



Advice & Counsel

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The Fastener Quality Act

Dear Advice & Counsel,

We are a small jobshop that performs a variety of services to the fastener industry. I recently received a phone call from one of our best customers who asked if our company is aware of the Fastener Quality Act, and if we are complying with it? I've delayed giving him an answer, and I am looking to you for information on this issue. Can you help?

Signed, Holding the Fort

Dear Fort,

During 1985 and 1986, reports of substandard, mis-marked and/or counterfeit fasteners triggered a nationwide investigation that ultimately involved five countries. It resulted in Congressional hearings and the introduction of HR-3000, the Fastener Quality Act, in the summer of 1990. Congressman John Dingell, Chairman of the Subcommittee on Oversight and Investigations, conducted the hearings that brought attention to problems within the industry, including material substitutions, false certifications, and mis-marked performance headmarks. The bill was signed into law by President Bush on November 16, 1990, and became Public Law 101-592, entitled the "Fastener Quality Act."

The purpose of the Act is to protect public safety, to deter introduction into commerce of nonconforming fasteners, and to provide users with increased assurance that the fasteners meet stated specifications. The Act has elements that will enhance traceability, accountability, and responsibility from the manufacturer's plant throughout distribution to the end user.

In the Congressional history of the Act, there is evidence that Congress intended that the law apply only to

high-strength fasteners used in critical applications. There is even mention in committee reports of one percent as the population of fasteners that would fall within this high-strength, critical-use category. In passing the Act, however, Congress did not define "critical application," or restrict coverage to high-strength fasteners, and instead assigned responsibility to the Secretary of Commerce, under section 4 of the Act, to address the issue. Currently, all fasteners that have a tensile strength higher than 150,000 psi are covered under the Act.

An estimated 30 to 50 percent of currently available fasteners meet the definition of "fastener" under the act, and are, therefore, subject to its requirements.

Persons who sell fasteners to others generally must comply with the Act. This includes manufacturers, importers, distributors and the like, who are in the business of selling fasteners at wholesale to retailers and end users. A private citizen or business purchasing fasteners for their own use has no responsibility under the Act. Similarly, a business that purchases fasteners and uses them in the assembly of products that are sold to others has no responsibility under the Act. Original Equipment Manufacturers (OEMs), like automotive manufacturers, may sell fasteners to their authorized dealers for use in assembling or servicing products made by them without such sales being covered under the Act.

Basic Requirements Under the Act:

The Act places responsibility on persons who manufacture and sell fasteners, to provide evidence to their customers that such fasteners have been manufactured in accordance

with applicable standards and specifications, and have been tested in an accredited laboratory and found to be in conformance with such standards and specifications. The evidence required is a written certification of conformance by the manufacturer at the time of delivery of the fasteners. This assurance must also be backed by an original test report in the custody of the manufacturer, or importer, in the case of imported fasteners.

The Act requires manufacturers and private label distributors to record fastener insignias with the Commissioner of Patents and Trademarks, making it possible to easily identify the party responsible for the fastener. Similarly, to assure that individual quantities of fasteners can be traced back to their original lots, the Act prohibits manufacturers, or persons who purchase wholesale fasteners for resale, from commingling fasteners from more than two different lots in the same container. Anyone who significantly alters a fastener is treated as a manufacturer under the Act, if the fastener no longer conforms to the description in the relevant certificate of conformance issued by the manufacturer. They must either retest and recertify the altered fasteners or provide a written statement to the purchaser indicating that the fasteners have been significantly altered, and warning that such alteration may affect the dimensional or physical characteristics of the fasteners.

Recordkeeping

The laboratory conducting the conformance test has to maintain copies of the test report for 10 years. Records concerning the inspection, testing and certification of fasteners shall be maintained for a period of 10

years by manufacturers, importers, private label distributors, and persons who make significant alterations.

Penalties for Non-Compliance
Civil remedies may be sought by the Attorney General in an appropriate United States District Court within a 10-year period. The Secretary of Commerce may take civil action having a maximum penalty of \$25,000 per violation. Criminal penalties, including fines and up to five years in prison, may be applicable. Intentional failure to maintain records may result in a fine and up to five years in prison. Negligent record-keeping may produce a fine and up to two years in prison.

Government Responsibilities
The Secretary of Commerce has overall responsibility for Public Law 101-592. The Secretary has delegated responsibility for various parts of the Act to several agencies within the Department of Commerce. The National Institute of Standards and Technology (NIST) is responsible for issuance of implementing regulations, and for accrediting testing laboratories. The Commissioner of Patents and Trademarks (PTO) is responsible for recording manufacturers' insignias. The Under Secretary for Export Administration (EXA) is responsible for enforcement of the Act, in cooperation with the U. S. Customs Service, Department of the Treasury, and the Department of Justice.

Implementing Regulations
Draft regulations implementing the Fastener Quality Act were issued for public review and comment in August 1992. More than 400 letters were received in response to the comment period. Most of those commenting stressed the need to amend the Act in accordance with the recommendations of the Fastener Advisory Committee. Final implementing regulations have not been issued.

Fastener Advisory Committee
Pursuant to section 14 of the Act, the Department of Commerce established a Fastener Advisory Committee consisting of 15 representatives of manufacturers, importers, distributors, end-users, independent laboratories, and standards organizations to advise the Secretary and the Director of NIST on all matters relative to the Act

and implementing regulations. The Committee was initially chartered for two years beginning in February 1991. The charter was renewed for two years in 1993 and again in 1995.

Amendments to the Act
As part of a government-wide requirement for issuing regulations, NIST conducted a regulatory impact analysis on the Act and regulations to determine their impact on the U. S. economy. The analysis revealed that the estimated annual cost to the U.S. economy of the Act and regulations might be as low as \$12 million, but could exceed \$485 million. The Fastener Advisory Committee, through its Cost Effectiveness Working Group, conducted a similar analysis using the NIST data; narrative accounts of problems and experiences provided by various government and private sector organizations; data furnished by engineers from the Industrial Fastener Institute (IFI); surveys conducted by the Fastener Industry Coalition; and comments provided during the public review period on the draft implementing regulations. The Committee concluded in a March 1993 "Report on Economic Consequences of Implementing Final Regulations Without Amending the Act Consistent with the Recommended Statutory Changes," that the annual cost to the U. S. economy of the Act and regulations might exceed \$1.5 billion, in the worst-case scenario, if needed amendments were not made to the Act.

Three factors contribute the most to the economic impacts. Two of the three result from oversights on the part of Congress in drafting the Act. The third area stems from the Act's requirement that fastener lots cannot be commingled. These are summarized here:

The Chemistry Issue

The Act, as currently written, requires a sample of each lot of finished fasteners to be tested in accordance with an applicable standard or specification. Included in the tests to be conducted are tests to determine the chemical composition of the metal used. Industry practice has been to rely on certificates supplied by the raw materials producer in determining the chemistry of the metal. Further, because the chemistry does not

change in fabricating the fastener, and many lots of fasteners can be made from the same mill heat of material, sampling and testing each finished lot for chemistry is unnecessary and costly to the industry. The Advisory Committee's recommendation is to amend the Act to allow the option of using the chemistry certificate issued by the raw materials producer.

The Nonconforming Fastener Issue

The Act as currently written does not allow for fasteners to be sold that have been tested and found in minor nonconformance from the applicable standard or specification. Industry practice, as recognized and permitted in many standards and specifications, is to permit fasteners to be sold that have minor flaws that do not affect form, fit, or function, provided that the purchaser is made aware of the nonconformance and agrees to accept them. In denying this long-standing industry practice, the Act would require such fasteners to be destroyed at considerable cost to the industry and consuming public. The Advisory Committee's recommendation is to amend the Act to allow industry to follow existing standards in dealing with nonconforming materials.

The Commingling Issue

The Act does not permit commingling of more than two like fastener lots. Industry's feeling is that the majority of end-users do not request lot traceability for the fasteners they purchase, and that if traceability is an issue, they have the option of requesting fasteners that have not been commingled. Requiring full lot traceability by everyone (manufacturers, importers, and distributors), however, places an unnecessary economic burden on the industry. The Advisory Committee's recommendation is to amend the Act to allow for limited commingling on the part of distributors only.

Amendments addressing the chemistry issue and the nonconforming fastener issue were introduced and passed by the U. S. House of Representatives as part of the National Competitiveness Act of 1994 (H.R. 820). The U. S. Senate, in its version of the same bill (S.4), added an amendment permitting voluntary commingling and passed the bill. These two bills did not, however,

emerge from the House/Senate Conference before Congress adjourned last year. The 104th Congress, whose session began in January 1995, did not conclude deliberations on the amendments, and it may be 1997 before the amendments are passed and the regulation is finalized.

The Public Law Task Force
In October of 1994, the Industrial Fastener Institute (IFI), the National Fastener Distributors Association (NFDA), and the Fastener Industry Coalition (FIC) formed a bi-partisan task force composed of nine members, nominated from the three organizations, to forge an industry strategy regarding amendments to the Fastener Quality Act. In January 1995, the Public Law Task Force submitted its report and recommendations to Senator Conrad Burns, Chairman, Subcommittee on Science, Technology and Space, U.S. Senate, and to Congressman Robert Walker, Chairman, Science Committee, U.S. House of Representatives. At the request of Senator Burns and Congressman Walker, the Advisory Committee reviewed the Task Force's report and recommendations and found them to be consistent with the Committee's recommendations for amending the Act that were transmitted to NIST and to Congress in 1993.

In April 1995, a delegation from the Public Law Task Force met with staff from the House Science Committee; the Senate Subcommittee on Science, Technology and Space; and from NIST, to discuss possible additional amendments to the Act. As a result of the meeting, Congressional staff asked the Task Force to submit its recommendations for further amendment and simplification of the Act. NIST was asked to work with the Task Force in the development of the recommendations. The Task Force submitted its recommendations for amendment to Congress in early June 1995. The proposed amendments have been made part of H.R. 1870 (entitled the "American Technology Advancement Act of 1995"), which is currently pending discussion and passage in Congress.

The Plater's Responsibility
While I shun providing legal advice, I would welcome some from the legal profession. It appears to me that the jobshop would be responsible only for

the recordkeeping portion of the act. You would need to maintain records for 10 years on inspection, stress relief/hydrogen embrittlement relief

procedures, and other requirements placed on the fastener specification by the manufacturer. *P&SF*

Bring Your Questions

To the Wastewater Treatment Operators Forum ...

... if you've registered for the 18th AESF/EPA Conference (January 27-29). The Forum is an important part of the Conference (January 29, 4-5:30 p.m.) If you haven't yet registered, you may do so on site:

Disney's Contemporary Resort, Lake Buena Vista, Florida

(Registration hours are on page 7.)