LA FIRE SPRINKLER ASSOCIATION QUARTERLY MEETING
JULY 15, 2003
SFM ITEMS OF CONCERN

1  1999 NFPA 13:5-8.5.2.2,  PROTECTION OF BUILDING SERVICE CHUTES
5-8.5.1.2

Scenario: Chute begins at the face of storage room. Entire chute is exterior to the building wall. Chute extents out and
down at an angle, approximately 10 feet in length, and discharges into an open refuse container.

Confirmed with Dana Haagensen, NFPA 13 Committee:

The provisions of NFPA 13:5-13.5 of the 1999 edition were intentionally removed from NFPA 13 during the consensus-
based document revision process for the 2002 edition. Protection of building service chutes is more adequately
addressed by NFPA 82. Extracts related to fire sprinkler system design from NFPA 82 are located in Section 13.15,

Reviewing NFPA 82:3-1.1, 1999 edition, gravity chute is defined as "An enclosed vertical passageway (riser) in a building,
used for transferring trash or linen by gravity to a room at the bottom or to an interface to a compactor." The intent of this
code section deals with chutes "in a building" transferring trash/linen to the bottom "of a building - a room or space in the
building". In examples such as this, the chute is accessed from inside the building.

However, if the chute is external to the building envelope, and therefore, does not meet the intent or definition of a
gravity chute for life safety review purposes., then sprinklers are not required in these types of external chutes.

2  1999 NFPA 13:5-8.5.2.2,  SPRINKLER PROTECTION AT OBSTRUCTIONS INVOLVING WING WALLS AND
5-8.5.1.2  OUTSIDE CORNERS IN ROOMS

Scenario: Given the arrangement shown below, an additional head required in the bathtub area, due to the following:

A. Wing wall obstructions on each side of door: Applying Figure 5-8.5.2.2, dimension A can be up to 9” maximum without
a sprinkler in the bathtub area [ 36” ≤ 4x, therefore, x ≤ 9” ].

B. Lintel area above the door: Applying Table and Figure 5-8.5.1.2(a), the maximum lintel height is 3”. Assuming a 1”
deflector distance below bottom of ceiling, and a 6'-8” high door, the room height would have to be 7'-0" [3” + 1” + 6'-
8” = 7'-0” maximum ]. Minimum room height allowed for new construction is 7'-6” per 2002 NFPA 101:7.1.5,
therefore, additional head is required within bathtub area.
In a NFPA 13 sprinklered building, decorative wood box beams require sprinkler protection within the "box beam" cavity in accordance with 1-6.1, unless one of the exceptions to 5-13.1.1 can be applied (in particular, Exception Nos. 5, 8, and 9). If an exception to 5-13.1.1 is obtainable, then 7-2.3.1.3(b) is not applicable (3000 s.f. hydraulic design area). Confirmed with Dana Haagensen, NFPA 13 Committee.

It is a policy of this office that any sprinkler or fire alarm system exemption scope of work can only be reviewed after the associated architectural scope of work is reviewed as a prerequisite. Many times, sprinkler exemptions are submitted which entail sprinkler changes due to architectural changes – partitions added, removed, doors added, removed, etc. These architectural scopes of work are usually of such small caliber that a full review is not required. However, this office reserves the right to review the architectural scope of work, and process the review as an exemption if it is small enough in scope, or require a full review based on life-safety scope involved.

In the past, this office has allowed local fire prevention AHJ’s and our district inspection offices to review the architectural work, without it being submitted to the SFM Plan Review department. In an effort to provide a more complete and consistent review process for small scopes of architectural work, this office now mandates that all scopes of architectural work be reviewed prior to review of sprinkler exemptions. This office will access the architectural scope of work submitted and determine whether the architectural work can be accepted as an exemption submittal or if the architectural scope must be submitted as a full review.

You must inform your building owner customers that the architectural review is a requirement, prior to review of sprinkler exemption scope. Failure to do so will result in your sprinkler exemption being denied.

Please be aware that there are exceptions to the prerequisite of an architectural review. If sprinkler deficiencies are attributed to an annual sprinkler system inspection and there is no architectural work associated with the sprinkler exemption work, then an architectural review is not applicable and, therefore, not required. Please inform this office of no architectural work in the “Description Of Work” box on the sprinkler exemption form.

Plastic Shopping Carts:

See NFPA 13:Table 7-2.3.2.2. If carts are Group A plastics (you would have to verify with manufacturer), then use Solid Piled", "Up to 5 feet", OH2 discharge.

Outdoor Cooking Propane Tanks:

Propane is a Class 1A flammable liquid, as per the MSDS data found at http://www.amerigas.com/pdf/MSDS2002.pdf. Per NFPA 30:4-8.2, 1996 edition, use Figure4-8.2(a) (storage in metal containers). Following the figure, it allows use of Table 4-8.2(f) which requires a 0.19 density/1500 sq. ft. This office defaults to OH Group 2 as a minimum. However, NFPA 30:4-8.2.2 requires a maximum spacing of 100 sq. ft. per head for Class A liquids.

You request guidance from this office regarding protection requirements for a sprinklered pump house located 30 feet from the sprinklered building served by the fire pump. Resultant from a contact to NFPA regarding this issue, this office was informed that the 1999 edition of NFPA 20 inadvertently did not clarify the intent of this code section as relating to your scenario.
Please be advised that the NFPA 20 committee has pending documentation rectifying this issue. Please refer to NFPA 20 Committee Comment on Proposal No. 20-25, attached. In accordance with the proposed table, your scenario is acceptable to this office.

20-15-(2-7.1.3 [5.12.1.2.1]): Accept in Principle
COMMENT ON PROPOSAL NO: 20-25
RECOMMENDATION: Add wording to end of the first sentence of paragraph 2-7.1.5 [5.12.1.2.1] as follows:
"...shall be located at least 15.3 m (50 ft) away from the protected building or protected in accordance with 2-7.1.1 and 2-7.1.2 [5.12.1.1]."
SUBSTANTIATION: Indoor fire pump units are assumed to be adequately protected from damage due to fire by 1-hour or 2-hour rated construction in accordance with Section 2-7.1.1 and 2-7.1.2 [5.12.1.1]. That same level of protection should be adequate and should be allowed for fire pump units located on the outside of the building. If the 50 ft separation is addressing a concern for collapse of the exterior wall resulting in damage to the outdoor fire pump unit, that same concern is not addressed with indoor fire pump installations. If fire rated construction is adequate protection for indoor installations, then fire rated construction should be just as adequate for outdoor installations.
COMMITTEE MEETING ACTION: Accept in Principle
Replace Section 2-7.1.1, Section 2-7.1.2 and Section 2-7.1.3 [Section 5.12.1.1] and Section 5.12.1.2 in the MOS Preprint] with the following:
"2-7.1.1 [5.12.1.1] Indoor Fire Pump Units. Indoor fire pump units shall be physically separated or protected by fire rated construction in accordance with Table 2-7.1.1 [5.12.1.1]"

<p>| Pump Room/| Building(s) Exposing Pump | Required Separation |</p>
<table>
<thead>
<tr>
<th>House</th>
<th>Room/House</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Sprinklered</td>
<td>Not Sprinklered</td>
<td></td>
</tr>
<tr>
<td>Not Sprinklered</td>
<td>Fully Sprinklered</td>
<td>2 hour fire-rated</td>
</tr>
<tr>
<td>Fully Sprinklered</td>
<td>Not Sprinklered</td>
<td>or 15.3 m (50 ft)</td>
</tr>
<tr>
<td>Fully Sprinklered</td>
<td>Fully Sprinklered</td>
<td>1 hour fire-rated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or 15.3 m (50 ft)</td>
</tr>
</tbody>
</table>

2-7.1.2 [5.12.1.2] Outdoor Fire Pump Units:
2-7.1.2.1 [5.12.1.2.1] Fire pump units located outdoors shall be located at least 15.3 m (50 ft) away from any exposing buildings.
2-7.1.2.2 [5.12.1.2.2] Outdoor installations also shall be required to be provided with protection against possible interruption in accordance with Section 2-7.1 [5.12.1].

COMMITTEE STATEMENT: Distance and fire rated separation are acceptable alternatives. Fire pumps in buildings other than the building being protected are indoor pump units and their requirements should be in the appropriately titled section.

NUMBER OF COMMITTEE MEMBERS: 28
VOTE ON COMMITTEE ACTION:
AFFIRMATIVE: 22
ABSTENTION: 1
NOT RETURNED: 5 Jaeger, Jensen, Mower, Packer, Puchkovsky
EXPLANATION OF ABSTENTION:
SDAO: See my Explanation of Abstention on Comment 20-1 (Log#3).
**7 SFM POLICY**  
**REQUIREMENT FOR SUBMITTAL OF FIRE ALARM PORTION OF PREACTION SPINKLER SYSTEM.**

**Question:**
For a pre-action system, should the detection and actuation for that system (equipment and detector arrangement) be included with the sprinkler submittal or is it required to be submitted separately?

**Answer:**
Because of the integration of the two systems (alarm and pre-action sprinkler), we request that both systems be submitted together. Fee is based on sprinkler system portion only.

**8 2002 NFPA 13R:6.8.6**  
**PROTECTION OF GROUND FLOOR CLOSETS AT EXTERIOR PATIOS BENEATH BALCONIES**

7-24-2003 e-mail to Dana Haagensen, NFPA:

It is the intent of the referenced code section to include closets at ground floor exterior patios beneath balconies? Or, did the committee consider that persons who choose ground floor units may be more likely to store motorized equipment and/or flammables in these spaces (as I did, with a motorcycle, when I was a college student)?

7-28-2004 reply from Dana Haagensen:

I don't believe the Committee has discussed this specific issue. However, it is clearly the intent of NFPA 13R (2002) that garages be protected, as required in accordance with Section 6.8 and Section 6.7.3.

My understanding is that the provisions of 6.8.6 pertaining to "closets" could be applied to a mechanical closet, as I believe the Committee was aware that such closets often contain mechanical equipment for the unit (and hence the requirement for no unprotected penetrations). Furthermore, my understanding is that the provisions of 6.8.6 are not intended to be limited by elevation, as it is possible to have a "closet" on a ground level patio.

Unfortunately, the terms "garage" and "closet" are not formally defined in NFPA 13R, and a judgment must be made for a particular project based on what the space will be used as.

**9 1996 NFPA 20: 2-13.7**  
**RELIEF VALVE DISCHARGE**

15-03 e-mail to Dana Haagensen, NFPA:

The referenced code section requires that the discharge pipe from an open cone be of a size not less than that given in Table 2-20 and enlarged if excessive number of elbows are present in the discharge pipe.

**Questions:**

1. Does this mean that, in Table 2-20, the column identified as "Relief Valve Discharge in." does not apply to relief valves having discharge pipe which does not discharge through an open cone?

2. What governs the minimum size of discharge pipes from closed-type cones and for discharge pipes which do not have cones or funnels, installed as allowed by 2-13.5?
   - Is there any stipulated minimum size?
   - Is there any stipulated minimum size based on number of elbows?
7-16-2003 reply from Dana Haagensen:
The 1996 edition does not address the minimum pipe size requirements for a closed-cone relief valve discharge. In the revision process for the 2003 edition, however, the Committee has agreed that the same minimums and information would apply to a closed-cone valve as an open-cone valve (see attached - Proposal 20-48, Log #123, from the May 2003 NFPA Report on Proposals).

There is also indication in A-2-13.8 that hydraulic calculations may be necessary in order to verify that the limitations of the relief valve are not exceeded.