

WANT EC BUSINESS? YOU HAVE TWO CHOICES

Companies can comply with Europe's standards—or stay home

Du Pont Co. has a tradition of quality. But for years, engineers at its Emigsville (Pa.) plant, which makes plastic connectors for computers, couldn't raise output from a molding press with a 30% defect rate. Du Pont solved the problem during a 1991 quality effort in which press operators reported, in writing, how they do their jobs. When they compared notes, they found they had been inconsistently calibrating probes that measure press temperature—and setting it wrong. The mistake fixed, waste fell to 8%.

What's especially surprising is the inspiration for Du Pont's discovery: Europe. The European Community—which hasn't been in the quality vanguard—has set new standards for its post-1992 single market, and suddenly the world is hopping to them. The ISO 9000 guideposts from the International Standards Organization in Geneva have been described both as a management tool and a trade barrier. Either way, says Winfried Werner, head of quality at ITT Corp.'s Semiconductor Div. in Freiburg, Germany, "ISO will be a must for any company in Europe."

It may be for U.S. companies, too: Du Pont, Eastman Kodak, and other U.S. pioneers took up ISO in the late 1980s to make sure they weren't locked out of European markets—then found it helped improve quality. Now, Malcolm Baldrige National Quality Award winners Motorola, Xerox, IBM, and others

are making suppliers adopt ISO. And experts think thousands of U.S. companies—vs. 400 today—will seek ISO certification soon.

To gain that stamp of approval, companies start with a 100-page, five-part ISO guidebook that directs them to document how workers perform every function that affects quality—and to install



ISO RAISED PRODUCTIVITY AT A DU PONT PRESS

mechanisms to make sure they follow through on the stated routine. Internal teams verify that procedures are being followed in 20 domains, from purchasing to design to training (table). Rules for order processing, for instance, require a check to guarantee the company has the materials or other resources on hand to deliver. Once an applicant feels ready, independent auditors inspect the company to award a certificate of compliance. For a manufacturing plant with 300 workers and an elementary quality program, the process can take as long as 18

months and cost more than \$200,000.

The ISO 9000 premise is simple: Consistency breeds reliability. This isn't a magic bullet. "At best, ISO minimizes the probability that you'll ship a defective product," says Trevor Davis, a quality consultant for Coopers & Lybrand in London. But that's enough for the EC.

FORCING THE ISSUE. The EC chose ISO 9000 in 1989 to harmonize the varying technical norms of its member states. By last year, ISO compliance became part of hundreds of product safety laws all over Europe, regulating everything from medical devices to telecommunications gear. Such products account for only 15% of EC trade. But German electronics giant Siemens requires ISO compliance in 50% of its supply contracts, and is nudging other suppliers to conform. That eliminates the need to test parts, which saves time and money.

ISO even applies to service companies. At London's Heathrow Airport, British Airways PLC was racking up numerous complaints of lost cargo and damaged goods. Once ISO was imposed, BA discovered, among other problems, that its training didn't prepare handlers for new, automated unloading methods. Now, workers are updated whenever changes occur. In the first year, complaints dropped by 65%, and time spent fixing problems fell 60%. Audits keep BA's crew from backsliding. "ISO is forcing what we should have been doing all along," says quality manager Peter Blixaux.

For many companies, ISO reinstalls discipline lost in the 1980s rush toward self-managed work teams. Often, jobs left up to workers, such as Du Pont's press calibration, "weren't getting done the way we thought they were," says David Erdman, quality director at Du Pont Electronics. That's changing now that half of Du Pont's 240 worldwide facilities are ISO-certified.

Other converts are close behind. De-

The Geneva-based International Standards Organization has issued a 25-page set of quality standards that apply to some 20 functions within a company. Here's a sampling:

- ✓ **DESIGN** Sets planned approach for meeting product or service specifications
- ✓ **PROCESS CONTROL** Provides concise instructions for manufacturing or service functions
- ✓ **PURCHASING** Details methods for approving suppliers and placing orders
- ✓ **SERVICE** Gives detailed instructions for carrying out after-sales service
- ✓ **INSPECTION AND TESTING** Compels workers and managers to verify all production steps
- ✓ **TRAINING** Specifies methods to identify training needs and keep records

DATA: BW



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troit's Big Three are including ISO 9000 as they merge their separate quality systems to lessen overlapping paperwork demands on suppliers. Steel, semiconductor, and chemicals makers—as well as the Food & Drug Administration and Defense Dept.—are adopting ISO. If it becomes universal, “we’ll have one audit recognized by all our customers,” says James E. Swihart, vice-president at Aircraft Braking Systems Corp. in Akron.

NO BENCHMARKS. For all of ISO's benefits, critics assail it for major gaps. Purists define quality as product or service specifications set by customers. But ISO ignores customer input. “You could make a product nobody wants and still meet ISO requirements,” carps Bernardo De Sousa, head of quality for Swiss chemical maker Ciba-Geigy Ltd. ISO also includes no appraisal of the cost of quality and ignores any need to benchmark performance so it continually improves. Comparisons show ISO at best meets 40% of the criteria used by the U.S. Baldrige Award. So companies are pressuring the International Standards Organization to upgrade the guidelines by 1996.

ISO certification may also be less uniform than it sounds. Each of the 55 countries that has adopted ISO 9000 interprets it a little differently, so certificates awarded by auditors in one country aren't always accepted elsewhere. More than a dozen European and four domestic auditing agents operate in the U.S., stoking the confusion. “Ask customers in France, Britain, and Germany which auditors they prefer, and you'll get three answers,” says one frustrated U.S. quality manager. Agreement on a system of mutual recognition for ISO certificates may be years away.

Meantime, the rest of the world's delay in ISO compliance could keep foreign products out of the EC, if only temporarily. More than 20,000 facilities in Britain and a few thousand more in the rest of Europe are already ISO-certified, compared with the U.S.'s 400 and 48 in Japan. The U.S. has the most to lose, since 30% of its exports go to Europe. Du Pont, for one, only began its ISO drive in 1989 after losing a big European order for polyester films to an ISO-certified British firm.

“We're getting a late start,” says George Lofgren, president of the Registrar Accreditation Board, which licenses U.S. ISO auditors. Indeed, a recent survey of U.S. manufacturing executives conducted by Grant Thornton, the Chicago management consulting firm, found that 15% of those canvassed plan to certify their plants by 1994—and nearly half hadn't heard of ISO 9000. Unless they wake up fast, a chunk of their business could be at risk.

By Jonathan B. Levine in Paris, with bureau reports