshop spare.
- Calibration and repair of level transmitter (endress hausser) displacer type.
- Acquires daily work permit for hot and cold to be done
- Participate in equipment troubleshooting, design review, develops Predictive, Preventive and Corrective maintenance program.
- Input to and monitoring of Health Safety and Environmental yearly performance targets for maintenance activities.
- Daily reports of work accomplishment and percentage during the day.

**Instrument Maintenance Technician**  
**Al Ojaimi GulfPly (Paper Manufacturing Company)**  
Manufacturing Company  
Dammam, Saudi Arabia  
May 19,2019 - May 19,2023(4years)

### Duties and Responsibilities

- Support commissioning activities on a wide range of systems.
- Consult diagrams, technical documents, schematics, manuals, standards and codes.
- Maintain backup documentation for control systems and instrumentation.
- Perform serial interfacing between programmable logic controllers (PLC), distributed control systems (DCS), human machine interface (HMI) and supervisory control and data acquisition (SCADA).
- Assess and identify hazards associated with prerequisite tasks; implement appropriate control measures in accordance with established standards, company safety rules and procedures.
- Assist with commissioning duties on a variety of electrical, instrumentation and control equipment.
- Support field technicians in the testing and commissioning of instruments and systems using pneumatic, electrical and electronic testing devices and precision measuring instruments according to general instructions and established standards.
- Conduct commissioning duties utilizing Delta V and Centum CS 3000 workstations.
- Implement Cause and Effect (C&E) testing ensuring standards are achieved.
- Read and interpret Piping and Instrumentation Diagram/Drawings (P&ID), Loop Diagrams, C&E matrix and control system drawings.

- Consult manufacturer's manuals, circuit diagrams and drawings to determine applicable test procedures for instruments used for measuring and controlling flow, level, pressure, temperature, chemical composition and other variables in manufacturing and processing.
- Complete all written documentation, electronic records and check sheets required to document process completion.
- Interface with vendors, subcontractors, commissioning team and operations on commissioning plant systems.
- Perform calibration in any variable either temperature, pressure, level and flow using different types of calibrators like deadweight tester, thermo block, comparator, test gauges, loop simulator and smart calibrators.
- Conduct repair on any types of valves either motorized (MOV) or Control Valve for spare.
- Perform weekly validation of Resistance Temperature Detector (RTD) and Tank Radar Level Transmitters (SAAB).
- Troubleshoot and repair of motor control circuit from local and remote control system.
- Functional testing and stroke testing of flow control valve.
- Perform loop checking on any process variable from sensing, transmitting, controlling and final controlling element base on a loop drawing or loop diagram.
- Adhere to standards of Health, Safety and Environmental (HSE) and comply with Chevron and the Client's Company Health, Safety & Environment Management (HSEM) System requirements; takes reasonable care of one's own health and safety and that of others in the workplace.
- Follows and maintains Company standards of Quality in accordance with Company Quality System requirements.
- Prepares Daily accomplishment report, check list and progress report for submission.
- Participate on daily HSE toolbox meeting.

**Instrument Maintenance Technician / Specialist  
I&E Industrial System Services Incorporation  
Oil and Gas Company**

Libjo, Batangas City

September 6, 2012 – May 15, 2019 (*6years & 8months*)

**Projects**

**First Gas Power Corporation**

Power Plant  
Santa Rita, Batangas City

**Negros Island Geothermal Business Unit**

Geothermal Power Plant  
Valencia, Negros Oriental

**Pilipinas Shell Refinery**

Oil & Gas Company  
Tabangao, Batangas City

**Bacman Geothermal Business**

Geothermal Power Plant  
Bacon-Manito, Albay

**Bataan Refinery Corporation**

Oil & Gas Company  
Lima, Bataan

**Leyte Geothermal Business Unit**

Geothermal Power Plant  
Tongonan, Ormoc City, Leyte

Duties and Responsibilities

- Knowledge on interpretation and reading of analog and digital logic diagram, loop diagram, loop drawing, P & ID, instrument location and general operating floor plan.
- In charge of installation of electrical, instrument conduit, cable tray, instrument devices and cable testing, glanding and termination, including marking and identifying of cables.
- Installation of DCS Panel, Cable Layout, and Termination of System Cables.
- Glanding and termination of field instruments, Junction boxes and Marshalling cabinets according to the termination drawing.
- Prepares turn-over packages documents for mechanical completion that consist of all engineering and construction disciplines such as As-Built, Test reports, Punch Lists, Vendor Drawing and other related documents.
- Clearing all entire construction punch list.
- Perform calibration of transmitter (level, pressure, flow, temperature) switches and pressure indicators using test equipment such as Hart Communicator, SFC Communicator, Intelligent

XMTR Communicator, Pneumatic Hand Pump, Portable Druck Calibrator, Meri-Cal, hydraulic Pump, loop calibrator, Dry block Calibrator for RTD and Thermocouple, Temperature Calibrator, Pressure Calibrator, Deadweight Tester and Portable Pneumatic Calibrator depending upon the range of transmitter.

- Assigned in bench and field calibration of different kind of valves either modulating or on-off valve (solenoid type) of different kinds of manufacturer using some test equipment liked Hart Communicator in a Digital Valve Controller powered by a control system output card, Current Injector/Loop Calibrator and Portable 24 V DC supply in a case of solenoid type at the same time checking their respective limit switches based on its set points and percent dead band.
- Functional testing together with the operator of Thermo-element (RTD's and Thermocouple), Motor Operated Valve (MOV) taking into consideration their interlocking and protection system involved in its operation.
- Involved in the loop checking and pre-commissioning of field instruments from field side up to marshalling cabinets in rack room.
- Responsible in making calibration certificate after validation, testing and calibration.
- Operates test apparatus during test cycle to produce, regulate, and record effects of actual or simulated conditions, such as vibration, stress, temperature and pressure.
- Analyzes and converts test data to usable form using mathematical formulas and prepares graphs and written reports to translate test results.
- Devises, selects, sets up, and operates electronic instrumentation and related electromechanical or electro hydraulic apparatus used for operational and environmental testing of mechanical, structural, or electrical equipment, and translates test data for engineering personnel to formulate engineering design and evaluation decisions.
- Perform Commissioning Test Procedure (CTP).
- Termination and configuration of Field instrument, Junction Box, Marshalling cabinets and Fire and Gas System.
- Pre-loop checking and wire checking and calibration, validation consultation and documentation.
- Consult manufacturers' manuals to determine test and maintenance procedures train apprentices.
- Use pneumatic, electrical and electronic testing devices to inspect and test instrument and system operation and diagnose faults.
- Carry out risk assessment exercises and lead maintenance teams in toolbox talks as appropriate.
- Participate in equipment trouble-shooting, design review, develops predictive, preventive and Corrective maintenance program.
- Responsible for the continued operation, maintenance and repair of all instruments, electronic control systems and the monitoring of such equipment in a safe and effective manner.
- Assigned in Remote Terminal Unit assembly(RTU) and functional test of its module card.
- Provide the necessary resource to maintain systems in an efficient and effective manner as required by the planned maintenance system.
- Carry out fault finding and diagnosis of problems affecting plant and systems, taking corrective actions to anticipate and prevent downtime.
- Performing breakdown repairs whenever required.
- Show initiative in identifying opportunities to improve plant and machinery performance.
- Prepare and submit of requirements for spares and proposals for modifications.
- Ensuring appropriate stock levels are maintained at an optimum level.
- Assist the Maintenance Supervisor to identify priorities for shutdown activities to maximize equipment down time and maximize productivity.
- Input to and monitoring of Health Safety and Environmental yearly performance targets for maintenance activities.
- Consult with and advise process operators.
- In charge in meggering and high pot testing for high voltage cables, conductivity test of bus bar (using ducted tester), testing of overload and earth leakage relay by injecting current and ratio test for ammeter.
- In charge of installation of switchgear panel and bus bar connection, termination of high and low voltage cables.
- Installation of annunciator panel, cable glanding and termination.
- In charge of installation of electrical, instrument conduit, cable tray, instrument devices and cabling, testing, glanding and termination, including marking and identifying of cables.

- Acquires daily work permit for hot and cold to be done.
- Responsible for installation of instrument devices and switchgear panel, cable tray lay out and fabrication support, conduit installation and cable pulling and installation of 300/45/30/MVA transformer.
- Prepares Daily accomplishment report, check list and progress report for submission.
- Involved in the daily maintenance and repair activities of oil and gas facilities.
- Hands-on experience of various type of instruments and control system used in oil and gas facilities such as Production Separators, Liquid Recovery, Dehydration Units, Oil Gathering Tanks, Transfer Pumps and Oil Heaters.
- Experience in repair and troubleshooting of gas compressor (Ingersoll rand, Cooper Bessemer and Dresser Rand) controls and instrumentation like temperature indicator / monitoring (precision digital) for power valve cylinder, suction and discharge cylinder, oil inlet and outlet, cooler discharge and cooling water inlet; vibration switches, alarm annunciator, pressure switches and rpm monitoring. Also have experience in power turbine generation and fuel gas conditioners.
- Knowledge and experience in various types of well heads such as free flow, gas lift and submersible pumps (Reda).
- Responsible for work over rig preparation (dismantling of gas meter recorders, flow meters, gauges, injection pumps and tubing's) and tie-in of equipment and instrumentation.
- Responsible in troubleshooting of control system for power turbines compressor.
- Involved in plant control system upgrade and major projects such as Water Injection and turbines fuel gas system.
- Repair and calibration of control valves (Fisher) either motorized or pneumatic for the workshop spare.
- Acquires daily work permit for hot and cold to be done.
- Calibration and repair of Foxboro meter either recorder or recorder with pilot.
- Participate in equipment troubleshooting, design review, develops Predictive, Preventive and Corrective maintenance program.
- Input to and monitoring of Health Safety and Environmental yearly performance targets for maintenance activities.
- Daily reports of work accomplishment and percentage during the day.

## Trainings

### **INDUSTRIAL INSTRUMENTATION and PROCESS CONTROL TRAINING COURSE**

I&E Industrial System Services Incorporated  
Libjo, Batangas City, Philippines

### **BASIC OCCUPATIONAL SAFETY & HEALTH (BOSH)**

Safe Line Consultancy Incorporated  
Banaba A- Pool, Batangas City, Philippines

### **PERMIT TO WORK (PTW) TRAINING**

I&E Industrial System Services Incorporated  
BTHEL, Dumaguete City, Negros Oriental, Philippines

### **WORLD SAFETY ORGANIZATION (WSO) TRAINING**

I&E Industrial System Services Incorporated  
Libjo, Batangas City, Philippines

### **BASIC PNEUMATICS & FESTO PRODUCTS 2019**

ARCOMA- Technical Division  
Dammam, Kingdom of Saudi Arabia

**Compress Air Preparation**  
**Pneumatic Linear Drives**  
**FluidSim Circuit Simulation**

**Tubings, Fittings, and Accessories**  
**Pneumatic Valves & Valve Terminals**  
**Pneumatic System Overview**

## Education

### COLLEGE

#### **Bachelor of Science in Computer Science**

Lyceum of the Philippines University

Batangas City

2005 - 2009

## Personal Information

<b>Passport Number</b>	:	P3586162B
<b>Birth Date</b>	:	March 5, 1989
<b>Birth Place</b>	:	Batangas, Batangas City
<b>Citizenship</b>	:	Filipino
<b>Religion</b>	:	Catholic
<b>Sex</b>	:	Male
<b>Civil Status</b>	:	Married
<b>Weight</b>	:	80 kg
<b>Height</b>	:	5'8"
<b>Spouse</b>	:	Kamela May V. Catapang
<b>Son</b>	:	Kian Marion Miguel V. Catapang Liam Timothy V. Catapang
<b>Daughter</b>	:	Andrea V. Catapang Yesha Camile V. Catapang
<b>Father</b>	:	Jose L. Catapang
<b>Mother</b>	:	Florencia A. Catapang