



# Award Winner 1996

## AlliedSignal

Federal Manufacturing & Technologies

### Brief History and Background

AlliedSignal and its predecessor, the Bendix Corporation, have managed the Department of Energy's (DOE) Kansas City Plant since the facility opened in 1949. Federal Manufacturing & Technologies (FM&T) is the AlliedSignal division that manages and operates the facility. FM&T's primary mission is to manufacture and assemble a wide array of nonnuclear mechanical, electronic, and engineered material components for our nation's nuclear weapons stockpile. FM&T supports nearly 40 technically demanding product families, including arming devices, radars, cables, microcircuits, plastics, and polymers. It also supports 80 advanced technologies, including failure analysis, machining, software engineering, optics, laminates, and binding.

More than 97% of the work done at FM&T is done for the DOE. Unlike most commercial businesses, our local customer, the DOE Kansas City Area Office, maintains an on-site oversight office with a staff



of more than 60 associates. This office is specifically charged with administering our contract; ensuring compliance with environment, safety and health regulations; providing weapons programmatic guidance; and managing the DOE's quality assurance program.

### Doing More With Less

The Kansas City Plant is the only remaining fully capable production plant in the nuclear weapons complex. The end of the Cold War enabled our customer to downsize the complex during the past several years. The consensus after several studies was to consolidate most of the work from three other production plants to Kansas City. Today, FM&T manufactures or procures 85% of the components for our nation's nuclear stockpile. This decision was based primarily on FM&T's superior performance, diverse technologies, physical size, low risk factors, and cost.

Even with the added responsibilities and range of capabilities, FM&T was forced to reduce its workforce during the last decade. In 1985, more than 8,000 associates worked at the Kansas City Plant; today about 3,375 associates work at the facility.

### FM&T's Total Quality Journey

A key reason for the survival of the Kansas City Plant and the non-interruption of AlliedSignal's contract is FM&T's decade-long commitment to continuous improvement through Total Quality. FM&T was among the first corporate business units and DOE contractor sites to begin integrating Total Quality principles into all levels of its operations. Our commitment is reflected in an enterprise-wide associate performance goal developed 10 years ago, "continuous improvement in everything we do."

Combined with FM&T's six business drivers, this goal provides the fabric for our vision, goals, strategic plan, and activities. The business drivers are annually discussed and integrated into the strategic plan, which builds upon the vision, values, goals, and strategies of AlliedSignal and the Department of Energy. Those business drivers are:

- Customer satisfaction
- Financial performance
- Product/process quality
- Environment, safety, and health performance
- Associate satisfaction
- Growth

FM&T's continuous improvement journey began in the early 1980s with the introduction of training based on the work of W. Edwards Deming. By 1983, a program called Quality Circles was started and in 1986 a Toward Excellence initiative was introduced. This was followed by the introduction of statistical process controls based on Motorola's model.

FM&T continued to build on these early programs and processes, while it searched for a methodology that focused on results as well as philosophy. Five years ago, new corporate leadership provided that methodology when it introduced a uniform Total Quality initiative to the entire AlliedSignal organization. In 1992, FM&T began training all associates in a four-

day Total Quality Leadership I workshop that focused on improving team skills and customer satisfaction. Also included in that training was a nine-step process improvement and problem-solving model.

Creating a Total Quality culture takes persistence, effort, and trust in the process. New Total Quality initiatives continue to help FM&T refine its Total Quality efforts. Customer and Associate Excellence initiatives and Operational and Technical Excellence processes have all become integral parts of our Total Quality journey. The second phase of all-associate Total Quality training began in May 1995 and was completed in June 1996. Total Quality training has also been provided to DOE and non-DOE customers. In addition, the company's Total Quality supplier training serves as an AlliedSignal and federal government standard.

FM&T has a deeply rooted quality culture. Quality standards considered acceptable by similar industries do not withstand our rigorous standards. The nature of our work demands the implementation of exacting precision quality requirements to ensure the safety of the public and of the weapons stockpile. These controls are essentially unparalleled when compared to other defense and aerospace operations.

FM&T is committed to being a Total Quality company. We are continuously improving our work processes to satisfy all internal and external customers. We have achieved a level of success, but welcome new tools and methods that teach us how to improve our processes on a continuous basis. We know that the journey to excellence is a destination without an end. We intend to stay on course.

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