

Training Today's New Jail Staff for Tomorrow's Fire

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We have all heard, "If you fail to plan, then plan to fail," many times in our careers and in different situations. In jails, we write down our emergency plans for smoke and fire situations, we do practical exercises, and then we hope and pray our trained staff members perform as expected.

However, two issues crop up when real emergencies happen.

- Issue 1 — Because of staff turnover, detention facilities often are relying heavily on newly hired and inexperienced detention staff that have very little hands-on experience with emergency plans and equipment. Many have just figured out where the nearest restroom is located, let alone know where fire extinguishers and other emergency equipment are staged. Newly hired staff can either outnumber veterans or comprise the entire assigned staff in some areas of the facility. When trouble happens, their lack of experience is exposed, and the effectiveness of the unit is reduced to the point where failure could cause injury or death.
- Issue 2 — The actual smoke and fire is a shock to the system of any staff member faced with performing assigned duties in such an extreme situation. Many staff, veteran or newly hired, will become disoriented in thick smoke, which limits their ability to locate individuals who need to be rescued or to extinguish the actual flames. Disorientation and delay may cause unnecessary injury, loss of life, or additional damage to the physical plant, including the loss of needed jail beds.

2014 Incident

Unfortunately for the Fulton County Jail (FCJ), on November 29, 2014, at approximately 7:30 p.m., inmates located on a maximum security housing floor started a fire using a mattress. The fire spread quickly through the housing zone. Officers were presented with a dangerous, life-threatening situation and immediately implemented emergency plans. Officers were hampered by thick smoke that filled the 1,350 sq. ft. dayroom. This caused a delay in an effective response, but they were able to evacuate the zone once experienced veteran staff arrived at the unit. Meanwhile, the smoke had begun to take over the other housing zones and seep into the corridor.

In response to the hazardous conditions, officers were tasked with evacuating the entire floor. Two veteran officers entered the smoke-filled zone with zero visibility to conduct a last check to ensure all

inmates were removed from the zone. Using a smoke-cutter flashlight and wearing the Scott Air-Pak, the lieutenant called out while walking through the zone, and inmates responded. The inmates were located, secured, and removed from the smoke-filled zone.

As a result of the officers' quick response, no one was seriously injured. However, the housing zone suffered extensive damage, totaling over \$100,000. There was significant damage to the light fixtures, ceiling, plumbing, and HVAC system. Walls, ceiling, and surfaces were treated for smoke damage as well. Before all was done, the housing unit was out of service for 6 weeks to allow for the needed repairs.

After Action Lessons

The good aspect of an incident of this magnitude is that we can learn valuable lessons to improve our performance and procure the proper equipment before the potentially deadly incident recurs.

We debriefed our staff and received candid responses that caused us concerns in the follow areas:

- Inmate supervision;
- Effective fire alarm response;
- Placement of firefighting equipment; and
- Staff inexperience in operating in a hazardous environment.

The first three points we were able to address by re-training our staff in jail policy and procedures related to the proper supervision of inmates and the location of firefighting equipment. We also tasked our maintenance department to inspect and recalibrate fire alarms to alert sooner in response to smoke. (The nearest smoke alarm was 20 feet up from the source of the smoke.) These points were handled right away and did not require any additional resources to accomplish.

The fourth point, however, presented a challenge. How do you address the lack of experience of some of your staff without endangering them by exposing them to actual hazards? The answer we found comes in the form of interactive media and scenario-based training. This has been done for years in firearms training using use of force simulators such as F.A.T.S. (Fire Arms Training Simulator) or the Ti[®] Training Lab Simulator. In the case of fire response training in the jail, not much was known. We needed to do our homework.

A Simulation Solution

FCJ sat down to conduct an extensive and exhausting search. Just 10 minutes later we had found a possible solution from a company called BullEx[®], a provider of occupational safety technology and training based in Albany, New York. The company develops and manufactures innovative life/safety equipment for firefighting, hazardous materials handling, and other occupational safety situations.

We were specifically interested in the company's fire extinguisher training system. It is designed to let an agency turn any space into a fire extinguisher training room. The equipment set-up includes a fire simulation panel, two laser extinguishers, an iPad controller, a scenario customizer, a student roster generator, and a sturdy carrying case. It is quick and easy to set up as well as break down and doesn't require the use of water.

However, putting out fires was not the only issue we needed to address. We also needed to include the smoke hazard and do it safely. To this point, we examined the company's smoke generator unit. With this machine, we would be able to safely add realistic, non-toxic smoke to the training scenario, replicating a stressful smoke and fire situation.

Fulton County contacted the provider and arranged to have a demonstration of the selected equipment, which was performed by a professional salesperson. We then decided to purchase the fire simulation panel and smoke generator, along with two "smart" dummies (featuring recorded sounds and speech) to begin retraining the staff in a realistic fire and smoke environment.

The system not only puts the tools in the trainees' hands but provides a safe training environment to learn extinguisher tactics, search techniques, recognition of dangerous situations, and wayfinding at a lower cost. We found it to be the perfect classroom trainer that enables trainees to gain critical knowledge of fire behavior and to practice firefighting techniques from a novice level.

The benefits we have gained include:

- Safe training for high-risk situations that otherwise cannot be trained live;
- Reduced training costs;
- Interactive, action-oriented learning for better and quicker learning;
- Portable equipment with short set-up time; and
- Deployable system for standard classrooms at any work site or training academy.

The photo gallery at the end of the article shows the equipment in use.

The Importance of Scenario-Based Training

Fire safety training is essential to every organization. According to the National Fire Protection Association (NFPA), an average of 590 fires in jails is reported each year, and damages to property are estimated at \$2 million per year.

FCJ has established an updated Fire Safety Training program which uniquely and effectively addresses all aspects of fire safety.

The learning goals for the Fire Safety Training program are:

- To identify the classes of fire;

- To identify types of extinguishers;
- To properly use an extinguisher;
- To properly use a breathing apparatus pack; and
- To participate in a fire simulation.

FCJ's updated Fire Safety Training program is a learning and performance experience. It encompasses classroom instruction as well as actual fire simulation demonstrations.

But how do administrators make the necessary classroom training and practical exercise relevant to the entry-level recruits the profession is getting today? One promising technique is Scenario Based Training (SBT). This style of training engages the trainee's five senses and allows each trainee to use their head more than the seat of their pants.

SBT is a training system in which a structured script of the actual operational situation is designed to meet the training objective. In this case, examples of training objectives are working in smoke, finding and extinguishing a fire, and finding and rescuing victims.

The essential points of SBT are:

- System — The concepts of how to respond to smoke and fire are integrated throughout the training.
- Experiences — New and different experiences are important.
- Operational environment — The "real thing" experience integrates classroom training with the simulated hazardous environment so skills can be developed and demonstrated.

SBT teaches the trainee the emergency procedures and tactics in the context of the missions they may experience in the future. It uses scenarios that mimic the kind of real-life responses a detention staff officer is expected to perform.

Our new simulation technology allows us to add to the basic fire scenario by mimicking added factors such as smoke. The more realistic experience allows the trainee to work through the real-life effects of smoke, including:

- Losing orientation and bearings;
- Confusion; and
- Feeling isolated.

A trainee who experiences these adverse conditions in a controlled, training environment learns that it is possible to think, decide, and act in the furtherance of completing the mission. In essence, SBT allows jail administrators to give the newly hired officer an experience level not provided by traditional training methods.

SBT allows the trainee to:

- Identify and analyze new situations that can change within a single mission;
- Develop alternatives and select the alternative most appropriate for the smoke/fire emergency; and
- Evaluate the decision while working the emergency and managing multiple aspects of that emergency.

In the end, SBT makes the training more interesting for your younger, new staff. It also allows your training staff to get creative and make changes to the training mission to keep it refreshed and new each time you conduct your fire response training.

Other Simulation Benefits

It's rewarding to watch students become immersed in simulation exercises. I've witnessed a student jump backward and prepare to flee the scene after a simulated flare up occurred during the simulation. It was that realistic. I've also watched experienced officers become overwhelmed and taxed due to the simulation being elevated—by design—to further develop their skill set. These simulations are as real as you can get without creating the risks of injury and damage to the facility involved when conducting practical and live-burn training.

Staff response has been favorable. Staff members have said the training is realistic and puts them in a situation that is safe but very much like what would happen in an actual fire or smoke emergency. They feel well prepared to handle any situation that may occur in the future.

Training Format, Testing, and Evaluation

It is essential that the staff whom we hire, train, and assign to perform critical duties in our facilities fully understand the procedures they practice and drill.

Classroom Instruction

As with any other training exercise, the personnel in Fire Safety Training receive classroom instruction. Class time includes a pre-test and a presentation, with PowerPoint™ slides and handouts, on types of fire incidents, equipment specifications and usage, equipment maintenance and inspections, and OSHA requirements.

At the end of formal classroom instruction, the instructors demonstrate proper execution of the fire extinguisher using the **PASS** technique –

- P-Pull
- A-Aim
- S-Squeeze
- S-Sweep

The student then gets to explain to the instructor the **PASS** technique.

Time, and Time Again

Once that is successfully completed, the student demonstrates competency by conducting the practical, scenario-based exercise twice with another student, once as the primary rescuer and again as the backup rescuer. This testing ensures that we train our staff to have two rescuers present, each equipped with an extinguisher and ready to assist a down person.

The practical exercise is determined to be successful when the student extinguishes the simulated fire before time expires and the smart dummy is rescued. The instructor selects the testing time, difficulty level, and class of fire in the simulator before the exercise.

The simulation equipment, via the use of an iPad and special app, captures the actual time taken to extinguish the fire (and pass the test). In the event the student does not extinguish the fire within a set time, the app records a failure, and the student must re-test. The student gets to see their time on the simulator screen the moment the simulated fire goes out.

If It Ain't in Writing . . .

The student must also pass a written test. We developed our written test from OSHA material for fire extinguisher training, all of which can be found online. The written test is necessary to properly document your training and to allow the staff receiving this training to demonstrate an acceptable level of cognitive understanding of the material.

The exit test is the same as the pre-test and can be used to determine the size of any gap in job knowledge. I recommend an 80% test score for passage so that staff will focus on instruction, take the training seriously, and retain what they learn.

Looking ahead, all new staff members will have 2 days of fire simulation training. Current staff assigned to the jail will receive the simulation training over the course of the first year. All jail staff will receive refresher training, at a minimum, once per year during their annual in-service training.

A New Tradition?

Although fighting fires is not something corrections staff are known for doing every day, staff members are always striving to develop new ways to perform the many life-saving tasks required during an emergency and to deliver the best professional customer service. Interactive simulation has been utilized at some of the largest academies to teach correctional officers new skills and hone their existing skills. Both are necessary to safely and efficiently perform detention operations.

Although there's a cost to using the latest technology and training aids available, the outcomes are invaluable. Other types of training carry a cost, too. Over time, the costs of simulations are less than the recurring costs to build, operate, and maintain training props and burn buildings. Further, many new laws, standards, and regulations prevent the use of actual hazards for training. This makes practical application of classroom knowledge virtually impossible without a training scenario that includes computer-generated fires.

Since I started working in the Fulton County Jail in 1986, I've seen many things change. Sometimes the changes seemed hard to adapt to or implement at the time; some of the changes were effective, and others weren't. When I was exposed to this Scenario Based Training simulation earlier this year, I immediately saw the benefits in terms of officer and inmate safety. It's for this reason that I believe Scenario Based Training is an overwhelmingly positive change for the detention/correction profession and one that should be here to stay.

For more information, contact Colonel Mark Adger at Mark.Adger@fultoncountyga.gov or 404-613-2065.

Additional Resources

Fulton Government Television. April 17, 2015. *Jail Fire Training*. [Video file, 3:56]. Retrieved from YouTube, Fulton County Sheriff's Office channel, <https://www.youtube.com/watch?v=gK7z2fTrJTQ>

Please look at the following pages for photographs of the Fire Simulation Training

Photo Gallery: Fire Simulation Training

Figure 1. Equipment used in scenario based fire safety training.



Figure 2. Launching the smoke and fire simulation.



Figure 3. Close-up view of the fire simulation panel.



Figure 4. Smoke from simulated fire begins to fill the housing unit.



Figure 5. Simulated smoke obscures visibility in housing unit.



Figure 6. Trainees in breathing apparatus evacuate “inmate” dummy.



Document available at:

http://community.nicic.gov/blogs/national_jail_exchange/archive/2014/03/31/alternatives-to-incarceration-a-snapshot-of-mental-health-jail-diversion-in-johnson-county-iowa.aspx

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