NFPA 13R — May 2002 ROC — Copyright, NFPA

13R-1-(1-3 Bathroom) : Accept

SUBMITTER: Lindsay J Smith, Wayne Automatic Fire Sprinkler, Inc

COMMENT ON PROPOSAL NO: 13R-2

RECOMMENDATION: Original proposed wording:

Bathroom. Within a dwelling unit, any room containing a sink or a water closet, or bathing capability such as a shower or tub, or any combination of facilities thereof.

Revise proposed wording:

Bathroom. Within a dwelling unit, any room or compartment containing a lavatory dedicated to personal hygiene, or a water closet, or bathing capability such as a shower or tub, or any combination of facilities thereof.

SUBSTANTIATION: Agreement with the AHJ on determination of the physical boundaries of “the bathroom” within a dwelling unit is a very real problem.

Modern dwelling unit design often incorporates a group of two or even three adjacent small individual compartments combining to provide all of the basic functions associated with the word “bathroom”. Sometimes referred to for example as vestibules, coves or powder rooms, these adjacent compartments may or may not be equipped with a variety of combinations of sinks, toilets, showers, tubs and such. Fundamentally, they all involve personal hygiene and present the same low challenge to a fire sprinkler system and low reported incidence of fire origin. The NFPA committee has long recognized the omission of sprinklers from such compartments that meet the 55 square foot criteria. Two or three adjacent small, low challenge compartments should be recognized in this application to be no more of a threat to life safety than one.

Assuming recognition of the above logic and coverage approach, the proposed definition would hopefully eliminate controversy as to which specific compartment is to be designated as “the bathroom”. The proposed definition would allow one to designate any of a group of such personal hygiene compartments as a “bathroom”. Each of such compartments would then be eligible for omission of sprinklers, provided that no individual one exceeded 55 square feet in area.

COMMITTEE ACTION: Accept

NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22

VOTE ON COMMITTEE ACTION:

AFFIRMATIVE: 20

NOT RETURNED: 2 Baker, Weigand

13R-2-(1-3 Shower/Bathtub Enclosure) : Reject

SUBMITTER: Lindsay J Smith, Wayne Automatic Fire Sprinkler, Inc

COMMENT ON PROPOSAL NO: 13R-6

RECOMMENDATION: Reconsider addition of revised proposed definition for “shower/bathtub enclosure” to 1.3.

Original proposed wording:

Shower/Bathtub Enclosure. A pre-manufactured, packaged assembly installed as a single unit, with or without doors on the ingress/egress side.

Revised proposed wording:

Shower/Bathtub Enclosure. The area occupied by a premanufactured, packaged assembly installed as a single unit, or the total area defined by the outside dimensions of the footprint of a conventional built-up shower and/or bathtub installation, with or without doors on the ingress/egress side.

SUBSTANTIATION: Inclusion of the definition would clearly allow exclusion of all conventional bathing facilities from the calculation of the total floor area of bathrooms. The definition of “shower/bathtub enclosure”, as used in 2.6, Exception No. 1, would no longer be open to interpretation.

COMMITTEE ACTION: Reject

COMMITTEE STATEMENT: See Committee Action on Comment 13R-19 (Log #6).

REMARKS:

RECOMMENDATION: Add text to read as follows:

“Quick-response spray sprinklers shall be used in areas outside the dwelling unit.”

SUBSTANTIATION: Delete standard response sprinklers from being permitted to be consistent with NFPA 13, 5.3.1.5.1, which requires quick-response sprinklers in light hazard occupancies.

COMMITTEE ACTION: Accept in Principle

COMMITTEE STATEMENT: The submitter’s intent was met in the action of Proposal 13R-18.

NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22

VOTE ON COMMITTEE ACTION:

AFFIRMATIVE: 20

NOT RETURNED: 2 Baker, Weigand

13R-3-(1-3 Story) : Accept

SUBMITTER: Technical Committee on Residential Sprinkler Systems

COMMENT ON PROPOSAL NO: 13R-7

RECOMMENDATION: Delete definition of “Story”.

SUBSTANTIATION: The committee feels that “Story” should be defined by the Building Code, and that this action leads to less confusion of the term “Story”.

COMMITTEE ACTION: Accept

NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22

VOTE ON COMMITTEE ACTION:

AFFIRMATIVE: 20

NOT RETURNED: 2 Baker, Weigand

13R-4-(1-6.2.3 (New)) : Reject

SUBMITTER: Kevin Kelly, National Fire Sprinkler Association

COMMENT ON PROPOSAL NO: 13R-13

RECOMMENDATION: Add a new section 1.6.2.3 and add an annex note as follows:

1.6.2.3 Dry-pipe and double-interlock preaction sprinkler systems shall not be installed in normally occupied areas of residential, health care and detention and correctional occupancies unless quick response sprinklers are installed and it can be demonstrated by tests or calculations that water will arrive at the most remote portion of the normally occupied area within 15 seconds of the first sprinkler’s activation.

A.1.6.2.3 Single-interlock preaction sprinkler systems are permitted to be used where detection equipment is provided in every space containing sprinklers. Use of residential sprinklers is also permitted in dry-pipe systems regardless of the delay in water arrival if the sprinklers are specifically listed for dry-pipe use and are installed in conformance with their special dry use listing.

SUBSTANTIATION: The committee has confirmed its intent that residential sprinklers could be used within dwelling units, but QR sprinklers can be used on a dry system in some circumstances. Because section 1.6.2 of NFPA 13R directly references NFPA 13 a change will be needed for correlation with proposed changes (see ROP 13-195).

The exception for QR sprinklers with a 15 second delay was added in response to the Correlating Committee’s comment that they wanted an option to the total ban.

The annex note reminds the designer that there are other options as well.

This comment was developed by the NFSA Engineering and Standards Committee.

COMMITTEE ACTION: Reject

COMMITTEE STATEMENT: Coordinate with actions of AUT-SSD Committee 13-25 (Log #27).

NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22

VOTE ON COMMITTEE ACTION:

AFFIRMATIVE: 20

NOT RETURNED: 2 Baker, Weigand

13R-5-(2-1.3.2) : Accept

SUBMITTER: Roland J. Huggins, American Fire Sprinkler Assn.

COMMENT ON PROPOSAL NO: 13R-11

RECOMMENDATION: Retain original proposal.

SUBSTANTIATION: Using the terms “residential sprinkler system” is defined as including the underground. Most 13R systems use a combined domestic/sprinkler underground main installed by others. Prior to the 1999 edition the underground was not identified as requiring testing. A casual reference to NFPA 13 (which changed in 1999 to include underground) should not initiate a change in testing practices. It should be explicitly stated with a reference to the applicable standard.

COMMITTEE ACTION: Accept

NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22

VOTE ON COMMITTEE ACTION:

AFFIRMATIVE: 20

NOT RETURNED: 2 Baker, Weigand
gpm and it will only reduce the water supply available at the main, not 90 minutes of 250 gpm as suggested.
I would think this change would confuse users of the code more after reading Proposal 13R-27. It would mandate the water demand in accordance with 2.5, 1.3 (at 30 minutes for a stored water supply) and be silent on those portions of the facility that were calculated to NFPA 13.
Perhaps an annex note (in line with the answer to the original submitter’s hypothetical question) would be more helpful while leaving this in the base paragraph, i.e., it is not intended that the hose stream and water duration requirements from NFPA 13 be applied to small areas outside the dwelling where the other rules of NFPA 13 are applied.

COMMITTEE ACTION: Reject
COMMITTEE STATEMENT: It is not the intent of the committee to require a hose stream demand as part of the system demand.
NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22
VOTE ON COMMITTEE ACTION:
AFFIRMATIVE: 20
NOT RETURNED: 2 Baker, Weigand

13R-8-(2-6): Reject
SUBMITTER: Jim Everett,
COMMENT ON PROPOSAL NO: 13R-23
RECOMMENDATION: Reconsider the proposal and accept.
SUBSTANTIATION: Based on the latest reports from NFPA on fires within apartments, dormitories, hotels and lodging and rooming houses, bathroom fires originating within bathrooms accounts for an average of 4 percent of the fires in these occupancies. We have seen an increase in the use of candles and other open flame devices along with the increased electrical loads from appliances in bathrooms. We believe that based on these numbers and the current requirements for where sprinkler are required, which have a lower percentage of fire origin, that bathrooms should no longer be excluded from the sprinkler requirements.
Note: Supporting Material is available fore review at NFPA Headquarters.
COMMITTEE ACTION: Reject
COMMITTEE STATEMENT: The fire history data does not substantiate the submitter’s comment.
NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22
VOTE ON COMMITTEE ACTION:
AFFIRMATIVE: 20
NOT RETURNED: 2 Baker, Weigand

13R-9-(2-6): Reject
SUBMITTER: Jon Nisja,
COMMENT ON PROPOSAL NO: 13R-23
RECOMMENDATION: Reconsider the proposal and accept.
SUBSTANTIATION: Based on the latest reports from NFPA on fires within apartments, dormitories, hotels and lodging and rooming houses bathroom fires originating within bathrooms accounts for an average of 4 percent of the fires in these occupancies. We have seen an increase in the use of candles and other open flame devices along with the increased electrical loads from appliances in bathrooms. We believe that based on these numbers and the current requirements for where sprinkler are required, which have a lower percentage of fire origin, that bathrooms should no longer be excluded from the sprinkler requirements.
COMMITTEE ACTION: Reject
COMMITTEE STATEMENT: See Committee Action taken on Comment 13R-8-(Log #16).
NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22
VOTE ON COMMITTEE ACTION:
AFFIRMATIVE: 20
NOT RETURNED: 2 Baker, Weigand

13R-10-(2-6 Exception No. 1): Accept
SUBMITTER: Technical Committee on Residential Sprinkler Systems,
COMMENT ON PROPOSAL NO: 13R-30
RECOMMENDATION: Delete the last sentence of Exception No. 1 to Section 2.6.
SUBSTANTIATION: The committee feels that deleting the sentence clarifies the exception based on the actions in Comments 13R-1 (Log #5), 13R-2 (Log #6), 13R-14 (Log #13), 13R-17 (Log #2), 13R-18 (Log #4), and 13R-19 (Log #8).
COMMITTEE ACTION: Accept
NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22
VOTE ON COMMITTEE ACTION:
AFFIRMATIVE: 20
NOT RETURNED: 2 Baker, Weigand

13R-11-(2-6 Exception No. 4): Reject
SUBMITTER: Lindsay J Smith, Wayne Automatic Fire Sprinkler, Inc
COMMENT ON PROPOSAL NO: 13R-24
RECOMMENDATION: Response to negative vote explanation:
The proposed exception specifically states “concealed spaces” containing such equipment. A “closet” would not qualify as a concealed space, regardless of the presence or absence of fuel fire heating equipment. A closet would have a door or a panel intended for complete routine access, creating the potential for storage in the space. The concealed spaces referred to in the proposed exception would require disassembly and/or removal of the equipment, or demolition of drywall construction to gain access.
SUBSTANTIATION: None provided.
COMMITTEE ACTION: Reject
COMMITTEE STATEMENT: No specific recommendation provided.
NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22
VOTE ON COMMITTEE ACTION:
AFFIRMATIVE: 20
NOT RETURNED: 2 Baker, Weigand

13R-12-(2-6 Exception No. 4): Accept in Principle
SUBMITTER: Kevin Kelly, National Fire Sprinkler Association
COMMENT ON PROPOSAL NO: 13R-25
RECOMMENDATION: Delete the language regarding sprinklers being omitted from concealed spaces with dwelling unit ventilation equipment.
SUBSTANTIATION: This language should not have been in this proposal. The proposal only dealt with elevator machine rooms and was not intended to cover the spaces where sprinklers could be omitted. As adopted, this language allows sprinklers to be omitted from spaces with fuel fired heating equipment. Such heat producing equipment should be protected with sprinklers, especially in a combustible concealed space.
This comment was developed by the NFSA Engineering and Standards Committee.
COMMITTEE ACTION: Accept in Principle
COMMITTEE STATEMENT: Maintaining the language introduced at the ROP (#13R-25), and adding “and do not contain fuel-fired equipment.” to the end of the last sentence in Exception No. 4 of Section 2.6.
COMMITTEE STATEMENT: The committee is concerned with allowing the omission of sprinklers in concealed spaces with fuel-fired equipment (such as gas-fired heating equipment but not electric heat pumps).
NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22
VOTE ON COMMITTEE ACTION:
AFFIRMATIVE: 20
NOT RETURNED: 2 Baker, Weigand

13R-13-(2-6 Exception No. 4): Accept in Principle
SUBMITTER: Kevin Kelly, National Fire Sprinkler Association
COMMENT ON PROPOSAL NO: 13R-24
RECOMMENDATION: Reject Proposal 13R-24 and delete the language regarding sprinklers being omitted from concealed spaces with dwelling unit ventilation equipment.
SUBSTANTIATION: As adopted, this language allows sprinklers to be omitted from spaces with fuel fired heating equipment. Such heat producing equipment should be protected with sprinklers, especially in a combustible concealed space.
This comment was developed by the NFSA Engineering and Standards Committee.
COMMITTEE ACTION: Accept in Principle
COMMITTEE STATEMENT: See Committee Action on Comment 13R-12 (Log #9).
NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22
VOTE ON COMMITTEE ACTION:
AFFIRMATIVE: 20
NOT RETURNED: 2 Baker, Weigand

13R-14-(A-1-3): Accept in Principle
SUBMITTER: Roland J Huggins, American Fire Sprinkler Assn.
COMMENT ON PROPOSAL NO: 13R-2
RECOMMENDATION: Add new text to read as follows:
A room is still considered a bathroom if it contains just a toilet. Additionally, two bathrooms can be adjacent to each other and are considered separate rooms provided they are enclosed with the required level of construction. Such construction includes a solid door.
SUBSTANTIATION: There is a problem in defining whether a small room with only a toilet qualifies as a bathroom AND if it must be included in the area of the adjacent room containing the sink and bath/shower. The submitted proposal attempted to fix this problem by providing a definition for bathroom. Text in the annex seems a better approach.
COMMITTEE ACTION: Accept in Principle
COMMITTEE STATEMENT: See Committee Action taken on Comment 13R-18 (Log #4).
13R-15-(A-2.5.1.6) : Accept
SUBMITTER: Kevin Kelly, National Fire Sprinkler Association
COMMENT ON PROPOSAL NO: 13R-15
RECOMMENDATION: Add an annex note as follows:
A.2.5.1.6 The minimum pressure and flow requirements need to be satisfied while also meeting the requirements of the formula q =k(p)^0.5. If a sprinkler with a k-factor of 4.3 is listed to cover an area of 18 ft x 18 ft at 16.2 gpm, the minimum pressure is required to be 14.2 psi so that the flow is achieved. Likewise, if a sprinkler with a k-factor of 5.6 is covering an area 12 ft x 12 ft, the minimum flow is required to be 14.8 gpm (the flow at 7 psi) even though a flow of 7.2 gpm will satisfy the density criteria.
SUBSTANTIATION: NFPA 13R has never stated the physical relationship between the pressure and the flow. Without this reminder, some designers are taking the minimum pressure as 7 psi and the minimum flow from the density without looking at how these are impacted by physics.
This comment was developed by the NFPA Engineering and Standards Committee.

COMMITTEE ACTION: Accept
COMMITTEE STATEMENT: In addition, after considering all available information including (1) laboratory test data submitted by UL and FM, (2) variability of fire challenges, (3) the excellent residential sprinkler system performance record in the field and (4) the need for cost effective sprinkler protection to encourage sprinkler usage in residential occupancies, the committee believes that a 0.05 gpm/ft^2 discharge is appropriate.

NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22
VOTE ON COMMITTEE ACTION:
AFFIRMATIVE: 20
NOT RETURNED: 2 Baker, Weigand

13R-16-(A-2.5.1.6) : Accept in Principle
SUBMITTER: Roland J. Huggins, American Fire Sprinkler Assn.
COMMENT ON PROPOSAL NO: 13R-16
RECOMMENDATION: Add new text to read as follows:
Repeat criteria from NFPA 13 (13-330) providing guidance on applying minimum density using 0.05 instead of 0.1.
SUBSTANTIATION: Consistency as well as needed guidance.

COMMITTEE ACTION: Accept in Principle
COMMITTEE STATEMENT: Add a new Section A.2.5.1.6 and a new Figure A.2.5.1.6 as follows:
“K.2.5.1.6 Sprinklers need to be used in accordance with their listed areas and density. See Figure A.2.5.1.6.”

COMMITTEE ACTION: Accept in Principle
COMMITTEE STATEMENT: The committee wants to clarify that sprinkler discharge must be determined based on the listed spacing. This method is typically more demanding than that determined using the ‘S x L’ rule of NFPA 13. Standard for the Installation of Sprinkler Systems.

NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22
VOTE ON COMMITTEE ACTION:
AFFIRMATIVE: 20
NOT RETURNED: 2 Baker, Weigand

13R-17-(A-2-6 Exception No. 1) : Accept in Principle
SUBMITTER: Technical Correlating Committee on Automatic Sprinkler Systems
COMMENT ON PROPOSAL NO: 13R-17
RECOMMENDATION: This proposed change was accepted by the Residential Technical Committee for NFPA 13R and not proposed to the Installation Technical Committee and therefore the wording in NFPA 13R and NFPA 13 need to be correlated to remain consistent. The TCC directs that the Installation and Residential committees to coordinate the language addressing the shower/tub enclosures in both documents. The TCC has included the proposed materials in the ROP for the Installation Committee to ensure that materials from the ROP are coordinated and that the proposed changes receive public review.

SUBSTANTIATION: COMMITTEE ACTION: Accept in Principle
COMMITTEE STATEMENT: See Committee Action on Comment 13R-19

NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22
VOTE ON COMMITTEE ACTION:
AFFIRMATIVE: 20
NOT RETURNED: 2 Baker, Weigand

REVISED - 06/22/2002

13R-18-(A-2-6 Exception No. 1) : Accept in Principle
SUBMITTER: Roland J. Huggins, American Fire Sprinkler Assn.
COMMENT ON PROPOSAL NO: 13R-18
RECOMMENDATION: Revise text to read as follows:
A room is still considered a bathroom if it contains just a toilet. Additionally, two bathrooms can be adjacent to each other and are considered separate rooms provided they are enclosed with the required level of construction. Such construction includes a solid door.
SUBSTANTIATION: There is a problem in defining whether a small room with only a toilet qualifies as a bathroom and if it must be included in the area of the adjacent room containing the sink and bath/shower. The submitted proposal attempted to fix this problem by providing a definition for bathroom. Text in the Annex seems a better approach.
COMMITTEE ACTION: Accept in Principle
PUT SUBMITTER’S TEXT WITHOUT LAST SENTENCE INTO THE ANNEX A.1.3 BATHROOM.
COMMITTEE STATEMENT: The material is more appropriate to the definition of a bathroom. Solid doors are not typically used with bathroom construction.

NUMBER OF COMMITTEE MEMBERS ELIGIBLE TO VOTE: 22
VOTE ON COMMITTEE ACTION:
AFFIRMATIVE: 20
NOT RETURNED: 2 Baker, Weigand

Sprinkler 1, 4, 5, 6 – 16’ × 16’ coverage used to determine flow
Sprinkler 2, 3 – 14’ × 14’ coverage used to determine flow
The following editorial changes are made to NFPA 13R (changes reference the NFPA 13R Preprint associated with the Report on Proposals).

1. Action of Item 5 in Proposal 13R-1 held until next revision cycle.
5. Add title “Definitions.” to Section 3.1.
6. Add definition “Compartment. (see Section 4.1)”. Renumber other definitions.
7. Replace “L/min” with “mm/min” in definition of ‘Design Discharge’.
8. Delete definitions of ‘pipe’ and ‘piping’. Renumber Section 3.3. Add Section 1-5.3 of 1999 edition, with title ‘Tube’, as new Section 4.2.
9. Delete Section 4.2. Create 6.7.3 with accepted wording and organization of Proposal 13R-22 [Log #13]. Renumber Section 6.7. Delete 6.7.1.5.4 & 6.7.2.4. Renumber 6.1.7.5.
10. Delete the words “the minimum rated temperature to” from 5.2.1.3 & 5.3.1.
11. Delete title “Fittings” (Section 5.3). Delete title “Pipe Joining Methods” (Section 5.4). Move 5.4.1 through 5.4.4 after 5.2.2.2. Move 5.4.5 and 5.4.6 after 5.3.1. Renumber Section 5.2, 5.3, 5.5.
12. Replace “on the residential sprinkler” with “for the aboveground piping” in 6.3.2.1 and 6.3.2.2.
13. Delete subsection text of Section 6.5.6. Convert 6.5.6 title to regular text. Add “shall comply with Section 7.6 of NFPA 13, Standard for the Installation of Sprinkler Systems” after “connections”.
14. Isolate “6.6.1 Valves” as its own subsection. Add new 6.6.1.1 to read as follows: “A single control valve arranged to shut off both the domestic system and the sprinkler system shall be installed for systems with common sprinkler/domestic mains unless a separate shutoff valve for the sprinkler system is installed in accordance with 6.6.1.2”. Move 6.6.1 text into new 6.6.1.2 and replace “Valves that control water supply only to the sprinklers shall be” with “The sprinkler system piping shall not have a separate control valve installed unless”. Add new 6.6.1.3 to read as follows: “A separate shutoff valve shall be installed for the domestic water supply in installations having a common sprinkler/domestic main.”
15. Delete “,” disregarding the area occupied by a full height noncombustible shower/tub enclosure,” from Item (1) of 6.8.2.
16. Add “and do not contain fuel-fired equipment” at the end of 6.8.5.

SUBSTANTIATION:
The changes are editorial, return the document to its original intent, and/or are necessary to comply with Proposal 13R-1, as indicated below.

1. Standards Council granted NFPA 13 technical committees a one-revision cycle delay in converting units of measure to SI.
2. Manual of Style requires sections to have titles.
3. Latest edition of NFPA documents to be referenced.
4. Latest edition of NFPA documents to be referenced.
5. Manual of Style requires sections to have titles.
6. Definition of compartment was placed in Section 4.1 for ROP Preprint because Manual of Style does not permit definitions to contain requirements/criteria. A reference was added to Section 3.3 to avoid confusion of new organization.
7. Outstanding errata item. Metric equivalent of gpm/ft² is mm/min.
9. Returns standard to text created at ROP.