

**UPDATE
NFPA 13D & NFPA 13R**

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PROGRAM OVERVIEW

**PART I - History and Scope of NFPA Residential
Fire Sprinkler System Standards**

PART II - NFPA Document Revision Process

PART III - 2013 Edition Key Topics

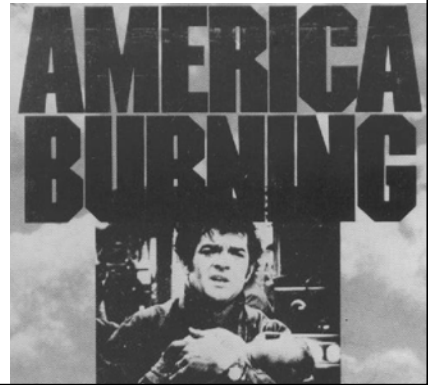
UPDATE NFPA 13D/R

**PART I - History and Scope of NFPA
Residential Fire Sprinkler System
Standards**

Residential Fire Sprinkler Systems

**MEMORY
LANE....**

(1973)



Residential Fire Sprinkler Systems

MEMORY LANE....

National Fire Protection Association _____

*NFPA 13D, Standard for the Installation of Sprinkler
Systems in One- and Two-Family Dwellings and
Manufactured Homes*




Residential Fire Sprinkler Systems

MEMORY LANE....

- 1975 NFPA 13D (based on standard systems)
- 1976 National Fire Prevention & Control Administration [now USFA]
- 1980 NFPA 13D (based on residential sprinklers)
- 1989 NFPA 13R (multi-family low-rise)


SYSTEM TYPE?

NFPA 13 – All Structures with Residential Occupancy




SYSTEM TYPE?

Use NFPA 13 (NFPA 13R: A.1.1)
Mixed Use




SYSTEM TYPE?

NFPA 13R:
4-story
R-Use



SYSTEM TYPE?


NFPA 13R



SYSTEM TYPE?


NFPA 13D:
Detached
1&2-
Family

Townhomes



SCOPE

NFPA 13 – Life Safety & Property Protection
NFPA 13D – Life Safety
NFPA 13R – Life Safety



DIFFERENCES: WATER SUPPLY



DIFFERENCES: WATER SUPPLY

NFPA 13D – 10 minutes
 Installed pumps are not required to meet NFPA 20
 Installed pressure vessels are not required to meet NFPA 22

NFPA 13R – 30 minutes
 Installed pumps must meet NFPA 20
 Installed pressure vessels must meet NFPA 22

UPDATE NFPA 13D/R

PART II - NFPA Document Revision Process

WEB PAGES

www.nfpa.org/13d
www.nfpa.org/13r

EDITIONS

NFPA 13D	NFPA 13R
1975	
1980	
1984	
1989	1989
1991	1991
1994	1994
1996	1996
1999	1999
2002	2002
2007	2007
2010	2010

NFPA RESIDENTIAL SPRINKLER COMMITTEE

Manufacturers – 27%
Installers & Maintainers – 20%
Special Expert (Consultants) – 17%
 Enforcers – 13%
 Insurance – 10%
 User – 7%
 Research & Testing - 3%
 Laborers' Union – 3%

KEY DATES – 2013 EDITION
<p>PROPOSALS DUE 10/1/2010 PROPOSAL MEETING 2/14/2011-2/15/2011</p> <p>COMMENTS DUE 8/30/2011 COMMENT MEETING 9/26/2011-9/27/2011 NEWPORT BEACH, CALIFORNIA</p> <p>NOTICE OF INTENT MAKE A MOTION 4/6/2012</p> <p>ANNUAL MEETING 6/12/2012-6/14/2012 (If necessary) LAS VEGAS</p>

UPDATE NFPA 13D/R
<p>PART III - 2013 Edition Key Topics</p>

BOTH NFPA 13D & NFPA 13R
<p>ANTIFREEZE Tentative Interim Amendment (TIA)</p> <p>NFPA 13D TIA 10-2</p> <p>NFPA 13R TIA 10-2 (refers to NFPA 13 TIA 10-2)</p> <p>NFPA 25 TIA 11-1</p>

BOTH NFPA 13D & NFPA 13R
<p>ANTIFREEZE</p> <ul style="list-style-type: none"> ■ Pure antifreeze and certain solutions are combustible ■ Immediate testing of existing systems ■ Testing at multiple points of the system <ul style="list-style-type: none"> ■ Factory pre-mixed solutions

BOTH NFPA 13D & NFPA 13R
<p>ANTIFREEZE Limit on concentrations (by volume)</p> <ul style="list-style-type: none"> ■ New systems 48% glycerine (CPVC) ■ New systems 38% propylene glycol ■ Existing systems 50% glycerine (CVPC) ■ Existing systems 40% propylene glycol ■ Maximum concentration needed for local climate

BOTH NFPA 13D & NFPA 13R
<p>ANTIFREEZE Maximum concentration needed for local climate</p> <ul style="list-style-type: none"> ■ Get manufacturer's freeze point information <ul style="list-style-type: none"> ■ Get local weather data

BOTH NFPA 13D & NFPA 13R
<p>SCOPE</p> <p>Include large structures?</p>

BOTH NFPA 13D & NFPA 13R
<p>SCOPE</p> <p>NFPA 13D – Include townhomes?</p> <p>NFPA 13R – Include Mixed-Use structures? (as attached buildings – fire walls; separated mixed use – rated fire separations; non-separated mixed use; Errata 13R-10-1)</p>

BOTH NFPA 13D & NFPA 13R
<p>SPRINKLERS - LISTING</p> <p>No AHJ approval required for use outside the sprinkler listing</p>

BOTH NFPA 13D & NFPA 13R
<p>SPRINKLERS - LISTING</p> <p>Clean up outdated design requirements:</p> <ul style="list-style-type: none"> ■ Discharge requirements same for multiple or single sprinkler calculation ■ NFPA 13D no longer references 18 gpm and 13 gpm (see listing)

BOTH NFPA 13D & NFPA 13R
<p>SPRINKLERS - LISTING</p> <p>2013 Edition shadow (obstruction) rule revisions</p>

BOTH NFPA 13D & NFPA 13R
<p>SPRINKLERS - LISTING</p> <p>Smooth, flat, horizontal ceiling, 8ft high</p> <p>Same design can now be applied to 4 different non-traditional situations (based on Fire Protection Research Foundation report)...</p>

BOTH NFPA 13D & NFPA 13R
<p align="center">SPRINKLERS - LISTING</p> <p>Smooth, flat, horizontal ceiling, 24ft high</p> <p>Smooth, flat, up to 8 in 12 slope, 24ft high</p> <p>Beams (14 in. deep), 2 in 12 slope to 8 in 12 slope, 24ft high, 600 sq. ft. compartment</p> <p>Beams (sprinklers in each pocket) 2 in 12 slope to 8 in 12 slope, 24ft high, 600 sq. ft. compartment</p>

BOTH NFPA 13D & NFPA 13R
<p align="center">CVPC Listings (Field Issues)</p> <ul style="list-style-type: none"> ■ Uses include NFPA 13, NFPA 13D and NFPA 13R applications <ul style="list-style-type: none"> ■ Exposed applications ■ Compatibility (i.e. cutting oils, paint)

NFPA 13D
<p>WORKING PRESSURE MINIMUM RATING</p> <p align="center"><i>2013 Edition?</i></p> <ul style="list-style-type: none"> ■ 130 psi for multi-purpose systems no FDC ■ 130 psi for passive purge systems no FDC <ul style="list-style-type: none"> ■ 130 psi for systems with 80 psi PRV ■ 175 psi for all other systems

NFPA 13D
<p align="center">WATERFLOW ALARM</p> <p align="center">Committee vote to require a waterflow alarm on all NFPA 13D systems:</p> <p align="center"> AGAINST 15 FOR 13 ABSTAINED 3 (no majority opinion) </p>

QUESTIONS/CONTACTS
<p align="center">QUESTIONS?</p> <p>Email: Dana.Haagensen@gmail.com</p> <p>Phone: 978-837-8028</p>