

Occupational Health & Safety



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What Good Are Standards?

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by Frederick G. Heath



Standards or manufactured products provide a welcomed accountability to the marketplace and make purchasing decisions easier--or do they?

Responsible trade associations comprised of manufacturers and sometimes distributors of competitive products develop standards for products offered by the members of the trade association. The American National Standards Institute (ANSI), an independent accreditation and standards approval authority, assures that all materially affected parties review the standards and that all issues are resolved in an equitable manner.

Standards can level the playing field for manufacturers by setting a benchmark for performance. This also may reduce the risk of product liability lawsuits and help lower product liability insurance costs. Requiring conformity to standards can mean that all bids will be of comparable quality and performance. The purchase of a conforming product assures the purchaser that the product is state of the art and performs to industry standards.

What's the Catch?

As a purchaser, you can require that bidders offer products that conform to a relevant standard, but. . . . How do you know that all sellers are offering conforming products? How confident do you feel that you are getting what you paid for? Do you have the time or the expertise to make these determinations? The following case study illustrates what can happen even when the purchaser requires bidders to meet American National Standard guidelines.

A Case in Point

A school district in a city of several million people owned a large fleet of school buses. The fleet was large enough, and the geographical distribution was wide enough, that the school district operated multiple service facilities.

A cost study showed that the installation of automotive service lifts could save a significant amount of labor. The school district decided to purchase automotive lifts for each facility based on a competitive bid.

The purchasing agent handling the bid, not surprisingly, knew little about automotive lifts. All that the agent had to go on was:

- * That the lifts should be of the drive-on ramp style.
- * They should be long enough to accommodate the bus with the longest wheelbase in the fleet.
- * They should have a lifting capacity adequate to lift the heaviest bus in the fleet.

The purchasing agent asked one of his automotive service tool suppliers who might supply the school district with automotive lifts. Armed with several potential sources, the purchasing agent interviewed a few of the prospective sellers of automotive lifts.

The purchasing agent prepared a public invitation for bid that required that the automotive lifts comply with the American National Standard in effect at that time. The purchasing agent actually added the model number of the lift offered by the preferred provider as an example of a lift that would satisfy the school district requirements and meet the American National Standard. The purchasing agent also properly added the phrase "or equal" to the invitation for bid, thinking this would encourage competitive bidding.

When the bids were opened, all of the bidders claimed their products were compliant with the American National Standard, and all of the bidders claimed their products were equivalent to the model selected and met the length and weight requirements.

The choice appeared to be simple: Select the bidder with the lowest price. The low bidder, however, was an unfamiliar company. The purchasing agent appropriately asked the low bidder to confirm the lifts were compliant with the specifications, compliant with the American National Standard, and equal to the preferred model specified. The company confirmed the specifications, and the purchasing agent made the purchase.

Maintenance workers soon encountered problems with the pneumatic lift latch release systems. Although the systems complied with the bid specifications, they were flimsy and soon ceased to operate. The school board decided to remove the latch release systems because the latches would still function automatically by gravity actuation when raising the load, and the operators could simply disengage the latches manually when they wished to lower the load.

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After several years of use, an operator had raised one of the lifts with a bus in position for an oil change. After the operator was certain the latches had engaged, he went under the bus and applied his wrench to the oil drain plug. As he was turning his wrench, he heard two loud "popping" sounds. The next thing he knew, he was on the floor, pinned by a front structural cross member of the lift--the rear of the lift was still in the raised position.

What Happened?

The lift suffered a catastrophic failure. The operator survived, although he was badly injured.

As frequently happens in such instances, the injured employee filed a lawsuit against the manufacturer of the automotive lift and the installer of the lift. The installer (a one-man operation) filed for bankruptcy protection. This left the manufacturer to defend his product.

In the prosecution of the ensuing case, the plaintiff called this author as an expert to attempt to determine exactly what happened. Here are some of the facts:

- * The lift length was sufficient for the bus with the longest wheelbase.
- * The lift's stated capacity was sufficient for the heaviest bus in the fleet.
- * The lift contained ramps and runways for the buses to drive on.
- * The lift included a nameplate stating compliance with the appropriate American National Standard.

However, the lifts did not comply with the applicable American National Standard. The manufacturer claimed compliance where it did not exist. The author discovered a long list of discrepancies, including:

- * Deficient lifting chains, sheaves, and end connections;
- * Dimensional mismatches;
- * Lack of fail-safe provisions; and
- * Inadequate instructional materials.

Compliance with American National Standards is voluntary, unless laws or regulations incorporate them by reference. Responsible manufacturers exercise their best efforts to achieve compliance for all of the reasons stated at the beginning of this article. Unfortunately, there are manufacturers like the one who made these lifts who scoff at compliance issues, and there are others who simply don't understand what standards mean but claim compliance anyway.

Unfortunately, there are manufacturers who scoff at compliance issues. Others simply don't understand what standards mean but claim compliance anyway.

What Should You Do?

1. *Develop comprehensive bid specifications.* If your organization does not have the expertise to prepare such bid specifications, consider contracting with an independent industry expert to help write invitations for bid.

2. *Carefully evaluate the low bidder.* This means determining whether the low bidder is active in its trade association. Talk to the trade association staff. Are the low bidder's facilities adequate for the manufacture of your equipment? Does it have the necessary engineering expertise? Does it have adequate financial responsibility? Does it have product liability insurance? What are the limits? Interview other purchasers of the same or similar equipment. Ask them about experience with the product. If your organization does not have the expertise to evaluate the low bidder, consider contracting with an independent industry expert to help.

3. *Require product conformity certification by an independent third party, such as a qualified testing laboratory.* The Occupational Safety and Health Administration lists its Nationally Recognized Testing Laboratories online at www.osha.gov.

Certification

If the purchase of the automotive lift described above had required that an independent third party certify the product, then the accident probably would not have happened. The Automotive Lift Institute sponsors an ANSI-accredited, independent third-party certification program for automotive service lifts. The program requires verification of product compliance to the American National Standard by an OSHA-accredited Nationally Recognized Testing Laboratory.

If the purchasing agent had known about this program, most likely he could have avoided the tragedy of the loss to the employee and to the school district. (A list of certified automotive service lifts can be found at www.ali-directory.org.) Unfortunately, this certification program applies only to automotive service lifts. Maybe someday, more manufacturer groups will recognize the need for product certification programs. At least, you can feel confident in your purchase of automotive lifts by requiring certified products.

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