

SMA Prepares Shelving and Work Platform Standards for IBC Adoption

BY MICHAEL SENECA

As the ANSI-accredited developer of shelving systems and work platforms, the Storage Manufacturers Association (SMA) promotes the safe design and use of these crucial infrastructure components across the material handling industry.

To that end, the SMA, led by Chairman Kevin O'Neill of MHI member Steele Solutions and Engineering Committee Chairman Arlin Keck of MHI member Steel King Industries, will complete a canvassing process by summer 2021 for revising SMA's ANSI MH28.2-2018 industrial boltless steel shelving and MH28.3-2018 industrial steel work platform standards.

SMA will then submit the revised standards to the International Code Council for adoption in the 2024 International Building Code (IBC).

For SMA members and industry stakeholders including building inspectors, dedicated IBC standards will differentiate shelving providers from providers of heavier-duty industrial steel storage racks and related structural systems, which are represented within MHI's Rack Manufacturers Institute (RMI), while providing clarity on work platforms as opposed to viewing them as buildings.

And just as RMI's R-Mark has long signified industry compliance with RMI/ANSI standards within the IBC, SMA's 2024 entry into the code will pave the way for the creation of a new S-Mark certification. The new product mark will signal that all standard component testing, calculations and capacities have been reviewed and approved by independent engineers for compliance with SMA specifications.

"RMI members have done a very good job of clearly defining themselves through the building code process so when someone's doing a rack project, everyone understands what it is," said O'Neill, Steele's CEO since 2020.

"But because the shelving and work platform areas have not been as clearly defined, it is more difficult for building inspectors to find clear, accurate information—they have had to rely on similarities to other items in the code," O'Neill said.

"They've tended to look at us as buildings when we're actually equipment in a building," said Terry Young, O'Neill's colleague at Steele and on the Engineering Committee.

And as explained by Engineering Committee member Mark Brooks, director of new product development and special engineering projects at MHI member Wildeck, what this means is an



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important delineation from an inspection standpoint centering on differential environmental loads.

“The current building code doesn’t have anything specific in it for work platforms and mezzanines or even shelving,” Brooks said. “Even though it’s all structural steel and the same general design principles apply, they don’t all see the same forces.”

John Ferrari, senior vice president of engineering at MHI member Konstant and an Engineering Committee member, added that these differences not only

impact the inspection process, but the way workers and the public ultimately interact with the structures.

“In order to keep pace with fast-changing technologies in our industry, especially in light of e-commerce growth, standards must constantly evolve based on research and testing,” Ferrari said.

“And so, as [an Engineering Committee], developing standards that are going to be referenced in our building codes so they’re enforceable by building officials is really the path

to ensuring the overall safety and performance of our structures.”

Ferrari’s comment about changing consumer habits and the rise of e-commerce highlights that there’s never been a better time than right now to see the canvassing and IBC incorporation process through to completion, because as innovation continues to transform warehousing and distribution, the need for definitive industry inflection points in the utilization of these spaces grows.

“Just like everybody else, building officials want to ensure that they’re doing their job properly and protecting the people, and our presence within the IBC will mean one less thing they have to spend time looking up and a clearer path to success for them,” O’Neill said.

“It’s clarification so they know they’ve followed the rules,” Young said.

Paralleling the R-Mark’s role in the racking industry, the coming S-Mark will also bring important benefits to SMA members.

“There’s a credibility that will come with having the S-Mark and knowing that a company has been certified to that standard and that what they’re building is sound,” Brooks said.

Member companies will submit test evidence and load table calculations to SMA, which will then send that data out for independent review.

“A U.S.-licensed engineer will then be able to apply the S-Mark to product that conforms to and that is within the scope of the standards that have been approved by the SMA,” Ferrari said.

First things first, however—ANSI canvassing followed by inclusion within the IBC will mark the moments when the S-Mark can officially begin to take shape. With the able assistance of MHI, O’Neill and his team are pushing forward.

“Recently I drove from my home in Wisconsin down to Florida, and I passed 24 of those Amazon distribution facilities right off the interstate,” O’Neill said. “I tell my family that when a package arrives on our doorstep, wherever it came from, the chances that it crossed at least one of our platforms, probably two or three of them, are pretty good.”

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