

THE CALDWELL CORPORATION CASE

Caldwell Corporation, a developer and manufacturer of complex electromechanical assemblies, is the established quality leader in its industry. In the past five years, average sales income rose to \$8 billion per year. Caldwell has 38,000 employees with a traditional line and staff organization. The major functional departments are Research, Design Engineering, Marketing, Purchasing, Manufacturing, and Customer Service.

Although the recognized quality leader, Caldwell has recently faced severe competition on quality, costs, and price, particularly from overseas. Over the past three years, several reasons have led to a reduction in employees of eight percent from all functions and all levels.

Four years ago, the company embarked on a major "Total Quality" effort. Emphasis was placed on applying quality concepts throughout all line and staff departments. During these four years, over 1,200 quality teams were formed to address specific problems. For the most part, these teams were successful as measured by a reduction of 18 percent in customer complaints and a reduction of \$100 million in the cost of poor quality.

The range of applications of total quality made a deep impression on the president. He previously regarded quality as a manufacturing issue but is now a leading proponent of the quality approach to all activities in the company.

About six months ago at a luncheon, the president asked the vice president of research what formal quality activities were underway in Research as part of the company Total Quality effort. The vice president responded: "We have always stressed quality in our research, and we don't need any new quality activities. Research is different--we investigate new ideas; we don't design products or manufacture assemblies."

The president has persistently encouraged the vice president of research to "develop a formal quality effort like all other departments." As a result, the vice president has decided he must take this seriously and show evidence of action.

Research has a staff of 59 people, mostly engineers, chemists, and physicists. The department prides itself in doing applied research rather than theoretical research, but what is "applied research" is the subject of much debate. At budget time each year, discussion always arises on whether or not the Research Department makes a sufficient contribution to overall company effectiveness.

The Research Department provides services internally, primarily to the Design Engineering, Manufacturing, and Customer Service Departments. Examples of services are: investigation of new product concepts, development of new measurement techniques, special testing of new materials, and assistance in analyzing chronic field problems.

Until recently, Research personnel viewed the term "customer" as applying to the external customer, and thus the Research Department did not have "customers." But now the vice president of research believes that the department must accept that it does have customers, i.e., internal customers. At best, researchers have been lukewarm to the concept that they have "customers."

The vice president would like to address two issues:

1. In the "Total Quality" environment, how should an overall objective be stated for the Research Department?
2. How can the department obtain a better understanding of the needs of their "customers," i.e., who should collect the information and how should it be collected?

How should the department respond to these issues?