

# Storage Systems and Liability

**David A. Tavel**

*AHS Managing Partner*

If one of your racks happens to collapse and injure an employee, who is responsible? Recent litigation in these types of events has been implicating people for faulty engineering and failure to secure permits. Major penalties, ranging from fines that threaten a business's viability to jail time, are very realistic consequences.

Most people will agree that ultimately, nothing is more important than personal safety. So how do you rationalize cutting corners in ensuring the safety of storage racks that have the potential to cause serious harm?

## Taking short cuts

It has become alarmingly common in our industry to yield to the pressures of competitive bidding by shaving time and taking short cuts rather than guaranteeing quality and safety. Many have passively conceded that "a rack is a rack" — that it's a steel structure produced equivalently by any company. However, storage equipment is not just a commodity. While steel is steel however you cut it, so to speak, the application and engineering of that steel in storage systems is critically different among integrators and third-party distributors.

## Accidents happen — but they don't have to

Imagine you're walking through a warehouse among racks storing heavy loads. Are you thinking about the two-ton load resting on the rack above your head that's supported by a structure that was created based on someone's decision to save a buck or just get it built more quickly? **Of course not.** People inherently trust that proper procedures were followed to build and secure the environment they work in. The belief that a rack is a rack goes out the window if the appropriate engineering, permitting, and installation fall short in any way.



If the worst happens, people don't want to hear about the low cost of the racks or the time saved in implementation. The focus of those inquiries becomes engineering, installation, and proper procedures. The ROI someone worked so hard to secure doesn't mean so much anymore. The inevitable legal proceedings may raise the stakes even higher.

Why do we risk these types of incidents? There is a commonly held belief that procuring all the requisite permits before beginning work will add debilitating costs and create significant delays in the schedule. But what are the real implications in terms of time and cost?

## What's the real cost?

While companies are so averse to including any steps that may increase the price of an engagement, the reality is creating a safe storage system is not expensive. The collective cost of project management, engineering, and securing permits is less than 5 percent of the total project. That's \$5,000 on a \$100,000 investment.

But what if you don't take the proper steps and a catastrophic event happens and a permit has not been pulled? You could then face a lawsuit that can mean tens of millions of dollars. What's worse, there may be personal injuries or even a loss of human life. So when you consider the liability you face if something tragic should happen, \$5,000 doesn't seem like much. **You decide what the real costs are.**

## How long does it really take?

The engineering and permitting processes take about two to four weeks to complete before you receive the permits in hand. If you prepare properly on the front end, you may not need to add that much time. "Prelim" calculations are required during the proposal stage; this will expedite the permit approval. But more important than timing, having the right permits at the appropriate time will ensure the integrity and safety of the systems.

## Creating safe and sound environments

We must focus on life safety and the structural element equally as well as the application, selection, and installation.

First, choose the right type of equipment to suit the operation. It's also important to determine how much of the various types of equipment and the load characteristics to be housed in the equipment. Once these selections are made, the focus shifts to implementation. This is when many projects are exposed to issues or complications, often related to price and schedule. In the increasingly competitive bidding environment, these factors often become the key criteria and begin to drive the

decision-making process. If a company chooses to "do it right," they consider these factors, but they become secondary to implementing the best system.

Look at the layout to understand ingress and egress paths and engage the local municipality's fire marshal to understand the requirements. Conduct seismic engineering and structural calculations so permits can be procured according to procedure. This requires approval by a professional structural engineer licensed in the appropriate state. Without this approval, most building departments will not give a permit.

Do these checkpoints require some time and cost? Yes. Should time and cost drive a decision when personal safety and even lives are involved? **Absolutely not.** This will expose you to risks you wouldn't want your balance sheet or your conscience to be subject to.

## Do the job right

It's time to take responsibility. Doing the job the right way the first time protects everyone involved — the safety of the end users working in our warehouses, as well as the stability of the companies that employ them and us, the integrators and distributors. It starts here.

## About David A. Tavel

Tavel brings 26 years of experience in the logistics and material handling industries. The last 21 years have been focused on the design, engineering, justification and implementation of solutions for a vast number of industries. Tavel started his career as a process engineer working for Procter & Gamble.

## Company Description

*AHS is a full-service provider of material handling solutions providing extensive capabilities in all aspects of the project lifecycle, including planning, design, implementation and post-project evaluation. By combining creative design engineering with the ability to select from a variety of equipment manufacturers, AHS is able to help clients streamline distribution processes, improve employee productivity and ultimately increase return on investment.*

*Whether you choose AHS for the entire **FORWARD MOTION** process or just one component, you choose a company that understands your industry. This real-world understanding translates into justified solutions driven by experience and knowledge.*



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