Quality Assurance and Reliability

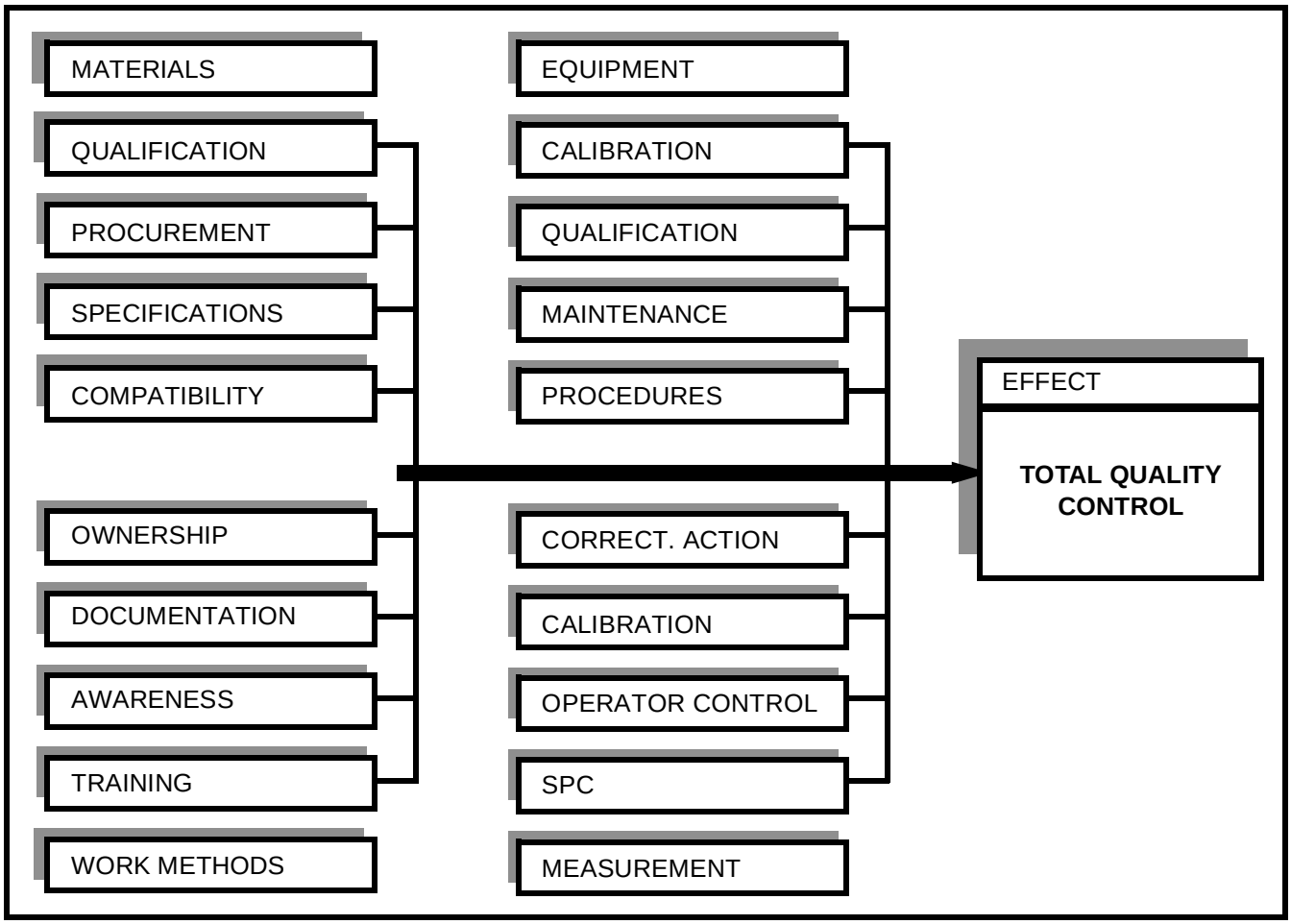
With the recent and ever increasing removal of trade barriers and the opening of what once were tightly closed foreign markets, there is a movement towards “global standardization”. Within this environment, the ISO9000 series of Quality Management System standards is quickly gaining global acceptance.

The management team of Mitel Semiconductor has a firm appreciation for the principles of, and the benefits of ISO9000 and to that end is committed to having all aspects of our business registered to the applicable ISO9000 standards. To date, our hybrid facility in Caldicot, Wales is ISO9001 registered, our wafer fabrication facility in Bromont, Quebec is ISO9002 registered, and our design and test operations facility in Kanata, Ontario is ISO9001 registered.

In addition to the ISO9000 management systems, progressive actions such as statistical process control (SPC) and design-of-experiments (focusing on Taguchi methods) are also embraced by Mitel Semiconductor, as our emphasis migrates from reaction or screening to a system of prevention. This implementation of a system of prevention allows for the ownership of quality to be transferred to the production floor, with defect rates no longer being controlled through Quality Control acceptance sampling.

The role of the Quality Assurance department at Mitel Semiconductor has evolved from a policing authority to that of an audit or confirming position, serving to monitor the continued compliance to the processes and systems installed. The cause-and-effect diagram illustrated below highlights the tasks involved in Quality Assurance, identifying the departures from conventional techniques and the comprehensiveness of a total quality control system. From basics such as operator training and awareness, to proactive steps such as ensuring material compatibility and preventive maintenance, all areas are managed by Mitel Semiconductor’s Quality Assurance department to ensure that standards and quality levels are continually improved.

In addition to these process oriented controls, effective development methodologies designed to



Cause and Effects Diagram

Quality Assurance and Reliability

establish conformance to requirements from the early stages in the product evolution cycle, comprehensive ESD programs and employee training in total quality control concepts (based upon the Philip Crosby quality system) also contribute to the integrity of the Mitel product that our customers receive. At Mitel, it is recognized that all of these actions are required to continually supply customers with quality products and services. In addition, evolving customer requirements such as just-in-time and dock-to-stock programs leave absolutely no room for error on the part of the supplier. The product must be correct and defect free when received, to avoid production downtime, missed commitments and lost billings.

At Mitel Semiconductor the Quality Assurance department is committed to continuous improvement through programs such as Reliability Qualification Testing and Monitoring, Supplier Quality, Management System and Product Audits, and Documentation Control. As well, any product failure is rigorously analyzed through a series of state-of-art failure analysis techniques to ensure the root cause failure mechanism can be determined and corrected.

Mitel Semiconductor is confident that our Quality Assurance programs will produce products with Quality and Reliability characteristics that *"Satisfy the Needs and Exceed the Expectations of our Customers".*

Additional Reference:
Mitel Semiconductor Reliability Databook

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