

Figure 8 and 9: Formed Sleeve Door Closer Restrictor installation technique and device.

Advantages to Product or Activity

1. Inexpensive
2. Easy to use
3. Quick to install
4. Requires minimal training

Disadvantages and Possible Unintended Consequences

1. Requires installer to reach to a height (See ADA and NFPA Code References)
2. Can restrict rescue response access
3. Can restrict occupant emergency egress
4. Works only on out-swinging doors
5. Does not possess a means of initiation and providing notification or summoning a distinct active shooter alarm
6. Not compatible with all door closures
7. No means of announcing alarm
8. Requires special knowledge of device and stowed whereabouts

Applicable Codes and Reference Standards

NFPA 101 Life Safety Code 2013 Chapter 7 Section 7.2.1.6.2: Access-Controlled Egress Door Assemblies. Door locks shall be arranged to unlock in the direction of egress from a manual release device complying with all of the following criteria: (a) The manual release device shall be located on the egress side. (3) Door locks shall be arranged to unlock in the direction of egress from a manual release device complying with all of the following criteria:

(a) The manual release device shall be located on the egress side, 40 in. to 48 in. vertically above the floor, and within 60 in. of the secured door openings.

Americans with Disabilities Act 2010 Standards for Accessible Design : Lock Height;

Section 404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground.

OSHA Title 29 CFR 1910.33 Subpart E 1910.36: Design and construction requirements for exit routes (d) An exit door must be unlocked. (1) Employees must be able to open an exit route door from the inside at all times without keys, tools, or special knowledge. A device such as a panic bar that locks only from the outside is permitted on exit discharge doors. (2) Exit route doors must be free of any device or alarm that could restrict emergency use of the exit route if the device or alarm fails. (3) An exit route door may be locked from the inside only in mental, penal, or correctional facilities and then only if supervisory personnel are continuously on duty and the employer has a plan to remove occupants from the facility during an emergency

NFPA 80 Standards for Fire Doors and Other Opening Protectives 2013 Chapter 6 Section 6.4.4: Swinging Doors with Builders Hardware Locks or Latches.6.4.4.1 Only labeled locks and latches or labeled fire exit hardware (panic devices) meeting both life safety requirements and fire protection requirements shall be used.

OSHA Title 29 CFR 1910.33 Subpart E 1910.37 (a)(3): Maintenance, safeguards, and operational features for exit routes: Exit routes must be free and unobstructed. No materials or equipment may be placed, either permanently or temporarily, within the exit route. The exit access must not go through a room that can be locked, such as a bathroom,

to reach an exit or exit discharge, nor may it lead into a dead-end corridor. Stairs or a ramp must be provided where the exit route is not substantially level.

OSHA Title 29 CFR 1910.33 Subpart E 1910.37: (e) An employee alarm system must be operable. Employers must install and maintain an operable employee alarm system that has a distinctive signal to warn employees of fire or other emergencies, unless employees can promptly see or smell a fire or other hazard in time to provide adequate warning to them. The employee alarm system must comply with §1910.165.

Exhibit B: Strap-type Door Closer Restrictor



Figure 10: Strap-type Door Closer Restrictor in installed position around door closer mechanism.



Figure 11: Police officer training a shorter person how to install a belt strap in a similar manner as the above referenced Door Closer Restrictor while standing on a chair wearing sandals.

Advantages to Product or Activity

1. Inexpensive

Disadvantages and Possible Unintended Consequences

1. Requires installer to reach to a height
2. Requires advanced muscle dexterity to choke the strap
3. Can restrict rescue response access
4. Can restrict occupant emergency egress
5. Works only on out-swinging doors
6. Does not possess a means of initiation and providing notification or summoning a distinct active shooter alarm
7. Not compatible with all door closures
8. No means of announcing alarm
9. Requires special knowledge of device and stowed whereabouts

Applicable Codes and Reference Standards

NFPA 101 Life Safety Code 2013 Chapter 7 Section 7.2.1.6.2: Access-Controlled Egress Door Assemblies. Door locks shall be arranged to unlock in the direction of egress from a manual release device complying with all of the following criteria: (a) The manual release device shall be located on the egress side. (3) Door locks shall be arranged to unlock in the direction of egress from a manual release device complying with all of the following criteria: (a) The manual release device shall be located on the egress side, 40 in. to 48 in. vertically above the floor, and within 60 in. of the secured door openings.

Americans with Disabilities Act 2010 Standards for Accessible Design : Lock Height; Section 404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground.

OSHA Title 29 CFR 1910.33 Subpart E 1910.36: Design and construction requirements for exit routes (d) An exit door must be unlocked. (1) Employees must be able to open an exit route door from the inside at all times without keys, tools, or special knowledge. A device such as a panic bar that locks only from the outside is permitted on exit discharge doors. (2)

Exit route doors must be free of any device or alarm that could restrict emergency use of the exit route if the device or alarm fails. (3) An exit route door may be locked from the inside only in mental, penal, or correctional facilities and then only if supervisory personnel are continuously on duty and the employer has a plan to remove occupants from the facility during an emergency

NFPA 80 Standards for Fire Doors and Other Opening Protectives 2013 Chapter 6 Section 6.4.4: Swinging Doors with Builders Hardware Locks or Latches.6.4.4.1 Only labeled locks and latches or labeled fire exit hardware (panic devices) meeting both life safety requirements and fire protection requirements shall be used.

OSHA Title 29 CFR 1910.33 Subpart E 1910.37 (a)(3): Maintenance, safeguards, and operational features for exit routes: Exit routes must be free and unobstructed. No materials or equipment may be placed, either permanently or temporarily, within the exit route. The exit access must not go through a room that can be locked, such as a bathroom, to reach an exit or exit discharge, nor may it lead into a dead-end corridor. Stairs or a ramp must be provided where the exit route is not substantially level.

OSHA Title 29 CFR 1910.33 Subpart E 1910.37: (e) An employee alarm system must be operable. Employers must install and maintain an operable employee alarm system that has a distinctive signal to warn employees of fire or other emergencies, unless employees can promptly see or smell a fire or other hazard in time to provide adequate warning to them. The employee alarm system must comply with §1910.165.

Exhibit C: Crank-type Door Closer Restrictor by Bilco Corporation



Figure 12: Crank-type Door Closer Restrictor by Bilco Corporation in installed position.



Figure 13: Instructor demonstrating the proper setting at which to set the device referred to as “The Barracuda” manufactured through the Bilco Corporation.

Advantages to Product or Activity

1. Inexpensive

Disadvantages and Possible Unintended Consequences

1. Requires installer to reach to a height using ladder or working platform (chairs would be unacceptable by OSHA standards.
2. Requires advanced muscle dexterity to crank device
3. Requires the increasing the installers working surface to crank device (i.e. ladder, chair)
4. Can restrict rescue response access
5. Can restrict occupant emergency egress
6. Works only on out-swinging doors
7. Does not possess a means of initiation and providing notification or summoning a distinct active shooter alarm
8. Not compatible with all door closures
9. No means of announcing alarm
10. Requires special knowledge of device and stowed whereabouts

Applicable Codes and Reference Standards

OSHA Title 29 CFR 1910.33 Subpart E 1910.29 Subpart D: Manually propelled mobile ladder stands and scaffolds (towers) (a) General requirements. (i) Work platforms and scaffolds shall be capable of carrying the design load under varying circumstances depending upon

the conditions of use. (e) Mobile work platforms. (1) Design. Units shall be designed for the use intended and shall comply with the requirements of stands, ladders and scaffolds.

NFPA 101 Life Safety Code 2013 Chapter 7 Section 7.2.1.6.2: Access-Controlled Egress Door Assemblies. Door locks shall be arranged to unlock in the direction of egress from a manual release device complying with all of the following criteria: (a) The manual release device shall be located on the egress side. (3) Door locks shall be arranged to unlock in the direction of egress from a manual release device complying with all of the following criteria: (a) The manual release device shall be located on the egress side, 40 in. to 48 in. vertically above the floor, and within 60 in. of the secured door openings.

Americans with Disabilities Act 2010 Standards for Accessible Design : Lock Height; Section 404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground.

OSHA Title 29 CFR 1910.33 Subpart E 1910.36: Design and construction requirements for exit routes (d) An exit door must be unlocked. (1) Employees must be able to open an exit route door from the inside at all times without keys, tools, or special knowledge. A device such as a panic bar that locks only from the outside is permitted on exit discharge doors. (2) Exit route doors must be free of any device or alarm that could restrict emergency use of the exit route if the device or alarm fails. (3) An exit route door may be locked from the inside only in mental, penal, or correctional facilities and then only if supervisory personnel are continuously on duty and the employer has a plan to remove occupants from the facility during an emergency

NFPA 80 Standards for Fire Doors and Other Opening Protectives 2013 Chapter 6 Section 6.4.4: Swinging Doors with Builders Hardware Locks or Latches.6.4.4.1 Only labeled locks

and latches or labeled fire exit hardware (panic devices) meeting both life safety requirements and fire protection requirements shall be used.

OSHA Title 29 CFR 1910.33 Subpart E 1910.37 (a)(3): Maintenance, safeguards, and operational features for exit routes: Exit routes must be free and unobstructed. No materials or equipment may be placed, either permanently or temporarily, within the exit route. The exit access must not go through a room that can be locked, such as a bathroom, to reach an exit or exit discharge, nor may it lead into a dead-end corridor. Stairs or a ramp must be provided where the exit route is not substantially level.

OSHA Title 29 CFR 1910.33 Subpart E 1910.37: (e) An employee alarm system must be operable. Employers must install and maintain an operable employee alarm system that has a distinctive signal to warn employees of fire or other emergencies, unless employees can promptly see or smell a fire or other hazard in time to provide adequate warning to them. The employee alarm system must comply with §1910.165.

Exhibit D: The Barracuda Intruder Defense System by Bilco Corporation



Figure 14: Another device referred as “The Barracuda” manufactured through the Bilco Corporation in the installed position across a door holding the door knob to the door (left) and the device being engaged or disengaged (right).

Advantages to Product or Activity

1. Sturdy
2. Lightweight
3. Installs in a matter of ten seconds (Manufacturer's claim with installer training)
4. Free-standing and can be easily transferred to another access point if of the same model design.
5. No maintenance or installation costs required
6. Less expensive than locksets
7. More secure than small, inexpensive devices

Disadvantages and Possible Unintended Consequences

1. Bulking and awkward to handle by novice
2. Must be stowed in a readily accessible place in room
3. Requires advanced muscle dexterity to install (Non-ADA compliant)
4. Can restrict rescue response access
5. Different models for different door swings (i.e. inward and outward swinging door models)
6. Only designed for use on 36" wide commercial doors (Doors can be as narrow as 32 inches)
7. Training required for proper use and installation
8. Can restrict occupant emergency egress if trained installer is impaired or otherwise unable to disassemble device.
9. Does not possess a means of initiation and providing notification or summoning a distinct active shooter alarm
10. No means of announcing alarm
11. Requires special knowledge of device and stowed whereabouts

Applicable Codes and Reference Standards

Americans with Disabilities Act 2010 Standards for Accessible Design Chapter 3 Section

309 Operable Parts: Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum.

Americans with Disabilities Act 2010 Standards for Accessible Design Chapter 4 Section 404.2.7: Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. (See Above)

Americans with Disabilities Act 2010 Standards for Accessible Design Chapter 4 Section 404.2.9 Door and Gate Opening Force. Fire doors shall have a minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open a door or gate other than fire doors shall be as follows: 1. Interior hinged doors and gates: 5 pounds (22.2 N) maximum. 2. Sliding or folding doors: 5 pounds (22.2 N) maximum. Note: These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position.

Americans with Disabilities Act 2010 Standards for Accessible Design Chapter 4 Advisory to Section 404.2.7: Door and Gate Hardware. Door hardware that can be operated with a closed fist or a loose grip accommodates the greatest range of users. Hardware that requires simultaneous hand and finger movements require greater dexterity and coordination, and is not recommended.

OSHA Title 29 CFR 1910.33 Subpart E 1910.36: Design and construction requirements for exit routes (d) An exit door must be unlocked. (1) Employees must be able to open an exit route door from the inside at all times without keys, tools, or special knowledge. A device such as a panic bar that locks only from the outside is permitted on exit discharge doors. (2) Exit route doors must be free of any device or alarm that could restrict emergency use of the exit route if the device or alarm fails. (3) An exit route door may be locked from the inside only in mental, penal, or correctional facilities and then only if supervisory personnel are continuously on duty and the employer has a plan to remove occupants from the facility during an emergency

OSHA Title 29 CFR 1910.33 Subpart E 1910.37 (a)(3): Maintenance, safeguards, and operational features for exit routes: Exit routes must be free and unobstructed. No materials or equipment may be placed, either permanently or temporarily, within the exit route. The exit access must not go through a room that can be locked, such as a bathroom, to reach an exit or exit discharge, nor may it lead into a dead-end corridor. Stairs or a ramp must be provided where the exit route is not substantially level.

NFPA 80 Standards for Fire Doors and Other Opening Protectives 2013 Chapter 6 Section 6.4.4: Swinging Doors with Builders Hardware Locks or Latches.6.4.4.1 Only labeled locks and latches or labeled fire exit hardware (panic devices) meeting both life safety requirements and fire protection requirements shall be used.

OSHA Title 29 CFR 1910.33 Subpart E 1910.37: (e) An employee alarm system must be operable. Employers must install and maintain an operable employee alarm system that has a distinctive signal to warn employees of fire or other emergencies, unless employees can promptly see or smell a fire or other hazard in time to provide adequate warning to them. The employee alarm system must comply with §1910.165.

Exhibit E: Floor Deployed “Barracuda” Intruder Defense System by Bilco Corporation



Figure 15: Another device manufactured through the Bilco Corporation that restricts the movement of a door by locking the door through a clamping device back to the door's buck, viewed here in the installed position from both the swing-side of the door and the away-swing-side of the door.

Advantages to Product or Activity

1. Sturdy
2. Lightweight
3. Installs in a matter of ten seconds (Manufacturer's claim with installer training)
4. Free-standing and can be easily transferred to another access point if of the same model design.
5. No maintenance or installation costs required
6. Less expensive than locksets
7. More secure than small, inexpensive devices

Disadvantages and Possible Unintended Consequences

1. Bulking and awkward to handle by novice
2. Becomes a tripping hazard across threshold
3. Make threshold inaccessible to wheelchair-bound occupant
4. Must be stowed in a readily accessible place in room
5. Requires advanced muscle dexterity to install (Non-ADA compliant)
6. Can restrict rescue response access
7. Different models for different door swings (i.e. inward and outward swinging door models)
8. Only designed for use on 36" wide commercial doors (Doors can be as narrow as 32 inches)
9. Training required for proper use and installation
10. Can restrict occupant emergency egress if trained installer is impaired or otherwise unable to disassemble device.
11. Does not possess a means of initiation and providing notification or summoning a distinct active shooter alarm
12. No means of announcing alarm
13. Requires crouching and kneeling to install

Applicable Codes and Reference Standards

Americans with Disabilities Act 2010 Standards for Accessible Design Chapter 3 Section 309 Operable Parts: Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum.

Americans with Disabilities Act 2010 Standards for Accessible Design Chapter 4 Section 404.2.7: Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. (See Above)

Americans with Disabilities Act 2010 Standards for Accessible Design Chapter 4 Section 404.2.5 Thresholds: Thresholds, if provided at doorways, shall be 1/2 inch (13 mm) high maximum. Raised thresholds and changes in level at doorways shall comply with 302 and 303. EXCEPTION: Existing or altered thresholds 3/4 inch (19 mm) high maximum that have a beveled edge on each side with a slope not steeper than 1:2 shall not be required to comply with 404.2.5.

OSHA Title 29 CFR 1910.33 Subpart E 1910.36: Design and construction requirements for exit routes (d) An exit door must be unlocked. (1) Employees must be able to open an exit route door from the inside at all times without keys, tools, or special knowledge. A device such as a panic bar that locks only from the outside is permitted on exit discharge doors. (2) Exit route doors must be free of any device or alarm that could restrict emergency use of the exit route if the device or alarm fails.

OSHA Title 29 CFR 1910.33 Subpart E 1910.37 (a)(3): Maintenance, safeguards, and operational features for exit routes: Exit routes must be free and unobstructed. No materials or equipment may be placed, either permanently or temporarily, within the exit route. The exit access must not go through a room that can be locked, such as a bathroom, to reach an exit or exit discharge, nor may it lead into a dead-end corridor. Stairs or a ramp must be provided where the exit route is not substantially level.

NFPA 80 Standards for Fire Doors and Other Opening Protectives 2013 Chapter 6 Section

6.4.4: Swinging Doors with Builders Hardware Locks or Latches.6.4.4.1 Only labeled locks and latches or labeled fire exit hardware (panic devices) meeting both life safety requirements and fire protection requirements shall be used.

OSHA Title 29 CFR 1910.33 Subpart E 1910.37: (e) An employee alarm system must be operable. Employers must install and maintain an operable employee alarm system that has a distinctive signal to warn employees of fire or other emergencies, unless employees can promptly see or smell a fire or other hazard in time to provide adequate warning to them. The employee alarm system must comply with §1910.165.

Exhibit F: Response Activity: Locking Doors



Figure 16: Doors locked in various manners.

Advantages to Product or Activity

1. Sturdy
2. Installs Quickly if locks are available
3. No maintenance or installation costs required
4. Less expensive than locksets or other devices

Disadvantages and Possible Unintended Consequences

1. Must be stowed in a readily accessible place in room
2. Requires advanced muscle dexterity to install (Non-ADA compliant)
3. Can restrict rescue response access
4. Can restrict occupant emergency egress if trained installer is impaired or otherwise unable to disassemble device.
5. Does not possess a means of initiation and providing notification or summoning a distinct active shooter alarm
6. No means of announcing alarm

Applicable Codes and Reference Standards

Americans with Disabilities Act 2010 Standards for Accessible Design Chapter 3 Section 309 Operable Parts: Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum.

Americans with Disabilities Act 2010 Standards for Accessible Design Chapter 4 Section 404.2.7: Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. (See Above)

Americans with Disabilities Act 2010 Standards for Accessible Design Chapter 4 Section 404.2.5 Thresholds: Thresholds, if provided at doorways, shall be 1/2 inch (13 mm) high maximum. Raised thresholds and changes in level at doorways shall comply with 302 and 303. EXCEPTION: Existing or altered thresholds 3/4 inch (19 mm) high maximum that have a beveled edge on each side with a slope not steeper than 1:2 shall not be required to comply with 404.2.5.

OSHA Title 29 CFR 1910.33 Subpart E 1910.36: Design and construction requirements for exit routes (d) An exit door must be unlocked. (1) Employees must be able to open an exit route door from the inside at all times without keys, tools, or special knowledge. A device such as a panic bar that locks only from the outside is permitted on exit discharge doors. (2) Exit route doors must be free of any device or alarm that could restrict emergency use of the exit route if the device or alarm fails. (3) An exit route door may be locked from the inside only in mental, penal, or correctional facilities and then only if supervisory personnel are continuously on duty and the employer has a plan to remove occupants from the facility during an emergency.

OSHA Title 29 CFR 1910.33 Subpart E 1910.37 (a)(3): Maintenance, safeguards, and operational features for exit routes: Exit routes must be free and unobstructed. No materials or equipment may be placed, either permanently or temporarily, within the exit route. The exit access must not go through a room that can be locked, such as a bathroom, to reach an exit or exit discharge, nor may it lead into a dead-end corridor. Stairs or a ramp must be provided where the exit route is not substantially level.

OSHA Title 29 CFR 1910.33 Subpart E 1910.37: (e) An employee alarm system must be operable. Employers must install and maintain an operable employee alarm system that has a distinctive signal to warn employees of fire or other emergencies, unless employees can promptly see or smell a fire or other hazard in time to provide adequate warning to them. The employee alarm system must comply with §1910.165.

Exhibit G: Bullet-resistant Kevlar Blanket



Figure 17: Another dekfjdkfdlfdjflkdjldjfld door.

Advantages to Product or Activity

1. Colorful and obvious to wound be
2. Protective if projectile is fired upon surface

Disadvantages and Possible Unintended Consequences

1. Not protective from projectile to open sides and frontal impact
2. Not protective from projectile ricochet
3. Cumbersome to wear
4. Must be stowed in a readily accessible place in room
5. Requires training on how to crouch
6. Kevlar weaves can loosen over time requiring replacement (bullet resistant vests require swapping every five years due to loosening from wear)
7. Does not possess a means of initiation and providing notification or summoning a distinct active shooter alarm

8. No means of announcing alarm

Applicable Codes and Reference Standards

No Applicable Code

Exhibit H: Response Activity: Locking Doors

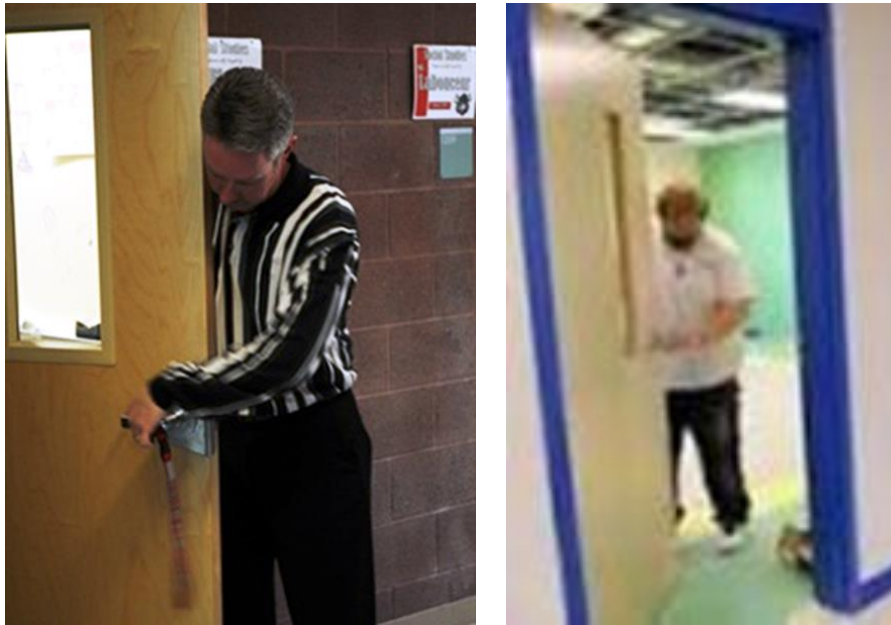


Figure 18: Another dekfjdkfdljfdjflkdjldjfld door.

Advantages to Product or Activity

1. Simple to do
2. Requires no special equipment
3. Inexpensive procedure

Disadvantages and Possible Unintended Consequences

1. Exposes attendant to the active shooter side of the door
2. Handicapped teachers/attendants cannot easily perform this task
3. Requires time consuming training and drills
4. Can trap occupants outside of refuge area at risk of reopening the door and exposing attendant.
5. Does not possess a means of initiation and providing notification or summoning a distinct active shooter alarm
6. No means of announcing alarm

Applicable Codes and Reference Standards

OSHA General Duty Clause Federal Law OSH Act of 1970: Each employer shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees.

Exhibit I: Response Activity: Hiding

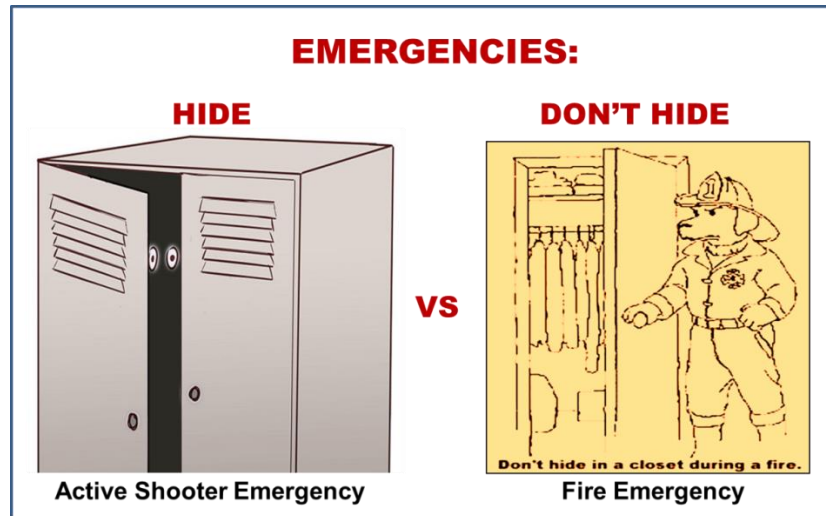


Figure 18: Another dekfjdkfdljfldjflkdjldjfld door.

Advantages to Product or Activity

1. Simple to do
2. Active Shooter not likely to search for would-be victims in hiding places
3. Requires no special training
4. Inexpensive procedure

Disadvantages and Possible Unintended Consequences

1. Exposes occupants to the active shooter
2. Requires time consuming training and drills
3. Can be confusing to smaller children who may hide in a fire emergency which can prohibit firefighter rescue.
4. Does not possess a means of initiation and providing notification or summoning a distinct active shooter alarm
5. No means of announcing alarm

Applicable Codes and Reference Standards

Center for Disease Control and Prevention: Fire/Burns from "The five leading causes and number of unintentional injury deaths among children, by age group, United States, 2009":
Statistics: 88 Children Ages 5 to 9 years old, 169 Children Ages 1 to 4 years old, 53 Children Ages 10 to 14 years old, 169 Children Ages 1 to 4 years old

Exhibit J: Response Activity: Piling Furniture Against the Door





Figure 19: Another dekjfdkfdljfdjfldjldjfld door.

Advantages to Product or Activity

1. Inexpensive
2. No special training required

Disadvantages and Possible Unintended Consequences

1. Time consuming
2. Required physical capability
3. Only works on doors that swing into area of refuge
4. Can restrict rescue response access by blocking door
5. Can restrict occupant emergency egress
6. Impedes occupants access of stranded occupants in building who are outside of a refuge area or room.
7. Does not possess a means of initiation and providing notification or summoning a distinct active shooter alarm
8. No means of announcing alarm
9. Requires special knowledge of device and stowed whereabouts

Applicable Codes and Reference Standards

NFPA 101 Life Safety Code 2013 Chapter 7 Section 7.2.1.6.2: Access-Controlled Egress Door Assemblies. Door locks shall be arranged to unlock in the direction of egress from a

manual release device complying with all of the following criteria: (a) The manual release device shall be located on the egress side. (3) Door locks shall be arranged to unlock in the direction of egress from a manual release device complying with all of the following criteria: (a) The manual release device shall be located on the egress side, 40 in. to 48 in. vertically above the floor, and within 60 in. of the secured door openings.

Americans with Disabilities Act 2010 Standards for Accessible Design Title 28 Part 35

Section 35.151: New construction and alterations. (4) Path of travel. An alteration that affects or could affect the usability of or access to an area of a facility that contains a primary function shall be made so as to ensure that, to the maximum extent feasible, the path of travel to the altered area and the restrooms, telephones, and drinking fountains serving the altered area are readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, unless the cost and scope of such alterations is disproportionate to the cost of the overall alteration.

OSHA Title 29 CFR 1910.33 Subpart E 1910.36: Design and construction requirements for exit routes (d) An exit door must be unlocked. (1) Employees must be able to open an exit route door from the inside at all times without keys, tools, or special knowledge. A device such as a panic bar that locks only from the outside is permitted on exit discharge doors. (2) Exit route doors must be free of any device or alarm that could restrict emergency use of the exit route if the device or alarm fails. (3) An exit route door may be locked from the inside only in mental, penal, or correctional facilities and then only if supervisory personnel are continuously on duty and the employer has a plan to remove occupants from the facility during an emergency

OSHA Title 29 CFR 1910.33 Subpart E 1910.37 (a)(3): Maintenance, safeguards, and operational features for exit routes: Exit routes must be free and unobstructed. No materials or equipment may be placed, either permanently or temporarily, within the exit route. The exit access must not go through a room that can be locked, such as a bathroom,

to reach an exit or exit discharge, nor may it lead into a dead-end corridor. Stairs or a ramp must be provided where the exit route is not substantially level.

OSHA Title 29 CFR 1910.33 Subpart E 1910.37: (e) An employee alarm system must be operable. Employers must install and maintain an operable employee alarm system that has a distinctive signal to warn employees of fire or other emergencies, unless employees can promptly see or smell a fire or other hazard in time to provide adequate warning to them. The employee alarm system must comply with §1910.165.

Exhibit K: Response Product: Electric Magnetic Door Locks

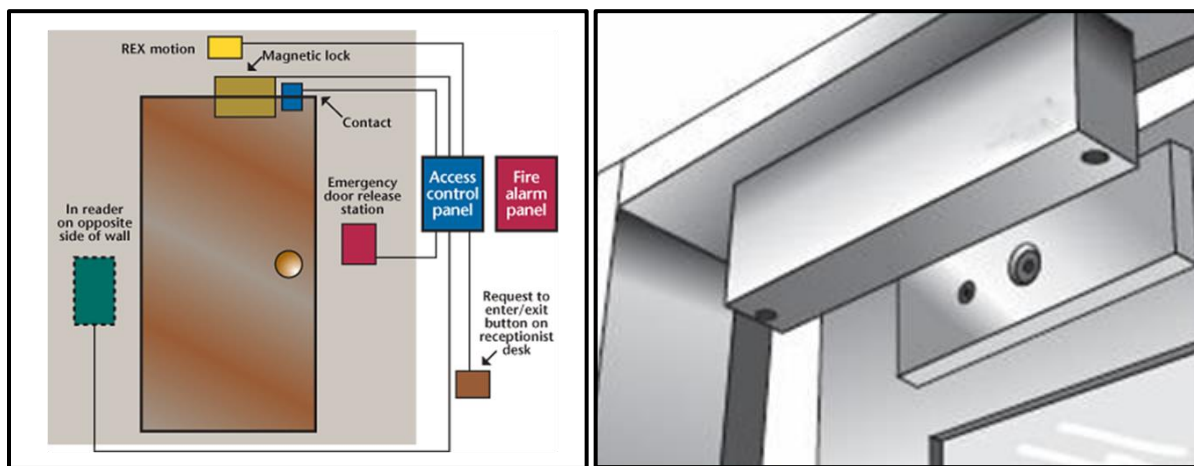


Figure 20: Another dekfjdkfdljfdjflkdjldjfld door.

Advantages to Product or Activity

1. Sturdy
2. Reliable
3. Remotely Controlled

Disadvantages and Possible Unintended Consequences

1. Has failsafe that will open with electrical power outages
2. Has failsafe upon activation of fire alarm system
3. Has failsafe upon activation of fire suppression systems
4. When remote lockdown occurs, occupants can be trapped outside area of refuge
5. Can restrict rescue response access
6. Can restrict occupant emergency egress if trained installer is impaired or otherwise unable to disassemble device.
7. Does not possess a means of initiation and providing notification or summoning a distinct active shooter alarm
8. No means of announcing alarm at field locations of intruder detection

Applicable Codes and Reference Standards

OSHA Title 29 CFR 1910.33 Subpart E 1910.36: Design and construction requirements for exit routes (d) An exit door must be unlocked. (1) Employees must be able to open an exit route door from the inside at all times without keys, tools, or special knowledge. A device such as a panic bar that locks only from the outside is permitted on exit discharge doors. (2) Exit route doors must be free of any device or alarm that could restrict emergency use of the exit route if the device or alarm fails.

NFPA 80 Standards for Fire Doors and Other Opening Protectives 2013 Chapter 6 Section 6.4.4: Swinging (3) An exit route door may be locked from the inside only in mental, penal, or correctional facilities and then only if supervisory personnel are continuously on duty and the employer has a plan to remove occupants from the facility during an emergency.

NFPA 80 Standards for Fire Doors and Other Opening Protectives 2013 Chapter 3 Section 3.39 Door Holder/Release Devices. A labeled, fail-safe device, controlled by a detection device, must be used on an automatic-closing door to release the door at the time of fire.

NFPA 80 Standards for Fire Doors and Other Opening Protectives 2013 Chapter 6 Section 6.4.4: Swinging 6.4.4.3.1 Latching arrangements that do not provide positive latching in the normal mode shall be permitted to be used provided that, in a fire emergency, the door becomes positively latched by means of an automatic fail-safe device that is activated by an automatic fire detector.

Exhibit L: A.L.I.C.E Counter Attack by Throwing Food Cans and Books at armed assailant.

Note: ALICE Training Institute is used by more than 1500 School Districts in the U.S. according to CNN.



Figure 21: Another dekjfdkfdljdjfldjldjfld door.

Advantages to Product or Activity

4. Builds confidence
5. Can distract assailant when seconds count

Disadvantages and Possible Unintended Consequences

9. Encourages an actual false-sense of confidence opposing an armed assailant without a weapon.
10. Puts employees in direct line of fire
11. May lead to more casualties