



NATIONAL FIRE PROTECTION ASSOCIATION

The leading information and knowledge resource on fire, electrical and related hazards

AGENDA

NFPA Technical Committee on Premises Security (PMM-AAA) NFPA 730 & 731 First Draft Meeting (F2025)

May 23, 2024
10:00 a.m. – 6:00 p.m. (EDT)

Web/Teleconference

To join the meeting, please contact jdepew@nfpa.org

1. **Call to order.** Bill Wayman.
2. **Introductions.** See committee roster attached.
3. **Chair report.** Bill Wayman.
4. **Staff liaison report.** Patrick Bakaj.
5. **Previous meeting minutes.** April 13, 2021, Web Meeting/Teleconference. See attached.
6. **NFPA 731 First Draft.**
 - a. **Public Inputs.** See attached.
7. **NFPA 730 First Draft.**
 - a. **Public Inputs.** See attached.
8. **Other Business.**
9. **Future meetings.**
10. **Adjournment.**

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Premises Security

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George Bish Principal Amazon/Ring Protect Inc. 33 Mary Circle Concord, NC 28025	M 07/29/2005 PMM-AAA	Louis Chavez Principal UL LLC 333 Pfingsten Road Northbrook, IL 60062-2096 Alternate: Bruce E. Johnson	RT 4/5/2001 PMM-AAA
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David A. Dagenais Principal Partners/Wentworth-Douglass Hospital 789 Central Avenue Dover, NH 03820 NFPA Health Care Section	U 3/21/2006 PMM-AAA	Dennis R Elledge Principal De/SL LLC DBA CompSecure 929 Fee Fee Road Suite 101 Saint Louis, MO 63043	SE 04/02/2020 PMM-AAA
Lauris V. Freidenfelds Principal Telgian Engineering & Consulting 1020 N Milwaukee Avenue Suite 365 Deerfield, IL 60015	SE 04/12/2022 PMM-AAA	Peter M. Goldring Principal Goldring Protection 131 Lions Court Freehold, NJ 07728	IM 03/20/2023 PMM-AAA
Matthew Jakusz Principal ADT LLC 1501 Yamato Road Boca Raton, FL 33431	M 04/03/2019 PMM-AAA	Charles B. King, III Principal US Department of Homeland Security Transportation Security Administration 601 South 12th Street TSA-28, 10th Floor Arlington, VA 22202	E 10/27/2005 PMM-AAA

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Patrick Bakaj	1/20/2023		
Staff Liaison National Fire Protection Association 1 Batterymarch Park Quincy, MA 02169-7471	PMM-AAA		



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Technical Committee on Premises Security

NFPA 730/731

First Draft Meeting Minutes

NFPA TEAMS Virtual Meeting

April 13, 2021

Jim Simpson-Chair

- A. **4.13.21** TC meeting called to order by Chair Jim Simpson at 10:01 AM EST
- B. Introductions of all present: voting members plus Chair and Staff; there were alternates and guests
- C. Sign in sheets managed by NFPA Staff, see attached roster of attendees
- D. Agenda was reviewed and Approved
- E. Meeting minutes of March 28, 2019 in Quincy, MA were reviewed and Approved
- F. NFPA Staff (R. Roux) provided a presentation on the NFPA process
- G. Chair Jim Simpson gave a report on the status of the industry, and the vision for NFPA 731 and NFPA 730
- H. Number of PI's,
 - a. **731** 26 PI's processed
 - b. **730** 08 PI's processed
- I. Break for lunch at 1:30 PM EST
- J. Meeting resumed at 2:02 PM EST
- K. All Task Groups reported and closed, and two Active Task Groups are formed
- L. Old Business
- M. New Business

Scott Lord made a motion to create a CI to move NFPA 730 into NFPA 731 and eventually discontinue NFPA 730. After clarification, the TC voted on the motion with the committee vote resulting in a tie vote (with some abstaining). Chairman Jim Simpson voted No on the motion which resulted in a failed motion to keep both NFPA 730 and 731 and not create the CI that would start the process that

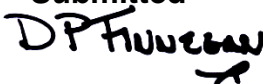
Scott Lord suggested. Scott was advised to submit a letter to the TC Chair and the Staff Liaison if he feels strongly that NFPA 730 should be discontinued/retired/withdrawn.

N. Next Meeting timeframe was discussed in general, target for 2nd Draft Meeting is about April 2022

O. Meeting concluded and ended at 6:22 PM EST

The following task groups are for record only.

Task Group Scope	Chair	Members
NFPA 731- Review Section 6.4 and PI 17, submit Public Comments with suggested code changes	Dan Finnegan	Lou Chavez Scott Lord Doug Bassett (ESA) Joe Gittens
NFPA 731 Chapter 9 Revision (within the scope of NFPA 731 PIs)	Shane Clary	Lou Chavez Stephen Coppola George Bish Tony Mucci Doug Bassett (ESA)

Submitted


Daniel P Finnegan

Secretary NFPA 730/731

Attendance:

Simpson, James	Chair	International Brotherhood of Electrical Workers
Finnegan, Daniel	Secretary	Siemens Smart Infrastructure
Atlas, Randall	Principal	Atlas Safety & Security Design, Inc.
Bassett, Douglas	Principal	Electronic Security Association
Bish, George	Principal	Amazon/Ring Protect Inc.
Bowman, Joshua	Principal	Qumulex
Chavez, Louis	Principal	UL LLC
Coppola, Stephen	Principal	The Monitoring Association
Dagenais, David	Principal	NFPA Health Care Section
Gittens, Joe	Principal	Security Industry Association
Jakusz, Matthew	Principal	Iverify
Lord, Scott	Principal	Partner Alliance for Safer Schools
Mucci, Anthony	Principal	Johnson Controls
Murphy, James	Principal	Vector Security Inc.
Roberts, Richard	Principal	National Electrical Manufacturers Association
Tierney, Michael	Principal	Builders Hardware Manufacturers Association

Clary, Shane	Alternate	The Monitoring Association
Farus, Mark	Alternate	Siemens Industry, Inc.
Johnson, Bruce	Alternate	UL LLC
Sheets, Rick	Alternate	Electronic Security Association
Wenck, James	Alternate	GHD
Roux, Richard	Staff Liaison	National Fire Protection Association

GUESTS:

Dave Dressler
Riley Fields
Mike Slossar



Public Input No. 1-NFPA 731-2023 [Section No. 2.3.3]

2.3.3 UL Publications.

Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

UL 50, *Enclosures for Electrical Equipment, Non-Environmental Considerations*, 2015, revised 2020.

UL 50E, *Enclosures for Electrical Equipment, Environmental Considerations*, 2020.

UL 294, *Access Control System Units*, ~~2018~~ 2023.

UL 606, *Linings and Screens for Use with Burglar-Alarm Systems*, 1999, revised 2006.

UL 634, *Connectors and Switches for Use with Burglar-Alarm Systems*, 2007, revised ~~2020~~ 2022.

UL 636, *Holdup Alarm Units and Systems*, ~~2013~~ 2018.

UL 639, *Safety for Intrusion-Detection Units*, 2007, revised 2019.

UL 827, *Central-Station Alarm Services*, ~~2014~~ 2022, revised ~~2020~~ 2023.

UL 1076, *Proprietary Burglar Alarm Units and Systems*, 2018.

UL 2044, *Commercial Closed-Circuit Television Equipment*, - ~~2008~~, revised ~~2019~~ 2019.

UL 2610, *Commercial Premises Security Alarm Units and Systems*, 2018, revised 2020.

UL 2802, *Performance Testing of Camera Image Quality*, ~~2013~~ 2021, revised ~~2019~~ 2023.

UL 2900-2-3, *Software Cybersecurity for Network-Connectable Products, Part 2-3: Particular Requirements for Security and Life Safety Signaling Systems*, ~~2020~~ 2023.

UL 60065, *Audio, Video and Similar Electronic Apparatus*, 2015, revised 2020.

UL 60950-1, *Information Technology Equipment*, 2007, revised 2019.

UL 60950-22, *Information Technology Equipment — Equipment to Be Installed Outdoors*, 2017.

UL 62368-1, *Audio/Video, Information and Communication Technology Equipment*, ~~2019~~ 2021.

Statement of Problem and Substantiation for Public Input

Update the standards to the most current publication dates.

Submitter Information Verification

Submitter Full Name: Kelly Nicoletto

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Submittal Date: Fri Dec 29 13:34:53 EST 2023

Committee: PMM-AAA



Public Input No. 4-NFPA 731-2023 [Section No. 4.4.1]

4.4.1 Power Supplies.

4.4.1.1

Power supplies shall be installed in conformity with the requirements of *NFPA 70*.

4.4.1.2

Power supplies shall be reliable and have the capacity to service the intended load.

4.4.1.3*

At least two independent power supplies shall be required, one primary and one secondary, for the following premises security systems:

- (1) Intrusion detection systems
- (2) Holdup, duress, and ambush systems
- (3) Power over Ethernet (PoE) power source equipment (PSE)

4.4.1.4

When installed, secondary power supplies that are not required by 4.4.1.3 shall conform to the requirements of this standard.

4.4.2 Storage Batteries.

4.4.2.1* Lithium-ion batteries. Lithium-ion batteries shall be listed or approved for their intended application.

4.4.2.1.1 Storage. Storage of replacement batteries shall be in compliance with NFPA 1 and the manufacturer's instructions.

A4.4.2.1 Lithium-ion batteries are a highly efficient electro-chemical battery technology being provided as replacement batteries for security equipment. These batteries present different hazards from lead-acid or nickel-cadmium batteries, such as the risk of thermal runaway. Ensuring these batteries are properly listed, used or stored in accordance with NFPA 1 Fire Code and the manufacturer's instructions is intended to reduce the risk of fire or deflagration resulting from thermal runaway.

Statement of Problem and Substantiation for Public Input

This Public Input and accompanying Annex Note provides reasonable technical requirements to address the potential hazards from lithium-ion batteries when they are stored or used as replacement batteries for security systems.

Re-number subsequent sections:

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Public Input No. 2-NFPA 731-2023 [Section No. 6.1.1]

6.1.1 Equipment.

Electronic access control equipment shall be in compliance with applicable standards, such as UL 294, *Access Control System Units - Units* and as applicable, *UL, 1 034 Standard for Burglary-Resistant Electric Locking Mechanisms* .

[Add reference to UL 1034 in Chapter 2 as applicable.](#)

Statement of Problem and Substantiation for Public Input

This Public Input will add an additional listing option for electronic access control equipment to UL 1034. Testing to UL 1034 will provide an additional safety and performance certification option for access control devices that typically is part of an electrical locking system.

The addition of UL 1034 is also intended to provide clarity as to allow requirements to match the certified products in use and available in the market.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 3-NFPA 731-2023 [Section No. 6.1.1]	

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Public Input No. 3-NFPA 731-2023 [Section No. 6.1.1]

6.1.1 Equipment.

Electronic access control equipment shall be in compliance with applicable standards, such as UL 294, *Access Control System Units*.

A. 6.1.1 Equipment A critical part of an access or egress control system is the lock hardware that holds a door closed and opens or releases when initiated. Like many components of an integrated system, the locking mechanism can have various forms and functionalities, depending on the particular applications.

The NFPA 101 Life Safety Code includes requirements for a means of egress system to be provided that includes a continuous and unobstructed path of egress travel from any occupied point in a building, structure or facility to a public way. However, there are specific situations in which these model codes allow access control equipment that limit the immediate and unobstructed egress travel under strict provisions.

The factors that must also be considered for installation and in accordance with applicable fire and life safety codes include:

- Integration with fire detection and suppression or other life safety systems that release locked doors upon their activation, allowing immediate emergency egress
- Fail safe features to release locks in the event of a loss of power
- Fail secure features that intentionally maintain locked positions
- Emergency planning and preparedness with staff training and required drills
- Limitations on the delay time for delayed-egress doors
- Special signage requirements
- Security and resistance to unauthorized entry may also be considerations

Locks and locking systems can be tested for compliance with different end product standards. Each end product standard defines the scope of the application and includes construction and test compliance criteria for evaluation and certification.

Typical end uses for the locks and locking systems include integration into access control systems, fire rated door assemblies, special locking arrangements, panic hardware, controlled exit panic devices and burglary resistant electric locks. Locks and locking systems used in these applications can take different forms depending on the design of a product or system. Some of these devices are purely mechanical and others may include electronics to control or provide delayed release or audible alarm functions. Certified locks are investigated for safety from electric shock and mechanical hazards and depending on the product type may also be tested for burglary resistance and/or fire resistance.

An end user or AHJ can see various configurations of equipment incorporated into a system and the equipment may have different forms to suit a specific application. A very common scenario is the use of UL 294 certified access control systems units controlling locks certified to UL 1034.

Other prevalent applications include special locking arrangements that have dedicated system component equipment and certified locks connected to control a request to exit (REX) system. For this application, the REX system certification is specific to the system components submitted for investigation.

The various permutations of locking hardware and systems applications (see table) allows for the use of the devices in accordance with model building and life safety codes, with the common element of safety by design.

The table below summarizes the applicable standards for various locking devices and systems that are typically used on means of egress or controlled access areas.

<u>Standard</u>	<u>Category Title</u>	<u>Helpful Notes</u>	<u>Typical door hardware / lock form factor</u>
<u>UL 294, Standard for Access Control System Units</u>	<u>Access Control System Units*</u>	<u>Sec. 34.2 applies to Single point locking devices</u>	<u>Autonomous access control lock</u>
<u>UL 294</u>	<u>Special Locking Arrangements</u>	<u>UL 294, Sec. 68 applies to Controlled and Delayed Egress Equipment and Systems Operation</u>	<u>Require to Exit (REX) devices / systems and controlled or delayed egress locks</u>
<u>UL 1034, Standard for Burglary-Resistant Electric Locking Mechanisms</u>	<u>Burglary Resistant Electric Locking Mechanisms</u>	<u>Performance based for static force, dynamic force, and endurance test factors</u>	<u>Electromagnetic locks, Electric Dead bolts, Electric Door Strikes, Electrically operated door locking mechanisms,</u>
<u>UL 305, Standard for Panic Hardware</u>	<u>Panic or Fire Exit Hardware</u>	<u>Generally mechanical devices only (no electronics)</u>	<u>Panic Hardware, Fire Exit Hardware</u>
<u>UL 294 and UL 305,</u>	<u>Controlled Exit Panic Devices</u>	<u>UL 294, and UL 305 apply.</u>	<u>Electromechanical locking/latching mechanisms</u>
<u>UL 634, Standard for Panic Hardware</u>	<u>Connectors and Switches for use in Burglar Alarm Systems</u>	<u>Includes Electric Power Transfers, Door Loops, and Door Position Switches</u>	<u>Electric Hinge and flexible connectors intended for burglar alarm applications</u>
<u>UL 10C, Standard for Positive Pressure Fire Tests of Door Assemblies</u>	<u>Positive Pressure Fire Test of Door Assemblies</u>	<u>Also, UL 305 for Card readers and components for use with locks sold separately.</u>	<u>Electric Cylindrical Locks and Mortise Locks; Electrically Controlled Single-Point Locks or Latches; Electromagnetic locks ; Fire Exit Hardware; Electrified Hinge; Electric strikes; Miscellaneous Fire Door Accessories, Positive Pressure Tested; Accessories for use with Single-point locks and latches and fire exit hardware</u>

Statement of Problem and Substantiation for Public Input

This Public Input adding an Annex Note will provide additional guidance on the testing and certification standards for various access control and egress locking systems to guide AHJs in acceptance of products intended for use in these applications.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 2-NFPA 731-2023 [Section No. 6.1.1]</u>	

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Public Input No. 5-NFPA 731-2023 [Section No. H.1.2.10]

H.1.2.10 UL Publications.

Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

UL 294, *Access Control System Units*, ~~2013~~, revised ~~2018~~ 2023 .

UL 437, *Key Locks*, 2013.

UL 606, *Linings and Screens for Use with Burglar-Alarm Systems*, 1999, revised 2006.

UL 608, *Burglary Resistant Vault Doors and Modular Panels*, 2004, revised ~~2012~~ 2022 .

UL 634, *Connectors and Switches for Use with Burglar-Alarm Systems*, 2007, revised ~~2020~~ 2022 .

UL 636, *Holdup Alarm Units and Systems*, ~~1996~~, revised ~~2013~~ 2018 .

UL 639, *Intrusion-Detection Units*, 2007, revised 2019.

UL 681, *Installation and Classification of Burglar and Holdup Alarm Systems*, ~~2014~~ 2012, revised 2020 .

UL 687, *Burglary-Resistant Safes*, 2011, revised 2020 .

UL 752, *Bullet-Resisting Equipment*, 2005, revised ~~2013~~ 2021 .

UL 768, *Combination Locks*, 2006, revised ~~2018~~ 2023 .

UL 827, *Central-Station Alarm Services*, 2014, revised 2020.

UL 972, *Burglary Resisting Glazing Material*, ~~2006~~ 2022 , revised ~~2011~~ 2023 .

UL 1034, *Burglary-Resistant Electric Locking Mechanisms*, 2011, revised 2020.

UL 1037, *Antitheft Alarms and Devices*, ~~2016~~ 2011 , revised ~~2017~~ 2020 .

UL 2058, *Outline of Investigation for High Security Electronic Locks*, 2005.

UL 2610, *Commercial Premises Security Alarm Units and Systems*, ~~2018~~ 2021 , revised ~~2020~~ 2023 .

UL 2900-2-3, *Software Cybersecurity for Network-Connectable Products, Part 2-3: Particular Requirements for Security and Life Safety Signaling Systems*, 2020, revised 23 .

UL 60950-1, *Information Technology Equipment — Safety — Part 1: General Requirements*, 2007, revised 2019.

Statement of Problem and Substantiation for Public Input

Update the standards to the most current publication dates.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 1-NFPA 731-2023 [Section No. 2.3.3]</u>	

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Public Input No. 11-NFPA 730-2023 [Global Input]

This guide does not seem to adequately address security measures designed to prevent arson; premises which are fire-safe may not be fire-secure. Specific guidance on security safeguards designed to prevent disabling of fire suppression equipment might be helpful here.

Statement of Problem and Substantiation for Public Input

Arson is the main point at which fire protection and security meet, as fire protection systems that are vulnerable to sabotage will not perform their job effectively unless the fire is accidental.

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Submittal Date: Wed Oct 25 02:10:18 EDT 2023

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Public Input No. 6-NFPA 730-2023 [Section No. 2.2]

2.2 NFPA Publications.

National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA-72 NFPA 72[®], *National Fire Alarm and Signaling Code[®]*, 2022 edition.

NFPA-101 NFPA 101[®], *Life Safety Code[®]*, 2021 edition.

NFPA-734 NFPA 601, *Standard for Security Services in Fire Loss Prevention*, 2020 edition.

NFPA 731, *Standard for the Installation of Premises Security Systems*, 2023 edition.

Statement of Problem and Substantiation for Public Input

Adding NFPA 601 as a reference is important because often the same personnel who provide premises security also provide security services in fire loss prevention. Additionally, NFPA 601 authorizes the replacement or supplementation of fire loss security personnel with automated systems in some cases, linking it to this guide.

Adjusting the italics to be consistent between standards helps ensure readability.

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Public Input No. 17-NFPA 730-2023 [Section No. 2.3.2]

2.3.2 UL Publications.

Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

UL 294, *Access Control System Units*, ~~2018~~ 2017, revised 2023 .

UL 305, *Panic Hardware*, 2012, revised 2022 .

UL 437, *Key Locks*, 2013, revised ~~2017~~ 2023 .

UL 768, *Combination Locks*, ~~2013~~ 2006 , revised ~~2018~~ 2023 .

UL 1034, *Burglary-Resistant Electric Locking Mechanisms*, 2011, revised 2020.

UL 2802, *Performance Testing of Camera Image Quality*, 2013, revised ~~2019~~ 2020 .

UL 2058, *Outline of Investigation for High-Security Electronic Locks*, 2005.

Statement of Problem and Substantiation for Public Input

Update the standards to the most current publication dates.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 20-NFPA 730-2023 [Section No. G.1.2.7]</u>	

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Committee: PMM-AAA



Public Input No. 9-NFPA 730-2023 [Section No. 3.3.11]

3.3.11 Deterrent.

Any physical ~~or psychological~~ device or method that ~~discourages action~~ allows more time for an act to be detected .

Statement of Problem and Substantiation for Public Input

In the security industry, Deter, Detect, and Delay are used as technical terms. They are part of a security framework developed by the Sandia national laboratory. Within that framework, deterrence is designed to buy time for detection, and often delays an attacker after detection, similar to how fire-resistance of an item allows both more time for a fire to be detected, and more time for response personnel to arrive before it has grown.

If the original definition is a better fit for the standard, I would suggest a word other than deterrent, such as disincentive.

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Submittal Date: Wed Oct 25 01:00:46 EDT 2023

Committee: PMM-AAA



Public Input No. 22-NFPA 730-2023 [New Section after 6.5.2]

TITLE OF NEW CONTENT

Type your content here ...

A. 6.1.1 Equipment A critical part of an access or egress control system is the lock hardware that holds a door closed and opens or releases when initiated. Like many components of an integrated system, the locking mechanism can have various forms and functionalities, depending on the particular applications.

The NFPA 101 Life Safety Code includes requirements for a means of egress system to be provided that includes a continuous and unobstructed path of egress travel from any occupied point in a building, structure or facility to a public way. However, there are specific situations in which these model codes allow access control equipment that limit the immediate and unobstructed egress travel under strict provisions.

The factors that must also be considered for installation and in accordance with applicable fire and life safety codes include:

- Integration with fire detection and suppression or other life safety systems that release locked doors upon their activation, allowing immediate emergency egress
- Fail safe features to release locks in the event of a loss of power
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An end user or AHJ can see various configurations of equipment incorporated into a system and the equipment may have different forms to suit a specific application. A very common scenario is the use of UL 294 certified access control systems units controlling locks certified to UL 1034.

Other prevalent applications include special locking arrangements that have dedicated system component equipment and certified locks connected to control a request to exit (REX) system. For this application, the REX system certification is specific to the system components submitted for investigation.

The various permutations of locking hardware and systems applications (see table) allows for the use of the devices in accordance with model building and life safety codes, with the common element of safety by design.

The table below summarizes the applicable standards for various locking devices and systems that are typically used on means of egress or controlled access areas.

<u>Standard</u>	<u>Category Title</u>	<u>Helpful Notes</u>	<u>Typical door hardware / lock form factor</u>
<u>UL 294, Standard for Access Control System Units</u>	<u>Access Control System Units*</u>	<u>Sec. 34.2 applies to Single point locking devices</u>	<u>Autonomous access control lock</u>
<u>UL 294</u>	<u>Special Locking Arrangements</u>	<u>UL 294, Sec. 68 applies to Controlled and Delayed Egress Equipment and Systems Operation</u>	<u>Require to Exit (REX) devices / systems and controlled or delayed egress locks</u>
<u>UL 1034, Standard for Burglary-Resistant Electric Locking Mechanisms</u>	<u>Burglary Resistant Electric Locking Mechanisms</u>	<u>Performance based for static force, dynamic force, and endurance test factors</u>	<u>Electromagnetic locks, Electric Dead bolts, Electric Door Strikes, Electrically operated door locking mechanisms,</u>
<u>UL 305, Standard for Panic Hardware</u>	<u>Panic or Fire Exit Hardware</u>	<u>Generally, mechanical devices only (no electronics)</u>	<u>Panic Hardware, Fire Exit Hardware</u>
<u>UL 294 and UL 305,</u>	<u>Controlled Exit Panic Devices</u>	<u>UL 294, and UL 305 apply.</u>	<u>Electromechanical locking/latching mechanisms</u>
<u>UL 634, Standard for Panic Hardware</u>	<u>Connectors and Switches for use in Burglar Alarm Systems</u>	<u>Includes Electric Power Transfers, Door Loops, and Door Position Switches</u>	<u>Electric Hinge and flexible connectors intended for burglar alarm applications</u>
<u>UL 10C, Standard for Positive Pressure Fire Tests of Door Assemblies</u>	<u>Positive Pressure Fire Test of Door Assemblies</u>	<u>Also, UL 305 for Card readers and components for use with locks sold separately</u>	<u>Electric Cylindrical Locks and Mortise Locks; Electrically Controlled Single-Point Locks or Latches; Electromagnetic locks ; Fire Exit Hardware; Electrified Hinge; Electric strikes; Miscellaneous Fire Door Accessories, Positive Pressure</u>

			<u>Tested; Accessories for use with Single-point locks and latches and fire exit hardware</u>
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Statement of Problem and Substantiation for Public Input

This Public Input adding an Annex Note will provide additional guidance on the testing and certification standards for various access control and egress locking systems to guide AHJs in acceptance of products intended for use in these applications.

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Public Input No. 21-NFPA 730-2023 [Section No. 7.5.3.2]

7.5.3.2

Individual products should be listed to the following standards as applicable:

- (1) * ANSI/BHMA A156 Series, *Categories of Builders Hardware*, for builders' hardware
- (2) UL 1034, *Burglary-Resistant Electric Locking Mechanisms*, for burglary-resistant electronic locking mechanisms
- (3) UL 437, *Key Locks*, for key locks
- (4) UL 768, *Combination Locks*, for combination locks
- (5) UL 294, *Access Control System Units*, for access control system units
- (6) UL 2058, *Outline of Investigation for High-Security Electronic Locks*, for high-security electronic locks
- (7) UL 305, *Panic Hardware*, and ANSI/BHMA A156.3, *Exit Devices*, for exit panic devices

A.7.5.3.2(1)

ANSI/BHMA A156 performance guides include security tests and are shown in the applicable sections of Annex G.

Statement of Problem and Substantiation for Public Input

This Public Input adding an Annex Note will provide additional guidance on the testing and certification standards for various access control and egress locking systems to guide AHJs in acceptance of products intended for use in these applications.

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Public Input No. 8-NFPA 730-2023 [Chapter 8 [Title Only]]

~~Crime Prevention Through Environmental~~ Premises Design

Statement of Problem and Substantiation for Public Input

Crime Prevention Through Environmental Design (CPTED) is a specific framework designed to reduce crime through certain environmental design principles, first developed by Oscar Newman under the name "Defensible Space".

However, long-term follow-ups on many sites designed using these principles have shown only a temporary decrease in crime, such as within the Five Oaks neighborhood that Mr. Newman used to promote CPTED to HUD officials; recommending that CPTED practices to be followed is irresponsible without further research into why those early sites did not maintain their crime prevention capabilities even though the design remained the same.

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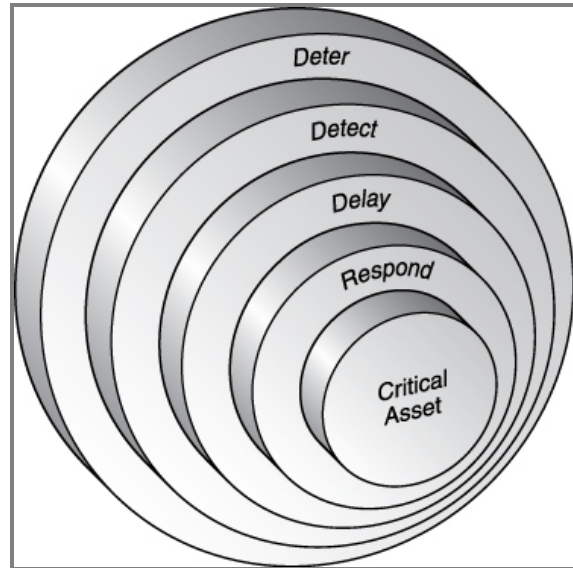


Public Input No. 10-NFPA 730-2023 [Section No. A.5.2.3(5)]

A.5.2.3(5) 

An effective countermeasure is one that drives improvements in mitigating the defined threats and results in a reduction in the security risk level. ~~With respect to the development of security countermeasures, and in consideration of the defined threats, the SVA team's efforts to strengthen the security layers of protection begins with a focus on the concentric circles of protection design methodology, shown in Figure A.5.2.3(5) :~~

Figure A.5.2.3(5) Concentric Circles of Protection. (Source: SafePlace Corporation.)



~~This methodology provides for protection of defined critical assets. This is accomplished~~ by considering the four primary protection elements. The primary elements of an effective protection plan design are as follows:

- (1) Deter — discouraging an adversary from attempting an assault by reducing the likelihood of a successful attack.
- (2) Detect — determining that an undesirable event has occurred or is occurring. Detection includes sensing the event, communicating the alarm to an attended location, and assessing the alarm.
- (3) Delay — impeding adversary penetration into a protected area.
- (4) Respond — counteracting adversary activity and interrupting the undesirable event.

Theft, sabotage, or other malevolent acts can be prevented in two ways, by either deterring the adversary or defeating the adversary. In the development of security countermeasures, it is important to understand that a properly designed and implemented security program integrates people, procedures, and technologies for the protection of assets. The use of technologies alone is not the solution.

In developing effective countermeasures, it is important to remember that highly probable threats may not require countermeasures attention if the net loss they would produce is small. But moderately probable risks require attention if the magnitude of the loss they produce is great. The correlative of probability of occurrence is severity or criticality of occurrence. Assessing the criticality of a loss is imperative for a meaningful vulnerability assessment. Criticality is first considered on a single event or occurrence basis. For events with established frequency or high recurrence probability, criticality must be considered cumulatively.

To determine the severity or consequence of a loss, all costs associated with each loss must be considered. Kinds of loss to be considered include but are not limited to the following:

- (1) *Permanent replacement.* Permanent replacement of a lost asset includes all of the cost to return it to its former location. Components of that cost are as follows:
 - (2) Purchase price or manufacturing cost
 - (3) Freight and shipping charges

- (4) Make-ready or preparation cost to install it or make it functional
- (5) *Temporary substitute.* In regard to tools of production and other items making up the active structure of an enterprise, it may be necessary to procure substitutes while awaiting permanent replacements. Components of temporary substitute costs may be as follows:
- (6) Lease or rental
- (7) Premium labor, such as overtime or extra shift work to compensate for the missing production
- (8) *Related or consequent cost.* If other personnel or equipment are idle or underutilized because of the absence of an asset lost through a security incident, the cost of the down time is also attributable to the loss event.
- (9) *Lost income cost.* If cash that might otherwise be invested is used to procure permanent replacements or temporary substitutes or to pay consequence costs, the income that might have been realized from the investment must also be considered as part of the loss.
- (10) *Cost abatement.* To the extent it is available, insurance, or other indemnification for the loss should be subtracted from the costs enumerated above. For precision, that portion of the insurance premium cost attributable to the lost asset should be subtracted from the available insurance before the insurance is used to offset the loss.

~~The "new world" we live in poses a new challenge: the increased presence and threat of adversarial attack. Our journey now involves an important dual approach, the combination of today's security methodologies with traditional safety and risk management practices to strengthen security layers of protection.~~

An effective security program, resulting from the completion and implementation of a comprehensive SVA, provides measurable benefits in the workplace for personnel (staff, guests, and visitors), in the protection of property, and in operations, resulting in enhanced business performance.

Statement of Problem and Substantiation for Public Input

This section confuses two methodologies, concentric rings of protection and Deter-Detect-Delay. The graphic is misleading, as if taken as rings it suggests that response happens after delay, when response happens at the same time as delay; the delay is what allows the response to arrive in time to interrupt the adversary. If the diagram is taken as a pyramid shape, it suggests that detection happens continuously, when it is instead a distinct event; as the diagram only adds confusion no matter how it is interpreted, it should be removed.

The "new world" sentence is inserting unnecessary opinion into the guide; if someone has committed to following the guidelines, they already see a need for secure premises.

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Public Input No. 1-NFPA 730-2023 [Section No. A.20.3.2]

A.20.3.2 [🔗](#)

IES G 1, ~~Guideline~~ Guide for Security Lighting for People, Property, and Public Spaces Critical Infrastructure, is for design and implementation of security lighting. The guideline is intended for use by property owners and managers, crime prevention specialists, law enforcement and security professionals, risk managers, lighting specifiers, contractors, the legal profession, and homeowners concerned about security and the prevention of crime. It covers basic security principles, illumination requirements for various types of properties, protocol for evaluating current lighting levels for different security applications, and security survey and crime search methodology. Guidelines include exterior and interior security lighting practices for the reasonable protection of persons and property. There are many complexities to exterior lighting design, including but not limited to “dark sky” compliance, light wash through adjacent properties, and energy conservation. Proper illumination should encourage authorized users to occupy spaces and discourage intruders.

Statement of Problem and Substantiation for Public Input

The title of IES G-1 has been updated since the original 2003 submission referred to in this standard. The proposed correction reflects the updated naming for the version year 2022.

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Public Input No. 16-NFPA 730-2023 [Section No. E.4.2.1]

E.4.2.1– Purpose

As a result of increased security awareness, there has been a move away from the traditional key and lock systems to more sophisticated access control systems. The technology used in access control systems ranges from simple push-button locks to computerized access control systems integrated with video surveillance systems. Regardless of the technology used, all access control systems have one primary objective — to screen or identify people prior to allowing entry. ~~Since identification is the foundation of all access control systems, they generally require that the user be in possession of a machine readable credential. Electronic~~ Establishing a person's identity can be based on three methods; something known by a person (ie.. password), something possessed by a person (ie.. card or key), or some physically unique about the person (ie.. finger print). Electronic access control equipment should be listed to UL 294, *Access Control System Units*.

Statement of Problem and Substantiation for Public Input

The added test was taken from E.4.2.3.2 Biometric Systems, which provided a better description for the methods of verifying identity than the existing text. The providing for the definition for the means for establishing identity were relevant to the whole section of 4.2.3, and therefore were better placed before it than recessed within a sub-section of it. In turn, I will be proposing the elimination of the text from that section.

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Public Input No. 4-NFPA 730-2023 [Section No. E.4.2.3.2 [Excluding any Sub-Sections]]

~~Establishing a person's identity can be based on three methods: something known by a person (a password), something possessed by a person (a card or key), and something physical about a person (a personal characteristic). Biometric access control devices, or personal characteristic verification locks, rely on the third method. Since duplication of individual physical characteristics is very rare, biometric devices, in theory, could offer the highest security possible. Biometric systems measure a unique characteristic of the person seeking access. These systems are classified as fingerprint, hand or palm geometry, handwriting, voice, and retinal verification systems. Typically, biometric readers are connected to a CPU but can also be used alone. The most readily available commercial systems for access control are fingerprint, palm, iris, and facial. Additional legacy retina, handwriting, and voice systems may exist but have been deprecated and should not be considered for access control purposes .~~

Statement of Problem and Substantiation for Public Input

Relocated opening section on means of establishing identity to E.4.2.1. Provided updated text based on current industry conditions.

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Public Input No. 15-NFPA 730-2023 [Section No. E.4.2.3.2.1 [Excluding any Sub-Sections]]

Fingerprint verification systems ~~have been around for more than a decade. These systems~~ identify a person by matching stored fingerprints with live prints presented on an electro-optical scanner.

Statement of Problem and Substantiation for Public Input

The length of time that optical finger print scanners have been available is well in excess of 10 years now, and updating the length of time they have been available does not further the explanation of what they are. The language has been updated to simplify the text and provide only the relevant information.

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Public Input No. 5-NFPA 730-2023 [Section No. E.4.2.3.2.5]

E.4.2.3.2.5 Retinal Verification Systems.

Retinal verification systems use the pattern of blood vessels within the retina of the eye, which is unique in everyone, as a means of identifying a person. The user looks into an eyepiece that scans the retina with a safe low-level infrared light. The infrared light reflected back is converted into digital data that is compared to information stored in a computer. The limitation in retinal verification systems is that retinal patterns are not stable and can be altered by injury, illness, alcohol, or drugs. There also may be resistance on the part of a person to look into the device. Retinal scanners for access control have largely been deprecated and are no longer readily commercially available.

Statement of Problem and Substantiation for Public Input

Retinal scanners currently exist in some legacy government systems, but are not commercially available for new installation. The proposed update would allow for the acknowledgement that such systems may still exist somewhere, but updates the standard to not mislead that such a technology is still a viable option for current access control systems.

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Public Input No. 12-NFPA 730-2023 [Section No. E.4.3.1.2]

E.4.3.1.2 –

~~A signal generator attached to the monitor can be adjusted to project a pattern of light or dark rectangles, or windows, which can be adjusted in size and location on the screen. The windows can be focused on a fixed object to be protected, such as a safe or a doorknob. When the image of an intruder or moving object enters the monitored window, the difference in contrast is detected and triggers an alarm.~~

Statement of Problem and Substantiation for Public Input

This is deprecated information and not applicable to contemporary installations.

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Public Input No. 13-NFPA 730-2023 [Section No. E.4.3.2.1]

E.4.3.2.1 Equipment.

~~Video surveillance equipment should provide appropriate resolution equal to or greater than the manufacturer's resolution specified in a marking on the equipment or in the literature packaged with the video equipment. Video surveillance equipment should~~ be listed for its purpose and should comply with Section 889 of the John S. McCain National Defense Authorization Act (NDAA) for Year 2019, which prohibits the purchase of covered telecommunications equipment and services from vendors who sell products containing spyware.

Statement of Problem and Substantiation for Public Input

The removed section is unclear, and appears to attempt to state that resolution of the camera should be proven to be as good or better than what the manufacturer listed on the literature. This should not be a necessary exercise. The added section is an update to what should be a base requirement for VSS equipment selection; specifically, that it be listed for its application and additionally that it meet U.S. government recommended supply chain best practice for not procuring equipment from manufacturers incriminated with having potential back doors to foreign governments.

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Public Input No. 14-NFPA 730-2023 [Section No. E.4.3.2.2.4]

E.4.3.2.2.4

The signal can be recorded by a video recorder for playback and analysis at a later time. ~~Many recorders have a time-lapse mode for quick playback of lengthy periods of tape coverage. This system is often used in conjunction with a date-time generator that can project a continuous image of the date and time in the corner of the monitor screen. _~~

Statement of Problem and Substantiation for Public Input

The removed text was deprecated information from the use of VCRs in conjunction with a matrix/controller for a VSS recording device.

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Public Input No. 3-NFPA 730-2023 [Section No. G.1.2.5]

G.1.2.5 IESNA Publications.

Illuminating Engineering Society, 120 Wall Street, Floor 17, New York, NY 10005-4001.

IES G- 1-22 , ~~Guideline for~~ Guide for *Security Lighting for People, Property, and Public Spaces Critical Infrastructure* , - 2003 _ 2022 .

Statement of Problem and Substantiation for Public Input

A newer standard has been released and it is proposed that it be adopted.

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Public Input No. 20-NFPA 730-2023 [Section No. G.1.2.7]

G.1.2.7 UL Publications.

Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

UL 294, *Access Control System Units*, ~~2013~~ 2017 , revised 2018.

UL 437, *Key Locks*, ~~2017~~ 2013, revised 2023 .

UL 606, *Linings and Screens for Use with Burglar-Alarm Systems*, 1999, revised ~~2006~~ 2023 .

UL 608, *Burglary Resistant Vault Doors and Modular Panels*, 2004, revised ~~2017~~ 2022 .

UL 634, *Connectors and Switches for Use with Burglar-Alarm Systems*, 2007, revised ~~2015~~ 2022 .

UL 636, *Holdup Alarm Units and Systems*, ~~1996~~, ~~revised 2013~~ 2018 ..

UL 639, *Intrusion-Detection Units*, 2007, revised ~~2018~~ 2019 .

UL 681, *Installation and Classification of Burglar and Holdup Alarm Systems*, 2014, revised 2021 .

UL 687, *Burglary-Resistant Safes*, 2011, revised ~~2015~~ 2020 .

UL 752, *Bullet-Resisting Equipment*, 2005, revised ~~2015~~ 2021 .

UL 768, *Combination Locks*, 2006, revised ~~2018~~ 2023 .

UL 972, *Burglary Resisting Glazing Material*, 2006, revised ~~2015~~ 2020 .

UL 1034, *Burglary-Resistant Electric Locking Mechanisms*, 2011, revised 2020.

UL 2058, *Outline of Investigation for High-Security Electronic Locks*, 2005.

UL 2610, *Commercial Premises Security Alarm Units and Systems*, ~~2018~~ 2021 , revised ~~2020~~ 2023 .

Statement of Problem and Substantiation for Public Input

Update the standards to the most current publication dates.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 17-NFPA 730-2023 [Section No. 2.3.2]</u>	

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