



## MEMORANDUM

TO: NFPA Technical Committee on Electronic Computer Systems

FROM: Joanne Goyette

DATE: August 30, 2010

SUBJECT: NFPA 75 ROP TC FINAL Ballot Results (F11)

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The Final Results of the NFPA 75 ROP Letter Ballot are as follows:

**25 Members Eligible to Vote**

**5 Not Returned** (T. Goonan, F. Peri, G. Petrou, H. Roux, M. Suski)

There are two criteria necessary to pass ballot [(1) affirmative  $\frac{2}{3}$  vote and (2) simple majority].

- (1) The number of affirmative votes needed for the proposal to pass is **14**.  
(25 eligible to vote - 5 not returned - 0 abstentions =  $20 \times 0.66 = 13.2$ )

In all cases, an affirmative vote of at least a simple majority of the total membership eligible to vote is required. This is the calculation for simple majority:

$$[25 \text{ eligible} \div 2 = 12.5 = \mathbf{13}]$$

Reasons for negative votes, etc. from alternate members are not included unless the ballot from the principal member was not received.

According to the final ballot results, all ballot items received the necessary  $\frac{2}{3}$  required affirmative votes to pass ballot.

Attachment: (Final) Circulation Explanation Report

**75-2 1.3** (Log # CP9)

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**Negative**

**Deegan, T.** Traditionally, whether or not the requirements of NFPA 75 were to be invoked was determined by consideration of the factors listed in section 4.1. If use of NFPA 75 was warranted as a result of such consideration, all of the requirements of NFPA 75 applied. This proposal allows a user to pick and choose what requirements they will meet on the basis of an undefined documented risk assessment.

NFPA 75 is currently a Standard which by definition means that it contains only mandatory provisions and is in a form generally suitable for mandatory reference by another standard or code or for adoption into law.

This proposal is inconsistent with section 1.2.1.1 of the Manual of Style by effectively making requirements of the Standard open for debate rather than mandatory.

Those who may otherwise reference NFPA 75 with the understanding that they are establishing specific minimum requirements, are not likely to use it if it is considered to be only a starting place for discussion.

This proposal is also inconsistent with the Scope and Purpose as stated in NFPA 75.

This proposal effectively changes NFPA 75 from a Standard to a Recommended Practice.

**Wysocki, T.** "Mr. Deegan makes several good points in his comment with negative ballot on CP 9. In reviewing CP 9 once again in light of Mr. Deegan's comments, I find that the words "or portions thereof" from proposed new 1.3.1 "A *documented risk assessment shall be the basis for implementation of this Standard or portions thereof*" would permit the user of the standard to pick and choose which provisions of the standard should be applied based on risk assessment. Mr. Deegan is correct in pointing out that the new language effectively changes the document from a standard to a recommended practice. Such a change in the document has not been recommended nor approved by either the technical committee or the standards council."

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**75-5 3.2.4, 10.4.4(1), and 10.4.4(6)** (Log # 83)

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**Negative**

**McCluer, S.** The committee's action should have been to accept in principle or to submit a committee proposal in order to comply with the style manual. The term "suitable" appears in only three places: Section 3.2.4 (suitable for a specified purpose); Section 10.4.4(1) (of suitable construction); and Section 10.4.4(6) (suitable for use).

**Affirmative with Comment**

**Deegan, T.** The word is possibly unenforceable and vague.

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**75-18 3.3.16 Support Equipment and A.3.3.14 (New)** (Log # 84)

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**Negative**

**McCluer, S.** The existing text - and the committee's action - prohibit the use of any equipment or tools needed to install, maintain, or remove any IT equipment. The annex text that the committee removed was meant to clarify that such equipment is intended to be in the room only when it is actually being used.

**Wysocki, T.** Agree with Log #84 as submitted which included equipment essential to the "maintenance, installation or de-installation" of information technology equipment. Paragraph 6.1.1 states that only information technology equipment and "support equipment" shall be permitted in the IT equipment room. Equipment required for maintenance, installation and de-installation of IT equipment must be permitted in the IT room - therefore elimination of such maintenance, installation or de-installation equipment from the definition of "support equipment" would make the restriction in Paragraph 6.1.1 untenable for the operation of an IT facility.

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**75-19 4.1** (Log # 58)

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**Affirmative with Comment**

**McCluer, S.** The committee statement may not be understood because the submitter left intact Section 4.1(1), life safety aspects of the functions. The proposal was rejected because it attempted to disregard the danger of fire to property and occupants. See the committee action on Proposal 75.1.

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**75-20 4.1, 8.1.1.2, and A.4.1.2 (New)** (Log # 71)

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**Negative**

**Deegan, T.** The definition of Fire Risk Analysis is too vague.

Performing a fire risk analysis on any installation is prudent when evaluating a protection scheme. However, NFPA 75 's Purpose is to set minimum requirements for the protection of ITE facilities. If such an analysis is used to reduce the minimum requirements for construction, fire protection and fire detection of such facilities, it is not appropriate.

I do not believe there are currently any instances in Chapters 5 and 8 where risk analyses are specifically permitted.

Protection for ITE areas should be specific to the risks at each facility but NFPA 75 is intended to be a minimum. If the analyses are intended to identify additional measures above the minimum, I believe they are a valuable tool.

**Affirmative with Comment**

**Radakovich, Jr., J.** Recommend accepting original proposal language for paragraph 8.1.1.2 as submitted. The committee action indicates accept in principle, however, the changes proposed by the committee for paragraph 8.1.1.2 do not reflect the intent of the proposal. The use of the fire risk analysis identified in the new section 4.1.1 is not included in changes to chapter 8. In addition, the committees proposed changes to 8.1.1.2 are written in such a manner that it is unlikely users of the standard will recognize the intent of the change, which is to allow elimination of protection below the raised floor based on a risk analysis.

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**75-22 4.2 (Log # CP11 )**

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**Negative**

**Deegan, T.** See comments for Proposal 75-20 (Log#71)

**Wysocki, T.** "CP 11 provides the same "pick and choose" option as to whether the standard should apply to areas in IT rooms housing telecommunications equipment that is part of a private network. In cooperation with the technical committee for NFPA 76, the NFPA 75 technical committee worked hard to differentiate between telecommunications equipment that should be covered by NFPA 76 and telecommunications equipment which should be covered under NFPA 75. CP 11 now provides a further option to eliminate private network telecommunications equipment contained within IT areas from the provisions of NFPA 75. This option moves NFPA 75 from a standard to a recommended practice – such a change in the document has been approved by neither the technical committee nor the standards council."

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**75-29 5.5 (Log # CP6 )**

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**Negative**

**Wysocki, T.** I agree with the re-wording generally, but believe the words "where the ducts pass through fire-rated construction" should be retained. These words make it clear that the dampers must be physically located at the point in the duct where the duct passes through the fire-rated construction.

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**75-30 5.5.2 (Log # 59 )**

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**Affirmative with Comment**

**Burke, T.** While we realize that the fire rating requirement for shutters and windows referenced in Section 5.5.2.2 does not represent a change from the previous edition of NFPA 75, we believe this requirement is a deviation from applicable building code requirements such as those referenced in Sections 715.4 and 715.5 of the International Building Code. Consideration needs to be given to substantiating this deviation or revising this paragraph to reference compliance with applicable codes (similar to the action taken on Section 5.1.3.5 in Proposal 75-23).

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**75-32 5.5.3 (Log # 60 )**

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**Negative**

**Wysocki, T.** See reason for negative ballot on Proposal 75-29 (Log #CP6).

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**75-35 6.1 (Log # CP8 )**

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**Negative**

**Wysocki, T.** The current requirements in Section 6.1.1.1 have served well and the proposed additional requirements are unnecessary.

**75-36 6.1.1.1 (Log # 62)**

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**Negative**

**Wysocki, T.** See reason for negative ballot on Proposal 75-35 (Log #CP8).

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**75-43 8.1 (Log # 111)**

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**Negative**

**Bischoff, B.** This item was submitted in order to get fire suppression with Water Mist recognized by this Standard. It is currently in use in many parts of the World. The reasons I voted against rejection of this item are as follows:

Over the years, since the Pentagon fire, which motivated the creation of this Standard, the use of various fire extinguishing agents in the protection of this 'special hazard' has changed due to problems which appeared in their use and were not anticipated. Today there are a number of extinguishing agents which are being used successfully. Each has its own merits which include compatibility/ availability/ reliability/ cost/ lack of side effects and, of course effectiveness. This agent availability creates the opportunity to use an agent best suited to each particular installation and is to be encouraged. One of these agents used in approved systems world-wide and shown to be effective in an Electronic Environment is Water Mist.

The choice, as to which agent(s) offer the required protection and which do not have unacceptable "side effects" and their installation can be made 'facility compatible' with costs that are competitive is, and should be, available to an owner/operator. Mist can be an important component in this choice and, therefore, should be recognized in this Standard. (It should be recognized that there are many qualified vendors of Mist Systems and thus their installation should be competitive and "cost effective."

Should this Standard eliminate this protection option for very key applications? I think not.

**Affirmative with Comment**

**Wysocki, T.** Given the substantiation provided by the submitter, I agree with the proposed committee action to "reject." An explanation of the intended purpose of water mist in IT facilities would be in further considering a reference to water mist in the NFPA 75 standard. For example, is the system intended for fire suppression in specific IT equipment or structural protection of the IT room? If the intent of the submitter is to provide for water mist protection of IT equipment on a par with that provided by gaseous agent systems, then data supporting the suitability of such water mist protection should be included. If the intent is to provide protection on a par with that offered by automatic sprinkler systems (per NFPA 13), data supporting such equivalency should be provided. If water mist is to provide some other level of protection in an IT facility, the level of protection and data supporting the ability of water mist to provide the proposed degree of protection should be provided.

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**75-44 8.1.1.2 (Log # 46)**

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**Negative**

**Deegan, T.** I am voting negative on the committee's action on Proposal 75-47(Log# 90). See my Explanation of Negative For 75 -47 (Log# 90).

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**Affirmative with Comment**

**McCluer, S.** The committee only addressed part of submitter's proposal. It did not address the change in the word from "inert" to "clean" agent fire suppression, either in this proposal or in the referenced action on Proposal 75-47. The committee action should have to be accept the change, as clean agent is preferred for electronic equipment.

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**75-45 8.1.1.2 (Log # 63)**

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**Negative**

**Deegan, T.** I am voting negative on the committee's action on Proposal 75-47(Log# 90). See my Explanation of Negative For 75 -47 (Log# 90).

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**75-46 8.1.1.2 (Log # 66)**

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**Negative**

**Deegan, T.** I am voting negative on the committee's action on Proposal 75-47(Log# 90). See my Explanation of Negative For 75 -47 (Log# 90).

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**75-47 8.1.1.2 (Log # 90)**

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**Negative**

**Deegan, T.** I am voting negative on the committee's action on Proposal 75-47(Log#90).

The wording invoking the minimum requirement is vague.

If an under floor area is consistent with the requirements of NFPA 75 found in sections 5.4.1, 5.4.2 and 6.3.3., it is reasonable to consider eliminating the requirement for under floor protection. I agree that if there are no combustibles in these areas, eliminating protection does not represent an unacceptable risk. I believe this is consistent with installation standards for the various means of protection.

The issue of accessibility and the effectiveness of housekeeping procedures and policies in preventing the accumulation of combustible materials over time is a much more difficult consideration.

I believe the action that the committee took at the ROC during the last cycle to add a reference to "applicable installation standards identified in section 2.2." to section 8.1.1.2 was more appropriate since it eliminated the mandatory requirement even when there were no combustibles present and it sent the user to the appropriate installation standards.

**Radakovich, Jr., J.** Changes to 8.1.1.2 do not reflect the committees action to accept in principle Proposal 75-20. See comments provided for Proposal 75-20 for clarification.

**Affirmative with Comment**

**McCluer, S.** See comment on the the affirmative in Proposal 75-44. The committee should have changed the word "inert" to "clean" agent fire extinguishing system.

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**75-48 8.1.3 (Log # CP13 )**

**Negative**

**Deegan, T.** It is common to run a separately valved system from an appropriate connection on the main sprinkler system into an ITE area. In many cases this separate system is a preaction system. It is not clear what incremental benefit is intended by adding the words "and independent of" to this section.

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**75-49 8.2.1 (Log # 64 )**

**Affirmative with Comment**

**McCluer, S.** The committee comment should have clarified that the committee accepts the proposal as submitted and clarified that the actions further coordinate with the actions taken on Proposal 75-29 and Proposal 75-32.

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**75-50 8.2.2 (New) (Log # 91 )**

**Negative**

**McCluer, S.** The committee action should have been to approve in principle and to explain the intent of Section 8.2.1 (b) in the Annex. The intent of the requirement in Section 8.2.1(2) is to provide smoke detectors whenever there is a possibility of fire in a concealed space (i.e., under a raised floor). The only combustible material permitted under a floor per NFPA 70 Article 645 is power and signal cabling. If there is no cabling under the floor, then requirements of Section 8.2.1(2) do not apply.

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**75-54 8.4.3 and A.8.4.3 (New) (Log # 93 )**

**Affirmative with Comment**

**Wysocki, T.** Agree with committee action except the sentence "In most cases of whole room total flooding systems the flow of air through the IT equipment would normally be sufficient to satisfy this requirement, but the method should be evaluated on a case-by-case basis." should be eliminated during the ROC development. This statement is unsubstantiated and possibly misleading.

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**75-63 10.2 (New) (Log # CP3 )**

**Affirmative with Comment**

**McCluer, S.** Note typo in A.10.2.1: "affects" should be "affect".

**Radakovich, Jr., J.** Recommend additional information (diagrams or pictures) be included in the Appendix for clarification of what is included in the definition of a containment system. For example, in some instances the hot aisle exhaust from a rack is routed directly to the above ceiling plenum using a "chimney". It is not clear if this is considered a "containment system"?

**75-71 10.3.6** (Log # 20 )

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**Negative**

**McCluer, S.** The committee action should have been to accept. Section 10.3.6 presently includes no reference at all to the NEC. Furthermore, reference to the entire NEC without directing the reader to the specific section that addresses the topic being discussed is of little help to the reader. This action is inconsistent with the committees action on Proposals 75-68 and 75-69, both of which add references to specific Articles in NFPA 70.

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**75-80 10.4 and A.10.4** (Log # 101 )

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**Affirmative with Comment**

**Wysocki, T.** Section 10.4.7 likewise contains important information and clarification and should be re-instated during the ROC development.

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**75-81 10.4.1** (Log # 28 )

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**Affirmative with Comment**

**McCluer, S.** The Committee Action on Proposal 75-80 was to delete Section 10.4.1 altogether on the basis that it was duplicating language in NFPA 70 (NEC), with which compliance is already required.

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**75-82 10.4.1** (Log # 48 )

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**Affirmative with Comment**

**McCluer, S.** The Committee Action on Proposal 75-80 was to delete Section 10.4.1 altogether on the basis that it was duplicating language in NFPA 70 (NEC), with which compliance is already required.

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**75-83 10.4.2** (Log # 37 )

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**Affirmative with Comment**

**Burke, T.** In new Section 10.4.2.2, for consistency with other references, replace "power cords" with "power supply cords."

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**75-86 10.4.3** (Log # 38 )

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**Affirmative with Comment**

**Burke, T.** In new Section 10.4.4, for consistency with other references, replace "power cords" with "power supply cords."

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**75-89 10.4.3.2** (Log # 51 )

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**Negative**

**McCluer, S.** The Committee Action on Proposal 75-80 was to retain Section 10.4.3 but to delete the annex A.10.4.3, which explains how to interpret it. This proposed language would have duplicated proposed language in NFPA 70-2011 (NEC), with which compliance is already required. The Committee Action now sets up an inconsistency with NFPA 70. The action should have been to accept in principle and renumber to comply with the MOS.

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**75-90 10.4.4** (Log # 29 )

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**Affirmative with Comment**

**McCluer, S.** The Committee Action on Proposal 75-80 was to delete Section 10.4.4 altogether on the basis that it was duplicating proposed language in NFPA 70-2011 (NEC), with which compliance is already required.

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**75-91 10.4.4** (Log # 52 )

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**Affirmative with Comment**

**McCluer, S.** The Committee Action on Proposal 75-80 was to delete Section 10.4.4 and all sub-paragraphs on the basis that it was duplicating proposed language in NFPA 70-2011 (NEC), with which compliance is already required.

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**75-92 10.4.4 and A.10.4.4 (Log # 39)**

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**Affirmative with Comment**

**Kaufman, S.** The committee statement is circular; it states: Also see Committee Action on Proposal 75-92 (Log #39).

**McCluer, S.** The Committee's substantiation is in error. It should have been to see action on Proposal 75-80, (Log #101). The Committee Action on Proposal 75-80 was to delete Section 10.4.4 along with all sub-paragraphs and Annex material on the basis that it was duplicating proposed language in NFPA 70-2011 (NEC), with which compliance is already required.

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**75-93 10.4.5 (Log # 53)**

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**Affirmative with Comment**

**McCluer, S.** See action on Proposal 75-7 (Log #5).

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**75-96 10.4.7 and A.10.4.7 (Log # 42)**

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**Negative**

**Wysocki, T.** Section 10.4.7 contains important information and should be retained in this standard.

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**75-97 10.4.8 (Log # 31)**

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**Negative**

**Wysocki, T.** Although NFPA 75 currently does not recognize cables marked for future use, the practice of supplying such cables does exist. It would be well to accept this proposal thereby recognizing and giving guidance for such practice.

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**75-100 10.4.8 (Log # 55)**

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**Negative**

**Pikula, R.** The power shutdown of the IT equipment is an integral of the fire suppression process during a fire event in an IT facility. I am concerned by the option of the "owner" to use the vague term "Critical Operation Data System" to determine whether or not they need to provide a remote power shutdown for the equipment. Also I am concerned with the "Qualified personnel are continuously available..." vs., "Qualified personnel available on site 24/7 to meet emergency responders..."

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**75-116 A.10.4.2 (Log # 45)**

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**Affirmative with Comment**

**Burke, T.** The correct designation of the referenced standard is ANSI/UL 60950-1, not UL 60950. Please see Section 2.3.2 of NFPA 75 and Proposal 75-4 (Log #75).

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**75-117 A.10.4.4 (Log # 81)**

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**Affirmative with Comment**

**McCluer, S.** The Committee Action on Proposal 75-80 was to delete 10.4.4 and all sub-paragraphs and Annex on the basis that it was duplicating proposed language in NFPA 70-2011 (NEC), with which compliance is already required.

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**75-118 A.10.4.9.1 (Log # 107)**

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**Affirmative with Comment**

**McCluer, S.** Better grammar would have been: The installation of certain types of storage battery systems can create concerns about hydrogen gas generation, which can accumulate and create a fire hazard if not ventilated properly.