



COMMENTARY:

Photos courtesy of Walters & Wolf Interiors

Creating a Compliant Culture

How One Company Grew Its Fire Door Assembly Inspection Program One Step at a Time

By Rick Calhoun

What does creating a culture in relationship to an organization's Fire Door Assembly Inspector (FDAI) program look like? We researched some definitions of the word *culture* and found a few that we think fit pretty well.

"A culture is a way of life of a group of people—the behaviors, beliefs, values, and symbols that they accept, generally without thinking about them, and that are passed along by communication and imitation from one generation to the next" (www.merriam-webster.com). Also, "the integrated pattern of human knowledge, belief and behavior that depends upon the capacity for learning and transmitting knowledge to succeeding generations" (www.tamu.edu).

This led us to ask, "How are we going to best obtain that in our organization?" We are a fairly large distributor with more than 150 employees. We have been in business for more than 35 years and are well-established in our area. With that said, we are just a small piece of a much larger organization that performs many scopes of construction work covering five states and requiring more than 1,000 employees in total. Our division furnishes and installs many types of doors, frames and hardware, including glass and glazing.

For the most part, we cover a dense metropolitan area over a 50-mile radius. Our role is that of a distributor, subcontractor and manufacturer of our products. We live in the private sector of the commercial market and are fortunate enough to benefit from having large customers in the thriving high-tech industry. We provide many services, from pre-construction assistance to aftermarket maintenance contracts.

Having experience providing many services allowed us to see the potential that the FDAI program has provided from day one back in 2007, but like others, we have been disappointed with the lack of acceptance and demand for FDAI services that we thought would come much sooner than it has. Consequently, we decided to be proactive, take action, and create a compliant culture along with our own demand.

I would like to share with you our attempt at this. It doesn't matter whether you work for a large company or a small one; our larger size provided advantages but also disadvantages. I am hopeful that our approach can help some of you get started on your own journey, or for those who have already started, will help get you to that next level.

(A) Measuring the undercut of the doors with a gap gauge. This should be coordinated with the general contractor early on, preferably during frame installation, ensuring that the floors are level within the tolerances required.

(B) Checking door swing and the coordination of the door leaves. Using all of the specified hardware products can make this challenging at times.

(C) Checking the tolerances around the door and frame with a gap gauge. This is one of the top 10 deficiencies, even on new construction. There are many fine-tuned adjustments available to a trained installation technician to achieve compliance.

We began by looking within, with the intent to make sure our installations were at the level they needed to be. For us, providing an inspection service was secondary to doing it right ourselves. Only then could we focus on providing inspection services, including repair and replacement of existing noncompliant openings.

We have always considered ourselves leaders of the pack in much of what we do, so we went into this thinking that it would not be a big deal. We soon realized that we had a lot of work to do to be anywhere close to where we want to be—a company that consistently performs NFPA-compliant installations 100 percent of the time.

Considering the strong relationships with our customers that in many cases took decades to develop, the thought of non-compliance because of what we did or did not do was not acceptable. We needed to put together a process.

We had an FDAI on staff early on, but we needed to get the message, along with various levels of knowledge, to our 150 employees. The compliant culture we envisioned was going to take some time and effort. As is often the case, we found that we needed to learn much more than we ever imagined from the start. Our first attempts lacked continuous focus and ownership of processes. When corrections to these were made, we started seeing some real successes by realizing compliant openings on a more regular basis.

UNDERSTANDING WHAT IS INVOLVED. DHI is a great resource and is positioned to provide many types of educational courses, including codes and standards, along with its comprehensive DAI 600 course. But it's not realistic to be able to send every employee to these courses, so we needed to create levels of our own education in-house.

There are manufacturers who can help with providing some related education, although some can be a little too product-biased. There is really no more valuable education than what you can get from being on the job, dealing with the daily challenges, asking questions, and coming up with solutions.

Using all of these resources, we developed a training program in various formats that includes not only basic door, frame and hardware knowledge but also specific fire, life safety and accessibility requirements, as well as the local building code enforced in our area. We always include in our discussions manufacturers' product developments and the sharing of real-world jobsite experiences. This includes shop, field and office personnel. We need to touch everyone, and not just once, but on a continuous basis.

SHARING OUR KNOWLEDGE AND SPREADING THE WORD.

We then saw a need to educate our customers on what we were trying to accomplish: general contractors, architects, end users, building officials, fire marshals, the local DHI chapter, and even the local carpenters' union hall—basically anybody who would listen. We put together different levels of presentation materials depending on the audience, their interest and time constraints. We witnessed all levels

of interest, from the positive and proactive to the real concern of the costs that enforcement would create.

To combat the cost concern, we always end our presentation with the idea of focusing on enforcing the initial installation, putting the ownership on the contractor to provide the owner with a compliant opening from day one. This approach has been well-received. We envision that enforcement will level the playing field with our competitors, many of whom are not even thinking about what I am sharing with you. We expect when that day does arrive, they will struggle and be unprepared to take advantage of the opportunities.

OUR ESTIMATING PROCESS. The estimator is in the front end and needs to understand the questions to ask early in the bid process. In many cases, estimators are dealing with incomplete drawings and details. Some are conceptual in nature, but many get released for construction very quickly, enlisting a design-build process. Knowing rated opening locations, rating levels, positive pressure requirements, smoke and draft control, and the ever-elusive temperature rise locations is essential to a setting up for a successful project. Not to be forgotten are the existing openings that may or may not need to be updated to past or current code requirements.

All of these items not being addressed up front can create a slew of problems for the management team later, including the unwanted "Who's going to pay for it now?" type of

The advertisement for Mailboxes features a woman in a professional suit standing next to a large wall of dark brown mailboxes. The mailboxes are numbered 1 through 24. In the top right corner, there is a logo for Salsbury Industries with the tagline "People Committed to Quality Since 1916". Below the main image, there are two smaller inset photos: one showing a woman in a purple suit standing next to a row of light-colored mailboxes, and another showing a close-up of a mailbox with the number 4104. At the bottom of the ad, there is a call to action: "Call regarding our Dealer Program!" followed by the website "mailboxes.com" and the phone number "1-800-MAILBOX". A large red banner at the very bottom says "Call us for a free quote or catalog! 1-800-624-5269".



The FDAI inspector consults with the field foreman on all labeling requirements for the opening, while the field installer finishes the installation of a fire-rated exit device.

discussion. The group can identify opportunities for future business using fire door compliancy requirements.

OUR PROJECT MANAGEMENT/ENGINEERING PROCESS. It's all in the details, and the project manager and engineer carry the brunt of that responsibility. We need these groups to be aware of not only the compliancy requirements but how manufacturers' compatibilities will affect achieving them.

Having one person in this group as the go-to knowledgeable person is huge for us. We assigned this individual to overlook all fire door openings in submittals, along with answering, engineering and estimating questions and concerns—another set of eyes on those details.

OUR SOFTWARE PROGRAM TOOL. We invested in a computerized software inspection program that we can take mobile to the jobsite. Doing a few by hand would be okay, but doing what we hope will eventually be thousands of openings by hand would be a nightmare.

We then worked on connecting our current door schedule program to this

new outside program to eliminate the over-processing of the transferring of information. Like most IT projects, this will never be completed and will continue to be updated. If you're serious about performing these inspections, I recommend researching a software program to assist you.

OUR SHOP FABRICATION PROCESS.

Shop personnel should have an understanding of issues that could arise based on what they provide, especially if you fabricate and perform shop-installed products as we do. Understanding hardware locations, product labeling requirements, and door and frame preparation dimensions and limitations is essential.

As a licensed shop with labeling capabilities for many different manufacturers, we have volumes of rules and regulations to follow based on each manufacturer's listings and approvals. Do not count this group out of the need to be knowledgeable.

OUR FIELD PREVIEW PROCESS. It is a valuable service to work out problems before the field crew shows up at the

jobsite. Items to be looked at concerning fire door assemblies are rough opening dimensions, plumb and level framing, and level flooring conditions, which in high-rises can be horrible. There should be an understanding between all parties on what action is to be taken when proper conditions are not present. Many specifications require the door subcontractor to not proceed with installations until all conditions are acceptable. Use this terminology to your advantage, for if you proceed, you typically accept the conditions and then have to deal with them.

OUR FIELD INSTALLATION PROCESS.

Our crews need to be aware of installation requirements. After performing the work, we require them to sign off on a fire door opening schedule form that all is compliant before walking off the project. We consider them our last line of defense. If they walk away from a noncompliant opening, we have failed as a company to accomplish what we set out to do. We need them to look not only at the products they are installing separately, but the functionality of all the components together as an assembly.

There is nothing that makes me feel any better about our efforts than to hear of a field installer questioning a code or standard requirement. You know things are starting to click when that happens on a regular basis. Encourage installers' questions, celebrate their successes, and empower them by asking for their minds as well as their hands.

OUR FIELD MONITORING PROCESS.

We need a dedicated presence out in the field to make sure that our crews stay focused. A field monitor works with the installers, prepping for their fire door inspections, making sure they are looking at tolerances, and dealing with field conditions properly. In addition to constantly monitoring, we perform periodic random inspection reports, whether they are paid for or not. This keeps all of our departments in line and on top of their game.

OUR MANUFACTURER VERIFICATION PROCESS. We constantly question our manufacturers and are always asking for proof of their claims in listings and approval documentation. In several cases we have found them inaccurate, and on occasion they had to pull their product temporarily while they had a test done or paperwork corrected.

It is not advisable to assume that everything you read in sales literature or hear from a sales presentation is accurate regarding listings and approvals. Most of the manufacturers we deal with are up to speed, but we lean toward a more cautious approach and require confirmation on all claims. We archive all information we collect for future reference.

OUR RESULTS. As you can see, we have managed to put together many processes to accomplish our goal of compliancy. For us it worked more efficiently to assign individuals to these

processes. That may or may not be the way that works best for you, and that's okay, as every distributor is different. Although it has been at some expense, we believe that it has helped separate us even more from our competitors.

Every day I overhear fire door assembly discussions coming from all of our departments. We are contacted by customers, including AHJs, on a regular basis asking about what can be done with a fire door assembly condition. Our efforts have also created demand for paid inspections on both new and existing installations in our area that would have not been there otherwise.

Like most things that provide real value, this did not come easily. We have much time invested to this point in our FDAI compliancy effort, and to be honest, we are not as far as we would like to be. We're further than most—just not there yet.

OUR CONCLUSION. Our compliancy culture is much like the lean culture we are also developing. A lean journey is another topic worth discussing for those of you looking to make improvements within your organization. Both start at the top but really work from the bottom up. You need to realize that you will never arrive, but if you continuously work at improving, you will be able to look back and see a difference. We will always strive to be a passionate and committed organization, and for our industry's sake, I hope some of you will too.



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