

# Maintenance/Instrumentation Technician

REF	Key Functions & Tasks (Maintenance/Instrumentation Technician)
<b>1</b>	<b>Work in compliance with EH&amp;S.</b>
1.a	Wear appropriate personal protective equipment
1.b	Participate in emergency drills and emergency response teams
1.c	Identify unsafe conditions and take corrective action
1.d	Appropriately and safely access production equipment
1.e	Handle, label, and dispose of hazardous / biohazard materials
1.f	Access and utilize MSDS
1.g	Comply with all permitting requirements (LOTO, hot work, line breaking, CSE)
1.h	Carries out operations with attention to OSHA and EPA regulations, and any other applicable state and federal regulations
1.i	Carries out operations with attention to OSHA and EPA regulations, and other applicable state and federal regulations.
1.j	Participate in all company safety training and audits as required
1.k	Assists with waste treatment operations
<b>2</b>	<b>Work in compliance with cGMPs.</b>
2.a	Follow SOPs for all operations
2.b	Prepare required documentation for recording and notification of events and changes related to equipment, including: as-found/as-left data, maintenance logs, calibration certificates and instrument labels, deviations, OOT reports, and installation reports
2.c	Maintain equipment logbooks
2.d	Control and receive parts and materials.
2.e	Maintain training documentation
2.f	Maintain equipment and process utilities in a validated state.
2.g	Follow appropriate gowning procedures and behaviors for work in controlled/classified areas.
2.h	Ensure appropriate flow of personnel, equipment, and materials
2.i	Follow change control procedures for process, equipment, and documentation.
2.j	Update status of equipment and materials
2.k	Identify and report exception events and CAPA.
<b>3</b>	<b>Monitor, maintain, and repair process or laboratory equipment.</b>
3.a	Monitor, maintain and repair process vessels and fluid handling systems including pumps, pipes and valves.
3.b	Monitor, maintain and repair heat transfer equipment (heat exchangers, condensers, evaporators).
3.c	Monitor, maintain and repair process support equipment (autoclaves, ovens, dryers, washers).
3.d	Monitor, maintain and repair refrigeration equipment (freezers, lyophilizers).
3.e	Monitor, maintain and repair laboratory equipment (scales, hot plates, HPLC).
3.f	Monitor, maintain and repair fill/finish equipment including automated equipment (filling machines, cap/inspect machines, packaging).
3.g	Respond to alarms per procedure.
<b>4</b>	<b>Monitor, maintain, and repair plant utility systems.</b>
4.a	Monitor, maintain and repair utility systems including instrument air, process gases (CDA, nitrogen, argon, CO2).
4.b	Monitor, maintain and repair utility systems including steam, process water types (DI, WFI, USP) and cooling/heating fluids (glycol, liquid nitrogen).
4.c	Monitor, maintain and repair utility systems including HVAC, electrical, hydraulic.
4.d	Monitor, maintain and repair waste treatment systems (waste neutralization, inactivation, scrubbers).
4.e	Monitor, maintain and repair site safety systems (fire suppression, eye wash, safety showers, etc.)
4.f	Monitor, maintain and repair security system including controlled personnel access.
4.g	Monitor building management systems (BAS).
4.h	Respond to alarms per procedure.
4.i	Perform testing of plant utilities.

REF	Key Functions & Tasks (Maintenance/Instrumentation Technician)
<b>5</b>	<b>Calibrate Control System Components.</b>
5.a	Calibrate pressure, temperature, flow, weight, pH, DO, and other critical measurement devices and transmitters.
5.b	Calibrate control valves, actuators, positioners, and process switching devices.
5.c	Investigate, correct and document calibration failures (identify OOS results and report in CAPA).
5.d	Use calibration reference standards and other specialized equipment.
<b>6</b>	<b>Maintain control systems, equipment and instrumentation.</b>
6.a	Program and/or replace microprocessors, PC, PLC, and DCS controllers and devices.
6.b	Maintain and repair on-off actuators, diaphragms, electrical and pneumatic and hydraulic industrial control circuits and equipment.
<b>7</b>	<b>General Engineering Technology and Maintenance Skills</b>
7.a	Solve system/equipment problems using P&IDs, manuals, and other drawings as needed.
7.b	Participate in root cause analysis and verification, identification of solutions, and development of solution implementation work plans
7.c	Assist in installation, modification, commissioning, and validation of equipment.
7.d	Communicate with all applicable departments about scheduling, service needs and priorities, problems, status of equipment and repair jobs, and status of utility systems.
7.e	Maintain spare parts inventory.
7.f	Communicate with vendors and service suppliers to coordinate and schedule external calibration and maintenance activities.
7.g	Use Computerized Maintenance Management System (CMMS) to schedule and track work orders for corrective and preventive maintenance (PMs) (Maximo, Atlas, Blue Mountain).