



Instrumentation

INSTRUMENTATION TECHNICIANS test, certify, install, repair, inspect, maintain, and help to develop complex instruments that measure and record changes in industrial environments. The process-controlled systems operated by these technicians are central to the operation of such facilities as chemical plants, canneries, food processing plants, air and water pollution control agencies, petroleum refineries, and power plants.

Technicians test and record the effects of varying conditions, actual or simulated, such as vibration, temperature, humidity, pressure, differential pressure, liquid flow and level, altitude, acceleration, pH, conductivity, stress, and chemical analysis. They prepare graphs and written reports translating test results into meaningful terms. Technicians select, install, calibrate, and check out telemetering and recording instruments and circuits. Using engineering data, and considering the limitations of the equipment being tested, they develop specifications for nonstandard apparatus and equipment.

They may make sketches and build or modify jigs, fixtures, instruments, and related apparatus. They also may verify the acceptability of devices which have been fabricated by craft workers or other technical personnel. In addition, technicians, troubleshoot, repair, and perform preventive maintenance on test apparatus and peripheral equipment. Some Instrumentation Technicians work as field service representatives who install and maintain equipment and systems at the customer's worksite.

In addition to providing preventive and corrective maintenance, their duties may involve training the customer's employees and advising them of proper procedures to use to avoid equipment breakdowns.