1. Revise 3.3.10 to read as follows:

3.3.10* Electronic Monitoring. Either a local alarm device to indicate when an extinguisher is removed from its designated location or a method of electronic communication (data transmission) between an in-place fire extinguisher and an electronic monitoring device/system. A method of electronic communication (data transmission) between an in-place fire extinguisher and an electronic monitoring device/system.

2. Revise 6.1.3.3.1 and 6.1.3.3.2 to read as follows:

6.1.3.3.1 Fire extinguishers shall be installed in locations where they are visible except as permitted by 6.1.3.3.2 not be obstructed or obscured from view.

6.1.3.3.2* In large rooms and in certain locations where visual obstructions cannot be avoided, signs or other means shall be provided to indicate the extinguisher location.

3. Revise 6.1.5 to read as follows:

6.1.5 Electronic Monitoring and Alarm Systems. Where an electronic monitoring and alarm system is installed, 6.1.5.1 and 6.1.5.2 shall apply.

6.1.5.1 The connection to the electronic monitoring device shall be continuously supervised for integrity.

6.1.5.2 The power source for the electronic monitoring device shall be supervised for continuity of power.

7.1.5.1 When used in conjunction with fire alarm systems, fire extinguisher electronic monitoring devices shall be inspected and maintained in accordance with NFPA 72, National Fire Alarm and Signaling Code, and 7.6.1.

7.1.5.2 When used in conjunction with non-fire-alarm systems, fire extinguisher electronic monitoring devices shall be inspected and maintained as required in 7.1.5.2.1 through 7.1.5.2.3 and the manufacturer's listed installation and maintenance manual(s).

7.1.5.2.1 The connection to the electronic monitoring device shall be continuously supervised for integrity.

7.1.5.2.2 The power source for the electronic monitoring device shall be supervised for continuity of power.

7.1.5.2.3 The monitoring device shall be tested and maintained annually in accordance with 7.6.1.

4. Revise 7.2.2 to read as follows:

7.2.2 Inspection Procedures. Periodic inspection or electronic monitoring of fire extinguishers shall include a check of at least the following items:

(1) Location in designated place

(2) Visibility of the extinguisher or means of indicating the extinguisher location. No obstruction to access or visibility

(3) Access to the extinguisher. Pressure gauge reading or indicator in the operable range or position
Pressure gauge reading or indicator in the operable range or position. Fullness determined by weighing or hefting for the self-expelling-type extinguishers, cartridge-operated extinguishers, and pump tanks.

Fullness determined by weighing or hefting. Condition of tires, wheels, carriage, hose, and nozzle for wheeled extinguishers.

Condition of tires, wheels, carriage, hose, and nozzle for wheeled extinguishers. Indicator for nonrechargeable extinguishers using push-to-test pressure indicators.

Indicator for nonrechargeable extinguishers using push-to-test pressure indicators.

The owner or the owner's agent shall determine the method of extinguisher inspection such as manual inspection, electronic monitoring, or any combination of the two.

Any method(s) of inspection other than manual inspection shall require the approval of the authority having jurisdiction.

In addition to 7.2.2, fire extinguishers shall be visually inspected in accordance with 7.2.2.4 if they are located where any of the following conditions exists:

1. Located in designated place
2. Visibility of the container or means of indicating the container location. No obstruction to access or visibility
3. Access to the container. Pressure gauge reading or indicator in the operable range or position
4. Lid is sealed. Fullness determined by weighing or hefting for the self-expelling-type extinguishers, cartridge-operated extinguishers, and pump tanks
5. Fullness by hefting or weighing. Condition of tires, wheels, carriage, hose, and nozzle for wheeled extinguishers
6. No obvious physical damage to container. Indicator for nonrechargeable extinguishers using push-to-test pressure indicators

Where required by 7.2.2.31, the following inspection procedures shall be in addition to those addressed in 7.2.2:

1. …
2. …
3. …
4. …

Inspection Procedure for Containers of Class D Extinguishing Agent. Periodic inspection of containers of Class D extinguishing agent used to protect Class D hazards or electronic monitoring of fire extinguishers shall include verification of at least the following items:

1. Located in designated place
2. Visibility of the container or means of indicating the container location. No obstruction to access or visibility
3. Access to the container. Pressure gauge reading or indicator in the operable range or position
4. Lid is sealed. Fullness determined by weighing or hefting for the self-expelling-type extinguishers, cartridge-operated extinguishers, and pump tanks
5. Fullness by hefting or weighing. Condition of tires, wheels, carriage, hose, and nozzle for wheeled extinguishers
6. No obvious physical damage to container. Indicator for nonrechargeable extinguishers using push-to-test pressure indicators

Delete 7.2.4.2.2 and renumber subsequent paragraph as follows:

Records for electronic monitoring shall be kept to demonstrate that at least the last 12 monthly inspections have been performed.

Revise Annex A.3.3.10 to read as follows:

Electronic Monitoring. One form of electronic monitoring is a local alarm device to indicate when an extinguisher is removed from its designated location. Electronic monitoring can also be accomplished utilizing low-voltage wiring or a wireless communication method. Some devices can convey information about an in-place fire extinguisher that includes status, removal, pressure level, weight, and presence, condition, and whether there is
an obstruction to the extinguisher, of objects in the vicinity of an extinguisher. Electronic monitoring can be considered for one or more satisfy many of the monthly inspection requirements currently within the standard, monitor the extinguisher at more frequent intervals if desired or when more frequent inspections are required, and create an electronically maintained record of the fire extinguisher.

**Substantiation:** The changes made to NFPA 10 regarding the technology to electronically monitor fire extinguishers have reduced fire life standards by drastically limiting the technology’s recognized use. The changes are also in direct conflict the Section 1.2.2 of the NFPA 10 Standard for Portable Fire Extinguishers.

3.3.10 The change in the wording is intended for the Standard to recognize a non-listed, non-supervised anti-theft device that can monitor for location and removal and does not meet the previous requirements for monitored extinguisher technology as called out in NFPA-10 2007/2010 and correlated with NFPA 72.

We know of no other instance in ALL of the NFPA codes where a Standard is reduced to recognize a non-listed, non-supervised device that’s purpose is to alert the occupants.

Accepting a lesser threshold of monitoring reduces life safety and sets a tremendously bad precedent for the code. All monitoring devices should be held to the same high standard whether the signal is local or communicated back to a panel.

6.1.3.3.1 The NFPA-10 Standard read “Fire extinguishers shall not be obstructed or obscured from view.” This has now been totally eliminated from the Standard and replaced with the term “Fire extinguishers shall be installed in locations where they are visible”.

Aside from completely lessening the threshold of safety, the change means that NFPA-10 no longer uses the same terminology that is referenced within NFPA, the National Electrical Code, OSHA and other code bodies.

- *NFPA 72, 2016* 17.14.8.2 Manual fire alarm boxes shall be installed so that they are conspicuous, unobstructed, and accessible.
- *1910.303(h)(4)(i)(A)* On switchboard and control panels exceeding 1.83 m (6.0 ft) in width, there shall be one entrance at each end of such boards unless the location of the switchboards and control panels permits a continuous and unobstructed way of exit travel.

Our technology was designed, and has been recognized within these codes to detect and alert when a fire extinguisher’s access is obstructed. The technology was designed based on the established NFPA Code. The elimination of the term obstruction from NFPA-10 is yet another intentional tweak to diminish the effectiveness of recognized technology and makes the Standard’s accessibility requirements different from the rest of the Code.

Additionally this change directly contradicts Section 1.2.2 that states “Nothing in this standard shall be considered as a restriction on new technologies or alternative arrangements, provided that the level of protection as herein described is not lowered and is acceptable to the authority having jurisdiction.”

6.1.3.3.2 Accessibility cannot be properly addressed with signage. See explanation in 6.1.3.3.1
In 2013 Chapter 6, Section 6.1.5 (5.1, 5.2) was added, and as a result Chapter 7 Section 7.1.5, 7.1.5.1, 7.1.5.2 (5.2.1 – 5.2.3) was removed. This change needs to be undone.

The addition of the 6.1.5 related text lessens the requirements for monitored technology to be accountable. And the changes implemented undo the correlation of NFPA-10 to NFPA-72.

The 7.1.5 related text in the 2010 edition ensures accountability, integrity, supervision, correlation and the use of the technology with non-fire alarm systems (which includes localized signaling devices). This wording needs to be reinstated.

The changes to the monthly inspection requirements are perhaps the most blatant moves put forth to undermine the recognized technology. The 2007 NFPA-10 Committee worked hard to reorganize the monthly inspection criteria. It was identified that many of the monthly inspection checks asked of the occupancy owner, was also part of the annual inspection done by an outside certified FED.

An example of an unnecessary change reintroduced to the NFPA-10 Standard is the re-adoption of the outdated practice of having to physically “heft” a fire extinguisher monthly.

“Hefting” was a practice that was once required to determine if the fire extinguisher was full, and to ensure the chemical powder would not cake inside the extinguisher. However extinguishing agents were modified years ago and are now made with silicone like additives. This change in material is highlighted in Section 3.3.4.1 which states, “Dry Chemical. A powder composed of very small particles, usually sodium bicarbonate, potassium bicarbonate, or ammonium phosphate based with added particulate material supplemented by special treatment to provide resistance to packing, resistance to moisture absorption (caking), and the proper flow capabilities.” Furthermore, the first sentence from the Amerex web page describing dry chemical fire extinguishers; “REGULAR extinguishers contain a siliconized sodium bicarbonate based dry chemical with free flowing and non-caking additives” http://amerex-fire.com/products/regular-dry-chemical-stored-pressure-sodium-bicarbonate-extinguishers/.

The 2007 Committee recognized that a gauged fire extinguisher uses the same extinguishing agents as gauged fixed systems and wheeled units yet it’s impossible to “heft” either, and therefore there isn’t a requirement to do so. The same should apply to the smaller extinguishers. Additionally, the 2007 Committee determined that “hefting” was not a scientific method of inspection. The technical committee felt inspection criteria must have definable measurables that are consistent and repeatable, no matter who does the inspection. It was deemed that a human arm cannot be “properly calibrated”, and thus “hefting” is left up to interpretation rather than definable criteria.

As a result, “hefting” and other items once required of the building owners’ monthly inspection became part of the annual maintenance check by a licensed technician. This is obviously practical common sense. In fact, the 2013 NFPA-10 Technical Subcommittee recommended not changing the monthly inspection criteria, yet somehow the outdated practice, which cannot be addressed cost effectively by technology, was reinserted and now is part of the monthly check.

The other major change to the monthly inspection criteria was the removal to inspect for obstruction to the extinguisher. This is addressed in comment 6.1.3.3.1 7.2.2.1 The addition of allowing the owner or the owner’s agent (fire extinguisher distributor?) to determine the means of inspection is both an unnecessary addition, and can be interpreted as a way to make
implementing monitored technology more difficult. This and 7.2.2.2 were added following the 2012 code change in New Hampshire and is meant to directly undermined the authority of a governing body.

7.2.2.2 This is perhaps the most egregious of all the changes in the 2013 / 2018 editions of NFPA-10. This clause can be directly tied to the efforts of the fire extinguisher industry to undermine the authority of the New Hampshire State Fire Marshal following the 2012 code recognition of the technology as a mandated solution. This clause is directly questioning the authority of a governing body to determine code requirements.

It is no coincidence that the wave of changes that occurred in ’13 & ’18 follow on the 2012 code enhancement in New Hampshire. The numerous changes that have been adopted in NFPA-10 regarding monitored extinguishers, have been directly used in the state of New Hampshire to attack the code, and those enforcing it.

Monitored technology for extinguishers is recognized, correlated and proven. To require a local AHJ to now sign off on the technology each and every time a user wants to install, creates a tremendous barrier to use the technology, and gives local officials the means to ignore the actions of governing bodies.

7.2.2.5 The wording in this mirrors the inspection criteria for 2018. If the committee has created a new step for Class D Extinguishers, the language for inspecting it should mirror the 2010 requirements.

7.2.4.2.2 The addition of 7.2.4.2.2 is in direct conflict with 7.2.4.2.3, which was the only language in ’07 & ’10 regarding electronic record keeping and correlated with NFPA-72. This addition all but undoes the equivalency of the physical monthly inspection that technology offers and directly contradicts Section 1.2.2 that states “Nothing in this standard shall be considered as a restriction on new technologies or alternative arrangements, provided that the level of protection as herein described is not lowered and is acceptable to the authority having jurisdiction.”

A.3.3.10 This addendum undoes the wording in 2007 and 2010 with the intent to undermine the recognized technology while creating an unfair opportunity for a non-listed, non-supervised theft deterrent.

For the record en-Gauge welcomes the technology being introduced to the code as long as it’s held to the same level of accountability as all other life safety technologies. Even stand-alone smoke detectors must be listed and signal for power loss.

Emergency Nature: The NFPA Standard contains a conflict within the NFPA Standards or within another NFPA Standard. The proposed TIA intends to offer to the public a benefit that would lessen a recognized (known) hazard or ameliorate a continuing dangerous condition or situation. The proposed TIA intends to accomplish a recognition of an advance in the art of safeguarding property or life where an alternative method is not in current use or is unavailable to the public. The proposed TIA intends to correct a circumstance in which the revised NFPA Standard has resulted in an adverse impact on a product or method that was inadvertently overlooked in the total revision process or was without adequate technical (safety) justification of the action.
End users who have been successfully using monitored extinguisher technology for years are now being told that they are no longer compliant and are looking for immediate guidance.

Anyone may submit a comment by the closing date indicated above. Please identify the TIA number forward to the Secretary, Standards Council. SUBMIT A COMMENT