FOR

I am in favor of the recommended text which will remove proposed annex material that simple does not correlate with the section referenced. To allow A.7.2.2(5) to stay would allow non-correlating language to remain. The proposed attempts to install annex material inferring an unnecessary physical processes for pressurized fire extinguishers.

FOR

As an NFPA 10 Technical Committee member we had previously voted to strike the information pertaining to hefting of fire extinguishers with pressure gauges however, upon receipt of the revised standard after the second edition rewrite, the information pertaining to the hefting of gauge equipped extinguishers some how found its way back into the standard. It is blatantly obvious that the entire second half of A.7.2.2(6) has nothing to do with the requirement to heft or weigh non-gauged, stored pressure extinguishers. As a matter of record, the pressure reading of any fire extinguisher existing or non-existing pressurization cannot be weighed or felt by hefting since you cannot feel the weight of the expellant used in the extinguishers. For these reasons and the fact that numerous attempts have been man to correct this blatantly obvious mistake, a vote "FOR" the CAM is the only option.

FOR

As a member of NFPA-10 I urge everyone to logically support CAM 10-5 for 3 reasons: 1. The language in A.7.2.2(5) was rejected by the NFPA 10 Committee in April of 2020, it was never brought up in the September 2020 meeting, but some how found its way into the new version presented in December. Most missed this when voting. 2. In order to address the oversight it was suggested to put forth a TIA. The NFPA 10 Committee voted 75% in favor of changing the text and 70% voted in favor of the emergency nature ... 2 votes short needed to avoid this process. 3. The subject matter in A.7.2.2(5) is improperly inferring that end users must do an unneeded and unnecessary step in the 30 day monthly inspection for fire extinguishers with pressure gauges. 7.2.2(5) only references self-expelling-type extinguishers, cartridge operated extinguishers, and pump tanks.
Reason: We have studied the data of the flow of this item through the code development process. This CAM needs to be accepted to avoid conflicts in the code language.

Reason: If the Annex material remains it would be very misleading to users of NFPA 10 and would create confusion. This Annex material does not belong associated with the body text.

Reason: LOGICAL COMMON SENSE ......... Simply put, the Annex proposal does not correlate with the section it references. To not support CAM 10-5, would be to willfully allow non-correlating language into the Standard. The NFPA 10 Committee voted overwhelmingly to correct this via a TIA but came 2 votes short in the emergency nature (with a number of members not voting). Support the Committee's vote on the TIA, and vote in favor of CAM 10-5. Thank you.

Reason: This CAM needs to be accepted so there aren't conflicting requirements in the standard.

Reason: I support the deletion of this text.
As appendix material it does not carry the weight of a requirement and only serves to confuse users and officials of what is needed to adequately conduct a monthly inspection.

**Created:** 2021-06-17 14:21 (UTC)
**Full Name:** Jake Allen
**Company:** Wolf Fire Protection Inc
**Affiliation:** Sprinkler Subcontractor

**AGAINST**
The requirements of section 7.2.2(5) are technically a test and should probably be in a different section of the standard. Additionally, the annex text contradicts the requirements of the standard. This would set a precedent and blur the line between an inspection and test. For our contractor members, these requirements need to be consistent across all NFPA documents.

**Created:** 2021-06-17 12:52 (UTC)
**Full Name:** Kevin Hall
**Company:** American Fire Sprinkler Association
**Affiliation:** American Fire Sprinkler Association

**FOR**
The requirements of section 7.2.2(5) are technically a test and should probably be in a different section of the standard. Additionally, the annex text contradicts the requirements of the standard. This would set a precedent and blur the line between an inspection and test. These requirements need to be consistent across all NFPA documents.

**Created:** 2021-06-15 20:35 (UTC)
**Full Name:** Kevin Hall
**Company:** American Fire Sprinkler Association
**Affiliation:** American Fire Sprinkler Association

**FOR**
The requirements of section 7.2.2(5) are technically a test and should probably be in a different section of the standard. Additionally, the annex text contradicts the requirements of the standard. This would set a precedent and blur the line between an inspection and test. For inspecting contractors, these requirements need to be consistent across all NFPA documents.

**Created:** 2021-06-15 20:15 (UTC)
**Full Name:** Justin Daniels
**Company:** Univ of Oklahoma
**Affiliation:** Center for Campus Fire Safety

**FOR**
This prevents confusion by eliminating language in the annex.

**Created:** 2021-06-15 19:34 (UTC)
**Full Name:** Christopher Creamer
**Company:** Dynafire
Affiliation: AFAA
CAM 10-5-FINAL
FOR
Reason: This is a good change that I believe if returned to the Committee, they will support this change.

Created: 2021-06-14 17:05 (UTC)
Full Name: Mark Larson
Company: Mark Larson And Associates Llc
Affiliation: National Disability Rights Network
CAM 10-5-FINAL
FOR
Reason: The language in the appendix could create confusion and misapplication of the standard.

Created: 2021-06-14 14:26 (UTC)
Full Name: Kevin Hall
Company: American Fire Sprinkler Association
Affiliation: American Fire Sprinkler Association
CAM 10-5-FINAL
FOR
The requirements of section 7.2.2(5) are technically a test and should probably be in a different section of the standard. Additionally, the annex text contradicts the requirements of the standard. This would set a precedent and blur the line between an inspection and test. For contractors, these requirements need to be consistent across all NFPA documents.

Created: 2021-06-14 13:11 (UTC)
Full Name: Christopher Creamer
Company: Dynafire
Affiliation: AFAA
CAM 10-5-FINAL
FOR
The CAM addresses a need that was omitted in error by the committee. There was considerable support in the TIA and it missed by 3. I believe if the CAM is approved by the public and returned to the Committee, they will support this code change.
CAM 10-12

Report Generated on: June 25, 2021

CAM 10-12 AGAINST

Reason: The deleted material reduces the information on the practical application of this appendix note. It is not a change to the code.

Created: 2021-06-17 16:01 (UTC)
Full Name: John Taylor
Company: Healthcare Compliance Team, LLC
Affiliation: Healthcare Compliance Team, LLC

CAM 10-12 FOR

Reason: No issue with change.

Created: 2021-06-17 14:21 (UTC)
Full Name: Jake Allen
Company: Wolf Fire Protection Inc
Affiliation: Sprinkler Subcontractor

CAM 10-12 FOR

Reason: Additional language is not necessary.

Created: 2021-06-15 20:15 (UTC)
Full Name: Justin Daniels
Company: Univ of Oklahoma
Affiliation: Center for Campus Fire Safety

CAM 10-12 AGAINST

Reason: The Committee reviewed and determined this was not needed.

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA

CAM 10-12 AGAINST

Reason: The Committee reviewed and determined this was not needed.
CAM 13-4 13-18 13-26

Report Generated on: June 25, 2021

Created: 2021-06-25 18:56 (UTC)
Full Name: Mark Hopkins
Company: TERPconsulting
Affiliation: TERPconsulting
Reason: These CAMs are regurgitating the arguments from the previous revision cycle. No new evidence has been provided regarding elevator work safety as it relates to sprinklers. There is no new information of significance to support the removal of sprinklers which will leave a void in fire protection.

Created: 2021-06-25 18:42 (UTC)
Full Name: John Denhardt
Company: American Fire Sprinkler Association
Affiliation: AFSA
Reason: The American Fire Sprinkler Association is against this motion.

Created: 2021-06-25 16:10 (UTC)
Full Name: David McColig
Company: Otis Canada Inc
Affiliation: National Elevator Industry Inc. (NEII)
Reason: I support these CAMs in order to improve safety for elevator and other personnel by eliminating the unnecessary need for entering elevator pits to service and maintain sprinklers and FAIDs. There is no proof of pit fires necessitating pit sprinklers.

Created: 2021-06-25 15:45 (UTC)
Full Name: Lawrence Taylor
Company: Schindler Elevator Corporation
Affiliation: NEII and Schindler Elevator
Reason: I support the removal of the requirement for sprinklers in all elevator pits.

Created: 2021-06-25 05:51 (UTC)
Full Name: Sagiv Weiss-ishai
Company: San Francisco Fire Department
Affiliation: San Francisco Fire Department
Reason:
The answer regarding the NFPA process: It is acknowledged that a 2/3 majority was required after CAM 13-6 had passed the NFPA membership vote during the last cycle. Since only a 14-12 majority was achieved, CAM 13-6 was not passed and therefore, it is submitted as CAM 13-4 for the 2022 cycle. However, the first revision No. 1112-NFPA 13-2019 (Section 9.3.6.1) to the 2022 edition to eliminate the pit sprinklers has passed the AUT-SSI Ballot with 26 Affirmative Votes Vs. 4 Negative Votes. This is more than a 2/3 majority. The Committee statement was detailed and comprehensive: "It will be the right thing to do for the next edition to delete the pit sprinkler requirement from NFPA 13 and to increase safety" If this was the AUT-SSI statement during the first revision, I don't understand why this position was changed. Regarding the comment indicating that "the committee requested data to support this proposed removal of sprinklers from elevator pits for elevators using combustible hydraulic fluids. The committee did not receive data that they felt they could act on." The answer is: in the last 150 years of elevators data gathering, there is not even one documented hydraulic elevator pit fire that caused the sidewall pit sprinkler to activate. It is evident that the elevator hoistways and pits are dangerous working locations for elevator and non-elevator workers. There are many injuries and fatalities of elevator personnel and non-elevator personnel performing work in elevator pits. (Examples were provided to the TC and are available from OSHA and other sources indicating Crushing, Falling, Shock and miscellaneous accidents). Removing the pit sprinkler requirement for hydraulic elevators from NFPA 13 will increase safety by not requiring elevator and non-elevator workers to service the sprinklers and their associated fire alarm initiating devices located in those pits. The lack of evidence of pit sprinklers usefulness and effectiveness is the evidence. Otherwise those who are in favor of this would have information available to show the effectiveness and usefulness, and such evidence has not been presented. Regarding installation of heat detectors in elevator pits - this installation would not be required if the pit sprinklers will be eliminated. This will increase safety significantly by not requiring non-elevator personnel to be present in elevator pits to perform testing, maintenance and inspection work of fire alarm devices under elevator cars inside the pits. Complicated access to such potential fire alarm devices from outside the pits will be prevented if this CAM is accepted. The lack of evidence of their usefulness and effectiveness is the evidence. Otherwise those who are in favor of this would have information available to show the effectiveness and usefulness, and such evidence has not been presented"

Created: 2021-06-24 14:45 (UTC)
Full Name: Rob Rubel
Company: Fire Tech Systems, Inc.
Affiliation: Fire Tech Systems, Inc.
CAM 13-4 13-18 13-26
AGAINST
Reason: This issue needs cleaner language

Created: 2021-06-24 13:04 (UTC)
Full Name: Joe Scibetta
Company: BuildingReports
Affiliation: BuildingReports
CAM 13-4 13-18 13-26
AGAINST
Reason: This is easily resolved by ensuring that when/if heat detectors are required to be installed in elevator pits, that they are fixed temperature, non-restorable spot-type heat detectors. They are visually inspected (if the semi-annual requirement is in the contractor's scope of work) and that can be done safely without getting into the pit. With the assistance of an elevator contractor to raise the car so that the technician can view the condition of the detector safely from the outside of the shaft, that visual is easily and safely performed. As for testing, there is no test requirement for this type of heat detector. They get installed and 15 years later they get replaced...done. This resolves the life safety concerns on the fire alarm side and the fire safety concerns on the water-based side. Eliminating this language entirely, though, is a scorched-earth approach that is unnecessary and heavily risk-prone.
The National Fire Sprinkler Association’s Engineering and Standards Committee is against CAM 13-4, 13-18 and 13-26. As stated in the technical committee substantiation on these CAMs, the committee requested data to support this proposed removal of sprinklers from elevator pits for elevators using combustible hydraulic fluids. The committee did not receive data that they felt they could act on. NFSA supports the technical committee’s action to keep the requirement for sprinklers in pits of elevators using combustible hydraulic fluids. The technical committee voted 23 to 9 to keep these requirements in the standard.

This can be viewed as a complex issue. The requirement to place a fire sprinkler head in the bottom of the hoistway, brings with it the requirements for a heat detection device at the bottom of the hoistway. These devices require servicing and testing in the pit/bottom of the hoistway. NFPA 72 21.3.7 requires detection devices installed within elevator hoistways to be accessible from the “outside” of the elevator shaft for service and testing. There are a few options to comply with this when protecting the top of the hoistway. Not aware of how this can be safely accomplished in pits/bottom of hoistway. This application appears to provide no level of life safety, and when installed does present serious safety risks to the people having to work on these systems. Yes, we are a fire alarm manufacturer, and we are saying detection is not needed in this application. We please ask for your support and vote "FOR" this CAM in your ballots.

Mr. Sagiv Weiss-ishai misrepresents the NFPA process. While a majority of committee members voted in favor of the CAM proposed last cycle, the vote requires two-thirds consensus. A 14-12 vote, while achieving a simple majority, does not constitute support of the committee. As for the suggestion that the cleaner language would involve removing the requirement altogether, that does not work when applying the standard as a whole. 9.1 Basic Requirements 9.1.1* The requirements for spacing, location, and position of sprinklers shall be based on the following principles: (1) Sprinklers shall be installed throughout the premises… (4) Sprinklers shall be permitted to be omitted from areas specifically allowed by this standard. Without a specific allowance for omission, many AHJs will default to requiring sprinklers in the pit in accordance with 9.1.1(4) as they have historically been required. The cleaner language I referred to in my first argument would include “Sprinklers shall not be required to be installed in elevator pits regardless of the elevator’s type.” Anything short of this clear omission would send the user back to 9.1.1.
FOR
This is to answer Mr. Jake Allen and Mr. Kevin Hall arguments: (They have the same exact argument) 1. During the last code cycle, the majority of NFPA members voted to accept CAM 13-6 to remove the pit sprinklers. Also the sprinkler committee voted in favor of CAM 13-6 after the Tech-session with 14-12 vote and also this sprinkler committee has determined during the first revision of the 2022 cycle that removing the pit sprinklers from elevator hoistways is the right thing and the safe thing to do. If the majority of the NFPA members and the majority of the sprinklers committee members believe that this is the safe and right thing to do - it could be done by accepting this CAM. 2. As mentioned in the substantiation for this CAM - Many US jurisdictions have already eliminated the pit sprinklers from their local codes with no negative impact. Removing these sprinklers increases safety. 3. The "Cleaner language" would be to completely remove the pit sprinkler requirement from NFPA 13 and this would eliminate any possible confusion.

AGAINST
Sprinklers in elevator hoistways have always been a point of contention for the sprinkler contractor, and the argument to take sprinklers out of elevator hoistways was heavily debated last cycle. Unfortunately, if this CAM is accepted, the issue would not be fixed – only further confused. Without a specific requirement permitting omission in elevator hoistways, sprinklers would have to be installed in accordance with 9.1.1. In the interim, section 9.3.6.1 provides prescriptive requirements on where to install within the hoistway. Cleaner language needs to be added for the 2025 edition of the standard to adequately address this issue.
Created: 2021-06-14 13:13 (UTC)
Full Name: Christopher Creamer
Company: DynaFire
Affiliation: AFAA
CAM 13-4 13-18 13-26
FOR
Reason: I support the removal of the fire sprinklers in the pit.
CAM 13-17 13-44

Report Generated on: June 25, 2021

Created: 2021-06-25 18:56 (UTC)
Full Name: Mark Hopkins
Company: TERP consulting
Affiliation: TERP consulting
CAM 13-17 13-44
AGAINST
Reason: The CAM identifies that people are misinterpreting that NFPA 13 is requiring smoke detectors. This is not within the scope of NFPA 13, this is an educational problem and not an issue with the requirements of NFPA 13.

Created: 2021-06-25 18:42 (UTC)
Full Name: John Denhardt
Company: American Fire Sprinkler Association
Affiliation: AFSA
CAM 13-17 13-44
AGAINST
Reason: The American Fire Sprinkler Association is against this motion.

Created: 2021-06-25 16:10 (UTC)
Full Name: David McColl
Company: Otis Canada Inc
Affiliation: National Elevator Industry Inc. (NEII)
CAM 13-17 13-44
FOR
Reason: I support these CAMs in order to eliminate conflict between ASME A17.1/CSA B44 Elevator Safety Code and NFPA 13 and to eliminate the unnecessary installation and maintenance of FAIDs when not required.

Created: 2021-06-25 09:25 (UTC)
Full Name: Sagiv Weiss-ishai
Company: San Francisco Fire Department
Affiliation: San Francisco Fire Department
CAM 13-17 13-44
FOR
The conflict between NFPA 13 and ASME A17.1 and NFPA 72 is: The intent of the current NFPA 13 Section 9.3.6.6 which has the same code language as in many previous NFPA 13 editions was to not require sprinklers at the tops of passenger elevators hoistways (meeting the A17.1 non-combustibility requirements). This NFPA 13 section never required the addition of top-of-hoistway smoke detection in lieu of this non-required sprinkler. And this is where the conflict exist: the current section 9.3.6.3 item #2 requires a smoke detector to be installed at the top of passenger elevator hoistways when sprinklers are not required to be installed at those hoistways per 9.3.6.6. The smoke detectors are still required to be provided at the tops of all Machine-Room-Less (MRL) Passenger Elevators per the A17.1 Code and installed per NFPA 72. But there are still many passenger elevators with machine rooms (standard overhead traction elevator and hydraulic elevators) which currently do not require associated smoke detection at their top of hoistways and this is the main issue that this CAM is trying to resolve. Also, NFPA 72 Section 21.3.7 requires all FAIDs installed inside elevator hoistways to be accessible from outside the hoistway. Based on this NFPA 13 Subsection (2) to Section 9.3.6.1, if FAIDs are required to be installed at the tops of all un-sprinklered elevator hoistways, this will significantly and unnecessarily increase the cost and burden to building owners by forcing them to provide the required access means to the FAID from outside the hoistway and also the associated maintenance, testing, repair and inspection of the FAIDs.

**Reason:**

I don't see a conflict between this language and ASME A17.1 or NFPA 72. This section of NFPA 13 isn't dictating when or if smoke detection should exist in these areas but is rightfully addressing what is in its scope, namely whether automatic sprinkler protection is required when such detection exists in tandem with the other three requirements.

**Created:** 2021-06-24 14:56 (UTC)
**Full Name:** Joe Scibetta
**Company:** BuildingReports
**Affiliation:** BuildingReports

**Reason:** In order to omit sprinklers within the elevator hoistway, some sort of detections needs to be installed.

**Created:** 2021-06-22 19:28 (UTC)
**Full Name:** Roland Asp
**Company:** National Fire Sprinkler Association
**Affiliation:** National Fire Sprinkler Association

**Reason:** The National Fire Sprinkler Association’s Engineering and Standards Committee is against CAM 13-17 and 13-44. We support the technical committee’s action to maintain this requirement in NFPA 13.

**Created:** 2021-06-21 06:11 (UTC)
**Full Name:** Sagiv Weiss-ishai
Company: San Francisco Fire Department
Affiliation: San Francisco Fire Department
CAM 13-17 13-44

FOR
To answer Mr. John Taylor, Mr. Jake Allen and Mr. Kevin Hall argument that "some form of fire detection needs to be installed" - This is exactly the point of this CAM - This smoke or other fire detection is already required by the ASME A17.1 Elevator Code and specified in NFPA 72. NFPA 13 is an automatic sprinkler code and it should not require or specify smoke detection in elevator hoistways especially if this smoke detection generates elevator recall and other requirements such as access to the smoke detector from outside the hoistway (NFPA 72 Section 21.3.7), etc. Since the hoistway smoke detection is already included and specified in other codes (ASME A17.1 and NFPA 72) - there is no need to also include it in NFPA 13 and create unnecessary conflicts and confusion. Lastly, the AFAA argument indicating that the committee reviewed it and determined "this was not needed" is not a substantiated technical or safety based argument.

Created: 2021-06-17 16:01 (UTC)
Full Name: John Taylor
Company: Healthcare Compliance Team, LLC
Affiliation: Healthcare Compliance Team, LLC
CAM 13-17 13-44
AGAINST
Reason: Some form of fire detection is required in elevator machinery spaces.

Created: 2021-06-17 14:21 (UTC)
Full Name: Jake Allen
Company: Wolf Fire Protection Inc
Affiliation: Sprinkler Subcontractor
CAM 13-17 13-44
AGAINST
Reason: In order to omit sprinklers within the hoistway of a traction elevator, some form of fire detection needs to be installed.

Created: 2021-06-14 14:26 (UTC)
Full Name: Kevin Hall
Company: American Fire Sprinkler Association
Affiliation: American Fire Sprinkler Association
CAM 13-17 13-44
AGAINST
Reason: In order to omit sprinklers within the hoistway of a traction elevator, some form of fire detection needs to be installed.

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA
CAM 13-17 13-44
AGAINST
Reason: The Committee reviewed and determined this was not needed.
The proposed language requires specific knowledge of the water supply that for most projects is not possible to obtain, even from consultation with the water authority. It is more appropriate for this language to remain in the annex where it currently resides, rather than create a requirement in the standard that is not possible to comply with.

Relocation of the information to the annex is appropriate. This is the approach that has been used for many years. Evaluation of water supplies is done in a meaningful manner and adjustments are only applied when considered necessary. There are stable water supplies that have had little to no change and do not warrant evaluation or adjustment. There are other water supplies that have drastic pressure swings and water both evaluation and adjustment. These situations need to be dealt with on an individual basis. The language is informative and provides benefit for anyone evaluating a water supply and is appropriate in the annex.

The American Fire Sprinkler Association supports this motion.
1. The existing requirement in section 5.2.2.2 is adequate because it requires the method used to provide water supply data to be approved. That means the AHJ must be consulted and approve the method used. The AHJ has specific knowledge of the water supplies in their jurisdiction and can require any adjustment that they believe is needed. The annex to 5.2.2 and 5.2.2.2 provides directions on how to conduct a water flow test using hydrants as well as adequate guidance on what factors should be taken into consideration when discussing any needed adjustments with the AHJ. 2. The added requirements in sections 5.2.2.1 through 5.2.2.2.2 and all related annex text puts an undue burden on sprinkler contractors trying to do the right thing when trying to establish water supply data. NFPA 13 is the Standard for the Installation of Sprinkler Systems and is geared toward the installing sprinkler contractor. These new sections require an evaluation, requires that engineering judgement be used, and requires the use of data for the evaluation that isn’t available to the installing contractor, such as daily and seasonal fluctuations. The AHJ has knowledge of this data and access to it, whereas the sprinkler contractor does not. 3. The added requirements in sections 5.2.2.1 through 5.2.2.2.2 and all related annex text applies to a design professional or engineer of record and should not be a general requirement for the users of NFPA 13. The SFPE Position Statement 2020-1 makes it very clear that water supply adjustments are the responsibility of the engineer, and I quote: “The Engineer is responsible for the preparations of engineering documents that establish the objectives and design criteria of the system(s). …the documents should include, at a minimum, the following information when applicable: • Water-based suppression systems: … d) determine and confirm the available water supply including any necessary adjustments; … Had these new requirements only been applied to section 4.2 Owner’s Certificate item (3) no one would object to them because the owner’s agent would have the responsibility to comply. However, by putting these new requirements in chapter 5, they apply to anyone using the document, whether qualified to perform engineering or not. 4. There isn’t any history of fire losses that can be directly tied to using a water flow test that wasn’t adjusted as these new requirements describe. These new requirements aren’t being introduced to solve any know problem, but instead will create many new problems for installing contractors. There are already multiple safeguards built into the design criteria for sprinkler systems in NFPA 13 including the design density, the remote area size and shape, the pipe friction loss factors, and many others. For those worried about the adequacy of the water supply there are many safeguards built into the standard to ensure the water supply data used in the hydraulic calculations is adequate.

Reason: Statement 2020-1 makes it very clear that water supply adjustments are the responsibility of the engineer, and I quote: “The Engineer is responsible for the preparations of engineering documents that establish the objectives and design criteria of the system(s). …the documents should include, at a minimum, the following information when applicable: • Water-based suppression systems: … d) determine and confirm the available water supply including any necessary adjustments; … Had these new requirements only been applied to section 4.2 Owner’s Certificate item (3) no one would object to them because the owner’s agent would have the responsibility to comply. However, by putting these new requirements in chapter 5, they apply to anyone using the document, whether qualified to perform engineering or not. 4. There isn’t any history of fire losses that can be directly tied to using a water flow test that wasn’t adjusted as these new requirements describe. These new requirements aren’t being introduced to solve any know problem, but instead will create many new problems for installing contractors. There are already multiple safeguards built into the design criteria for sprinkler systems in NFPA 13 including the design density, the remote area size and shape, the pipe friction loss factors, and many others. For those worried about the adequacy of the water supply there are many safeguards built into the standard to ensure the water supply data used in the hydraulic calculations is adequate.

Created: 2021-06-25 13:59 (UTC)

Full Name: George Stanley

Company: Wiginton Fire Protection Engineering

Affiliation: Wiginton fire Protection Engineering, Inc.

CAM 13-23 13-37 13-42

FOR

I do not think anyone can deny the fact that fire sprinkler systems have a great success record based on the various editions of NFPA 13. The present language in 5.2.2 and A.5.2.2 gives reasonable guidance to the contractor, the EOR and the AHJ as it pertains to a waterflow test data. This new proposed evaluation of every waterflow test to determine if an adjustment is necessary, creates a lot of questions. Who would provide this evaluation? Will it be the water purveyor? Will it be the AHJ? Will it be the EOR? Will it be the contractor? Do you base the evaluation on 5 years, 10 years, or 20 years of growth without any improvements? The reliability of a waterflow test and any language on considerations for daily, seasonal, or future growth have been in the annex since the 1973 edition. During the first draft meeting, there was never any factual evidence presented that there is a real problem or abuse with the existing language. Also, let us not forget that there are several safety factors in the design process of a fire sprinkler system. Today, most storage warehouses are protected with ESFR sprinklers, which have at least a 50% safety factor based on their listings. If you are using a density/area design, then there is at least 20% safety factor in the design area layout. The hose stream allowances that we are required to add to the system demand are never used until the fire department arrives and pressurizes the system. Considering the history of the annex language, no evidence of abuse, built in safety factors, and the successful history of fire sprinklers, I strongly encourage you to support CAM 13-23, 13-37, and 13-42.
FOR

Reason: Water supply adjustments should be the responsibility of the water purveyor, owner, or engineer of record - not the contractor.

Created: 2021-06-24 14:45 (UTC)
Full Name: Rob Rubel
Company: Fire Tech Systems, Inc.
Affiliation: Fire Tech Systems, Inc.
CAM 13-23 13-37 13-42
FOR

Reason: Water supply adjustments should be the responsibility of the water purveyor, owner, or engineer of record - not the contractor.

Created: 2021-06-24 14:09 (UTC)
Full Name: Terry Victor
Company: Johnson Controls
Affiliation: Johnson Controls FP
CAM 13-23 13-37 13-42
FOR

In response to Mr. Isman’s comments against the CAMs I offer the following: 1. The submitter of this new language did not provide any proof that “unscrupulous contractors” are taking advantage of the current language in the 2019 edition of NFPA 13. Why would someone falsify a water flow test or take a flow test during a time during low water usage? An inflated water flow test would be revealed when the acceptance testing of the system is performed, especially if a fire pump or standpipe system is installed in the building. But even in buildings without a fire pump or standpipe system, the main drain test that’s required for each new installation would indicate an inadequate water supply when compared to the hydraulic calculations. And if the water supply ever became deficient due to any of the numerous factors that are mentioned, the periodic tests required by NFPA 25 would reveal the deficiency and trigger an investigation to determine the reason. 2. The requirements were changed in the 2010 edition, not the 2013 as Mr. Isman states. For the past 4 editions of NFPA 13 the water supply requirements have remained the same, and again there’s no evidence that these requirements are inadequate or are being used in an unscrupulous manner. 3. The requirements in the 2007 edition were changed for the same reason the language proposed for the 2022 edition is being opposed. There were unreasonable requirements in the body of the standard. 4. Sprinkler contractors select hazard classifications on a regular basis because NFPA 13 is very prescriptive about how to perform that selection from the criteria provided in the standard. If there’s a question about an occupancy or classification, the contractor works it out with the AHJ. 5. Some of the water supply variables that are included in the proposed annex text (A.5.2.2.2.2.1) are not prescriptive at all and would be very difficult, if not impossible to determine. For instance, how do you determine the water supply degradation due to planned development? How far into the future do you have to consider planned development? 6. Other guidance in proposed A.5.2.2.2.2.1 leaves the contractor right back where they started from: “In the absence of information from the design professional and the authority having jurisdiction, it would be appropriate to make an adjustment to the raw data from a flow test by either obtaining information from the water utility or using a reasonable adjustment. Such an adjustment should be determined through a conversation with the authority having jurisdiction.” The “approved” method required by the 2019 edition means by definition a method “acceptable to the authority having jurisdiction.” Again, the current language in the 2019 edition is appropriate and proven to be adequate and should be retained.

Created: 2021-06-23 11:18 (UTC)
Full Name: Joshua McDonald
Company: American Fire Sprinkler Association
Affiliation: American Fire Sprinkler Association
CAM 13-23 13-37 13-42
FOR

In response to Mr. Isman’s comments against the CAMs I offer the following: 1. The submitter of this new language did not provide any proof that “unscrupulous contractors” are taking advantage of the current language in the 2019 edition of NFPA 13. Why would someone falsify a water flow test or take a flow test during a time during low water usage? An inflated water flow test would be revealed when the acceptance testing of the system is performed, especially if a fire pump or standpipe system is installed in the building. But even in buildings without a fire pump or standpipe system, the main drain test that’s required for each new installation would indicate an inadequate water supply when compared to the hydraulic calculations. And if the water supply ever became deficient due to any of the numerous factors that are mentioned, the periodic tests required by NFPA 25 would reveal the deficiency and trigger an investigation to determine the reason. 2. The requirements were changed in the 2010 edition, not the 2013 as Mr. Isman states. For the past 4 editions of NFPA 13 the water supply requirements have remained the same, and again there’s no evidence that these requirements are inadequate or are being used in an unscrupulous manner. 3. The requirements in the 2007 edition were changed for the same reason the language proposed for the 2022 edition is being opposed. There were unreasonable requirements in the body of the standard. 4. Sprinkler contractors select hazard classifications on a regular basis because NFPA 13 is very prescriptive about how to perform that selection from the criteria provided in the standard. If there’s a question about an occupancy or classification, the contractor works it out with the AHJ. 5. Some of the water supply variables that are included in the proposed annex text (A.5.2.2.2.2.1) are not prescriptive at all and would be very difficult, if not impossible to determine. For instance, how do you determine the water supply degradation due to planned development? How far into the future do you have to consider planned development? 6. Other guidance in proposed A.5.2.2.2.2.1 leaves the contractor right back where they started from: “In the absence of information from the design professional and the authority having jurisdiction, it would be appropriate to make an adjustment to the raw data from a flow test by either obtaining information from the water utility or using a reasonable adjustment. Such an adjustment should be determined through a conversation with the authority having jurisdiction.” The “approved” method required by the 2019 edition means by definition a method “acceptable to the authority having jurisdiction.” Again, the current language in the 2019 edition is appropriate and proven to be adequate and should be retained.
A sprinkler contractor should not use raw data without understanding the water supply fluctuations. The NFPA 13, 1996 (A.7.2.1) allowance and NFPA 13, 2010 edition (A.23.2.1.2) included the considerations as annex language. The annex language did not put the responsibility directly on the contractor and/or designers’ shoulders as it is not enforceable but did make them aware that more is involved. The supplemental information in the annex, similarly found in A.5.2.2.2 (2019 edition), is important and should involve the engineer on record, building owner, and/or Authority Having Jurisdiction to make proper adjustment for the individual locations. The current verbiage does not simply require the contractor to acquire the appropriate information for the water supply from qualified individuals evaluating the water supply. This language, in Chapter 5, requires the contractor and/or designer to be the individuals to evaluate the water supply, have knowledge of the local water supply, provide engineering judgment, and determine the appropriate adjustment for the location, which is not reasonable or practical.

Created: 2021-06-23 11:14 (UTC)
Full Name: Joshua McDonald
Company: American Fire Sprinkler Association
Affiliation: American Fire Sprinkler Association

FOR

Responding to John Taylor's comment: I do not disagree. Water flow information from a public source including seasonal and "other factors" should be considered. A contractor or designer who is designing a sprinkler system (many times not familiar with the local water supplies in the location of design) cannot be responsible for the water supply evaluation. The engineer on record, building owner, local water department, and Authority Having Jurisdiction (AHJ) should be responsible for the analysis as there are multiple factors (seasonal/other) that the local jurisdiction must adjust for with the supply that they are intimate with. The current language in the 2019 edition of NFPA 13 complies with your comments.

Created: 2021-06-22 19:28 (UTC)
Full Name: Roland Asp
Company: National Fire Sprinkler Association
Affiliation: National Fire Sprinkler Association
FOR
The National Fire Sprinkler Association’s Engineering and Standards Committee supports CAMs 13-23, 13-37 and 13-42. NFPA 13 works very well as currently written and needs to remain as is. The current annex language has which states that an adjustment to the waterflow test data should be made as appropriate has served the goals of NFPA 13 very well and needs to remain. Putting this new requirement into the body of the standard in chapter 5 is unreasonable and certainly not needed. The unparalleled record of success of fire sprinklers systems show that the NFPA 13 works as written. As shown by NFPA’s own data, fire sprinkler systems are extremely effective, and the rare failures are primarily caused by closed control valves and not insufficient water supplies. This new language is searching for a problem that does not exist. These CAMs need to be approved for the following reasons: • As shown by the enviable record of fire sprinkler systems, the current language found in 5.2.2.2 and its associated annex language has been proven to be adequate and needs to remain as currently written • The current process mandated by NFPA 13 to determine the proper design criteria is inherently conservative and has been shown to be more than sufficient. • The proposed language in Sections 5.2.2.2.1, 5.2.2.2.2, 5.2.2.2.2.1 and all associated annex text is inappropriate to be included in the general section of NFPA 13 (Chapter 5). Specific knowledge of the water supply is the responsibility of the water purveyor and engineering judgment is the responsibility of a professional engineer. It is not reasonable to give this responsibility to all users of NFPA 13. • The information required to comply with these new requirements is difficult and, in some cases, impossible to obtain and will lead to delays, cost increases and increase liability. If these new requirements are to be added to NFPA 13, they would be more appropriate to be included in the Owner’s Certificate (Section 4.2) which requires the owner and their responsible design professional to provide the water supply information including any needed evaluation. In conclusion, the current language in the 2019 edition of NFPA 13 provides, as the scope in Section 1.1.1 requires, the “minimum requirements for the design...” The new requirements proposed for the body of the standard go beyond this scope, are not needed, and will lead to confusion and misapplication of this “required” evaluation. No data was submitted showing that the current language is a problem or is leading to ineffective systems. The new requirements are unreasonable, not needed, and difficult if not impossible to comply with and must be included in the next edition of NFPA 13. For more information, please read the submitter’s full substantiations for CAM 13-23, 13-37 and 13-42 which is available on the NFPA technical meeting page.

Created: 2021-06-21 17:28 (UTC)
Full Name: Kenneth Isman
Company: University Of Maryland
Affiliation: Self
CAM 13-23 13-37 13-42
AGAINST
NFPA 13 has a serious flaw. A sprinkler contractor can use the raw data from a workflow test that they know was taken at a time when the flow and pressure were unusually good without any adjustment or safety margin. Good sprinkler contractors would not do this, but the standard currently allows unscrupulous contractors to take advantage. Yes, many AHJs that have passed their own rules, but the whole point of NFPA 13 is to standardize the rules, not leave important issues in the laps of thousands of AHJs, some of which don’t know that it is currently incomplete. Here are two responses to the liability concerns: 1) In the 1991 to 2010 editions of NFPA 13, there were requirements for adjustments for: • Daily and seasonal fluctuations • Possible interruptions from flood or ice conditions • Future demand on water supply systems • Any other condition that could affect the water supply Sprinkler contractors were able to comply with these rules. The new language is much better than this old language because it specifically calls for the potential adjustment to be made regarding daily and seasonal fluctuations while specifically prohibiting the AHJ from forcing large adjustments for extreme conditions. 2) There are requirements in NFPA 13 that don’t apply to all sprinkler contractors. The contractors need to make it clear in their contracts what they will be responsible for and what they won’t. The following is a short list of some of the rules in NFPA 13 that many sprinkler contractors are not competent to determine on their own, yet the rules are important to have in NFPA 13 because this standard needs to have all of the rules for the design of a sprinkler system, even those that need to be followed by building owners and design engineers: o Section 4.3 Classification of Hazard – In most of the states in the U.S., this is required to be performed by a Professional Engineer (PE). If the contractor does not have a PE on staff, this needs to be done by another party. o Chapter 6 Installation of Underground Piping – Many sprinkler contractors don’t do underground work, but the rules still need to be included in NFPA 13 in order for the document to be complete. Whoever does this work needs to follow these rules, even if it is not the sprinkler contractor. o 17.4.1.3 Building Structure – The building structure is required to support the load of the pipe plus 250 lb. Sprinkler contractors don’t do this analysis, yet the rule needs to be in the standard. o 18.5.9 – Short Period Response Parameter – The sprinkler contractor is responsible for obtaining the correct value in order to do the seismic brace calc’s. They don’t do this on their own. They know how to get it from others. In conclusion, the rules that have been proposed for NFPA 13 are reasonable, necessary and consistent with the other requirements in the document. If you vote to take these rules out, you open up the standard to abuse.
It's important that these new unreasonable requirements be removed and the previous requirements remain in place. The negative impact of these new requirements will be extensive, causing delays in projects, confusion by installing contractors trying to determine the different variables involved, and inconsistent application of an adjustment to water supply test data. The AHJ has the most knowledge of the water supply and should be the source of any adjustment needed, not the installing contractor.

Created: 2021-06-17 16:01 (UTC)
Full Name: John Taylor
Company: Healthcare Compliance Team, LLC
Affiliation: Healthcare Compliance Team, LLC
CAM 13-23 13-37 13-42
AGAINST
Water flow information from a public source for fire suppression should consider seasonal and other factors that may affect water flow. These "other issues" will affect the amount of water available and the fire suppression equipment performance prior to supplemental feeds established during fire fighting which may impact the suppressions systems ability to control an insipient stage fire.

Created: 2021-06-17 14:21 (UTC)
Full Name: Jake Allen
Company: Wolf Fire Protection Inc
Affiliation: Sprinkler Subcontractor
CAM 13-23 13-37 13-42
FOR
Requirements for water supply adjustments were added to the body of the standard during the first draft of the 2022 edition. Water supply adjustments should be the responsibility of the water purveyor, owner, or engineer of record – not the contractor. Where the requirements currently sit, the responsibility may fall to the contractor. These requirements are more appropriate to be included with the owner’s certificate in 4.2. The language in chapter 5 currently requires engineering judgement to be used which is outside the scope of most installing contractors.

Created: 2021-06-16 21:41 (UTC)
Full Name: Taylor Schumacher
Company: Security Fire Sprinkler
Affiliation: Security Fire Sprinkler
CAM 13-23 13-37 13-42
FOR
The water supply adjustment shall be the decision of the water purveyor alone. Every jurisdiction shall have the right to adopt adjustments that apply to their specific circumstances. This language opens these adjustments up to interpretation by anyone who does a water supply analysis. The disparity between these adjustments could cause great problems and only moves the design and installation practices away from a standardized process.

Created: 2021-06-16 14:10 (UTC)
Full Name: Matthew Chase
Company: Chase Engineering
Affiliation: NFPA
CAM 13-23 13-37 13-42
FOR
The original change as written puts an undo burden on the sprinkler designer and that burden would be better placed with the owner or the Civil Engineer via NFPA 24. Currently the practice is to make the sprinkler contractor responsible for everything in NFPA 13, however, their expertise is not with assessing underground mains or water supplies. The water purveyor and the civil engineer are better suited to do the very complex assessment of the water supply. If the code provided a prescriptive safety factor or adjustment to the water supply that all sprinkler contractors could easily use during bidding then the intent of the proposed change would more likely be met.

Created: 2021-06-14 14:26 (UTC)
Full Name: Kevin Hall
Company: American Fire Sprinkler Association
Affiliation: American Fire Sprinkler Association
  CAM 13-23 13-37 13-42
FOR
Reason: Requirements for water supply adjustments were added to the body of the standard during the first draft of the 2022 edition. Water supply adjustments should be the responsibility of the water purveyor, owner, or engineer of record – not the contractor. Where the requirements currently sit, the responsibility may fall to the contractor. These requirements are more appropriate to be included with the owner’s certificate in 4.2. The language in chapter 5 currently requires engineering judgement to be used which is outside the scope of most installing contractors.

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA
  CAM 13-23 13-37 13-42
FOR
Reason: Good change
CAM 13-34

Report Generated on: June 25, 2021

Created: 2021-06-25 21:03 (UTC)
Full Name: Michael Joanis
Company: National Fire Sprinkler Association
Affiliation: National Fire Sprinkler Association
CAM 13-34
FOR

Fire tests from a nationally recognized testing laboratory have shown these ESFR sprinklers perform successfully with less than a 12 sprinkler design area, including safety factor. If the standard requires all ESFR sprinkler designs to maintain a minimum 12 sprinkler design area, it will be in direct conflict with the test results. It is more appropriate to return to the 2019 edition language until such time as the technical committee can address their concerns regarding less than 12 ESFR sprinkler design areas with the nationally recognized testing laboratories.

Created: 2021-06-25 18:56 (UTC)
Full Name: Mark Hopkins
Company: TERPconsulting
Affiliation: TERPconsulting
CAM 13-34
FOR

Reason: Removal allows the use of these sprinklers with their listings.

Created: 2021-06-25 16:19 (UTC)
Full Name: Kelly Nicolello
Company: UL LLC
Affiliation: UL LLC
CAM 13-34
AGAINST

We noted that several of the comments indicate that the action of CAM 13-34 would eliminate the confusion between a listing that references a 9 sprinkler hydraulic design compared to the 12 sprinkler design that was determined to be appropriate by the NFPA Technical Committee. It is important to point out that in addition to the listing of the nominal K-28 and K-33.6 sprinklers with a hydraulic design of 9 sprinklers, the same organization has also listed nominal K-14, K-16.8, K-22.4 and K-25.2 ESFR sprinklers with a 9 sprinkler hydraulic design for several storage arrangements. These listings have been referenced in NFPA 13 with a 12 sprinkler hydraulic design for many years. There is no greater confusion created for the nominal K-28 and K-33.6 since these hydraulic design inconsistencies already exist for many other ESFR sprinklers currently referenced in the standard. We also noticed some comments suggesting the concept of using the Equivalency clause in section 1.5 for the 9 sprinkler design. The NFPA Technical Committee already determined that the 9 sprinkler design protection scheme was not equivalent to the 12 sprinkler design by a strong consensus vote of 33-2. This does not appear to be a sound rationale for supporting CAM 13-34.

Created: 2021-06-25 13:59 (UTC)
Full Name: George Stanley
Company: Wiginton Fire Protection Engineering
Affiliation: Wiginton Fire Protection Engineering, Inc.
CAM 13-34
FOR
If the K28 and K33.6 sprinklers remain in the table 23.3.1 with a requirement of a 12 head design, then it will cause a lot of confusion for AHJs and contractors. The NFPA design would have a system demand of over 3,000 GPM not including hose where the FM design would have a system demand of 2250 GPM not including hose demand. There would be a tremendous cost difference to the owner. The additional cost would be in the larger overhead piping, fire pump size and adding a ground storage tank. The additional cost to the owner could be in the 100s of thousands of dollars. It is a shame that the committee did not accept the full FM test report to allow a 9 or 10 head designs. I encourage you to support cam 13-34.

Created: 2021-06-24 12:55 (UTC)
Full Name: Russell Fleming
Company: Northeast Fire Suppression Ass
Affiliation: Self

CAM 13-34
AGAINST
Removing the recognition of new larger orifice sprinklers from the sprinkler installation standard may have some short-term advantages, but it is at the risk of jeopardizing the status of NFPA 13 as the national consensus standard in the U.S., Canada, and elsewhere. It has been 125 years since NFPA 13 was first developed in response to the confusion resulting from a wide variety of sprinkler system installation standards published by individual insurance companies, reportedly seven in the Boston area alone. If there is a conflict between the national consensus standard and the standard used by one insurance company, it is far better for the fire protection community to resolve it in favor of the consensus standard. Although an individual insurance company may be in a position to police conditions unfavorable to sprinkler performance, the 22-2 vote by the balanced technical committee (of which I am not a member) has made it clear they are far from convinced that the reduced safety factors proposed for use with the new larger orifice sprinklers will be appropriate for general application.

Created: 2021-06-22 19:28 (UTC)
Full Name: Roland Asp
Company: National Fire Sprinkler Associ
Affiliation: National Fire Sprinkler Association
CAM 13-34
FOR
The National Fire Sprinkler Association’s Engineering and Standards Committee supports CAM 13-34. As the substantiation for this CAM may not be evident to all, I am repeating here for this debate. Certified Amending Motion No. 34 has been submitted on behalf of the National Fire Sprinkler Association Engineering and Standards Committee and seeks to reject Second Revision No. 1162. Second Revision No. 1162 added K-28 and K-33.6 ESFR sprinklers to Table 23.3.1 and would mandate that these sprinklers be used with 12 sprinklers in the design area although they have been approved and tested with a 9 or 10 sprinkler design area. This will lead to confusion and this change needs to be rejected. Newer types of ESFR sprinklers have been approved by Factory Mutual with a design area consisting of 9 or 10 sprinklers. Fire test reports were submitted to the discharge committee, however, Second Revision No. 1162 would specifically mandate the traditional 12 sprinkler design. This Second Revision should be rejected based upon the following: • Fire tests have shown that these ESFR sprinklers perform adequately with a 9 or 10 sprinkler design area. Mandating 2 or 3 additional sprinklers will substantially increase the needed demand. This will limit options for designers and installers and would substantially increase the costs to the owners. • This Second Revision would limit options for Authorities Having Jurisdiction (AHJs) from accepting these approved designs and cause confusion. Although AHJs do have the ability to approve the use of these sprinklers with the 9 or 10 sprinkler design area per the equivalency provisions of Section 1.5, the fact that NFPA 13 would specifically mandate a twelve-sprinkler design area for the same product would certainly cause confusion and conflicting requirements. • It is not good for the fire protection industry to have conflicting requirements project to project. As the technical committee responsible for Chapter 23 is not ready to include these sprinklers in the standard with the 9 and/or 10 sprinkler designs, instead of modifying the approved design it would be better to remove mention of K-28 and K-33.6 sprinklers from Table 23.3.1. CAM 13-34 needs to be accepted, and the committee can address this issue next cycle.

Certified Amending Motion No. 34 has been submitted on behalf of the National Fire Sprinkler Association Engineering and Standards Committee and seeks to reject Second Revision No. 1162. Second Revision No. 1162 added K-28 and K-33.6 ESFR sprinklers to Table 23.3.1 and would mandate that these sprinklers be used with 12 sprinklers in the design area although they have been approved and tested with a 9 or 10 sprinkler design area. This will lead to confusion and this change needs to be rejected. Newer types of ESFR sprinklers have been approved by Factory Mutual with a design area consisting of 9 or 10 sprinklers. Fire test reports were submitted to the discharge committee, however, Second Revision No. 1162 would specifically mandate the traditional 12 sprinkler design. This Second Revision should be rejected based upon the following: • Fire tests have shown that these ESFR sprinklers perform adequately with a 9 or 10 sprinkler design area. Mandating 2 or 3 additional sprinklers will substantially increase the needed demand. This will limit options for designers and installers and would substantially increase the costs to the owners. • This Second Revision would limit options for Authorities Having Jurisdiction (AHJs) from accepting these approved designs and cause confusion. Although AHJs do have the ability to approve the use of these sprinklers with the 9 or 10 sprinkler design area per the equivalency provisions of Section 1.5, the fact that NFPA 13 would specifically mandate a twelve-sprinkler design area for the same product would certainly cause confusion and conflicting requirements. • It is not good for the fire protection industry to have conflicting requirements project to project. As the technical committee responsible for Chapter 23 is not ready to include these sprinklers in the standard with the 9 and/or 10 sprinkler designs, instead of modifying the approved design it would be better to remove mention of K-28 and K-33.6 sprinklers from Table 23.3.1. CAM 13-34 needs to be accepted, and the committee can address this issue next cycle.

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Viking supports CAM 13-34. If the Technical Committee is not yet ready to accept an ESFR sprinkler with a 9 sprinkler design area then Viking would prefer to have this advancement in technology be addressed through Equivalency rather than risk the confusion of a dual standard for these sprinklers until such time that the Technical Committee is comfortable with this concept. Factory Mutual has approved these sprinklers and published a 9-sprinkler design which adds value to the end users in reduction of water usage and supply while providing world class fire protection. In UL's stated reason for opposing the CAM Section 21.1.8.1 is referred to in reference to the 12-sprinkler design restriction (For clarification, the 2019 edition moved this to 24.1.8.1). The 9-sprinkler design was not submitted as an alternate design in Chapter 24 but to Chapter 23 as a new standard for these sprinklers at these ceiling heights with considerable documentation as to the successful testing conducted at Factory Mutual, a nationally recognized laboratory. The result of this CAM would remove references to these sprinklers from Chapter 23, Viking agrees with this and does not want conflicting design criteria from NFPA. Subsequently the acceptance of the 9-sprinkler design would be considered an “Equivalency” as permitted by Section 1.5 not Chapter 24. The standard would not be silent on the topic because Equivalency and New Technologies are foundational concepts that envision technologies advancing between published editions of the standard and provides guidance on their acceptance. Equivalent designs and New Technologies have historically been the drivers of advancing the requirements in the standard. The Extra-Large Orifice (ELO) and Extended Coverage Ordinary Hazard (ECOH) sprinklers are examples of technologies that resided under Equivalency until such time that the Technical Committee accepted them, and they became part of the standard. Current sprinklers such as Combustible Concealed Space and Attic Sprinklers utilize this “Equivalency” since their design requirements are based on the Listing, not NFPA 13. Finally, equivalency is established by full scale fire testing and evaluation by a nationally recognized lab – FM Global and is always subject to the approval of the AHJ. We do not believe it is the intent of NFPA 13 to remove or limit the ability of the AHJ to accept an equivalent design provided the provisions of Section 1.5 are met.

Reason:

Created: 2021-06-21 23:16 (UTC)
Full Name: Steven Wolin
Company: The Reliable Automatic Sprinkler Co. Inc.
Affiliation: The Reliable Automatic Sprinkler Co. Inc.
CAM 13-34 AGAINST
For decades fire tests have been conducted with ESFR sprinklers that operated 6 or less sprinklers and would have allowed a 9 sprinkler design if only a 50% safety factor were required. Public Inputs (PIs) on K28 and K33.6 sprinklers attempted to allow a 9 or 10 sprinkler design for only select ESFR sprinklers, but ignored existing ESFR sprinklers and ignored the clear language of NFPA 13 that prohibited a 9 or 10 sprinkler hydraulic design. Instead, the Technical Committee (TC) included the criteria for K28 and K33.6 sprinklers, but used a 12 sprinkler design consistent with ESFR design criteria in NFPA 13. Since the origin of ESFR sprinklers in NFPA 13, a minimum of 12 sprinklers has been required in the hydraulic design. That requirement is stated in Section 24.1.8.1. Having submitted several new design criteria to NFPA standards over the past decade, I know that proposed criteria may not be accepted by the TC exactly as submitted — especially when the criteria submitted is in direct conflict with existing requirements. In this case, instead of accepting a likely result of the process, this is an effort by those unhappy with the foreseeable results of their PIs to take their ball and go home. To help reconcile the PIs on K28 and K33.6 sprinklers with the requirements of NFPA 13, I submitted a Public Comment (PC) on this issue to consistently modify criteria throughout NFPA 13 if the TC decided to proceed with less than a 12 sprinkler design. That PC was resolved (rejected) when the TC reaffirmed that they would continue, as they have for the past 35 years, to require a minimum 12 sprinkler design for ESFR sprinklers. As a Member of the TC, I support that decision. FM Global permits 9 and 10 sprinkler hydraulic designs for standard coverage sprinklers in their Property Loss Prevention Data Sheet 8-9 (DS 8-9); this includes K14, K16.8, K22.4, K25.2, K28, and K33.6 sprinklers. As an insurance company, it is their decision and their risk to decide how to protect buildings that they insure. However, FM Global does not set the minimum requirements for protection of life and property that are legally adopted and enforced. Throughout the U.S. and in many other part of the world, NFPA 13 is relied on to set the minimum requirements for the installation of sprinkler systems. NFPA 13 and FM requirements may and do differ. The substantiation for this motion suggests that the design criteria for K28 and K33.6 sprinklers should not be included in NFPA 13 to avoid a conflict with the design criteria for those sprinklers in DS 8-9. That conflict exists today with many other sprinklers. Instead, the motion seeks to undermine the clear direction of the TC that ESFR sprinklers must have a hydraulic design with a minimum of 12 operating sprinklers. I urge you to vote against this motion and proceed with the TC’s consistent direction for NFPA 13.

Created: 2021-06-21 17:54 (UTC)
Full Name: Kenneth Isman
Company: University Of Maryland
Affiliation: Self

AGAINST

There is no “correlation” that needs to take place. The NFPA committee reviewed the information regarding the FM Approval and still voted (overwhelmingly) to require the 12 sprinkler design for two reasons: 1) We know from full-scale fire testing that in many situations not tested by FM with the K-28 or K-33.6 sprinkler, a total of 8 ESFR sprinklered opened (such as sprinklers near obstructions that are permitted by the obstruction rules and sprinklers in the vicinity of HVLS fans). The K-28 and K-33.6 sprinklers have similar activation mechanisms as those sprinklers tested and the standard has always sought a safety margin of 50% in the design area. 2) While FM can manage the risk to their insured clients through contracts and use of their entire suite of Data Sheets, the NFPA and the AHJs that enforce NFPA requirements cannot. In summary, the use of K-28 and K-33.6 ESFR sprinklers needs to be consistent with other ESFR sprinklers with a 12 sprinkler design area. If people want to use the FM criteria, they can use the whole suite of FM Data Sheets as an alternative to the rules of NFPA 13 if the AHJ approves.

Created: 2021-06-17 18:46 (UTC)
Full Name: Kelly Nicoletto
Company: UL LLC
Affiliation: UL LLC
AGAINST
UL opposes Certified Amending Motion 13-34 and supports the Technical Committee action to include important new sprinkler technology in the new 2022 edition of NFPA 13. The committee spent considerable time reviewing the supporting data for this new ESFR sprinkler technology (sprinklers with a nominal K-factors of 28 and 33.6) and chose to require a minimum of 12 sprinklers to be included in the hydraulic design for a sprinkler system. This approach is consistent with other ESFR sprinkler technologies addressed in NFPA 13 and with minimum number of design sprinklers required in 21.1.8.1 for new sprinkler technology having standard coverage areas. This revision to NFPA 13 received strong consensus within the technical committee by a vote of 33-2. The requirement for the 12 sprinkler design takes into consideration a wide range of variables that may exist in the field that are not evaluated by the large scale laboratory fire testing. These variables include, but are not limited to, inconsistent flue spaces, obstructions to the sprinklers, air movement at the ceiling, ceiling fans and ceiling slopes. If CAM 13-34 is successful, it would remove the reference to these new sprinklers with nominal K-factor of 28 and 33.6 from NFPA 13. Effectively, this CAM action would leave NFPA 13 silent on the matter and deny the opportunity for NFPA to address this important new sprinkler technology.

Reason:

Created: 2021-06-17 14:21 (UTC)
Full Name: Jake Allen
Company: Wolf Fire Protection Inc
Affiliation: Sprinkler Subcontractor

FOR
Two manufacturers have developed design approaches for ESFR-type sprinklers that require less than 12 sprinklers to be calculated in the remote area. Despite the listing and approval from a well-recognized testing laboratory, the technical committee still required 12 sprinklers to be included in the remote area. Because of this, the design criteria in Table 23.3.1 for K-28 and K-33.6 ESFR sprinklers should be deleted to eliminate confusion. These sprinklers should be installed in accordance with their listing until the installation standard can correlate.

Reason:

Created: 2021-06-14 14:26 (UTC)
Full Name: Kevin Hall
Company: American Fire Sprinkler Association
Affiliation: American Fire Sprinkler Association

FOR
Two manufacturers have developed design approaches for ESFR-type sprinklers that require less than 12 sprinklers to be calculated in the remote area. Despite the listing and approval from a well-recognized testing laboratory, the technical committee still required 12 sprinklers to be included in the remote area. Because of this, the design criteria in Table 23.3.1 for K-28 and K-33.6 ESFR sprinklers should be deleted to eliminate confusion. These sprinklers should be installed in accordance with their listing until the installation standard can correlate.

Reason:

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA

FOR
Good Code change
CAM 13-46
Report Generated on: June 25, 2021

Created: 2021-06-25 18:56 (UTC)
Full Name: Mark Hopkins
Company: TERPconsulting
Affiliation: TERPconsulting
CAM 13-46
AGAINST
Reason: Use of the terms knowledgeable and experienced appropriately identify the requirement of the standard.

Created: 2021-06-25 18:42 (UTC)
Full Name: John Denhardt
Company: American Fire Sprinkler Association
Affiliation: AFSA
CAM 13-46
AGAINST
Reason: The American Fire Sprinkler Association is against this motion.

Created: 2021-06-24 15:45 (UTC)
Full Name: Joe Scibetta
Company: BuildingReports
Affiliation: BuildingReports
CAM 13-46
FOR
This language is acceptable since "qualified" is used in three other instances in the Code with respect to personnel, and that's even without an existing definition (which is acceptable per MOS as well as Section 3.1 of the Code). There's no reason for CAM 13-47 and CAM 13-48 to be connected to this particular CAM. This language can exist on its own without reference to either of those motions. The term "qualified" is widely recognized in our industry and far less subjective than "knowledgeable and experienced". Between the ordinarily accepted meaning of "qualified" and its wide usage in the Glossary of Terms and related NFPA documents, there's no problem with using the word "qualified" in this instance, again without any connection to CAMs 13-47 or 13-48. I agree with other statements made that the Code should stop here and go no further when it comes to the specificity of qualifications. That's up to the AHJ.

Created: 2021-06-22 19:28 (UTC)
Full Name: Roland Asp
Company: National Fire Sprinkler Association
Affiliation: National Fire Sprinkler Association
CAM 13-46
AGAINST
The National Fire Sprinkler Association's Engineering and Standards Committee is against CAM 13-46. We support the technical committee's position that it is the state or local jurisdiction's responsibility to establish qualifications.

Created: 2021-06-17 16:01 (UTC)
Full Name: John Taylor
Company: Healthcare Compliance Team, LLC
ADHOC DECISIONS

**Affiliation:** Healthcare Compliance Team, LLC

CAM 13-46

**AGAINST**

**Reason:** Adoption will result in additional requirements that are the privilege of jurisdiction in which the work is conducted. The requirement of the work is specifically laid out in the remainder of the code.

**Created:** 2021-06-17 14:21 (UTC)

**Full Name:** Jake Allen

**Company:** Wolf Fire Protection Inc

**Affiliation:** Sprinkler Subcontractor

CAM 13-46

**AGAINST**

**Reason:** This CAM intends to change “knowledgeable and experienced” to qualified. While this seems editorial, this change has implications if CAM 13-47 and 13-48 are accepted. See below for more explanation.

**Created:** 2021-06-16 21:41 (UTC)

**Full Name:** Taylor Schumacher

**Company:** Security Fire Sprinkler

**Affiliation:** Security Fire Sprinkler

CAM 13-46

**FOR**

**Reason:** 46, 47 and 48 are absolutely needed in our industry!

**Created:** 2021-06-15 19:40 (UTC)

**Full Name:** Kenneth Schneider

**Company:** UA - ITF

**Affiliation:** United Association

CAM 13-46

**FOR**

**Reason:** Qualified is defined in the NFPA Glossary of terms, knowledgeable and experienced are not defined by NFPA glossary. CAM 13-46 will create consistency with other NFPA Standards.

**Created:** 2021-06-14 14:26 (UTC)

**Full Name:** Kevin Hall

**Company:** American Fire Sprinkler Association

**Affiliation:** American Fire Sprinkler Association

CAM 13-46

**AGAINST**

**Reason:** This CAM intends to change “knowledgeable and experienced” to qualified. While this seems editorial, this change has implications if CAM 13-47 and 13-48 are accepted.

**Created:** 2021-06-14 13:23 (UTC)

**Full Name:** Christopher Creamer

**Company:** DYNAFIRE LLC

**Affiliation:** AFAA

CAM 13-46

**AGAINST**
Reason: The Committee reviewed and did not support this action.
Against

Reason: Many jurisdictions already have licensure and training requirements. NFPA 13 does not need to have this stated.

Created: 2021-06-25 18:42 (UTC)
Full Name: John Denhardt
Company: American Fire Sprinkler Association
Affiliation: AFSA
CAM 13-47
AGAINST

Reason: The American Fire Sprinkler Association is against this motion.

Created: 2021-06-24 15:45 (UTC)
Full Name: Joe Scibetta
Company: BuildingReports
Affiliation: BuildingReports
CAM 13-47
AGAINST

CAM 13-46 should pass since the term "qualified" is widely recognized in our industry. However, as to the specifics of what is entailed in being qualified, that should remain within the purview of the AHJ. Therefore, the vote should be No on CAM 13-47. The intent is very good, no question. However, the parameters of responsibility for outlining qualifications are already established with good effect. If a locale is lacking in this regard, then there are recourses on a state or local level where this can be successfully addressed.

Created: 2021-06-22 19:28 (UTC)
Full Name: Roland Asp
Company: National Fire Sprinkler Association
Affiliation: National Fire Sprinkler Association
CAM 13-47
AGAINST

The National Fire Sprinkler Association's Engineering and Standards Committee is against CAM 13-47. We support the technical committee’s position that it is the state or local jurisdiction's responsibility to establish qualifications.

Created: 2021-06-17 16:01 (UTC)
Full Name: John Taylor
Company: Healthcare Compliance Team, LLC
Affiliation: Healthcare Compliance Team, LLC
CAM 13-47
AGAINST
This adds a heap of paperwork to the AHJ of all jurisdictions. This paperwork does not replace experience and knowledge. Each jurisdiction must determine the level of competence for these jobs at their level. This may be good appendix information to help define what is intended by "Knowledgeable and Experienced" but should not be in the code.

**Created:** 2021-06-17 14:21 (UTC)  
**Full Name:** Jake Allen  
**Company:** Wolf Fire Protection Inc  
**Affiliation:** Sprinkler Subcontractor  
**CAM 13-47**

This CAM attempts to provide requirements for qualifications of the system designer and system installer. First, the location of this requirement is inappropriate. Section 1.2 is an administrative section intended to describe the purpose of the document. Additionally, it is not within the purview of an installation document to detail the requirements for installers and designers. Qualifications should be left to the AHJ to approve through contractor licensing or other legislative means.

**Created:** 2021-06-16 21:41 (UTC)  
**Full Name:** Taylor Schumacher  
**Company:** Security Fire Sprinkler  
**Affiliation:** CAM 13-47  
**FOR**

46, 47 and 48 are absolutely needed in our industry!

**Created:** 2021-06-15 19:40 (UTC)  
**Full Name:** Kenneth Schneider  
**Company:** UA - ITF  
**Affiliation:** United Association  
**CAM 13-47**

We need qualified designers and installers to design and install life safety systems utilizing products that are approved, listed and certified. This is similar language used in other NFPA Standards to ensure life safety systems are designed and installed properly, lives depend upon it.

**Created:** 2021-06-14 14:26 (UTC)  
**Full Name:** Kevin Hall  
**Company:** American Fire Sprinkler Association  
**Affiliation:** American Fire Sprinkler Association  
**CAM 13-47**

This CAM attempts to provide requirements for qualifications of the system designer and system installer. First, the location of this requirement is inappropriate. Section 1.2 is an administrative section intended to describe the purpose of the document. Additionally, it is not within the purview of an installation document to detail the requirements for installers and designers. Qualifications should be left to the AHJ to approve through contractor licensing or other legislative means.

**Created:** 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer

Company: DYNAFIRE LLC

Affiliation: AFAA
    CAM 13-47
    AGAINST

Reason: The committee action was to not support
CAM 13-48
Report Generated on: June 25, 2021

Created: 2021-06-25 18:56 (UTC)
Full Name: Mark Hopkins
Company: TERPconsulting
Affiliation: TERPconsulting
CAM 13-48
AGAINST
Reason: Many jurisdictions already have licensure and training requirements. NFPA 13 does not need to have this stated.

Created: 2021-06-25 18:42 (UTC)
Full Name: John Denhardt
Company: American Fire Sprinkler Association
Affiliation: AFSA
CAM 13-48
AGAINST
Reason: The American Fire Sprinkler Association is against this motion.

Created: 2021-06-24 15:52 (UTC)
Full Name: Joe Scibetta
Company: BuildingReports
Affiliation: BuildingReports
CAM 13-48
AGAINST
Reason: This CAM cannot move forward since out of the 21 instances of the word "qualify" and its derivatives, only three are with reference to personnel. The others are all with reference to processes, procedures, and materials (used as a synonym for the word "constitute"). Therefore, such a definition could not applied successfully since that word and its derivatives are not being used consistently in the Code. Furthermore, a definition for "qualified" is not required per Section 3.1 of the Code as well as MOS Section 2.3.1.3.1 (1).

Created: 2021-06-22 19:28 (UTC)
Full Name: Roland Asp
Company: National Fire Sprinkler Association
Affiliation: National Fire Sprinkler Association
CAM 13-48
AGAINST
Reason: The National Fire Sprinkler Association’s Engineering and Standards Committee is against CAM 13-48. We support the technical committee’s position that it is the state or local jurisdiction's responsibility to establish qualifications and adding a definition to NFPA 13 is not appropriate.

Created: 2021-06-17 16:01 (UTC)
Full Name: John Taylor
Company: Healthcare Compliance Team, LLC
Affiliation: Healthcare Compliance Team, LLC
CAM 13-48
FOR
Reason: Agreed if 328 and 338 pass.

Created: 2021-06-17 14:21 (UTC)
Full Name: Jake Allen
Company: Wolf Fire Protection Inc
Affiliation: Sprinkler Subcontractor
CAM 13-48
AGAINST
Reason: This CAM attempts to define "qualified." For the same reasons as CAM 13-46 and 13-47, this CAM should be voted down.

Created: 2021-06-16 21:41 (UTC)
Full Name: Taylor Schumacher
Company: Security Fire Sprinkler
Affiliation: CAM 13-48
FOR
Reason: 46, 47 and 48 are absolutely needed in our industry!

Created: 2021-06-15 19:40 (UTC)
Full Name: Kenneth Schneider
Company: UA - ITF
Affiliation: United Association
CAM 13-48
FOR
Reason: Qualified is listed in the NFPA Glossary, it is defined in other NFPA Standards, Qualified is use within NFPA 13, this provides a definition as provided by other NFPA Standards for clarity.

Created: 2021-06-14 14:26 (UTC)
Full Name: Kevin Hall
Company: American Fire Sprinkler Association
Affiliation: American Fire Sprinkler Association
CAM 13-48
AGAINST
Reason: This CAM attempts to define "qualified." For the same reasons as CAM 13-46 and 13-47, this CAM should be voted down.

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA
CAM 13-48
AGAINST
Reason: The Committee reviewed multiple cycles and determined this was not needed.
### AGAINST

**Reason:**

Looking at the context for this section, the charging statement is as follows: 7.4.1 * The requirements of Section 7.4 shall apply only where required by other governing laws, codes, or standards; by other parts of this Code; or by project specifications or drawings. The local AHJ can choose to apply Section 7.4 or not. The minimum requirements, however, in Section 7.2 must be adhered to, one of which is a completed Record of Completion and completed Inspection and Test form, both of which include the supervising station information being called for by the proponent of this CAM. With the AHJ already having the latitude to apply or not apply section 7.4, and the supervising station information already called for in the documents that are part of the minimum documentation requirements, this motion is not necessary.

### FOR

**Reason:**

The substantiations by AFAA and NFSA for this CAM do not include technical or safety arguments except indicating that this proposal is not needed or unnecessary. The technical basis for this CAM is: The IFC Requires the FA system to be monitored by an Approved supervising station. The only way for an AHJ to legally approve anything related to a fire alarm system is if it is submitted on shop drawings to be reviewed and approved by the AHJ. If the specific supervising station is not identified on the shop drawings, it cannot be reviewed and approved by the AHJ prior to the acceptance test. But this review process may take long time during the acceptance test to verify the type of the proposed supervising station service such as remote, proprietary or central service, and even if the specific proposed supervising station is approved during the FA system acceptance test, it will still be required to be legally documented as an "approved supervising station" by the AHJ.

### AGAINST

**Reason:**

The National Fire Sprinkler Association’s Engineering and Standards Committee is against CAM 72-4. We support the technical committee’s position that the name of supervising station is not necessary to be included on the shop drawings.
FOR
Reason: Restrict information on the plans to what is under the control of the person preparing the plans.

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA

AGAINST
Reason: The Committee reviewed multiple cycles and determined this was not needed.
CAM 72-5

Report Generated on: June 25, 2021

Created: 2021-06-25 10:27 (UTC)
Full Name: Joe Scibetta
Company: BuildingReports
Affiliation: BuildingReports

AGAINST
Reason: The parameters that the Fundamentals Committee have already assigned to this section have not proven to be inadequate to such an extent as to necessitate this motion.

Created: 2021-06-25 09:39 (UTC)
Full Name: Sagiv Weiss-ishai
Company: San Francisco Fire Department
Affiliation: San Francisco Fire Department

FOR
The AFAA and NFSA substantiations for this CAM do not include technical or safety arguments. The technical basis for this CAM is: The Existing Text indicates: "...that the distance to the highest switch, lamp, or textual display" and "...."and the lowest switch, lamp, or textual display" It is not clear how upper and lower limits of the textual display are clearly defined? For example: If the textual display includes a 15" high screen, computer monitor or other large type touch-screen/display, etc. - How is this distance between the textual display and the finished floor is measured? From the top of the screen ? from the bottom of the screen ? from the center of the screen ? The current code text is not clear and specific on this and may cause inconsistencies of enforcement between different AHJs. This is what this CAM tries to resolve.

Created: 2021-06-24 16:55 (UTC)
Full Name: Roland Asp
Company: National Fire Sprinkler Association
Affiliation: National Fire Sprinkler Association

AGAINST
The National Fire Sprinkler Association’s Engineering and Standards Committee is opposed to CAM 72-5. We support the technical committee’s position that existing text is appropriate.

Created: 2021-06-17 16:01 (UTC)
Full Name: John Taylor
Company: Healthcare Compliance Team, LLC
Affiliation: Healthcare Compliance Team, LLC

FOR
Reason: Adds clarity.

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA
CAM 72-5
AGAINST

Reason: The Committee reviewed multiple cycles and determined this was not needed.
To answer Mr. James Peterkin argument: "Where a voice communication system is provided, the standard signal notifies the occupants of a fire condition but then the voice communication provides the direction for evacuation OR relocation and other relevant information (i.e. fire location)." The answer is: This CAM does not change the Code or even the intent of the Code. Since this is a relatively new requirement in NFPA 72, this CAM just allows for additional flexibility within the Code for AHJs who enforce the relocation tone differently than Evacuation tone as they have done for a long time prior to this change. NFPA 72 clearly indicates: "A.3.3.100 Evacuation. Evacuation does not include the relocation of occupants within a building." Per the NFPA 72 Annex, some AHJs treat RELOCATION within the building differently than "EVACUATION" to the outside of the building. The TC should consider allowing to use permissive language within the code to help different AHJs to enforce this requirement without deviating from the mandatory Code language. This CAM is trying to ensure that AHJs will have the flexibility within the code to either enforce the T-3 signal for both evacuation and relocation procedures OR they could enforce a 1-3 Second alert tone for Relocation per Section 24.4.8.3, which treats Relocation Messages as "NON-Evacuation" messages: "24.4.8.3 Where the system is used to transmit relocation instructions or other fire emergency non-evacuation messages, a 1-second to 3-second alert tone followed by a message (or messages where multi-channel capability is used) shall be provided.". The AFAA and NFSA substantiations for this CAM do not include technical or safety arguments.

I agree with Mr. Taylor’s assessment that this adds complexity unnecessarily, which in turn, can cause confusion in a situation where that is the last thing a healthcare facility, in particular, needs. Allow healthcare facilities to implement their emergency management procedures during a fire/emergency event so that they can relocate without having to think about the type of signal their hearing (e.g. I don't hear a three-pulse temporal pattern but I DO hear a 1-to-3 second alert tone, followed by a message, so, yes, I can relocate, but then only if my local AHJ has permitted the 1-to-3 second alert tone to indicate that).

The National Fire Sprinkler Association’s Engineering and Standards Committee is opposed to CAM 72-6. We support the technical committee’s position.
John Taylor
Healthcare Compliance Team, LLC
AGAINST
Reason: Adds complexity without adding safety.

James Peterkin
Tlc Engineering
Health Care Section, Chair
AGAINST
Reason: The Healthcare Section Executive Board, based on recommendation by the Health Care Section Codes and Standards Review Committee voted to OPPOSE this motion. After reviewing the substantiation provided for the proposed code change, the Health Care Section did not agree with the proponent for the need to remove the ANSI standard signal requirements for the Evacuation and or Relocation signal. The standard ANSI signal is intended to inform the building occupants of a fire condition. Where no voice communication is provided, the occupants are conditioned to evacuate based on a standard recognizable signal. Where a voice communication system is provided, the standard signal notifies the occupants of a fire condition but then the voice communication provides the direction for evacuation OR relocation and other relevant information (i.e., fire location).

Christopher Creamer
DYNAFIRE LLC
AFAA
AGAINST
Reason: The Committee reviewed multiple cycles and determined this was not needed.
CAM 72-7

Report Generated on: June 25, 2021

Created: 2021-06-25 18:50 (UTC)
Full Name: Michael Pallett
Company: Pallett Corner Consulting
Affiliation: Telecor Inc.

AGAINST

Reason: This section has one simple intention - to mandate messages be created for each emergency scenario identified in the emergency response plan. It is intended to require that this be done in advance, rather than being left vague. Otherwise, an emergency response plan may simply instruct an emergency announcement be made, leaving authorized personnel in the position of creating verbiage on the fly during an emergency. As identified in Appendix G, the form of the message may be in a template where live announcers could insert situational content, while still following a structured message format. It is my understanding that the emergency response plan is subject to approval making the change here unnecessary. It is better in my opinion to keep this section clear and straightforward. Since pre-recorded messages are specifically required to be approved per 24.3.6.1.2, the submitter's intent is already being met on both accounts.

Created: 2021-06-25 14:04 (UTC)
Full Name: Sagiv Weiss-ishai
Company: San Francisco Fire Department
Affiliation: San Francisco Fire Department

FOR

Reason: The AFAA and NFSA substantiations for this CAM do not include technical or safety arguments. To answer Mr. John Taylor concern: "Who approves? This becomes challenging to owners/operators that change use of space or clients frequently. The original text meets the need." The answer is: The AHJs Approve. This code section requires messages to be developed for each identified scenario in the emergency response plan. This requires planning and preparation of specific messages based on specific potential scenarios and therefore this section does not address live spontaneous messages. If specific messages are to be developed for specific scenarios they must be reviewed and approved by the AHJ on the emergency plan regardless if they are automatically broadcasted (pre-recorded) or manually broadcasted via the use of the microphone - In that case the script of the approved message should be available for the person who is authorized to broadcast the message. This will prevent confusion on which message or verbiage should be used during a specific emergency.

Created: 2021-06-25 10:38 (UTC)
Full Name: Joe Scibetta
Company: BuildingReports
Affiliation: BuildingReports

AGAINST
Taking into consideration of Section 24.3.7 (formerly 24.3.6), there is no need for this motion. The AHJ has approving authority throughout this section. The section follows a natural progression. Formulate the messages, but then, the following sections make it clear, those messages are subject to approval: 24.3.6 Messages for One-Way Emergency Communications Systems. 24.3.6.1 * Messages shall be developed for each scenario identified in the emergency response plan. 24.3.6.2 * 24.3.6.2.1 Based on the emergency response plan, emergency messages shall have content that provides information and instructions to people in the building, area, site, or installation. 24.3.6.2.2 The proposed verbiage of prerecorded automatic emergency messages shall be identified on the permit plans and be approved by the authority having jurisdiction prior to their programming into the emergency voice communications system. 24.3.6.2.3 As a minimum, the proposed verbiage of prerecorded messages shall be in the official spoken language acceptable to the authority having jurisdiction. 24.3.6.2.4 Additional prerecorded message(s) shall be permitted as approved by the authority having jurisdiction.

Created: 2021-06-24 16:55 (UTC)
Full Name: Roland Asp
Company: National Fire Sprinkler Association
Affiliation: CAM 72-7 AGAINST
Reason: The National Fire Sprinkler Association’s Engineering and Standards Committee is opposed to CAM 72-7. We support the technical committee’s position. The existing text is appropriate and there is no need to have all messages including live messages to be pre-approved.

Created: 2021-06-17 16:01 (UTC)
Full Name: John Taylor
Company: Healthcare Compliance Team, LLC
Affiliation: Healthcare Compliance Team, LLC
CAM 72-7 AGAINST
Reason: Who approves? This becomes challenging to owners/operators that change use of space or clients frequently. The original text meets the need.

Created: 2021-06-16 11:21 (UTC)
Full Name: James Peterkin
Company: Tcl Engineering
Affiliation: Health Care Section, Chair
CAM 72-7 AGAINST
Reason: The Healthcare Section Executive Board, based on recommendation by the Health Care Section Codes and Standards Review Committee voted to OPPOSE this motion. After reviewing the substantiation provided for the proposed code change, the Health Care Section did not agree with the proponent for the need to have the AHJ pre-approve all messages including live messages. As noted by the Technical Committee, there are already provisions for the AHJ to approve the pre-recorded messages during fire alarm plan review and again during acceptance testing.

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA
AGAINST

Reason: The Committee reviewed multiple cycles and determined this was not needed.
CAM 72-9

Report Generated on: June 25, 2021

FOR
Reason: This is to answer the following argument by Mr. John Taylor: "Adoption of this verbiage would restrict this "public address" system to a single use and require owners/operators to invest in additional systems to convey "all points" messages." This section is not addressing public address systems. It is for "in-building fire emergency voice/alarm communications system" (Fire EVACS) While some signaling systems could be used for other than FIRE emergencies, they should not be defined as: "FIRE EVACS", as this section specifies. FIRE EVACS should only generate automatic FIRE related messages upon activation of fire alarm initiating device(s). If the intent is to add onto the FIRE EVACS other non-fire automatic pre-recorded messages such as CO, etc. this will make those systems to become Combination Fire + CO, etc. ECS and not a FIRE EVACS since CO or other non-fire Emergencies are not Fire Emergencies.

Reason: Mr. Weiss-Ishai is correct. This section is for In-Building Fire Emergency Voice/Alarm Emergency Communications Systems and should only apply to fire emergencies. (Section 24.4.1.1 is the only exception in this section where monitoring response at a constantly attended location is addressed for all types of emergency signals) Section 24.5, In-Building Mass Notification Systems, addresses other emergency signals.

AGAINST
Reason: The National Fire Sprinkler Association’s Engineering and Standards Committee is opposed to CAM 72-9. We support the technical committee’s position and there is no need to restrict these systems to a single use.

AGAINST
Adoption of this verbiage would restrict this "public address" system to a single use and require owners/operators to invest in additional systems to convey "all points" messages. This reduces testing of the annunciation system to "testing" and fire emergencies which should not be happening that often. Reliability diminishes with disuse.

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA

AGAINST

Reason: The Committee reviewed multiple cycles and determined this was not needed.
CAM 72-10

Report Generated on: June 25, 2021

Created: 2021-06-25 14:47 (UTC)
Full Name: Sagiv Weiss-ishai
Company: San Francisco Fire Department
Affiliation: San Francisco Fire Department

FOR

Reason: To answer Mr. John Taylor argument that the "Original text is sufficient to determine persons able to access controls" The reason for this CAM is to correct the original text to allow access for the Controls by "Emergency Personnel" as defined in 3.3.101. Also, the original text: "trained and authorized personnel" is inconsistent with the new definitions in the 2022 edition: "Authorized personnel" per 3.3.24 and "Emergency Personnel" per 3.3.101. The intent of this CAM is to make this section to be consistent with the new definitions.

Created: 2021-06-25 12:15 (UTC)
Full Name: Joe Scibetta
Company: BuildingReports
Affiliation: BuildingReports

AGAINST

Reason: Controls should only be accessed by trained personnel. Those who are authorized access to this area are understood to be trained. Emergency personnel are trained for emergency response, true. But does that include knowledge of and access to fire alarm/voice evac controls? Not necessarily. Given that the section just before this states that the location of the controls has to be approved by the AHJ, that would be the opportunity to make sure that emergency response personnel are trained to know how to access and interact with these controls, thereby falling into the "trained" category, along with "authorized personnel". No need for a change to this existing language.

Created: 2021-06-24 16:55 (UTC)
Full Name: Roland Asp
Company: National Fire Sprinkler Associ
Affiliation: National Fire Sprinkler Association

AGAINST

Reason: The National Fire Sprinkler Association's Engineering and Standards Committee is opposed to CAM 72-10. We support the technical committee’s position, and the existing text is appropriate.

Created: 2021-06-17 16:01 (UTC)
Full Name: John Taylor
Company: Healthcare Compliance Team, LLC
Affiliation: Healthcare Compliance Team, LLC

AGAINST

Reason: Original text is sufficient to determine persons able to access controls.

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA
CAM 72-10
AGAINST
Reason: The Committee reviewed multiple cycles and determined this was not needed.
CAM 72-11
Report Generated on: June 25, 2021

FOR

To answer Mr. John Taylor argument that “This is covered by the previous motion. Does not need repetitive language.” The previous motion 72.10 does not address this section (24.4.5.7) and the issue of CAM 72-11 and it is not clear what is the “repetitive language”.

AGAINST

The National Fire Sprinkler Association’s Engineering and Standards Committee is opposed to CAM 72-11. We support the technical committee’s position and there is no need for the language proposed by this CAM.

AGAINST

This is covered by the previous motion. Does not need repetitive language.

 AGAINST

The Committee reviewed multiple cycles and determined this was not needed.
CAM 72-13

Report Generated on: June 25, 2021

FOR

To answer the argument by Mr. John Taylor that the "Original text is sufficient to determine persons able to access controls." The original text of the Code in Section 24.5.2.1 only includes: "Authorized Personnel" but it does not include "Emergency Personnel" as defined in the 2022 Edition Section 3.3.101. Therefore, the original text is insufficient. "Emergency Personnel" in addition to "Authorized Personnel" shall also be permitted to control message initiation over mass notification system.

AGAINST

The current language does not exclude emergency personnel from controlling message initiation but simply states that authorized personnel are also permitted to control message initiation.

AGAINST

The National Fire Sprinkler Association’s Engineering and Standards Committee is opposed to CAM 72-13. We support the technical committee’s position and as with CAM 13-10, the existing text is appropriate.

AGAINST

Original text is sufficient to determine persons able to access controls.

The Committee reviewed multiple cycles and determined this was not needed.
CAM 72-14

Report Generated on: June 25, 2021

Created: 2021-06-24 16:55 (UTC)
Full Name: Roland Asp
Company: National Fire Sprinkler Association
Affiliation: National Fire Sprinkler Association

AGAINST
Reason: The National Fire Sprinkler Association’s Engineering and Standards Committee is opposed to CAM 72-14. We support the technical committee’s position, and the proposed annex language if this CAM passes could cause confusion.

Created: 2021-06-17 16:01 (UTC)
Full Name: John Taylor
Company: Healthcare Compliance Team, LLC
Affiliation: Healthcare Compliance Team, LLC

FOR
Reason: Good appendix information on the intent of the committee.

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA

CAM 72-14
AGAINST
Reason: The Committee reviewed multiple cycles and determined this was not needed.
| Created:    | 2021-06-25 19:24 (UTC) |
| Full Name: | Sagiv Weiss-ishai |
| Company:   | San Francisco Fire Department |
| Affiliation: | San Francisco Fire Department |
| CAM 72-15 | **FOR** |
| **Reason:** | To answer Mr. John Taylor argument that this "Reduces clarity of the intent of 24.4.8.3.1" - It is not clear how the clarity is reduced? The intent of this CAM is to make the code safer by not allowing this repetition to be automatically and potentially cut-off completely (the alert tone+ the message) after three cycles only. This potential automatic cut-off condition (after three times repeating only) may put in danger building occupants who have started the evacuation procedure and during this process the sequence is automatically cut-off as currently permitted by this section. |

| Created:    | 2021-06-25 19:22 (UTC) |
| Full Name: | Joe Scibetta |
| Company:   | BuildingReports |
| Affiliation: | BuildingReports |
| CAM 72-15 | **AGAINST** |
| **Reason:** | If the phrase "at least three times" is removed, then the sequence simply "shall be repeated". Period. So how does one interpret that? To repeat is defined as "to say or state again". So, one time, then. That's how the language being proposed in this motion could be interpreted. The current language, however, makes it clear that you don't just repeat the sequence once, you repeat it at least three times, which means just what it says and furthermore, implies with the words "at least" that further repeats may be required. |

| Created:    | 2021-06-24 16:55 (UTC) |
| Full Name: | Roland Asp |
| Company:   | National Fire Sprinkler Association |
| Affiliation: | National Fire Sprinkler Association |
| CAM 72-15 | **AGAINST** |
| **Reason:** | The National Fire Sprinkler Association's Engineering and Standards Committee is opposed to CAM 72-15. We support the technical committee’s position. |

| Created:    | 2021-06-17 16:01 (UTC) |
| Full Name: | John Taylor |
| Company:   | Healthcare Compliance Team, LLC |
| Affiliation: | Healthcare Compliance Team, LLC |
| CAM 72-15 | **AGAINST** |
| **Reason:** | Reduces clarity of the intent of 24.4.8.3.1. |

| Created:    | 2021-06-14 13:23 (UTC) |
| Full Name: | Christopher Creamer |
| Company:   | DYNAFIRE LLC |
| Affiliation: | AFAA |
CAM 72-15

AGAINST

Reason: The Committee reviewed multiple cycles and determined this was not needed.
CAM 72-24 72-25

Report Generated on: June 25, 2021

Created: 2021-06-25 19:37 (UTC)
Full Name: Sagiv Weiss-ishai
Company: San Francisco Fire Department
Affiliation: San Francisco Fire Department

AGAINST
During the last (2019) Code Cycle, the SIG-PRO TC had a special Task Group just to discuss and improve this Section 21.5 and its associated Annex A.21.5. This task group had many members mainly from the Fire Alarm industry, fire service and other stakeholders. After having many meetings and long discussions about this issue it was decided that the intent of FSAEs protection is to be safer and more protected than just standard elevators. The additional protection was based on the IBC Section 3007.7 requirement, but also the goal of SIG-PRO task group was to develop guidance for specific standard, available and listed Fire Alarm equipment to allow the FA industry to comply with this 21.5 requirement by providing available and listed FA equipment. Therefore, the 2019 Code language was changed by the SIG-PRO TC based on the detailed task group work and recommendations. The 2019 edition now allows for any performance based design provided by code consultants, designers, etc. acceptable to the AHJ with specific FA FSAE monitoring annunciators OR to simply use the A.21.5 Annex guidelines with three specific temperature ranges which could be provided by available and listed 2-stage heat detectors (90 and 135 degree). These detectors are installed in each FSAE lobby and are connected to the FA system to provide the two indications of temperature rise in the FSAE lobbies. This is an available, easy and inexpensive solution that meets the intent of both the IBC Section 3007.7 and NFPA 72. The is the same intent of section 21.5 since the 2010 Edition to provide greater level of safety for responding Firefighters based on their request for increased safety features for FSAEs compared to standard non-FSAE elevators. Many FSAE buildings throughout the US are already provided with FSAE Lobbies monitoring systems provided by many different Fire Alarm companies and vendors – In San Francisco alone, we have more than 100 FSAE buildings with such systems. Deleting this Section from the code will decrease safety for Firefighters (since they were originally asking for this system) but will also decrease great deal of business for Fire Alarm companies, FPEs, and other engineers and consultants specifying, designing and installing these systems. Lastly, From my experience as FPE and AHJ for San Francisco Fire Department with over 100 FSAE buildings built since 2010, this FSAE Lobby monitoring system is commonly provided by many different FA companies per the Firefighters needs to provide them with more information on the conditions of the lobbies before they choose to use the FSAE and take it to a specific lobby.

Created: 2021-06-24 16:55 (UTC)
Full Name: Roland Asp
Company: National Fire Sprinkler Association
Affiliation: National Fire Sprinkler Association

AGAINST
The National Fire Sprinkler Association’s Engineering and Standards Committee is opposed to CAM 72-24 and 72-25 We support the technical committee’s position.

Created: 2021-06-17 12:02 (UTC)
Full Name: Raymond Grill
Company: Ray Grill Consulting Pllc
Affiliation: Self

FOR
The requirement for heat monitoring within protected Fire Service Access Elevator (FSAE) lobbies was first introduced in the 2010 edition of NFPA 72. This requirement has not been enforced and is a redundant requirement to having smoke detection within the FSAE lobbies. It is redundant and just provides one more thing in the Fire Command Center to complicate the management of a fire situation.

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA
CAM 72-24 72-25
AGAINST
Reason: The Committee reviewed multiple cycles and determined this was not needed.
<table>
<thead>
<tr>
<th>Created: 2021-06-25 23:01 (UTC)</th>
<th>Full Name: Richard Simpson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company: Vector Security Inc.</td>
<td><strong>FOR</strong></td>
</tr>
<tr>
<td>Affiliation: Vector Security</td>
<td>As a long-time committee volunteer sitting on NFPA 72 SIG HOU, I had submitted Public Input and Public Comment to have defined &quot;Where Permitted by the AHJ&quot;. The committee has not defined where permitted or provided guidelines to the monitoring industry. What is the process to permit a UL Listed Central Station to provide monitoring of a remote supervising station alarm system? What guidelines will the AHJ use to determine what facilities are permitted to offer this service?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Created: 2021-06-24 16:55 (UTC)</th>
<th>Full Name: Roland Asp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company: National Fire Sprinkler Associ</td>
<td><strong>AGAINST</strong></td>
</tr>
<tr>
<td>Affiliation: National Fire Sprinkler Association</td>
<td>The National Fire Sprinkler Association’s Engineering and Standards Committee is opposed to CAM 72-26. We support the technical committee’s position.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Created: 2021-06-22 18:29 (UTC)</th>
<th>Full Name: Dan Finnegan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company: Siemens Bldg Tech</td>
<td><strong>AGAINST</strong></td>
</tr>
<tr>
<td>Affiliation: Siemens</td>
<td>The proposed modification to remove the Authority Having Jurisdiction removed from the oversight and approval process for central supervising stations, is harmful to Life Safety and the Safety of First Responders. We ask for a ballot &quot;Against&quot; this proposed action!</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Created: 2021-06-21 20:13 (UTC)</th>
<th>Full Name: Michael Rons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company: Schaumburg Fire Department-vil</td>
<td><strong>AGAINST</strong></td>
</tr>
<tr>
<td>Affiliation: Illinois Fire Inspectors Association</td>
<td>My name is Michael Rons. I'm the Fire Marshal with the Village of Schaumburg and also represent the Illinois Fire Inspectors Association. We are in opposition of the motion. This section regulates remote supervising stations, which historically were intended for municipal monitoring of alarms. This section allows a municipality to elect to utilize a listed central station for remote monitoring. The language as proposed would require municipalities to accept central stations for remote monitoring. This eliminates the ability of local jurisdictions to determine the best needs of their community related to fire alarm monitoring. This could negatively impact the ability of local fire departments to protect the communities they serve.</td>
</tr>
</tbody>
</table>
The Committee reviewed multiple cycles and determined this was not needed.
Remote inspection is a reliable and valid means for verification of damper position that lowers the cost of periodic testing and thus improves the likelihood that inspection occurs. Remote testing is also ubiquitous in today's world and widely used as a reliable means of testing other life-safety systems including fire alarm, smoke control systems, water-based fire protection, and many others. Eliminating the option for remote testing of fire dampers is unjustified and will only serve to regress life-safety inspection.

At the risk of repeating a few arguments already presented, here are some reasons to reject CAM 80-15. Procedurally, this CAM contains new material that was not submitted in the Public Input phase of the current NFPA 80 revision cycle. In addition, the Technical Committee was not provided supporting documentation justifying deletion of remote inspections. If this CAM were to pass, there would be a discrepancy in inspection methods between NFPA 80 and 105, which would cause building owners and AHJs confusion regarding damper inspection requirements. The test method now in NFPA 80 is equivalent to that used in automated testing of smoke control systems for many years. (Refer to 2021 IBC Section 909.12.1 and 2021 IFC Section 909.22.) Remote testing has been allowed in Europe for 20 years and has proven to be reliable. Overall, remote testing reduces the cost of periodic testing and leaves no excuse for building owners not to test their dampers.

Remote indication for air control dampers has around since the 60's. The same indication mechanisms have been incorporated on life safety dampers since the 80's. Actuators evolved into direct drive units back in the late 90's which made them more reliable. I feel the addition of this remote inspection has been proven over the 20+ years they have been used. I know many life safety dampers do not get their annual or 4 year inspections, specifically in non-medical facilities. This long awaited addition to the codes a few years back, allows for the dampers to be inspected more often due to a simpler and less costly fashion. As it is currently written, there is a visual inspection of each damper that provides proof it is currently installed correctly.
CAM 80-15

AGAINST

NFPA Standard 915, now out for public review, is a standard for remote inspections for construction using automated equipment as well as cell phones, drones, videos, and the like. Reliable remote testing is now possible using common electronic technology. It can be expected to become the norm for most systems in the coming years. The test method now in NFPA 80 is equivalent to that used in automated testing in smoke control systems for many years. IBC Section 909.12.1 Verification includes a weekly self-test of smoke control systems including actuation. The IBC references IFC where Section 909.20 Maintenance requires weekly self-testing. The method of test uses auxiliary switches to prove dampers open and close properly.

Created: 2021-06-24 14:44 (UTC)
Full Name: Cory Bacorn
Company: Metal Industries of NC Inc.
Affiliation: Metal Industries of NC Inc.

AGAINST

The content presented in CAM 80-15 is new material that was not submitted to NFPA during the Public Input phase of the current (2022) NFPA 80 revision cycle. NFPA Standard 915, now out for public review, is a standard for remote inspections for construction using automated equipment as well as cell phones, drones, videos, and the like. Using common electronic technology, reliable remote testing is now possible. Remote testing can be expected to become the norm for most systems in the coming years.

Created: 2021-06-23 20:33 (UTC)
Full Name: Samantha Peterson
Company: 3M Company
Affiliation: 3M Company

AGAINST

Allowing for remote inspections encourages inspections to be done more easily. As long as there has not been evidence to support that remote inspections are ineffective at identifying damper malfunction, it should continue to be allowed as an option to enable easier inspections.

Created: 2021-06-23 18:39 (UTC)
Full Name: Michael Knipple
Company: Belimo Americas
Affiliation: Belimo Americas

AGAINST

Contrary to use of technology, inspection methods of other life safety system components. Remote inspection is integrating into the marketplace, reference development standard NFPA 915.

Created: 2021-06-22 19:36 (UTC)
Full Name: Ethan Dodzweit
Company: Metal Industries
Affiliation: Metal Industries

AGAINST

The test method now in NFPA 80 is equivalent to that used in automated testing in smoke control systems for many years. IBC Section 909.12.1 Verification includes a weekly self-test of smoke control systems including actuation. The IBC references IFC where Section 909.20 Maintenance requires weekly self-testing. The method of test uses auxiliary switches to prove dampers open and close properly.
AGAINST

Remote inspections are a big part of the protocol for life safety equipment. It would not make sense to remove the remote inspections after they have already become such an important piece of the process. Also, the current NFPA 80 revision cycle has already passed the public input phase. This proposal should have to wait until the next public input phase.

Created: 2021-06-22 19:28 (UTC)
Full Name: Roland Asp
Company: National Fire Sprinkler Association
Affiliation: CAM 80-15

AGAINST

The National Fire Sprinkler Association’s Engineering and Standards Committee is against CAM 80-15. We support the technical committee’s position. Remote inspections need to remain as an option.

Created: 2021-06-22 14:24 (UTC)
Full Name: James Carlin
Company: Pottorff
Affiliation: Pottorff
CAM 80-15

AGAINST

Remote inspection is a common practice allowed for multiple devices, including equipment outlined in NFPA 25, 72, 80, 92, 105, and 1997. Remote inspection has been used with positive results to lower the cost of performing periodic testing. Removing remote inspection in NFPA 80 will create a conflict between the inspection requirements of NFPA 80 and NFPA 105, and would limit the options available for building owners and inspectors in performing periodic and automated inspections. This will be especially true for weekly self-testing required for IBC section 909 smoke control systems, which commonly use Combination Fire-Smoke dampers. I support the technical committee in rejecting the removal of remote testing as outlined in CAM 80-15.

Created: 2021-06-21 14:18 (UTC)
Full Name: Tom Daenzer
Company: Belimo Aircontrols
Affiliation: Belimo
CAM 80-15

AGAINST

First, this will create conflict between 105 and 80 since 105 includes remote inspection. Second, this is a necessary and inevitable progression of technology to make our world better and safer through regular, frequent testing. Let’s not let politics and company/industry interests get in the way of safer buildings.

Created: 2021-06-18 17:51 (UTC)
Full Name: Anthony Apfelbeck
Company: Altamonte Springs Building/fire
Affiliation: City of Altamonte Springs
CAM 80-15

AGAINST
Remote testing of dampers provide a valuable tool to contractors, AHJs and owners to ensure functionality of the devices. This appears to be contrary to the way we are broadly moving toward ITM across all systems. If there are deficiencies in how this is performed, then the proponent of this CAM should focus on improvements in those areas.

Created: 2021-06-17 16:01 (UTC)
Full Name: John Taylor
Company: Healthcare Compliance Team, LLC
Affiliation: Healthcare Compliance Team, LLC
CAM 80-15
AGAINST
Reason: This appears that it will eliminate the remote inspection option. A remote observation method of inspection may be the best method of inspection for dampers that are in difficult or hazardous to access locations.

Created: 2021-06-17 12:31 (UTC)
Full Name: Jack Diamond
Company: Quality Door Service
Affiliation: NFPA
CAM 80-15
FOR
Reason: good clarification

Created: 2021-06-16 18:14 (UTC)
Full Name: Joseph Brooks
Company: AMCA International Inc.
Affiliation: AMCA International Inc.
CAM 80-15
AGAINST
Remote inspections are an acceptable accurate and reliable method of inspection as evidenced by several NFPA standards that contain provisions for remote testing (e.g., NFPA 80, 92, and 105). Also, remote testing can be performed more frequently promoting building safety.

Created: 2021-06-16 11:21 (UTC)
Full Name: James Peterkin
Company: Tlc Engineering
Affiliation: Health Care Section, Chair
CAM 80-15
AGAINST
The Healthcare Section Executive Board, based on recommendation by the Health Care Section Codes and Standards Review Committee voted to OPPOSE this motion. After reviewing the substantiation provided for the proposed code change, the Health Care Section did not agree with the proponent for the need to remove the option for remote testing of dampers. Remote testing of fire protection systems is becoming an acceptable option across many of the NFPA Standards. The remote testing options include requirements that verify that the dampers is fully open and fully closed. If there are issues with the way the remote testing is performed or how it is verified, the proponent should offer suggestions on how to improve the process, not simply eliminate it.

Created: 2021-06-15 19:53 (UTC)
Full Name: Jack Lyons

Company: National Electrical Manufactur
Affiliation: NEMA

CAM 80-15
AGAINST

NEMA supports the action of the technical committee in rejecting public comments 27 & 47 deleting the reference to remote inspection methods. No data was provided to substantiate this wholesale change. Remote inspection and automated testing methods are being utilized successfully throughout the fire and life safety industry with positive results. We urge the membership to support the technical committee and reject CAM 80-15. NFPA 80 - Standard for Fire Doors and Other Opening Protectives

Created: 2021-06-14 14:26 (UTC)
Full Name: Kevin Hall
Company: American Fire Sprinkler Association
Affiliation: American Fire Sprinkler Association

CAM 80-15
AGAINST

Reason: Remote inspections provide a valuable option to inspecting contractors.

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA

CAM 80-15
AGAINST

Reason: The Committee reviewed multiple cycles and determined this was not needed.
CAM 291-2

Report Generated on: June 25, 2021

Created: 2021-06-21 14:33 (UTC)
Full Name: Robert Phillippi
Company: City of Altamonte Springs
Affiliation: City of Altamonte Springs
FOR
Reason: It’s problematic at best if private fire hydrants are not consistently marked as public fire hydrants since they are used in the same manner.

Created: 2021-06-18 18:08 (UTC)
Full Name: Anthony Apfelbeck
Company: Altamonte Springs Building/fir
Affiliation: City of Altamonte Springs
FOR
Reason: This CAM mirrors the existing language in NFPA 291 that is applicable to public fire hydrants but proposes to extend it to private fire hydrants. There is no technical justification for the existing guidance to apply only to public fire hydrants but then not applying that same guidance to private fire hydrants. This CAM is a natural extension to apply the same guidance to both public and private fire hydrants. The hydrant and its functionality to the fire department does not change in a manner to warrant different guidance on marking when it becomes private vs public.

Created: 2021-06-18 18:03 (UTC)
Full Name: James Peterkin
Company: Tlc Engineering
Affiliation: Self
FOR
Reason: This recommended practice should be the same for Private Hydrants as it is for Public Hydrants.

Created: 2021-06-17 20:16 (UTC)
Full Name: Douglas Carter
Company: Brevard Cnty Fire Rescue
Affiliation: Code Official
FOR
Reason: There needs to be standardization on private hydrants just as there is with public hydrants. The color coding of both private and public fire hydrants provides critical information to responding fire crews which can only aid in creating better outcomes on the fire ground.

Created: 2021-06-17 18:39 (UTC)
Full Name: Brett Dunckel
Company: Broward Sheriffs Office
Currently, NFPA 291 provides guidance as to capacity marking of public fire hydrants in section 5.2.1. However, there is no guidance provided for the capacity marking of private fire hydrants other than marking it at "owner discretion." There is no technical justification to provide guidance in the document for the capacity marking of public fire hydrants but not do the same for private fire hydrants. Both public and private hydrants serve a similar purpose and fire departments utilize the information from the capacity marking of fire hydrants to make operational decisions during suppression operations.

Reason:
Currently, NFPA 291 provides guidance as to capacity marking of public fire hydrants in section 5.2.1. However, there is no guidance provided for the capacity marking of private fire hydrants other than marking it at "owner discretion." There is no technical justification to provide guidance in the document for the capacity marking of public fire hydrants but not do the same for private fire hydrants. Both public and private hydrants serve a similar purpose and fire departments utilize the information from the capacity marking of fire hydrants to make operational decisions during suppression operations.

Reason:
Currently, NFPA 291 provides guidance as to capacity marking of public fire hydrants in section 5.2.1. However, there is no guidance provided for the capacity marking of private fire hydrants other than marking it at "owner discretion." There is no technical justification to provide guidance in the document for the capacity marking of public fire hydrants but not do the same for private fire hydrants. Both public and private hydrants serve a similar purpose and fire departments utilize the information from the capacity marking of fire hydrants to make operational decisions during suppression operations.

Reason:
Currently, NFPA 291 provides guidance as to capacity marking of public fire hydrants in section 5.2.1. However, there is no guidance provided for the capacity marking of private fire hydrants other than marking it at "owner discretion." There is no technical justification to provide guidance in the document for the capacity marking of public fire hydrants but not do the same for private fire hydrants. Both public and private hydrants serve a similar purpose and fire departments utilize the information from the capacity marking of fire hydrants to make operational decisions during suppression operations.

Reason:
Currently, NFPA 291 provides guidance as to capacity marking of public fire hydrants in section 5.2.1. However, there is no guidance provided for the capacity marking of private fire hydrants other than marking it at "owner discretion." There is no technical justification to provide guidance in the document for the capacity marking of public fire hydrants but not do the same for private fire hydrants. Both public and private hydrants serve a similar purpose and fire departments utilize the information from the capacity marking of fire hydrants to make operational decisions during suppression operations.

Reason:
Reason: This has been needed for a very long time. Maintaining consistency is very important for compliance.

Created: 2021-06-16 20:41 (UTC)
Full Name: Lori Hastings
Company: Broward Sheriff's Office Fire
Affiliation: BSO Fire Prevention Bureau
CAM 291-2

FOR
Reason: Reasonable change to code, the TC response does not make sense. Proposed text follows same language and is not more mandatory than other sections of this code. Hydrants are installed for fire suppression, and 5.1 already says hydrants should be classified according to rated capacity (public or private), so marking to indicate the capacity classification is logical and may be essential information for suppression plans and documenting future conditions.

Created: 2021-06-16 20:16 (UTC)
Full Name: Jennifer Pierce
Company: Clermont Fire Dept
Affiliation: NFPA Member, Clermont Fire
CAM 291-2

FOR
Reason: Both public and private hydrants serve a similar purpose and fire departments, particularly in our area, utilize the information from the capacity marking of fire hydrants to make operational decisions during suppression operations particularly when electronic mechanisms are unavailable.

Created: 2021-06-16 15:50 (UTC)
Full Name: Christina Diaz
Company: Seminole County Fire Dept
Affiliation: SCFD
CAM 291-2

FOR
Reason: Similar guidance should be provided for private hydrants such as those listed for public hydrants. Both public and private hydrants serve the same purpose and shall be consistently distinguishable especially when determining adequate suppression tactics during operational response.

Created: 2021-06-16 15:02 (UTC)
Full Name: Gregory Cahanin
Company: Cahanin Fire & Code Consulting
Affiliation: none
CAM 291-2

FOR
Reason: Public fire departments respond to fires on private property with private hydrants. A consistent and accepted color coding will insure responders know which hydrant can supply a pumper and to what extent.

Created: 2021-06-16 12:52 (UTC)
Full Name: Daniel Almaguer
CAM 291-2
FOR
There is no guidance provided for the capacity marking of private fire hydrants other than marking it at "owner discretion." There is no technical justification to provide guidance in the document for the capacity marking of public fire hydrants but not do the same for private fire hydrants. Both public and private hydrants serve a similar purpose and fire departments utilize the information from the capacity marking of fire hydrants to make operational decisions during suppression operations.

Created: 2021-06-16 12:36 (UTC)
Full Name: Aaron Johnson
Company: Rural/Metro Corporation
Affiliation: Fire Marshal
CAM 291-2
FOR
Currently, NFPA 291 provides guidance as to capacity marking of public fire hydrants in section 5.2.1. However, there is no guidance provided for the capacity marking of private fire hydrants other than marking it at "owner discretion." There is no technical justification to provide guidance in the document for the capacity marking of public fire hydrants but not do the same for private fire hydrants. Both public and private hydrants serve a similar purpose and fire departments utilize the information from the capacity marking of fire hydrants to make operational decisions during suppression operations.

Created: 2021-06-14 23:34 (UTC)
Full Name: Steven Sawyer
Company: North Stonington VFC
Affiliation: CAM 291-2
FOR
There should be no difference in marking of public or private hydrants. Public FD’s respond to facilities that have private fire hydrants and they should know the flow that can be achieved for fire fighting purposes. The committee statement as to why this proposal and comment was rejected contains no technical justification for the rejection.

Created: 2021-06-14 23:15 (UTC)
Full Name: Janet Washburn
Company: Bonita Springs Fire Control and Rescue District
Affiliation: Fire Marshal
CAM 291-2
FOR
I support Mr. Apfelbeck’s CAM or public comment 31. It’s important for engine crews to quickly ascertain the GPM for water supply. By painting the hydrant the recognized colors, crews will quickly visualize available supply and plan a fire attack based on that criteria. Leaving the color to owner’s discretion will not assist crews and in fact lead to danger on the Fire scene as owner’s decide to paint the hydrant in an artistic manner. At that point, crews will be left to guessing which may result in disastrous consequences.

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA
CAM 291-2

FOR

Reason: Would agree with this CAM.
CAM 318-2

Report Generated on: June 25, 2021

**Created:** 2021-06-25 21:05 (UTC)
**Full Name:** Shamim Rashid-sumar
**Company:** National Ready Mixed Concrete
**Affiliation:** Build With Strength Coalition

**Reason:**

CAM 318-2 proposes a relaxation of passive fire protection. Agree with the Technical committee’s decision to require the use of noncombustible materials as the minimum level of safety and permit materials complying with FM 9410/ULM2360 only when process chemicals dictate an alternate to noncombustible materials of construction.

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**Created:** 2021-06-18 16:28 (UTC)
**Full Name:** Robert Ballard
**Company:** Victaulic
**Affiliation:** FSSA

**Reason:**

8.2.1.2 as written is keeping combustible materials, even ones with limited combustibility, that are not required by the process out of the cleanroom which is good fire safety practice.

---

**Created:** 2021-06-14 13:23 (UTC)
**Full Name:** Christopher Creamer
**Company:** DYNAFIRE LLC
**Affiliation:** AFAA

**Reason:**

The Committee reviewed multiple cycles and determined this was not needed.
CAM 501-2

Report Generated on: June 25, 2021

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA
CAM 501-2
AGAINST
Reason: The Committee reviewed multiple cycles and determined this was not needed.
Reason: The Committee reviewed multiple cycles and determined this was not needed.
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<td>IAFF</td>
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<td>Affiliation:</td>
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**CAM 1225-2**

**AGAINST**

**Reason:** This issue were discussed in committee and voted to reject each of them.

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<td>DYNAFIRE LLC</td>
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<td>Affiliation:</td>
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**CAM 1225-2**

**AGAINST**

**Reason:** The Committee reviewed and determined this was not needed. The reference is incorrect.
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CAM 1225-14

Report Generated on: June 25, 2021

Created: 2021-06-23 21:19 (UTC)
Full Name: Mark Lund
Company: 3M Company
Affiliation: 3M - Manufacturing
FOR
Reason: It is important for this infrastructure to be supported by metal hardware otherwise the fixtures could melt/creep, even in a sprinklered fire. Conventional sprinklers are control-mode, not suppression-mode, so compartment temperatures can be quite high; and at that sprinkler reliability is less that 100%.

Created: 2021-06-23 20:33 (UTC)
Full Name: Samantha Peterson
Company: 3M Company
Affiliation: 3M Company
FOR
Reason: The drafted text if motion fails contradicts the requirements set forth in NFPA 72 which proposes a balance between sprinkler protection and fire resistive performance and construction. Permitting backbone cables to be installed with out any fire resistance rating subjects a building's critical communication structure to a significant vulnerability when it is needed most (during the event of a fire).

Created: 2021-06-22 12:26 (UTC)
Full Name: Rick Swan
Company: IAFF
Affiliation: IAFF
AGAINST
Reason: This issue were discussed in committee and voted to reject each of them

Created: 2021-06-22 00:38 (UTC)
Full Name: John Valiulis
Company: Hilti
Affiliation: Hilti
FOR
Reason: There was no fire test data or other convincing data provided by the committee or to the committee to demonstrate that cable runs in a sprinklered building could survive along their entire length without any passive fire protection to shield them. Along the length of any such cable runs, there are bound to be countless lengths where the cables could be shielded from sprinkler spray, and yet be exposed to either the heat from a nearby fire or even to direct impact of flames. The only reliable protection method is to have any such cables protected by passive fire protection methods along their entire lengths, as has been required up to now.

Created: 2021-06-18 15:47 (UTC)
Full Name: Taylor Congdon
Company:
FOR

Reason: Being required improves life safety

Created: 2021-06-16 11:21 (UTC)
Full Name: James Peterkin
Company: Tlc Engineering
Affiliation: Health Care Section, Chair

AGAINST

The Healthcare Section Executive Board, based on recommendation by the Health Care Section Codes and Standards Review Committee, voted to OPPOSE this motion. After reviewing the substantiation provided for the proposed code change, the Health Care Section did not agree with the proponent for the need to have the cables installed within the metal raceway since this merely adds unnecessary cost to the installation without any substantial benefit. No technical substantiation was provided to show that this action would correct a common issue that is taking place throughout the buildings where these systems have already been installed.

Created: 2021-06-14 13:23 (UTC)
Full Name: Christopher Creamer
Company: DYNAFIRE LLC
Affiliation: AFAA

AGAINST

Reason: The Committee reviewed and determined this was not needed.
FOR

Previously I posted several detailed discussions on this CAM. Please consider this summary before you vote on this CAM. Thank you for your kind consideration. The CAM moves to reject SR-24 because of possible safety concerns about the new halocarbon agent HB-55 proposed for NFPA 2001 as a total flooding agent. HB-55 is composed of 50% by weight HCFO-1233zd(E) and 50% FK-5-1-12. NFPA 2001 permits the use of a halocarbon agent in normally occupied spaces up to the NOAEL if people will not be exposed, i.e., inhale, the agent/air mixture for more than 5 minutes. NOAEL is defined in NFPA 2001 (2018) 3.3.26 as "the highest concentration at which NO ADVERSE TOXICOLOGICAL OR PHYSIOLOGICAL EFFECT HAS BEEN OBSERVED." During the recirculation of the ballot on SR-24 to the Technical Committee, a TC member brought to light concerns about the toxicity of HB-55. The member pointed out reports of ADVERSE TOXICOLOGICAL effects at concentrations below those proposed for use by SR-24. I followed up on the member’s comment, actually changing my vote from affirmative on SR-24 to negative on SR-24 based on what I found. The NOAEL concentration of 8.7% (85,000 ppm) specified for HB-55 would result in an HCFO-1233zd(E) concentration of 6.2% (62,000 ppm); this is important when one considers the following three statements on toxicity of HCFO-1233zd(E). “Based on these findings the threshold for general toxicity (not cardiac sensitization) was 35,000 ppm and the NOEC was 25,000 ppm.” (Report by OARS-WEEL 2013) “Note: CARDIAC SENSITIZATION threshold (dog): 25000 ppm.” (Honeywell Safety Data Sheet for HCFO-1233zd(E) published 2014) “The no observed effect level (NOEL) in cardiac sensitization studies in dogs was 25 000 ppm.” (“The acute, genetic, developmental and inhalation toxicity of trans-1-chloro,3,3,3-trifluoropropene (HCFO-1233zd(E))” by Tviet, A et al, 2014) THREE REPUTABLE SOURCES AGREE the highest concentration at which no adverse toxicological effect was observed is 2.5% yet SR-24 proposes a NOAEL which would produce a 6.2% concentration of HCFO-1233zd(E). UNTIL THERE IS A SATISFACTORY RESOLUTION REGARDING “THE HIGHEST CONCENTRATION AT WHICH NO ADVERSE TOXICOLOGICAL OR PHYSIOLOGICAL EFFECT HAS BEEN OBSERVED,” HB-55 SHOULD NOT BE INCLUDED IN NFPA 2001. I realize EPA included HB-55 on the SNAP list just weeks before committee ballots were due – I discuss this in previous posts. But please remember this important SNAP statement: “Use of this agent should be in accordance with the safety guidelines in the latest edition of the National Fire Protection Association (NFPA) 2001 Standard on Clean Agent Fire Extinguishing Systems.” Thus, NFPA 2001 is ULTIMATELY RESPONSIBLE FOR PROVIDING GUIDANCE FOR SAFE USE OF HB-55. A vote FOR this CAM will allow the NFPA 2001 TC to complete a proper investigation of the toxicological profile of HB-55 and resolve the safe use question before NFPA adds it to the standard. Please vote FOR this CAM.
I am Mark L. Robin of The Chemours Company. I have worked for the past 30 years in the development, testing and approvals of gaseous extinguishing agents and specialty fluorochemicals. Since the 1980s I have served on numerous fire related technical committees such as those of NFPA and ISO. I am currently a member of the NFPA GFE Technical Committee which is responsible for development of NFPA 2001. This CAM seeks to reject SR-24. SR-24, if allowed to go forward, would include the new agent HB-55 in NFPA 2001 for use in total flooding in normally occupied spaces. HB-55 is a blend consisting of 50% HCFO-1233zdE and 50% FK-5-1-1. It is unfortunate that the inclusion of photographs was not allowed in the submission of CAMs, as a simple visual comparison of the plastic sheet test rack employed in the HB-55 testing and the plastic sheet test rack specified in NFPA 2001 and ISO 14520 clearly demonstrates that the test rack was radically altered in the HB-55 tests. It is well known that in fire testing, even small changes in a test configuration can lead to extreme changes in fire suppression agent performance. There has been absolutely no evidence produced by Honeywell, or Jensen Hughes or Underwriters Laboratories to demonstrate that the two test configurations produce the same results. The assertion that the tests provide equivalent results – with no proof at all – is a powerful example of poor science, and undermines the whole purpose of developing standard test procedures. Every other single agent in NFPA 2001 was required to employ the test rack specified in NFPA 2001. The HB-55 testing did not. Why? HB-55 has also been observed to form much higher levels of acid decomposition products compared to other NFPA 2001 agents, bringing into question its safety in use. In total flooding tests conducted by the US Army, HB-55 formed 1800 ppm HF and 560 ppm COF2, whereas in the identical test HFC-227ea produced HF and COF2 in levels below the detection limit. HF and COF2 levels produced from HFC-227ea in typical total flooding scenarios have been well studied and found to be below levels harmful to humans or electronic equipment. There has been no similar decomposition product testing conducted on HCFO-1233zdE or on its blend with FK-5-1-12 (i.e., on HB-55).

Reason:
Created: 2021-06-25 20:35 (UTC)
Full Name: John Owens
Company: 3M Company
Affiliation: CAM 2001-5 2001-9
FOR
A comment posted on June 23 regarding CAM 2001-5 referenced a letter sent by the EPA to the ISO TC21/SC08/WG6. The EPA letter states the use of 96,000 ppmv (9.6 volume%) as the no observed adverse effect level (NOAEL) for the HCFO-1233zd(E) component of the blend. The letter acknowledges that central nervous system (CNS) effects were observed at this concentration but rationalizes those effects as found to be reversible and had generally abated post exposure. Based on the CNS effects and mortality referenced, a concentration of 96,000 ppmv (9.6 vol%) is not a NOAEL. The highest concentration of HCFO-1233zd(E) at which no adverse effects were observed was 25,000 ppmv (2.5 vol%) which is well below the minimum design concentrations for the proposed blend. Thus, a data gap still exists within the toxicological information submitted that prevents the committee from fully assessing the safety for use of this agent component in occupied spaces.

Reason:
Created: 2021-06-25 20:03 (UTC)
Full Name: Gary Jepson
Company: Chemours
Affiliation: Chemours Co.
CAM 2001-5 2001-9
FOR
I'm the Chief Toxicologist for the Chemours Company and have been involved in fire suppressant health safety for over 30 years, as well as contributing to NFPA physiological modeling initiatives. I'm supporting a FOR vote for the following reasons. - In order to be appropriately safe, CNS or other escape impairing effects should not occur at or below the design concentration - Testing the blend for CNS or other escape impairing effects would be preferred to doing a calculation (since it's not azeotropic blend)

Created: 2021-06-25 15:58 (UTC)
Full Name: Sandeep Mukhi
Company: Honeywell
Affiliation: Honeywell
CAM 2001-5 2001-9
AGAINST

This is in continuation to my previous comment.... ------- I am Sandeep Mukhi, PhD, an American Board-Certified Toxicologist (DABT). I have a PhD degree in toxicology, and I have been in the field of toxicology for more than 15 years. Currently, I am a toxicologist at Honeywell. As a career toxicologist, I have published numerous peer reviewed papers in toxicological journals, presented conferences and participated in industry working groups. I also represent at ASHARI SSPC standard 35 toxicology subcommittee. Throughout my career I have designed, overseen, and monitored thousands of toxicological studies and conducted risk assessment for regulatory submissions to agencies around the globe. As being an authority in this field, I am taking this opportunity to comment on the CAM 2001-5 2001-9 position. The NFPA 2001 Technical Committee has voted and approved inclusion of Halocarbon Blend 55 in the next edition of the NFPA 2001 Standard on Clean Agent Fire Extinguishing Systems. It is strongly recommended that this CAM be rejected by a vote AGAINST. Specifically, on neurotoxicity, EPA also has provided a rationale clarifying that HCFO-1233zd(E) does not induce any neurotoxic effect. "Acute toxicity studies lack an adequate number of test animals to determine if a study compound is neurotoxic. Sub-chronic studies lasting 13 weeks—which typically use 20 rats per exposure group (10/sex) and expose the rats for 6 hours per day and 5 days/week—are necessary to be able to identify the gross clinical signs, as well as microscopic and macroscopic endpoints that are typically indicative of adverse effects. The repeat-exposure sub-chronic studies in both rats and rabbits have shown that HCFO-1233zd(E) does not induce neurotoxicity at concentrations up to and including 20,000 ppm (Tveit et al. 2014, OARS 2013)... Based on these data, EPA does not believe HCFO-1233zd(E) is a neurotoxicant" As a toxicologist I believe that a weight of evidence analysis is very important while assessing any toxicological end point. One should not overlook all the relevant studies in addressing toxicity endpoints and their relevance to human health risk. I strongly believe that US EPA is the ultimate arbitrator on safety of chemicals when assessed and approved through their SNAP program. Toxicologists at EPA conduct systematic review of all the information available to them before making any conclusion. Therefore, if the team of expert toxicologists at US EPA is not taken in by incorrect information such as that in this CAM, then individual members should not either.

Created: 2021-06-25 15:52 (UTC)
Full Name: Sandeep Mukhi
Company: Honeywell
Affiliation: Honeywell
CAM 2001-5 2001-9
AGAINST
I am Sandeep Mukhi, PhD, an American Board-Certified Toxicologist (DABT). I have a PhD degree in toxicology, and I have been in the field of toxicology for more than 15 years. Currently, I am a toxicologist at Honeywell. As a career toxicologist, I have published numerous peer reviewed papers in toxicological journals, presented conferences and participated in industry working groups. I also represent at ASHARI SSPC standard 35 toxicology subcommittee. Throughout my career I have designed, overseen, and monitored thousands of toxicological studies and conducted risk assessment for regulatory submissions to agencies around the globe. As being an authority in this field, I am taking this opportunity to comment on the CAM 2001-5 2001-9 position. The NFPA 2001 Technical Committee has voted and approved inclusion of Halocarbon Blend 55 in the next edition of the NFPA 2001 Standard on Clean Agent Fire Extinguishing Systems. It is strongly recommended that this CAM be rejected by a vote AGAINST. The safety profile of HB55 has been well established with series of tests with either individual components or with the mixture. As part of SNAP approval process a team of toxicologist at USEPA have reviewed the safety profile of the blend and assessed the risk associated with potential exposure during intended use scenarios. Through this process, the US EPA deemed HB55 to be safe for use in occupied and unoccupied spaces and gave the agent SNAP approval in December 2020. Later, when incorrect tox claims such as those in this CAM were raised, the US EPA issued a letter, titled US EPA clarification of NOAEC for HB-55, to a different fire suppression standard committee, ISOTC21/SC08/WG6 in March of 2021 underscoring the safety of HB55 and reinforcing their SNAP approval decision. In this memo EPA concluded the following. “Based on the findings above, and information from the fire protection industry that an accidental release of a total flooding agent is a rare occurrence, EPA finds that there is limited rationale for assuming significant risk. In light of this low hazard and infrequent exposure and given the 84-fold margin of safety shown above, as well as the greater partitioning of HCFO-1233zd(E) into rat blood as compared to human blood, EPA believes the selection of 96,000 ppm as a NOAEC in the acute inhalation rat study was appropriate and provides additional context for the safety of HB-55 in light of additional toxicity studies performed with HCFO-1233zd(E).” Specifically, on neurotoxicity, EPA also has provided a rationale clarifying that HCFO-1233zd(E) does not induce any neurotoxic effect. EPA’s comment and more rationale is described in next comment.

Reason:

On the surface, this appears to be a non-issue. A new clean agent, SNAP-Approved. Glance at this and you might think it’s a slam dunk. However, those who are raising concerns about HB-55 being introduced to NFPA 2001 during this cycle are hardly newcomers to our industry. Rather their extensive knowledge and expertise lend gravity to the note of caution and reserve that they're expressing in their remarks during this debate. Even the EPA admittedly states that one of the guiding principles of the SNAP Program is that that there is not a requirement for substitutes to be considered risk-free in order to be acceptable. Therefore, one cannot simply use SNAP-approval as the sole basis for accepting it as a low-risk agent, and therefore, acceptable. Even the EPA doesn't go that far but acknowledges that its alternatives aren't always risk-free (in other words, "not always risk free" doesn't necessarily equate to "is low-risk"). Knowing that, when experts in our industry voice their concerns over inconsistencies with regard to the true NOAEL of HB-55, it should give us pause. Is it, in fact, 2.5%? If it is, we need to put the brakes on now, pass this motion, and hope that the committee won't overturn this CAM if successful, but instead do their due diligence and go to the data. The fact is there's uncertainty on a matter where there should be none. Eliminate the doubt and either come back with stronger technical substantiation for its inclusion in NFPA 2001 or concede that it is not an acceptable alternative for total flooding, basing their decision not on the agent's ODP but on an acceptable or unacceptable level of risk to health and life. Ultimately it is the NFPA, not the EPA, who should drop the gavel on this matter and make that determination. Whether the concerns being raised turn out to be justified or not, the industry will have a clear conscience on the matter, knowing they had the presence of mind to take a more measured approach. A gain all around either way.
I would like to discuss with you some arguments against this CAM made by representatives of the agent manufacturer Honeywell, and a representative of Jensen-Hughes on 6/23. They argue that HB-55 is a good fire extinguishing agent and is an environmentally friendly agent. But I am not debating the fire fighting capability and GWP and ODS of the agent. I am concerned about the life safety questions related to use of HB-55 under the conditions proposed by SR-24. The commentators in opposition have offered no explanation for the divergence between the proposed 8.7% NOAEL, 6.2% HCFO component equivalent, and cardiac sensitization or NOEC of 2.5% discussed by Mr. DeLorome and me. They have not addressed the GAP IN TOXICITY DATA discussed by DeLorome. They have not addressed onset of Central Nervous System effects at 3.5% reported by OARS-WEEL for HFCO1233zd(E). These are life safety issues that must be addressed with explanations and data to support the 8.7% NOAEL proposed in SR-24. The commentators opposing the CAM seem to rely mainly on the recent EPA SNAP listing and in part on an EPA letter to ISO to support their claim that HB-55 used per SR-24 is “safe.” We’re told that there is a letter “published to ISO TC21/SC08/WG6 outlining the inaccuracy of the claims made in this CAM” (6/23 post by Minion). What exactly is in that letter? Is there data regarding the toxicological questions discussed in this debate? If so, why are we not given that data for consideration? If the letter resolves the toxicity issues set forth in this CAM, why was the information not made available to the NFPA 2001 TC, why is it not made available to us now? We are only told that there is a letter from EPA to ISO that has a bearing on this discussion. And by the way, as of today, I found no reference to this new blend in the pending 4th edition of the ISO standard for gaseous fire extinguishing agents. Another point on the EPA SNAP listing: in the Federal Register post announcing the SNAP listing, EPA references OARS-WEEL to substantiate a Workplace Environmental Exposure Limit (WEEL) as 8-hour Time-Weighted Average (8-hr TWA) of 800 ppm for HCFO–1233zd(E). Was the OARS-WEEL report of a No Observed Effect Concentration of 25,000 ppm for general toxicity for this chemical missed? An explanation of this would have been useful to the NFPA 2001 TC, but since the EPA was in the process of reviewing HB-55 at the time of the TC Second Draft meeting EPA was not free to discuss the details of their review. The EPA SNAP listing states “Use of this agent should be in accordance with the safety guidelines in the latest edition of the National Fire Protection Association (NFPA) 2001 Standard on Clean Agent Fire Extinguishing Systems.” Thus, the ultimate responsibility for providing guidance for safe use HB-55 rests with NFPA 2001. Your vote FOR this CAM will allow the Technical Committee opportunity to properly consider the newly highlighted toxicological questions.
During this debate, Mr. DeLorne and I have referenced "cardiac sensitization," a toxicological effect. The Tvi et al (2014) report notes "The no observed effect level (NOEL) in CARDIAC SENSITIZATION studies in dogs was 25 000 ppm." The Honeywell Safety Data Sheet states "Note: CARDIAC SENSITIZATION threshold (dog): 25000 ppm." The Tvi et al (2014) report notes "The no observed effect level (NOEL) in CARDIAC SENSITIZATION studies in dogs was 25 000 ppm." The Honeywell Safety Data Sheet states "Note: CARDIAC SENSITIZATION threshold (dog): 25000 ppm." 25,000 ppm equates to 2.5%. What is CARDIAC SENSITIZATION and WHY IS IT IMPORTANT when considering addition of a new agent to NFPA 2001? It has been known since the early 1900s that inhalation of many halocarbons and hydrocarbons can make the heart abnormally sensitive to ELEVATED ADRENALIN LEVEL causing cardiac arrhythmias and possibly death, an effect known as "cardiac sensitization." NFPA 2001 states "For halocarbons covered in this standard, the NOAEL and LOAEL are based on the toxicological effect known as cardiac sensitization. Cardiac sensitization occurs when a chemical causes an increased sensitivity of the heart to adrenaline, a naturally occurring substance produced by the body during times of stress, leading to the sudden onset of irregular heart beats and possibly heart attack. Cardiac sensitization is measured in dogs after they have been exposed to a halocarbon agent for 5 minutes." When a gaseous agent system discharges whether in case of a fire or due to some other cause (false alarm, etc.), increased levels of adrenaline are expected in personnel who are present. The expected increase in a person’s adrenaline level due to fire and/or a system discharge is why consideration of cardiac sensitization due to agent concentration is so necessary. NFPA 2001 limits exposure to halocarbon agents based on the No Observed Adverse Effect Level (NOAEL) and the Low Observed Adverse Effect Level (LOAEL) which are, per NFPA 2001, “based on the toxicological effect known as cardiac sensitization.” All agents currently in NFPA 2001 have cardiac sensitization levels above their stated NOAEL. There is no reason to permit HB-55 into the standard if the cardiac sensitization threshold is indeed below the NOAEL. Thus far, proponents of SR-24 have failed to present specific toxicological data contradicting the 2.5% no observed effect levels and cardiac sensitization thresholds given in the aforementioned documents for the HFCO component of HB-55. They have not challenged that at the NOAEL specified in SR-24 the HFCO1233zd(E) concentration potentially inhaled by an occupant of a space would be 6.2%, two and one-half times the CS threshold. Further, they have not addressed Mr. Owens’ concern about central nervous system effects at 35,000 ppm (3.5%) reported by OARS WEEL report. The data indicates toxicity concerns at concentrations well below usage concentrations proposed for HB-55. Based on the information so far presented during this debate, the statement by Owens in support of CAM 2001–5 and Owens’ substantiation for his negative vote on SR-24 in the TC ballot, I must continue to urge a FOR vote on this CAM.
The NFPA 2001 Technical Committee has voted and approved inclusion of Halocarbon Blend 55 in the next edition of the NFPA 2001 Standard on Clean Agent Fire Extinguishing Systems. It is strongly recommended that this CAM be rejected by a vote AGAINST. The second draft vote was a vote to APPROVE inclusion with a result of 24 FOR and 4 AGAINST - a strong demonstration of support of inclusion of this new, safe, effective agent in the Standard. There are a small number of chemical total flooding clean agents, it is important and exciting that a new one with demonstrated safety and efficacy be allowed to be included. It is particularly important given that the new clean agent is Low GWP at a time when global HFC regulations such as the Kigali Amendment, F-Gas (Europe) and the US AIM Act are tightening the ability to use HFC clean agents in the near future. The safety of the agent has been underscored by the US EPA both through SNAP approval to begin with, as well as through a letter published to ISO TC21/SC08/WG6 outlining the inaccuracy of the claims made in this CAM. The efficacy of this agent has been demonstrated through large scale fire testing whose protocol was validated by Jensen Hughes and UL LLC.

In accordance with the requirements set-forth in NFPA 2001, Halocarbon Blend 55 (HB-55) has been evaluated by the U.S. EPA through their SNAP program and deemed to be acceptable for use as a total flooding clean agent. The agent has also been tested in accordance with the ISO 14520 fire tests and was able to provide satisfactory performance with a minimum extinguishing concentration of 6.0% by volume. This meets all the requirements for inclusion in the standard.

Speaking on behalf of myself
CAM 2001-5 2001-9
FOR
Tom Wysocki of Guardian Services Incorporated, member of the NFPA GFE Technical Committee responsible for NFPA 2001. Earlier during this debate, I provided an overview of SR-24 which this CAM seeks to reject. Now I would like to provide some of the technical details in support of this CAM. SR-24 proposes to include agent HB-55 in the standard for use as a total flooding agent, with potential to be used in spaces where human beings could inhale the agent mixed with air. HB-55 is a blend consisting of 50% HCFO-1233zdE and 50% FK-5-1-12 by weight. NFPA 2001 states “Halocarbon systems for spaces that are normally occupied and designed to concentrations up to the NOAEL [see Table 1.5.1.2.1(a)] shall be permitted.” The NOAEL is the concentration of agent in air at which no adverse toxicological effects have been observed. The NOAEL stated in SR-24 for HB-55 is 8.7% by volume equating to a volume concentration of approximately 6.2% for the HCFO-1233zd(E) component in air. Thus, persons would be permitted to inhale atmospheres containing up to 6.2% HCFO-1233zd(E) and still be within the safety limits set forth in NFPA 2001. The problem with the NOAEL in SR-24 is that several recognized sources of toxicological data indicate that the No Observed Effect Level for HCFO-1233zd(E) is 2.5%, well below 6.2%. Further a Safety Data Sheet (SDS) published by the agent manufacturer shows a cardiac sensitization level of 25,000 ppm (2.5%) for dogs. (SDS by Honeywell Performance Materials and Technologies Product Stewardship Group, “SDS Solstice® ZD, Solstice® 1233zd (E) Version 2.0 Revision Date 24.06.2015 Supersedes 1.”) Note that cardiac sensitization tests are typically conducted using dogs as the subjects. The disconnect between published data and the NOAEL proposed for NFPA 2001 presents a life safety issue that must be resolved before going forward with HB-55 in the standard. If the proponents of SR-24 have data which justifies NOAEL proposed in SR-24 counter to the published data cited, please bring that data and its source forth in this debate. Based on the information presented by the submitter of this CAM, the discussion offered by Michael DeLorme in this debate, and the reports and SDS I have cited, I urge you to vote FOR this CAM.

Reason:

I am Thomas Wysocki of Guardian Services Incorporated, a fire protection consulting firm. I have worked for the past 48 years developing special hazards fire extinguishing systems including those using gaseous extinguishing agents. In the 1980s, I served as chairman of the technical committee responsible for NFPA 12A Halon 1301 fire extinguishing systems. I am currently a member of the NFPA GFE Technical Committee which is responsible for development of NFPA 2001. This CAM seeks to reject SR-24. SR-24, if allowed to go forward, would include the new agent HB-55 in NFPA 2001 for use in total flooding in normally occupied spaces. HB-55 is a blend consisting of 50% HCFO-1233zdE and 50% FK-5-1-12. During recirculation of the technical committee ballot on including HB-55 in the standard, questions regarding the toxicological effects of the HCFO component which comprises one-half of HB-55 became more clear. I had originally voted in favor of SR-24 but upon reading the substantiation for a negative vote from a committee member who is a toxicologist, I changed my vote on SR-24 to negative. If you read the Committee Statement describing the development of SR-24, you will find that an essential element required for acceptance of a new agent into the standard only occurred after the second draft meeting of the technical committee. The technical committee needs more time to more fully consider all the currently available toxicity data related to the new agent before including it in the NFPA 2001 Standard. The committee needs to hear from proponents of SR-24 regarding the toxicological data that was highlighted during recirculation of technical committee ballots. A vote in favor of this CAM will give the technical committee the needed additional time. I will post technical detail on this topic in the days ahead. In the meanwhile, please consider the “Submitter Substantiations and Committee Statements” on CAM 2001-5 and 2001-9 which are available on this Technical Meeting website. And again, I recommend a vote FOR this CAM.
Halocarbon Blend 55 (HB-55) has been proposed for addition to the NFPA 2001 Standard on Clean Agent Fire Extinguishing Systems. HB-55 is composed of 50% (wt%) trans-1-chloro-3,3,3-trifluoropropene (HFO-1233zd(E)) and dodecafluoro-2-methylpentan-3-one (FK-5-1-12). A data gap exists regarding the toxicity of HFO-1233zd(E) which needs addressing before HB-55 can be accepted into the standard in order to assess hazards to personnel when this blend is discharged into occupied spaces. The details below are provided in reference to previously submitted 3M comments documented in the NFPA technical meeting minutes for the ballot results dated 18JAN21 and the substantiation supporting the Certified Amending Motion 2001-5.

Published Data – No Adverse Effects: The highest airborne concentration in inhalation toxicity studies with HFO-1233zd(E) to demonstrate no adverse clinical signs of toxicity are 20,000 and 25,000 ppm in rats (13-week study) and dogs (cardiac sensitization), respectively. [Tveit, A, et al. (2014) The acute, genetic, developmental and inhalation toxicology of trans-1-chloro,3,3,3-trifluoropropene (HCFO-1233zd(E)), Drug and Chemical Toxicology, 37:1, 83-92].

Proposed Concentration – HB-55: The proposed minimum designed concentrations for HB-55 result in airborne concentrations for the HCFO-1233zd(E) component in a fire extinguishing event of 39,000, 51,000 and 42,000 ppm for Class A, B, and C hazards, respectively. 3M takes the position that the toxicology data set supporting the use of an airborne concentration of 39,000 ppm or higher contains a data gap that presents uncertainty to the safety of human subjects potentially exposed to HFO-1233zd(E).

Published Data - Adverse Effect Levels: Specifically, an acute inhalation toxicity study in rats has demonstrated adverse central nervous system (CNS) effects during a 4-hour, 95,971 ppm exposure (tremors) and significant clinical observations of toxicity 2-3 days following the exposure (ataxia, lethargy, restlessness, hunched posture) [Tveit, et al., 2014]. Further concern is raised from data generated in a canine cardiac sensitization study [Tveit, et al., 2014]. Recognizing that the dogs used in this study are administered a supra-physiological dose of adrenaline in order to detect test-material induced cardiac arrhythmias, dogs exposed to 35,000 ppm demonstrated tremors so severe that study personnel were unable to obtain an EKG. Therefore, the safety of potentially exposing personnel in a normally occupied space at the intended airborne concentrations of 39,000 ppm or higher is unknown. Conclusion: The data presented by Tveit et al., 2014, demonstrates a lowest observable adverse effects level (LOAEL) of 95,971 ppm and a no observable adverse effects level (NOAEL) of 25,000 ppm. Thus, there is a clear data gap that needs to be addressed regarding the adverse effects of the HCFO-1233zd(E) component of the proposed blend.
Halocarbon Blend 55 (HB-55) has been proposed for addition to the NFPA 2001 Standard on Clean Agent Fire Extinguishing Systems. HB-55 is composed of 50% (wt%) trans-1-chloro-3,3,3-trifluoropropene (HFO-1233zd(E)) and dodecafluoro-2-methylpentan-3-one (FK-5-1-12). A data gap exists regarding the toxicity of HFCFO-1233zd(E) which needs addressing before HB-55 can be accepted into the standard in order to assess hazards to personnel when this blend is discharged into occupied spaces. The details below are provided in reference to previously submitted 3M comments documented in the NFPA technical meeting minutes for the ballot results dated 18JAN21 and the substantiation supporting the Certified Amending Motion 2001-5.

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Proposed Concentration – HB-55: The proposed minimum designed concentrations for HB-55 result in airborne concentrations for the HFO-1233zd(E) component in a fire extinguishing event of 39,000, 51,000 and 42,000 ppm for Class A, B, and C hazards, respectively. 3M takes the position that the toxicology data set supporting the use of an airborne concentration of 39,000 ppm or higher contains a data gap that presents uncertainty to the safety of human subjects potentially exposed to HFO-1233zd(E).

Published Data - Adverse Effect Levels: Specifically, an acute inhalation toxicity study in rats has demonstrated adverse central nervous system (CNS) effects during a 4-hour, 95,971 ppm exposure (tremors) and significant clinical observations of toxicity 2-3 days following the exposure (ataxia, lethargy, restlessness, hunched posture) [Tveit, et al., 2014]. Further concern is raised from data generated in a canine cardiac sensitization study [Tveit, et al., 2014]. Recognizing that the dogs used in this study are administered a supra-physiological dose of adrenaline in order to detect test-material induced cardiac arrhythmias, dogs exposed to 35,000 ppm demonstrated tremors so severe that study personnel were unable to obtain an EKG. Therefore, the safety of potentially exposing personnel in a normally occupied space at the intended airborne concentrations of 39,000 ppm or higher is unknown.

Conclusion: The data presented by Tveit et al., 2014, demonstrates a lowest observable adverse effects level (LOAEL) of 95,971 ppm and a no observable adverse effects level (NOAEL) of 25,000 ppm. Thus, there is a clear data gap that needs to be addressed regarding the adverse effects of the HCFO-1233zd(E) component of the proposed blend.

Reason: Support the Committee's work on this CAM.

Created: 2021-06-15 19:36 (UTC)
Full Name: Christopher Creamer
Company: Dynafire
Affiliation: AFAA
CAM 2001-5 2001-9 AGAINST

Created: 2021-06-15 14:49 (UTC)
Full Name: Michael DeLorme
Company: 3M
Affiliation: 3M CAM 2001-5 2001-9 FOR
Halocarbon Blend 55 (HB-55) has been proposed for addition to the NFPA 2001 Standard on Clean Agent Fire Extinguishing Systems. HB-55 is composed of 50% (wt%) trans-1-chloro-3,3,3-trifluoropropene (HFO-1233zd(E)) and dodecafluoro-2-methylpentan-3-one (FK-5-1-12). A data gap exists regarding the toxicity of HFCO-
1233zd(E) which needs addressing before HB-55 can be accepted into the standard in order to assess hazards to personnel when this blend is discharged into occupied spaces. The details below are provided in reference to previously submitted 3M comments documented in the NFPA technical meeting minutes for the ballot results dated 18JAN21 and the substantiation supporting the Certified Amending Motion 2001-
5.

Published Data – No Adverse Effects: The highest airborne concentration in inhalation toxicity studies with HFO-1233zd(E) to demonstrate no adverse clinical signs of toxicity are 20,000 and 25,000 ppm in rats (13-week study) and dogs (cardiac sensitization), respectively. [Tveit, A, et al. (2014) The acute, genetic, developmental and inhalation toxicology of trans-1-chloro,3,3,3-trifluoropropene (HCFO-1233zd(E)), Drug and Chemical Toxicology, 37:1, 83-92].

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Reason:

The Committee reviewed and determined this was not needed.