Designing for fire and life safety

Fire prevention and life safety are a must in every building. Although architects design buildings within the boundaries of these regulatory requirements, considering fire and life safety codes can be a point of contention in the design process.

As you navigate the wide array of hazard-related codes and regulations—many which have changed to reflect new technologies—you must give them careful consideration early in the design process. Mistakes specifying fire and life safety can dramatically impact design. And at their worst, these mistakes can mean huge costs and lost time—neither of which building owners like to deal with.

Allegion Codes Expert Lori Greene shares three of the most common mistakes made when it comes to specifying for fire and life safety, as well as how these pitfalls can impact the design process.

**Common mistake #1: More than one operation to release latch**
Life safety codes dictate that operable door hardware require only one operation to release the latch—that means only one movement, such as turning a lever or pushing a panic bar. Greene says this can become an issue when there are multiple latches on an opening. One operation must release all latches at once. The one operation for the egress requirement is applicable to the vast majority of doors. Though, as is the case with many codes, there are exceptions.

Learn more: [Do I need panic hardware here?](#)

**Common mistake #2: Not specifying self- or automatic-closing doors**
In addition to latching, fire doors must be self- or automatic-closing. Architects often face questions about which doors have to close, which ones should be closed all the time and which ones should close only when a fire alarm goes off. When door functionality is not done properly, Greene says, human nature often takes over and people start propping doors open to make it more convenient. “When doors are propped open, they essentially become an open window and are unable to stop fire from spreading,” she explains.

Learn more: [Open fire door = insurance won’t pay?](#)

Learn more: [Automatic-closing door application](#)
Common mistake #3: Applying the wrong code section to electrified hardware applications
The requirements for electrified hardware continue to be confusing for many, often resulting in inconsistent application and enforcement. There are seven basic code categories for electrified hardware used to control access or egress:

- Controlled access / Free egress
- Delayed egress
- Controlled egress
- Electromagnetic lock with sensor release
- Electromagnetic lock with door hardware release
- Elevator lobby egress
- Stairwell reentry

Issues arise when it’s unclear which code sections apply to a particular door or application, or when specifiers attempt to apply several different sections to the same opening.

Learn more: Electrified hardware refresher

Sidestepping fire and life safety pitfalls
On top of these common mistakes, Greene says architects also have to take into account any state or local requirements, which can differ from those of the IBC or NFPA 101.

To avoid these pitfalls—and the extra costs that can come with them—she recommends:

- Partnering with a hardware consultant
- Downloading the Allegion Code Reference Guide
- Visiting idighardware.com to access on-demand training and find answers to your code questions

Contact an Allegion spec writer (or call 877-929-4350) today for assistance on your building projects.

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