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## DESIGNING QUALITY INTO LOGISTICS

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### BACKGROUND

Manufacturing companies have been forced to improve the quality of their products by international competition. In far too many companies, the top management's focus on quality starts and ends at the manufacturing lines. Industry leaders who focus on long term competitive advantage have used quality logistics as a strategic weapon.

Several current trends are forcing increased awareness of the need for quality in logistics. Among these trends and operating strategies are: JIT (Just-In-Time) manufacturing, quick response logistics, smaller and more frequent inbound and outbound orders, cross-dock shipments for selected SKUs, third party partners, and better information technology that leaves you with "nowhere to run and nowhere to hide." These trends and others will have an increasing impact on the way business will be done in the future. Logistics managers will need to develop strategies to cope with these demands.

### GETTING STARTED

This focus on quality starts with analysis of your present logistics network and the demands placed on it. Analysis starts with quantifying the locations, volumes, service consistency, order cycle times, and accuracy of all suppliers, company operated facilities, and third party operations. A thorough review of your logistics network will reveal opportunities to improve service, reduce costs, and improve the quality

of the logistics operation. These improvements will come from reductions in the:

- Number of times product is handled
- Distance that materials are transported
- Limiting the number of suppliers and carriers used to those who can meet quality, service and cost criteria
- Number of distribution points (depending on the size, nature and requirements of the network

The next step is to analyze:

- Customer requirements and desires and present capabilities to satisfy them
- Existing order entry, material handling, physical distribution, and transportation capabilities
- Existing material handling and control methods and procedures to identify opportunities for improving the processes

After the existing logistics network has been thoroughly analyzed and documented, the following requirements must be projected:

- Future volumes
- Future order characteristics
- New handling and storage characteristics and requirements

- Demands for faster order turnaround and accuracy
- Demands for order status reporting

### DEVELOPING AND IMPLEMENTING THE STRATEGY

After the logistics system design criteria have been established, you must quantify and qualify alternative logistics strategies for satisfying those criteria:

- Location network analysis
  - Service times by location and transportation alternative
  - Costs by location and transportation alternative
- Distribution center operating methods
  - Control over quality and accuracy
  - Operating costs
- Information and reporting systems.
  - Consistency with customer requirements
  - Internal information to improve quality

After the analyses have been completed and the strategic decisions made, the implementation process is next. Among the activities required during a typical

implementation are:

- Negotiating with selected carriers to deliver the transportation quality level required
- Contracting for facilities and equipment or third party warehouse operations to meet the quality specifications
- Developing the real time information systems support required for the logistics quality program, or contracting for its development by an outside source.
- Training both management and hourly staff on the new methods and procedures and getting them

to "think quality"

- Developing and putting into place the statistical process controls to insure that the logistics process remains under control, and to pinpoint opportunities for further improvement.

#### **WHY LOGISTICS QUALITY IS CRITICAL**

Logistics quality is critical to any company's total quality perception by its customers. No matter how good the quality of the physical product, if it doesn't get to the customers when they want it, in the quantity they want it, with the documentation they want, and in perfect condition, then you did not do a total quality job for

your customer.

#### **HOW DO YOU MAINTAIN QUALITY LEVELS**

Performance measurement against quality standards and constant scrutiny of all logistics operating areas for quality improvement opportunities are the keys to maintaining levels. The adage "you can't improve it if you don't measure it" is especially relevant in this instance. If a logistics process is not measured, it will not receive the proper management attention. Without management attention, logistics performance against quality standards will stagnate and leave your company at a disadvantage against its competitors.