

DHCD, DBFR 2009 Code Change Process

April 23, 2010 Meeting Agenda Package

IRC – Residential Sprinkler Meeting

CODE CHANGE NUMBER	DESCRIPTION	PAGE
N/A.....	Insurance Premiums for sprinkled 1 & 2-family homes.....	None
C-310.6(R313.1).....	Residential Sprinkler Coalition.....	2
C-310.6(R329).....	Fire Extinguishers Kitchens.....	17
N/A.....	Firestop Cooktop Fire Suppressors.....	19
N/A.....	Fire Engineering website article.....	23
N/A.....	Codes and Standards Meeting June 7, 2010.....	None
N/A.....	Other items.....	None

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

**USBC – Virginia Construction Code
Code Change No. C-310.6(R313.1)**

Nature of Change:

A series of proposals for requiring sprinkler systems to be installed in new townhouses and to provide incentives for such systems to be installed more economically.

Proponent: James R. Dawson, Chesterfield County Fire Marshal, representing the Virginia Residential Sprinkler Coalition

Staff Comments:

These proposals are offered as a compromise to requiring all single family dwellings to be sprinklered. The townhouse proposal would permit a one-hour fire wall between units rather than the two-hour fire wall which is currently required for unsprinklered townhouses. An additional proposal would permit exterior walls of such sprinklered townhouses (end units) to be located as close as three feet to property lines without requiring the exterior wall to be rated. Other additional proposals address lessening the requirements for fire apparatus access roads, fire flow requirements and the number and distribution of fire hydrants in the Virginia Statewide Fire Prevention Code. While a sub-workgroup was established for the overall issue of residential sprinklers, no consensus has been achieved concerning these proposals or the proposal from the Home Builders of Virginia (Code Change No. C-310.6(R329)).

Codes and Standards Committee Action:

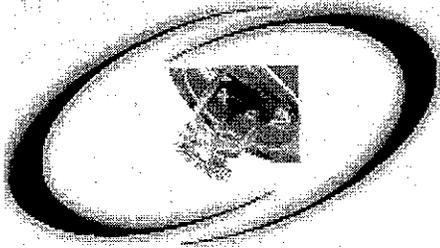
_____ Approve as presented.

_____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle.

_____ Other (specify):



Virginia Residential Sprinkler Coalition
A Partnership for Public Safety

September 7, 2009

Mr. Tom Fleury, Chairman
Board of Housing and Community Development
c/o Mr. Emory Rodgers, Deputy Director of Building and Fire Regulations
Main Street Centre
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Virginia Residential Construction Code Amendment Proposals

Dear Mr. Fleury:

On behalf of the Virginia Residential Sprinkler Coalition (VARSC), an organization representing over 3000 building safety and fire safety professionals throughout the Commonwealth of Virginia, I submit the attached code change proposals as a package in an effort to enhance public safety for the citizens in our state.

We believe these changes represent a common sense approach to fire protection while offering cost saving reductions in building construction and infrastructure that will assist with off-setting the costs of these systems for the new home buyer. These changes have been fully vetted within the member organizations which make up the Coalition and the representative members of our Board of Directors unanimously support these changes as we present them here.

We have discussed this package with the Home Builders Association of Virginia and have asked for their suggestions on how these changes may be improved upon. They have not had the opportunity to present this information to their membership at the present time, therefore they have not offered any suggested changes to this comprehensive package. We have however received positive feedback from NAHB's leadership on our efforts to reach a common middle ground consensus.

We anticipate this code change package will be used in the upcoming discussions for the workgroups slated for later this year, and look forward to working with you and the other interest groups to move these changes forward as a complete comprehensive package.

Sincerely,

Submitted via e-mail
James R. Dawson, VARSC Chairman
Fire Marshal
CHESTERFIELD FIRE AND EMS
cc: HBAV, VBCOA, VPMIA, VFCA, IAFF, VFPA, VSFA



www.varsc.org

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual X Government Entity Company

Name: Guy Tomberlin, Vice Chair

Representing: VA Residential Sprinkler Coalition (VRSC)

Mailing Address: 12055 Government Center Parkway, Suite 630
Fairfax, VA 22035

Email Address: guy.tomberlin@fairfaxcounty.gov

Telephone Number: 703-324-1611

Proposal Information Require mandatory sprinkler installation in all Townhouse construction with trade-off incentives, not including detached 1 and 2 family dwellings.

Code(s) and Section(s): 2009 IRC Section R313

Proposed Change (including all relevant section numbers, if multiple sections):

Retain, and implement provisions with adoption of the next USBC, current text exactly as it appears in the published International Code Council (ICC) International Residential Code (IRC) 2009 edition, Sections R 313.1, R 313.1.1, and R 302.2.

R 313.1 Townhouse automatic fire sprinkler systems. An automatic residential fire sprinkler system shall be installed in *townhouses*.

Exception: An automatic residential sprinkler system shall not be required when *additions* or *alterations* are made to existing *townhouses* that do not have automatic residential fire sprinkler system installed.

And

R 313.1.1 Design and installation. Automatic residential fire sprinkler systems for *townhouses* shall be designed and installed in accordance with Section P 2904.

And

R 302.2 Townhouses. Each *townhouse* shall be considered a separate building and shall be separated by fire-resistant-rated wall assemblies meeting the requirements of Section R 302.1 for exterior walls.

Exception: A common 1-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263 is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with Section R 302.4

Supporting Statement (including intent, need, and impact of the proposal):

During the Public Hearings the BHCD encouraged communication between all interested parties with a underlying emphasis on compromise. This proposal is a result of the Boards direction. We would like to take this opportunity to elaborate on many of the issues that have been raised to date. We hope to dispel many of the misconceptions that have been put forward during public testimony by providing the applicable factual information. Our goal is to promote the installation of residential sprinklers while recognizing all sides of the issues by incorporating the concept of compromise and trade-off incentives in hopes the Board will view this recommendation favorably.

1. This proposal still maintains the optional (non-mandatory) installation of residential sprinklers in detached 1 and 2 family dwellings, just as industry has indicated the need for during this current economic environment. One philosophy for this proposal could be explained as this will "assist in the protection from others, outside the control of ones own family."
2. Sprinkler system installation has been required for 4 story townhouses since back in the Legacy code era (pre year 2000). So, we should be able to capture real life, actual added cost of the sprinkler system to the construction of a townhouse. We need to disregard the numbers of cost that have been brought forward because they are not based on the current economic environment or actual typical installations. This proposal is not a huge departure from current business operation, in fact a sprinkler system for a townhouse 3 stories or less should considerably less than a system install for a 4 story structure. The VRSC will attempt obtain real estimates for the average size 3 story or less townhouse, approximately (2,000 sq. ft?) form various contractors across the state and submit these estimates to the BHCD. This method will provide hard numbers, from contractors that have already been doing this type work and not arbitrary numbers that can be skewed one way or another. Hopefully some other industry groups will step up and provide actual documentation as to the cost for the installation of sprinklers in the average 4 story townhouses from existing projects. It appears that currently, 4 story townhouses are selling as well as any other type dwelling in this economy, they are not out of the market because they have a sprinkler system and therefore the cost is just too excessive.
3. There is not a maintenance issue to be concerned with, and no added cost throughout the life of the home. The Fire Official will not be visiting residential homes on a routine basis just as they do not visit the 4 story townhomes, or any residences that currently have sprinkler systems installed today. This is one vast misconception, unfortunately residential sprinkler systems are being confused with the only other systems people are familiar with..."commercial" systems. The residential system is not a separate independent system as in a commercial building. They are an active part of the homes water distribution system that supplies the water closets, kitchen sinks, and every other fixture that utilizes potable water. Therefore, these are nothing more than future water lines, not any different than the future water line installed in thousands of houses for future bathrooms such as in a basement location. There simply is no maintenance required for a future water line. The only other component of the system is the sprinkler head itself. Keep in mind, recessed heads are available on the market today and would probably be the most desirable. However, if someone elects to utilize a protruding type sprinkler head, there is still no maintenance required. It is no different than an outside hose bib that never gets used. Yes, there is a risk of physical damage but no more than any other plumbing fixture in the home.
4. Monitoring systems are not part of the required installation and design provisions. There really is not anything to monitor. However, if someone wanted to exceed the code requirements and install this type technology it should not be a problem.
5. There is not a marked increase chance for leaks and flooding damage. Plumbing water piping systems today are quite reliable. You just don't have pipes bursting as a routine typical occurrence, this situation has actually never been an issue unless it was related to a particular product failure. Residential sprinkler systems are nothing more than extensions of the typical house domestic piping. A guess would be, probably no more than an additional 10% of pipe and fittings would be required beyond what the system would have without a sprinkler system. Please note this is nothing more than a guesstimate and this does not increase the chance for leakage by 10%, just look at the statistics for pipe burst and you will see it is not a common occurrence.
6. Plumbing system design in VA inherently has always had another element to deal with, and that is the potential for pipes freezing. The front end design will have to take climatic conditions into consideration.

- Sprinkler piping systems will ultimately end up using wall locations whenever possible of the top floors of dwelling units, just as for any other plumbing fixture. But when a room is too large for wall mounted sprinkler heads, provisions will have to be incorporated into the design and installation to prevent freezing conditions.
7. A Registered Design Professional (RDP) will not be required to design these systems and a licensed sprinkler contractor will not be required to install them. The current USBC Section 108.3 authorizes the owner of a property to apply for permitting and through the USBC and the Department of Occupation and Regulation (DPOR) an owner/occupant can perform the actual system installation. Therefore no contractor or RDP is required to be involved in the process. DPOR has said that since these provisions are located within the IRC and specifically in Chapter 29 (which is a plumbing chapter) that a licensed plumbing contractor will be able to obtain the permitting and perform the installation. So, a typical plumbing permit will be required and an owner can certainly use a specialty contractor or RDP if they elect but it is not required and should not be a problem if someone chooses to utilize any professional services.
 8. Water tap fees are not going to increase drastically. For example, in Fairfax County the water authority has indicated that if a larger meter is required for the purpose of installing a residential sprinkler system (as opposed to more plumbing fixtures) than an increased meter size will cost an additional \$150.00. In Chesterfield the water purveyor indicated that the larger meter would cost \$45.00.
 9. Residential sprinklers located in homes in rural areas do in fact have other things to take into consideration. Storage and water availability are issues that must be dealt with. However, well systems must have some type storage as well as a pump included in their initial installation. So yes the flow capacity of a pump may need to be increased as well as the tank capacity for water storage but keep in mind there is already the initial cost of the original installation components that must be accounted for before you factor in the increased size cost adjustments. The VRSC intends to obtain real cost estimates from plumbing supply wholesalers from across the state based on the estimates obtained from the contractors as outlined in item # 2 and will forward these cost estimates to the BHCD.
 10. Finally there are several elements to the cost benefit analysis. Some which are just near impossible to place any type number on and claim accuracy. For example, we cant even look at 4 story town house statistics to see how well sprinklers are working, because there are so many 4 story units that predate the sprinkler mandate. It will take years before we can accurately get some numbers attached to the cost savings in the event of a fire happening in a dwelling unit with sprinklers. Another fallacy is to say that over X number of years that the cost will be recovered. From the VRSC perspective one life saved trumps all the cost incurred, others view this philosophy different. Savings can be recovered from things like fire rating reductions (as we have put forward), hydrant location, fire department staffing levels, fire department response time. smaller water mains due to reduction of hydrants, more narrow streets, etc.. All these things are continuously moving targets that no fixed savings number is going to satisfy. Anyone can do the math in order to gain their particular intended outcome. The bottom line, real facts are,
"residential sprinkler systems will increase the cost of construction and residential sprinkler systems will save lives." For further information on the Coalition please visit <http://www.varsc.org/>

Submittal Information

Date Submitted: September 8, 2009

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
 The Jackson Center
 501 N. 2nd Street
 Richmond, VA 23219-1321

Email Address: tsu@dhcd.virginia.gov
 Fax Number: (804) 371-7092
 Phone Numbers: (804) 371-7140 or (804) 371-7150



VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Shahriar Amiri

Representing: VRSC

Mailing Address: 2100 Clarendon Blvd., Suite 1000, Arlington, VA 22201

Email Address: samiri@arlingtonva.us

Telephone Number: 703-228-3848

Proposal Information

Code(s) and Section(s): _____

Proposed Change (including all relevant section numbers, if multiple sections): **Change Exception 1 to current USBC Section R310.1 to read:**

Exceptions:

1. Dwelling units equipped throughout with an approved automatic sprinkler system installed in accordance with NFPA 13, 13R or 13D or Section P2904.

Supporting Statement (including intent, need, and impact of the proposal): **This is an editorial change to add the reference to Section P 2904 as an acceptable method to sprinkler one and two-family dwellings.**

Submittal Information

Date Submitted: September 7, 2009

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)

Main Street Centre
600 E. Main St., Ste. 300
Richmond, VA 23219

Email Address: tsu@dhcd.virginia.gov

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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Shahriar Amiri

Representing: VRSC

Mailing Address: 2100 Clarendon Blvd., Suite 1000, Arlington, VA 22201

Email Address: samiri@arlingtonva.us

Telephone Number: 703-228-3848

Proposal Information

Code(s) and Section(s): Change Table R302.1 as follows:

Proposed Change (including all relevant section numbers, if multiple sections): **TABLE R302.1 EXTERIOR WALLS**

EXTERIOR WALL ELEMENT		MINIMUM FIRE-RESISTANCE RATING	MINIMUM FIRE SEPARATION DISTANCE
Walls	(Fire-resistance rated)	1 hour with exposure from both sides	< 5 feet ¹
	(Not fire-resistance rated)	0 hours	≥5 feet ¹
Projections	(Fire-resistance rated)	1 hour on the underside	≥ 2 feet to 5 feet ¹
	(Not fire-resistance rated)	0 hours	5 feet ¹
Openings	Not allowed	N/A	< 3 feet
	25% Maximum of Wall Area	0 hours	3 feet
	Unlimited	0 hours	5 feet ¹
Penetrations	All	Comply with Section <u>R317.3</u>	< 5 feet ¹
		None required	5 feet ¹

¹ 3 feet when dwelling units are equipped throughout with an approved automatic sprinkler system installed in

accordance with NFPA 13, 13R, 13D or Section P2904.

Supporting Statement (including intent, need, and impact of the proposal): 2003 IRC required that exterior walls of dwellings with fire separation distance of less than 3 feet to have a fire-resistance rating. USBC amended this requirement to 5 feet based on the IRC supplement. This proposal is to allow zero rated exterior walls from 3 to 5 feet provided that the dwelling unit is equipped throughout with an approved automatic sprinkler system established by the code. This reduction will provide a degree of protection for exterior walls permitted by 2003 IRC with the additional requirement that the dwelling be sprinklered.

Submittal Information

Date Submitted: September 7, 2009

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
Main Street Centre
600 E. Main St., Ste. 300
Richmond, VA 23219

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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Robby Dawson, Chairman

Representing: Virginia Residential Sprinkler Coalition

Mailing Address: 9800 Government Center Parkway, Chesterfield, VA 23832

Email Address: dawsonj@chesterfield.gov

Telephone Number: 804-717-6838

Proposal Information

Code(s) and Section(s): IFC 503.2.1

Proposed Change (including all relevant section numbers, if multiple sections):

Change the following code sections as noted: Add exception as noted

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115mm)

Exception: Fire apparatus access roads exclusively serving fully sprinklered residential developments in accordance with IRC Section 313.1 or 313.2 shall have an unobstructed width of not less than 18 feet (5486mm), exclusive of shoulders.

Supporting Statement (including intent, need, and impact of the proposal):

With the improved fire safety of residential sprinklers, the need for apparatus access to combat large scale fires is reduced. This reduction in residential street width takes advantage of the inclusion of sprinklers in new construction. This reduction is limited to single family dwellings where the all dwelling units in the development are electively sprinklered and townhouse developments only.

This approach has been used in localities in Virginia already without fire service operational issues. This is also the standard used by a number of other communities where residential sprinklers are used as a community fire protection strategy. The reduction in impervious surface in addition to the infrastructure cost savings will offset the additional costs associated with fire sprinkler systems.

While no specific cost savings have been identified, this change would result in as much as a 10% reduction in certain required fire apparatus access roads and the resulting savings in materials and impervious surfaces will have a positive impact on the infrastructure costs and environmental impacts.

Submittal Information

Date Submitted: September 7, 2009

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
The Jackson Center
501 N. 2nd Street
Richmond, VA 23219-1321

Email Address: taso@dhcd.virginia.gov
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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change
Number: _____

Proponent
Information

(Check one): Individual Government
Entity Company

Name: Robby Dawson, Chairman Representing: Virginia Residential Sprinkler Coalition

Mailing Address: 9800 Government Center Parkway, Chesterfield, VA 23832

Email Address: dawsonj@chesterfield.gov Telephone Number: 804-717-6838

Proposal Information

Code(s) and Section(s): IFC Appendix B Table B105.1

Proposed Change (including all relevant section numbers, if multiple sections):

See attached table

Supporting Statement (including intent, need, and impact of the proposal):

The reduction of required fire suppression water in structures protected with water based fire protection systems has been a long-standing trade-off in the International Building Code. With the addition of the residential sprinkler requirement in town home developments, and selected detached single family homes, the inclusion of these guidelines in the SFPC Appendix will allow local fire officials to base their decision for required fire flow on a consistent basis across the commonwealth.

The basis of the flows noted here are based on the fire ground formula of

$$\frac{\text{fire area square footage}}{3} = \text{required gpm}$$

These requirements also take into account the long-standing allowance of fire flow reductions when structures are equipped with a sprinkler system.

Cost savings associated with this change are difficult to estimate due to the variability between local water authorities. An estimate was prepared for a number of developments in Chesterfield County. The following is submitted as a comparison:

Small subdivision of 25 single family dwellings-	
Cost as proposed -	\$172,353
Cost with reduced fire flow (smaller water lines) -	\$142,547
Savings -	\$29,806 (\$1192 per unit)

Small townhouse project of 42 dwelling units-	
Cost as proposed -	\$176,389
Cost with reduced fire flow (smaller water lines) -	\$143,556
Savings -	\$32,833 (\$782 per unit)

Large subdivision of 103 single family dwellings -	
Cost as proposed -	\$524,781
Cost with reduced fire flow (smaller water lines) -	\$433,381
Savings -	\$91,400 (\$887 per unit)

These estimates are based on 3 planned developments currently in the approval process.

Submittal Information

Date Submitted: September 7, 2009 _____

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
 The Jackson Center
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 501 N. 2nd Street
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**TABLE B105.1
MINIMUM REQUIRED FIRE-FLOW AND FLOW DURATION FOR BUILDINGS^a**

FIRE-FLOW CALCULATION AREA (square feet)					FIRE-FLOW (gallons per minute) ^c	FLOW DURATION (hours)
Type IA and IB ^b	Type IIA and IIIA ^b	Type IV and V-A ^b	Type IIB and IIIB ^b	Type V-B ^b		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600 0-5,000 ^d	1,500 1,000 ^d	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800 5,001-7,200 ^d	1,750 1,250 ^d	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200 7,201-8,200 ^d	2,000 1,500 ^d	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700 8,201-9,500 ^d	2,250 1,750 ^d	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400 9,501-11,000 ^d	2,500 2,000 ^d	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300 11,301-13,000 ^d	2,750 2,250 ^d	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	3
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	4
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
--	--	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
--	--	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
--	--	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
--	--	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
--	--	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
--	--	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
--	--	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
--	--	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI: 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895kPa.

a. The minimum required fire flow shall be allowed to be reduced by 25 percent for Group R.

b. Types of construction are based on the *International Building Code*.

c. Measured for 20 psi.

d. For use with town homes equipped with a residential sprinkler systems in accordance with R313.1 or when all detached single family homes in developments are equipped with sprinklers in accordance with NFPA 13D, NFPA 13R or P2409.

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: _____

Proponent Information

(Check one): Individual Government Entity Company

Name: Robby Dawson

Representing: Virginia Residential Sprinkler Coalition

Mailing Address: 9800 Government Center Pky, Chesterfield, VA 23832

Email Address: dawsonj@chesterfield.gov

Telephone Number: 804-717-6838

Proposal Information

Code(s) and Section(s): IFC Appendix C Table C105.1

Proposed Change (including all relevant section numbers, if multiple sections):

**TABLE C105.1
NUMBER AND DISTRIBUTION OF FIRE HYDRANTS**

FIRE –FLOW REQUIREMENT (GPM)	MINIMUM NUMBER OF HYDRANTS	AVERAGE SPACING BETWEEN HYDRANTS ^{a, b, c, d} (feet)	MAXIMUM DISTANCE FROM ANY POINT ON STREET OR ROAD FRONTAGE TO A HYDRANT ^{d, f}
1,750 or less	1	500	250
2,000 – 2,250	2	450	225
2,500	3	450	225
3,000	3	450	225
3,500 – 4,000	4	350	210
4,500 – 5,000	5	300	180
5,500	6	300	180
6,000	6	250	150
6,500 – 7,000	7	250	150
7,500 or more	8 or more ^e	200	150

For SI: 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895kPa.

a. Reduce by 100 feet for dead-end streets or roads.

b. Where streets are provided with median dividers which can be crossed by fire fighters pulling hose lines, or where arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet on each side of the street and be arranged on an alternating basis up to a fire-flow requirement of 7,000 gallons per minute and 400 feet for higher fire-flow requirements.

c. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.

d. Reduce by 50 feet for dead-end streets or roads.

e. One hydrant for each 1,000 gallons per minute or fraction thereof.

f. The fire code official shall be permitted to increase spacing and distances by 100% for residential use group developments when all dwellings are protected with fire sprinklers in accordance with NFPA 13, 13R, 13D or P2409 standards.

Supporting Statement (including intent, need, and impact of the proposal):

This change to Appendix C provides for a reduction in the number of hydrants required in developments that utilize residential sprinklers. The language in footnote f indicates "shall be permitted" to account for individual fire service equipment standards. For those departments that carry greater than 1000 feet of supply hose, it would be logical to extend the distance by 100%. For those that carry 1000 feet or less, the distance between hydrants may be extended to a reasonable distance based on the local operational capabilities.

Submittal Information

Date Submitted: September 7, 2009

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
The Jackson Center
501 N. 2nd Street
Richmond, VA 23219-1321

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150



VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

**USBC – Virginia Construction Code
Code Change No. C-310.6(R329)**

Nature of Change:

To require a fire extinguisher to be installed in the kitchen area of new dwelling units in lieu of a sprinkler system.

Proponent: Mike Toalson, Home Builders Association of Virginia

Staff Comments:

The proposal was considered at one of the later sub-workgroup for residential sprinklers meetings but was not agreed upon by the fire service representatives as a substitute for requiring sprinklers, but there was no objection to the requirement in addition to sprinklers.

Codes and Standards Committee Action:

_____ Approve as presented.

_____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle.

_____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: C-310.6(R329)

Proponent Information

(Check one): Individual Government Entity Company

Name: Mike Toalson

Representing: Home Builders Association of Virginia

Mailing Address: 707 East Franklin Street, Richmond, VA 23219

Email Address: mtoalson@hbav.com

Telephone Number: 804-643-2797

Proposal Information

Code(s) and Section(s): 2009 USBC IRC R 329 and add new section on Fire Extinguishers

Proposed Change (including all relevant section numbers, if multiple sections):

R329.1 Kitchen Areas. Other than where the dwelling unit is equipped with an approved sprinkler system in accordance with R 313 or P 2904, a 10 BC fire extinguisher or an approved equivalent type of fire extinguisher shall be installed in the kitchen area.

Supporting Statement (including intent, need, and impact of the proposal): Kitchens are the top location for home fires. Many are small and controllable if discovered early, and according to the National Association of State Fire Marshall's, fire extinguishers have historically been the first line of defense for the same. According to the same professional group, if a fire is discovered in its early stages, the most effective means of protecting life and preventing property loss is to sound an alarm and then control and/or extinguish the incipient stage fire with a portable fire extinguisher. Fire extinguishers are manufactured with instructions and can be operated by untrained persons. They would provide a cost effective and enhanced active fire suppression measure to new homes. The typical 10 BC fire extinguisher would cost less than \$50.00.

According to the National Association of State Fire Marshall's, fire extinguishers provide a very good first line of defense.

Submittal Information

Date Submitted: December 4, 2009

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
Main Street Centre
600 E. Main St., Ste. 300
Richmond, VA 23219

Email Address: tsu@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150





About StoveTop FireStop®

The United States currently reports more than 100 million residential homes, and increasing by more than 1.5 million units each year. According to the National Fire Protection Association (NFPA), every year cooking-related fires cause an estimated

- 222,135 *reported* home structure fires
- 12,344,000 (55.3%) unreported home fires
- 7,891 injuries
- \$362 million in direct property damage

Cooking fires remain the number one cause of residential structure fires, with unattended cooking cited as the leading cause of these fires. Even with these staggering statistics, many people never think that a fire could happen to them, and don't take the proper steps to protect their home and valuables.

StoveTop FireStop®, America's leading automatic stovetop fire suppressor, is cost-effective, easy to install, and provides 24/7 protection against property loss and fire injuries by extinguishing small range-top grease fires. At just 12 ounces (about the size of a tuna can), StoveTop FireStop simply magnetizes to the underside of a vent hood, 24-32 inches above the cooking surface—effectively providing the necessary protection, worry-free .

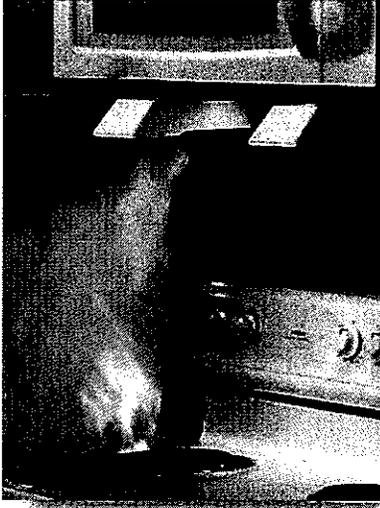
How does it work? When a stovetop fire occurs and flames reach the StoveTop FireStop, the device automatically activates to release a fire-suppressing powder directly onto the fire via gravity (non-pressurized). A loud pop alerts the resident that the device has activated, after which the burners should be turned off to prevent re-ignition. The primary smothering agent is a proven, effective, non-toxic powder. Sold in pairs, StoveTop FireStop provides complete protection of the entire stovetop (one device centered between the front and back burner for each side of the stovetop).

What is the shelf-life? StoveTop FireStop has a life-span of five years from the date of manufacture, after which it must be replaced to be considered effective. During the five year life, the devices need no inspection or re-certification.

Is StoveTop FireStop a proven product? StoveTop FireStop has been manufactured for over 35 years and independently tested by a nationally recognized testing laboratory (NRTL) and the National Institute of Standards and Technology (NIST). The production facility's ISO-9001 registered standard (registered by AQA International—an independent, accredited, quality registration firm) employs rigorous quality control measures throughout the production processes to produce only the highest quality products.

Talk to your insurance carrier about possible discounts and lower deductibles for installing StoveTop FireStop. Don't become another statistic; order the StoveTop FireStop today and see for yourself why apartment managers, maintenance personnel, and fire services are recommending the StoveTop FireStop.

StoveTop FireStop Microhood™

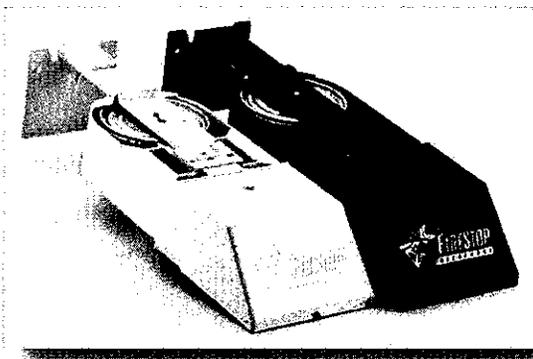
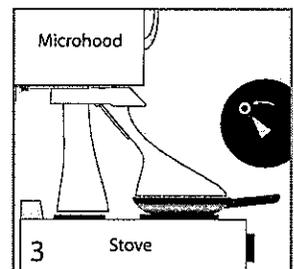
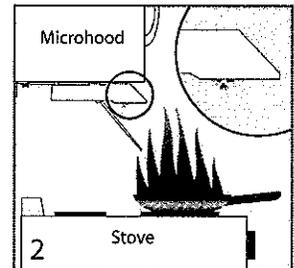
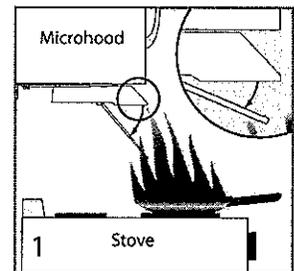


StoveTop FireStop Microhood offers residences with over-the-range microwaves the same reliable, fully-automatic stovetop fire protection as our original StoveTop FireStop Venthood product. StoveTop FireStop is America's leading automatic stovetop fire suppressor with a 30+ year track record.

StoveTop FireStop Microhood dispenses fire suppressing powder to stovetops with lower clearances (15-24 inches above the cooking surface).

How does StoveTop FireStop Microhood work?

1. StoveTop FireStop Microhood attaches below microwave ovens or kitchen cabinetry. When flames from a grease fire on the front burner touch the bottom of the StoveTop FireStop Microhood, a link opens the front ramp mechanism (see graphic to the right).
2. Upon flame activation, the unit emits a short "pop" noise, alerting the resident that the device has activated. The petals of the StoveTop FireStop open, releasing the fire-suppressing powder.
3. The powder pours out via the ramp and suppresses the fire in the pan. After the fire is out (and if it is safe to do so), the resident should turn off the burner to prevent re-ignition. While the front ramp is designed to deliver the fire-suppressing powder directly to the front burner, a rear canister will deliver powder to the back burner if needed.



StoveTop FireStop Microhood is now available in black or white to match your appliances.

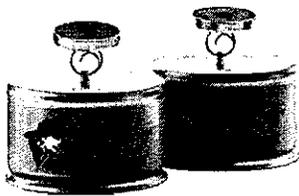


StoveTop FireStop® Product Pricing

Williams-Pyro, Inc., announces 2009 pricing for our automatic fire suppressor, the StoveTop FireStop® Venthood, PopTop FireStop™, and our newest product, StoveTop FireStop Microhood™, available for stoves with microwave ovens or microhoods above the cooking surface.

Pricing varies based on order size, as shown below. One pair of StoveTop FireStop Venthood or Microhood covers a standard four-burner stove. Shipping and handling charges are additional on all orders. Please allow up to 2-3 weeks for delivery. As the manufacturer, we recommended purchasing through an authorized distributor. For a list of distributors or for quotes including estimated shipping charges, please contact us at sales@stovetopfirestop.com or 888.616.7976. We value you as a customer, and look forward to your future use of our products. As always, we welcome any comments, questions, or testimonials you may have.

StoveTop FireStop Venthood: For standard vent hoods 24-32" above the cooking surface (15 pair per case)



Volume (pairs) per order	2009 price per pair
1 - 59 pairs	\$56.95
60 - 599 pairs	\$52.95
600 - 1,499 pairs	\$48.95
1,500 - 2,999 pairs	\$45.95
3,000 or more pairs	Call

StoveTop FireStop Microhood: For microhoods 15-24" above the cooking surface (5 pair per case)



Volume (pairs) per order	2009 price per pair
1 - 49 pairs	\$75.95
50 - 499 pairs	\$70.95
500 - 1,499 pairs	\$66.95
1,500 - 2,999 pairs	\$63.95
3,000 or more pairs	Call

PopTop FireStop: Sold by the case only. If you can safely do so, pop the top and pour onto the fire. PopTop FireStop is **not** automatic like the other products. (12 PopTop's per case)



Volume (case) per order	2009 price per case
1 - 10 cases	\$96.00
11 - 40 cases	\$87.00
41 - 80 cases	\$78.00
Over 80 cases	Call

StoveTop FireStop – TESTING SUMMARY

(Tests described below can be seen at www.stovetopfirestop.com)

1. 1997 Test Report of StoveTop FireStop (Venthood model) by Wyle Laboratories

As there exists no direct UL standard for automatic, residential fire suppression systems, Wyle Laboratories, a Nationally Recognized Testing Laboratory (NRTL), tested the StoveTop FireStop product (then labeled “Range Queen”) to the next best thing – ANSI/UL 1254, “Pre-Engineered Dry Chemical Extinguishing System Units.”

ANSI/UL Standard 1254 covers a variety of *commercial* extinguishing systems such as industrial, automotive, or restaurant applications, which our product is clearly not designed for and differs significantly from. Despite this, our product “**was found to be in compliance with the Standard**” per the 1997 Wyle report, Section 5.0, Page 2. Wyle certified the product for *residential* but not commercial use.

Tests performed by Wyle are listed below. All tests were successfully passed.

- Fire tests
- 30-day elevated temperature test
- Mounting test
- Extinguishing agent (powder) tests
 - Elevated temperature test
 - Hygroscopicity test
 - Dielectric strength test

2. 2006 Test Report of StoveTop FireStop Microhood model by Wyle Laboratories

Given customer demand for an automatic stovetop fire suppression system that works well in stovetop configurations where there is 24” or less of clearance above the cooking surface, Williams-Pyro, Inc. developed the StoveTop FireStop “Microhood” product, and had it tested by NRTL Wyle Laboratories in 2006. By then, Williams-Pyro, Inc. and Wyle Laboratories had agreed that UL 1254 was a *commercial* fire extinguisher standard and not directly applicable to StoveTop FireStop, a *residential* fire suppressor. Thus, the 2006 testing of our Microhood product was not to a specific UL standard but rather to a composite of tests excerpted by Wyle Laboratories from UL 1254 and other sources such as UL 300.

Tests performed by Wyle are listed below. All tests were successfully passed by the final product*.

- Wall-mount pull-out test
- 30-day high temperature test
- Activation test (manual ignition)
- Fire suppression tests, including 5-minute reflash test

*In 2006, there was one design anomaly that was caught after the high temperature testing and permanently corrected in a design modification. Per the 2006 report by Wyle Laboratories, “**subsequent testing using the new design proved to be 100% successful.**” (Section 1.4, Page 3).



Fire Engineering

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Sprinklers in homes firing political fight ; Firefighters say it's a safety measure; others say it adds to cost.

By WALTER C. JONES

ATLANTA - Georgia home builders are pushing legislation to prohibit local governments from requiring fire suppression sprinklers in new houses.

To counter them, firefighter groups hauled a modified house trailer to the front of the Capitol Thursday to demonstrate for reporters how quickly automatic sprinklers can extinguish cotton curtains and prevent the whole home from blazing up.

The day before, a House committee approved the legislation the firefighters want to stop, House Bill 1196 by Rep. Terry England, R- Auburn.

"You're taking away the private individual's choice," England said.

Georgia had 3,000 residential fires in 2009 resulting in 85 deaths.

The debate comes at a time when home builders are struggling to make money. They fear that customers will be discouraged by the added \$1.65 to \$1.75 per square foot the Georgia Fire Sprinkler Association estimates a system would add to the cost of an average home, or \$3,500 for a 2,000-square-foot house.

"We've done everything in the world to reduce costs for residential sprinklers," said the association's executive director, Billy Wood.

Commercial structures are already required to have more robust sprinkler systems than homes would need, and 95 percent of fires are quenched with just one or two sprinkler heads activating, he said.

Not only do the sprinklers begin fighting the fire when it is still small and well before fire fighters can arrive, they also use less water to do it. At an apartment fire earlier that morning a few miles from the Capitol, one sprinkler head doused a stove fire, and workers merely mopped up the water and replaced the stove without the tenants losing their home, Wood said.

England's bill would thwart efforts to have the Georgia Department of Community Affairs include mandatory residential sprinklers in the state's model building code next year for implementation in 2012.

"It's just a special-interest group that more or less wants to shut the door down and take the tools away from the community and the fire service and even the Department of Community Affairs," said Cartersville Fire Chief Scott Carter, vice president of the Georgia State Firefighters Association.

England argues individuals would still be able to specify sprinklers in houses they buy or have built.

"We're not doing anything to encumber the individual. They would have to make that decision on their own," he said. walter.jones@morris.com, (404) 589-8424

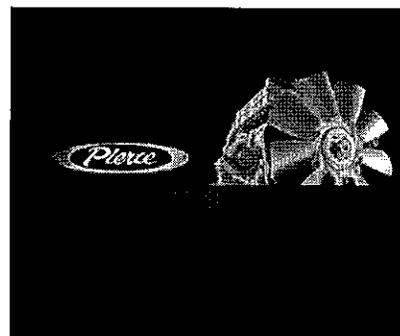
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March, 2010
Volume 2, Issue 4

Allan B. Fraser, Coordinator
NFPA e-ACCESS
afraser@nfpfa.org

Circulation: Over 23,000

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"Who Put the "Dis" in "Disability?"

By Allan B. Fraser, CBI, CPCA, Sr.
Building Code Specialist, NFPA

"Disability" is an interesting word. I began thinking a lot about it just before the holidays. Where did it come from? What does it really mean and maybe more important, what does it imply, directly or subtly?

Let's start with the root word, "ability."

According to the *Merriam Webster Online Dictionary*, it dates back to the 1300's. It is defined as "the quality or state of being able; especially a physical, mental, or legal power to perform; competence in doing; a skill; a natural aptitude or acquired proficiency."



Professor Stephen W. Hawking

The word certainly applies to some very skilled and well-known individuals. Singers Stevie Wonder and Andrea Bocelli, theoretical physicist Stephen Hawking, Congressmen Anthony Coelho and James Langavlin are all well known for their abilities and

deservedly so even though they all have some significant disabilities.

Now what about the word "disability"?

Merriam Webster Online Dictionary indicates that the word "disability" dates back to the mid 1500's. It is defined as "the condition of lacking capacity, ability, or qualification for the purpose or end in view by illness or injury; physically or mentally impaired in a way that substantially limits activity especially in relation to employment or education; inability to pursue an occupation because of a physical or mental impairment; lack of legal qualification to do something; a disqualification, restriction, or disadvantage."



CLEARING A PATH FOR PEOPLE WITH SPECIAL NEEDS CLEARS THE PATH FOR EVERYONE!

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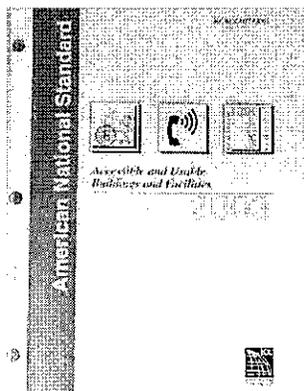
Not a very positive word and as a simple definition I'm not sure that it can be properly applied to any of the amazing individuals above. They all work and are well known for their skills. They are all financially well off. I

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would certainly not consider any one of them to be at a disadvantage to their peers in their respective professions. So to what purpose would we choose to use the word "disability" to describe any of them? But we do.

While many well intentioned people have worked tirelessly for decades to provide equal opportunity for everyone, we may have inadvertently worked against that purpose by our choice of words.

In May, 1959, the American Standards Association, acting on the request of The President's Committee on Employment of the Physically Handicapped, called a general conference of those groups vitally interested in the problem. This conference recommended the initiation of a project to develop a standard to make buildings and facilities in the United States useable and accessible, and this recommendation was subsequently approved by the Construction Standards Board. The President's Committee on Employment of the Physically Handicapped and the National Society for Crippled Children and Adults were designated co-sponsors, and the latter agreed to assume the secretariat. That standard, A117.1, which is still maintained is the only ANSI consensus standard for making buildings and facilities usable and accessible.



Fifty years ago we recognized that all Americans didn't have the same opportunities open to them. They didn't have a level playing field on which to pursue their dreams and ambitions or even to navigate the built environment. We concluded that this simply wasn't right. Government as well as various private organizations set out to do something about it. But from the beginning we were using what I call "loaded" phrases such as "physically handicapped" and "crippled children" while we were trying to embrace and include this community. Today, we have a generally accepted style of writing about people with disabilities. It's referred to as "People First" language.

Today it is both technically correct and non-offensive to say that "he uses a wheelchair." It really is a drastic improvement from the way we used to describe the same individual by saying "wheelchair-bound" or "he's confined to a wheelchair". We've always said "the child with a broken leg", but we used to call one who uses leg braces "a crippled child". Robert Burton's understood the power of words. "From this, it is clear how much more cruel the pen may be than the sword." In *The Anatomy of Melancholy* published in 1621.

Similarly it is considered proper to use the phrase "people with disabilities." While it does put the person ahead of the "disability," it still isn't right in my humble opinion. As a society, we have mistakenly taken a mindset that divides us into two groups, "able bodied" and "disabled." The fact of the matter is that we all have been or will be part of the "disabled" group for some period in our lives. I think the word "disabled" simply continues to imply an inferior status and I would like to suggest another approach.

"Multiple Intelligences – New Horizons", written by Howard Gardner (1993) introduced the theory of multiple intelligences (MI) which he first developed in the early 1980s. As the title indicates, he believes that human cognitive competence is better described in terms of a set of abilities, talents, or mental skills, which he calls *intelligences*. In his book he notes that "all individuals possess each of these skills to some extent; individuals differ in the degree of skill and in the nature of their combination."



Professor Howard Gardner

- Linguistic Intelligence - (Word Smart): means that you are good at writing, reading, spelling, and talking. You have an easy time using words.
- Logical-Mathematical Intelligence - (Number smart): means that you are good at math and using numbers. You are also good at riddles and using computers.
- Spatial Intelligence - (Picture smart): means that you are good with images and have an eye for detail. You can paint, draw, build, and design things.
- Musical Intelligence - (Music smart): means that you are good at patterns, tempos, rhythms, and

sounds. You are probably good at singing or playing a musical instrument.

- **Bodily-Kinesthetic Intelligence - (Body smart):** means that you are good at moving your body. You might be good at sports or dancing. You also might be good at crafts like sewing, carving, or building models.
- **Interpersonal Intelligence - (People smart):** means that you are good at understanding other people and their feelings. You might be a good leader.
- **Intrapersonal Intelligence - (Self smart):** means that you understand yourself very well. You are aware of your own feelings, ideas, and dreams.

Think about Stevie Wonder and Stephen Hawking. We describe them noting their skills. Wouldn't it be wonderful if we could simply refer to all people based on their abilities or intelligences? Then maybe we could take the "dis" out of "disability".

Residential Fire Sprinkler System: A Lesson Learned

By Bill Scott, Founder & President of Abilities Unlimited, Inc.



It was a little after 11:00 p.m. when I finally decided to transfer out of

my wheelchair and go to bed. I left my wife, cousin, and son talking in the family room after an eventful evening that included my car battery dying on the way home from a party. My cousin, Geoff, had gotten my car started with a boost from his car battery and when we got home, he connected his battery charger to my car to charge it for a few hours.

I wasn't in bed more than 20 minutes when I heard a loud explosion, and instantly, I knew what had happened. From force of habit, someone had closed the garage door and the hydrogen gas build-up in the enclosed space resulted in an explosion that started a fire in the garage. While my cousin and son attempted to put out the fire, my wife, Susan, called 911. They wanted her to stay on the phone, but she told them she had to get her husband up into his wheelchair and out of the house ... a decision for which I am eternally grateful.

My cousin and my son, also named Jeff, coincidentally, did manage to keep the fire from spreading, and the fire department arrived quickly and had everything under control within minutes. Susan had gotten me out of the house and across the street to safety, and aside from the damage to my car, all ended well.

According to NFPA statistics,

- About 79% of all people who die in fires die in their homes.
- 77% of all structure fires occurred in residential properties.
- A residential fire occurs every 79 seconds.
- Nationwide, a civilian fire death occurs every 156 minutes.

I was fortunate for a number of reasons. I was not at home alone and I was not asleep.

Even as a wheelchair user, I am physically capable of providing assistance with transferring from the bed into my wheelchair (clothing optional in an emergency).

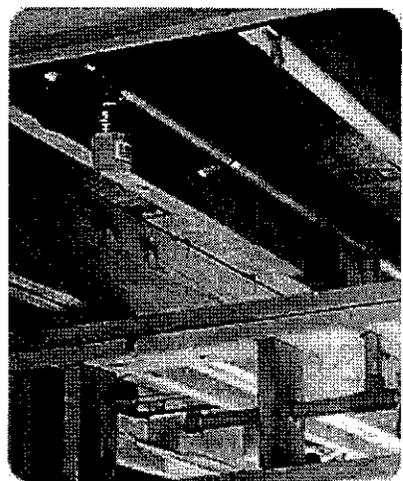
My wife and I lived in a single story, ranch-style home with only one step at the entrances which were ramped.

Although my son was present, he is an adult, and there were no small children in the house.

The location of the fire did not block the paths to the two remaining exits.

Making a Decision

Several years later when Susan and I decided to go forward with building a new home, the events of the night of the explosion and fire in the garage stayed with me. There were several things we wanted in our new home that were non-negotiable, and highest on that list was a fire sprinkler system. Since there wasn't one in our previous home, we had several questions that required some research before making a decision.



Is a fire sprinkler system expensive?

According to Jim Ford, Assistant Chief/Fire Marshall Scottsdale – Rural/Metro Fire Department, in residential properties, recent designs and technical improvements have allowed the installation cost to average between \$0.55 and \$0.75 per square foot for typical homes. Estimates suggest that when a home is under construction, a home sprinkler system could cost approximately 1% of the total building price – that's less than most upgrades like carpeting, fire places, covered patios and window treatments.

If there is a fire in one room, will the sprinklers be activated throughout the whole house?

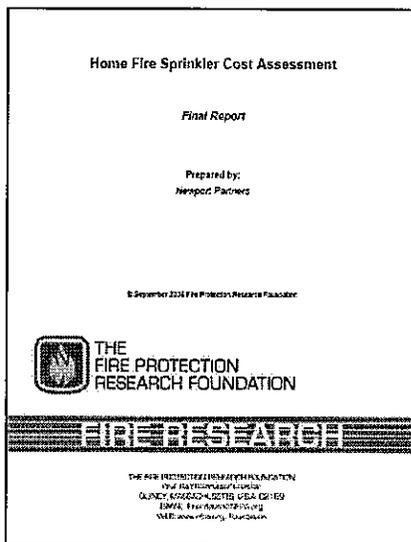
Sprinklers are individually activated by the heat from a fire, so when one fire sprinkler activates to control a fire, the entire sprinkler system does not activate. Residential fires are usually controlled with one sprinkler. A study conducted in Australia and New Zealand covering 82 years of automatic sprinkler use found that 82% of the fires which occurred were controlled by two or fewer sprinklers.

Do fire sprinkler systems actually save lives, or just property?

Although property losses are 85% less in residences with fire sprinklers compared to those without them, fire sprinklers do save lives. In the City of Scottsdale, AZ residential fire sprinkler systems have been mandated by municipal ordinance since January 1, 1986. Over the 15 year period between January 1986 and January 2001 there were 598 home fires in the City of Scottsdale. Of the 598 home fires, 49 were in single-family

homes with fire sprinkler systems. There were no deaths in sprinklered homes. 13 people died in home fires without sprinklers!

The NFPA has no record of a multiple death fire in a completely sprinklered public assembly, educational, institutional or residential building where the system was properly operating.



Will a smoke alarm serve the same purpose as a fire sprinkler system?

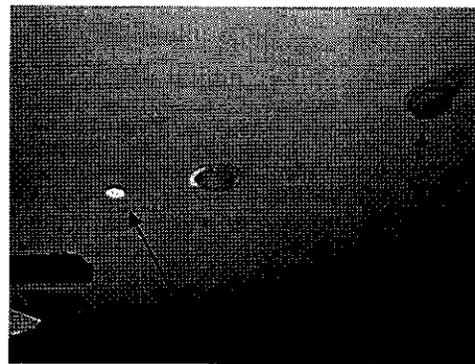
Millions of Americans have installed smoke alarms in their homes in the past few decades, and they do serve a very useful purpose. But a smoke alarm can only alert the occupants to a fire in the house ... it cannot contain or extinguish a fire. Residential fire sprinkler systems can!

Will the Installation of fire sprinklers provide discounts on insurance premiums?

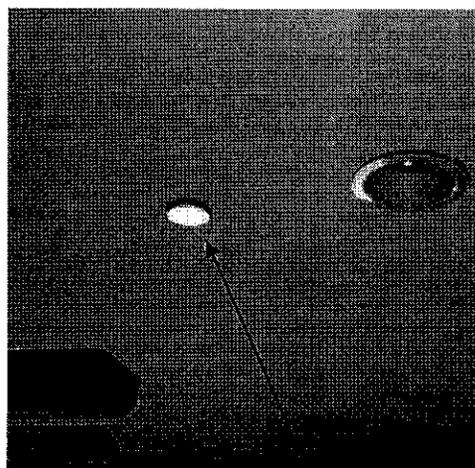
Insurance from homeowner underwriters will vary depending on the type of coverage. The discounts now

range between 5-15%, with a projected increase in available discounts.²

When we looked at the pros and cons of a residential fire sprinkler system in our new home, the decision was easy ... with one last caveat. It had to look nice! We didn't want those ugly sprinklers sticking out of our ceiling like you see in many restaurants or hotel rooms. We were very pleased to find that sprinklers for home use can be mounted inconspicuously and flush with walls or ceilings. The sprinkler itself is covered with a cap that comes in designer colors to fit in with most any décor and is installed to conceal the recessed sprinkler from view.



Covered Fire Sprinkler & Smoke/Fire Alarm



Close-up Sprinkler

.....

A Lesson Learned

The incident with the explosion and fire in the garage was a wake-up call for my wife and me. We realized how very fortunate we were that the house was not seriously damaged and, most importantly, no one was harmed. If the fire fighters had not arrived and acted as quickly as they did, the fire might easily have spread to the rest of the house resulting in significant damage, and possibly the total loss of our home. While not a requirement to have sprinklers in the garage area, our new home does. We now have extended that protection to all of the areas throughout our new home.

Our research showed us there is really no down side to having a fire sprinkler system in your home, especially if it is new construction. Not only is it a proven safety feature of major proportion, it's also cost effective, unobtrusive and aesthetically appealing. But most importantly, it can save your home and your life.

¹ (From: [10-04-2008 AZ Republic Article](#))

² (Source: U.S. Fire Administration)

Abilities UNlimited, Incorporated was founded in 1988 to provide professional disability related consulting services with an emphasis on compliance with the Americans with Disabilities Act (ADA) and the Fair Housing Amendments Act (FHAA).

They have worked with numerous public and private sector clients to help them better understand how the ADA & FHAA influences their facilities, services, and programs. AUI's goal is to give our clients the tools and knowledge that is needed to integrate all people into the mainstream of corporate and community activities.

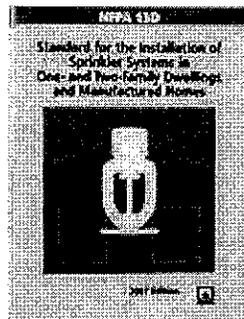


About NFPA's Fire Sprinkler Initiative

Fire sprinklers save lives and NFPA is committed to doing all we can to bring this higher level of safety home.

- Roughly 84% of all civilian fire deaths in 2007 resulted from home structure fires.
- If you have a reported fire in your home, the risk of dying decreases by about 80% when sprinklers are present.

Sprinkler advocates across the country have asked for a coordinated effort to encourage the use of home fire sprinklers. NFPA has launched that effort through the "Fire Sprinkler Initiative®: Bringing Safety Home." The Fire Sprinkler Initiative, a project of the National Fire Protection Association, is a nationwide effort to encourage the use of home fire sprinklers and the adoption of fire sprinkler requirements for new construction. The initiative includes a variety of proven, effective ways that home fire sprinkler advocates can communicate the impact of sprinklers.



This Web site provides resources for the fire service and other sprinkler advocates who want to demonstrate the need for home fire sprinklers in their community. Tools and field resources available here help advocates talk with local elected officials and others about the life-saving impact of sprinklers.

In addition, the site contains information to help home fire sprinkler advocates navigate the legislative process to get sprinkler ordinances introduced and passed in their communities and allow them to come together to share their ideas, successes, and tools with other advocates across the country.

<http://www.firesprinklerinitiative.org/>

The Fine Art of Listening

By Neil McDevitt, CEPIN Program Director



Anthropologists have often noted that tightly-knit groups of people will listen to each other before they listen to "experts". You can see this in politics when Democrats or Republicans bemoan the impartial Congressional Budget Office reports. You'll see it as a fire prevention officer visits a school and kids will say, "That's not what my dad told me!" You'll see it at the firehouse kitchen table when firefighters get the latest newsletters from NFPA and other regulatory bodies. It's exactly the same behavior you'll see from people with disabilities.

For all the differences between them, the two communities of disability and firefighting actually have a great deal in common. There's an inherent mistrust of outsiders in both groups. They share a language that is difficult for outsiders to decipher, and they don't necessarily like anyone else telling them what to do or what's best for them.

All of these factors make people with disabilities a particularly challenging group for fire and life safety educators to address. Obviously people with cognitive disabilities render most of the prepared "scripts" that fire and life safety educators use ineffective.

For almost 7 years, I was one of the few people in the United States with a unique view on this issue. I was born deaf and have profound hearing loss in both ears. I was also a volunteer firefighter with the Fire Department of Montgomery Township, a combination department just north of Philadelphia, PA. While I'm aware that many fire departments have members with disabilities who perform administrative duties, I actually received my FF1 designation and performed active fire suppression work as a volunteer.

The most rewarding experiences for me have been when deaf students from the Pennsylvania School for the Deaf come to our firehouses for fire prevention activities. The teachers often schedule them at the end of the school year as "rewards" for good behavior from their students. What was especially challenging for me was realizing that every group of students has different levels of functional needs. Some of the students were just deaf. Others were deaf with significant cognitive disabilities. One student was

deaf, blind, and had cognitive and mobility disabilities.



Neil McDevitt helps a Pennsylvania School for the Deaf student use a hose line.

Most fire and life safety educators I know just don't know how to effectively communicate or tailor their program to meet these needs and as a result, there is a significant gap in fire and life safety among people with disabilities.

There's another similarity between firefighters and people with disabilities. Studies have shown that firefighter training is geared towards a hands-on approach. This also tends to be true of people with disabilities. In fact, it may be an even more significant need for people with disabilities. The standard script does not work when a person cannot use their legs to use an escape ladder or when a person cannot hear verbal commands from firefighters. Hands-on training and drills help identify critical areas of need and where the approach needed to be modified to accommodate them.

Perhaps the best practice is to have people with disabilities take on an active role within your department and become active an ambassador in fire prevention to the disability community. I know it's not always feasible for a person with a disability to take on a front-line position but that doesn't mean that they can't receive the same training

and understand the issues critical to fire prevention and fire safety.

When communities that rely on volunteer firefighters see those numbers start to dwindle it may be advantageous to explore how people with disabilities, who have traditionally been kept out of the fire service, can help. For example, a person with mild cognitive disabilities who can excel at a repetitive task can assist in refilling SCBA cylinders. A person with visual impairments can become a scribe and help the incident commander keep track of radio communications. The scope of involvement is limited only by the creativity and resource requirements that the department has. The only critical requirements for this to work are an open line of communication and a clearly defined understanding of the role and its associated safety requirements.

The payoff is huge! Instead of viewing people with disabilities as a separate group or a unique group, they can become partners in the fire prevention and life safety education efforts. Instead of a department being short-handed at fire scenes, you now have people who are ready, willing, and able to help. Perhaps more importantly, they've become your #1 ambassador to a severely under-served community and can spread the message of fire prevention with their own "war stories", talking about the sights, the sounds, the horrors, and the victories instead of boring newspaper clippings.

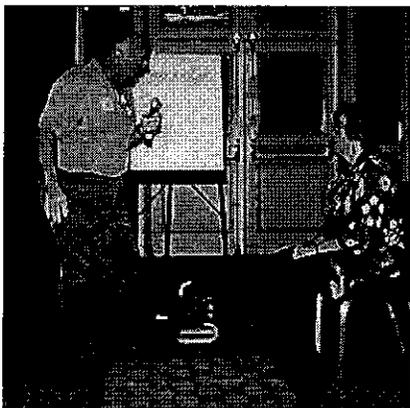
As a volunteer firefighter in suburban Philadelphia, McDevitt is one of a handful of emergency responders in the country who are also profoundly deaf. In addition to hands-on fire and rescue experience with the Fire Department of Montgomery Township, he has provided fire safety presentations to deaf children and adults and given non-verbal communication classes to firefighters,



police officers and emergency medical technicians (EMTs).

Mr. McDevitt was originally involved with the Community Emergency Preparedness Information Network (CEPIN) as one of its leading subject matter experts in developing the CEPIN course. In addition, Neil brings 10 years of project management experience as a Senior Information Security Specialist with Prudential Financial. He is a graduate of Gallaudet University and lives in Montgomery Township, Pa. with his wife and two children.

“Remembering When” Scholarship Conference



NFPA Public Education trainers Terry Campbell and Pat Mieszala dramatize a fire and fall safety presentation for an older adult in the home during the “Remembering When” Scholarship Conference held last fall in Boston. Close to 70 scholarship winners from across the country, representing fire departments and agencies who mainly reach out to older adults through home visits, participated.

Collaboration and Preparedness: Is the Cart Before the Horse?

By Chris Littlewood, Project Coordinator, St. Petersburg College

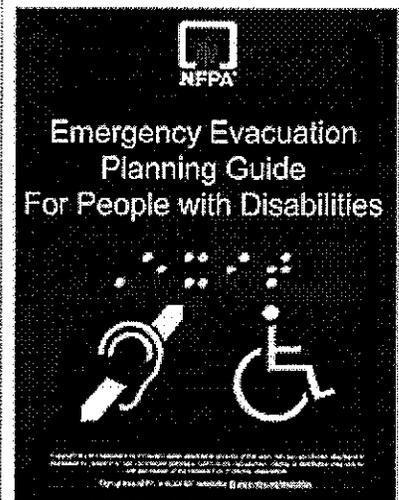
The importance of collaboration in disaster preparedness is gaining more attention. Within the special needs community, communicating with all possible players in emergency management is essential to mitigating the effects of a disaster. I find a central question is do you collaborate to better prepare the community or do you prepare yourself in order to better collaborate? Well in one sense, it is like the age old question: “Which comes first the chicken or the egg?” Conversely, collaboration is very important at a community level, but absolutely nothing is more important than self-preparedness for an emergency or a disaster.

The National Response Framework, DHS, and FEMA define special needs using a functional approach. The five functional areas of special needs individuals include maintaining independence, communication, transportation, supervision and medical care. These areas establish a person’s baseline ability to function without assistance before, during, and after an incident (emergency or disaster). The point being, every person’s functional needs are different and since each individual knows his or her own needs best, self preparedness is paramount.

Although self preparedness is critical, I find it interesting that when people come together to talk about the importance of collaboration as part of

emergency preparedness, some of the same individuals have done little or nothing to prepare themselves, whether he or she is a person of special needs or not. In other words those key to the success of mitigating disasters through collaboration have forgotten how important self-preparedness is. This is NOT always the case. However, an argument could be made that everyone could do better in the self-preparedness department. I know. I ask.

Whenever I give a presentation or discuss the concept of collaboration for disaster preparedness, I ask all of the participants, “What have you done to prepare?” They immediately start to respond with how they have initiated community involvement between emergency responders and the general public or special needs populations. I stop them. Again I ask, “What have YOU done to prepare?” The group smiles.



Many responses are usually right on target and are good examples of what everyone should do to prepare themselves to mitigate a disaster. However, too often, eyebrows raise, notes are taken when others respond, and looks of panic and guilt come

across many members of the emergency responder community and the special needs community. I'm guilty too. We can all do so much better.

Again, the point is this, in a disaster or an emergency those affected are all in it together, but each person's individual level of preparedness can help or hinder the situation. Preparing for emergencies or disasters may save your life or the life of a family member. So, what are the essentials of self-preparedness? For starters, a flashlight, off the shelf emergency kit, and some water is not enough.

By definition of a disaster, resources are overwhelmed. Therefore, it is best to be prepared to be absolutely self-sufficient for a minimum of 72 hours, including food and medical supplies and everything required to meet your functional needs. Just like effective collaboration hinges on asking questions within your community, effective self-preparedness centers on asking questions about your own needs.



Houston, TX., September 2, 2005
Approximately 18,000 hurricane Katrina survivors are housed in the Red Cross shelter.

Try answering the questions in this top ten list and always keep in mind how the answers are affected by any special needs you may have:

1. Are you as prepared at work or school as you are at home for a disaster?

2. Are you as prepared if you are in your vehicle when disaster strikes?
3. Have you established with your family and/or caregiver a list of meeting places if you are apart when disaster strikes?
4. Have you established multiple forms of communication (especially if you have a special need in this regard) if there are no telephones?
5. Have you or any family member with special needs registered with local emergency management?
6. What do you count on to meet your functional special needs (wheelchair, car, computer, caregiver) and how will you function if that is not available?
7. Do you have multiple evacuation plans?
8. Do all family members have a single emergency contact?
9. What basic items would it be nice not to have to live without if you must face a disaster (a special snack, picture, your pet)?
10. Do you have extra of everything you use in the next 72 hours?

***This list is not intended to be used in place of the self-preparedness steps that are outlined by: www.ready.gov .

Suggestions and details provided there and by FEMA are **STRONGLY** recommended. This top ten list of questions are simple questions to ask yourself in order to prepare your kit, plan, and be informed.

People often talk about preparing the general public and special needs populations separately for disasters. If you look at the definition of special needs almost everyone can somehow become part of a special needs group.

Therefore, truly special needs populations should always be part of the preparation process. Special needs populations are always part of the general public. Collaborate with everyone in your community for better preparedness, but always self-prepare first. Self-preparedness is the horse that leads the collaborative community cart to safety.

Chris is a project coordinator with the Center for Public Safety Innovation and the National Terrorism Preparedness Institute at St. Petersburg College. He has been an adult educator for more than fifteen years with an emphasis on technology and public safety. He believes in friendly advocacy and self advocacy for ALL people with varying special needs and disabilities. Since Chris has a moderate to severe hearing loss himself, he is always involved with the deaf, late-deaf, and hard of hearing communities at all levels. The importance of inclusion of EVERY special needs group in emergency planning is profoundly important to Chris. He has developed curriculum and facilitated courses for police officers, military personnel, government employees, and the general public. His background includes interactive course design, including accessible training for special need populations and people with disabilities. Chris also has an extensive background in various civilian law enforcement roles.

IHP@2010

**INCLUSIVE HURRICANE
PREPAREDNESS CONFERENCE**
April 28-29, 2010 | Biloxi, MS

The *Inclusive Hurricane Preparedness Conference* will bring together emergency management and disability stakeholders from states throughout the Gulf Coast and the Eastern Seaboard to discuss the latest issues in preparing and responding to vulnerable populations during hurricanes.



The conference will focus on relationship building and the benefits of integrating disability organizations in hurricane planning and preparedness stages. Speakers from national, state and local government agencies and organizations will focus on programs that have worked in their communities as well as continued shortfalls and challenges that they experience.

What You Will Learn

- Developing Demographic Pictures of Disability Communities
- Accessible Sheltering
- Evacuation Planning for Disability Communities
- Building Community Partnerships
- Utilizing Social Networks During Emergencies

Speakers Include:

- Mike Womack, Director, Mississippi Emergency Management Agency
- Marcie Roth, Senior Advisor on Disability Issues, FEMA
- Tina Robinette, Deputy Fire Marshal, State of South Carolina
- Lt. General Russel Honore, Commander Joint Task-Force Katrina
- Paul Timmons, Chairman, Greater New Orleans Disaster Recovery Partnership
- Mark Sloan, Coordinator, Harris County, TX Office of Emergency Management
- Jenifer Simpson, Senior Advisor for Government Affairs, American Association of People with Disabilities
- Judith Barrett, Executive Director, Ability1st
- And Others...

[Click here for more information](#)



Lt. General Russel Honore, Commander Joint Task-Force Katrina speaking at NOD/EPI enABLEus Conference Sept. 2009

Accessible Information for People with Hearing Loss in Times of Disaster.

By Dave Cisneros, Deaflink, Inc.



In times of disaster, accessibility for people with a hearing loss, both hard of hearing and deaf, is mostly a matter of getting them the correct information in a manner in which they will clearly understand and getting them that information in a timely manner.

For a hard of hearing person or a late-deafened person, that can be as simple as providing closed captioning on the television. But what about for a deaf person who's primary language is American Sign Language (ASL) which has no roots in English.



ASL is a conceptual Language that uses no English syntax. According to Gallaudet University the majority of Deaf have a 2nd to 3rd grade reading comprehension level of the English language.

Imagine you're at home watching your favorite program when you get up to get a drink from the kitchen. Suddenly you hear a *BEEP BEEP BEEP* coming from your television followed by "The National Weather Service in San Antonio has issued a Tornado Warning for....." What do you do?

Most of us hear and recognize the beep and go back to the television to hear the rest of the alert and *read* what counties are affected by the Tornado Warning as they scroll across the screen.



Can a deaf person hear the beep? No. Can a deaf person hear the statement from the National Weather Service? No. Can the deaf person read and understand the words scrolling across the screen? Possibly, but most likely, No!

So how do we get the correct information to a person who is deaf?

Put it in their language! With today's technology there are so many ways in which we can receive information. Be it television, radio, internet, email or smart phones. Now imagine if that same message you just heard and read on your television screen was sent via email to someone's

computer or smart phone for them to view in their own language.

The deaf now have equal access to the same information and can make their own decisions on what to do accordingly and independently. And they receive this information, free of charge, by simply signing up to receive Accessible Hazardous Alert System (AHAS) messages from Deaf Link.

The received message comes with links to an ASL video of the alert with an audio track and a text file of the alert. A deaf person can see the video and get the information. A Hard of Hearing person can read the text file that they receive. A visually impaired person can hear the audio track on the alert and / or hear the text file using their computers text to speech program. And for persons who are Deaf/Blind the text file can be read using their Braille capable devices.

Deaf Link has also been active with FEMA during times of disaster. Working with Texas Division of Emergency Management, Deaf Link was able to provide Video Remote Interpreting (VRI) to the deaf in emergency shelters throughout Texas after Hurricane Katrina struck New Orleans and other disasters. W

When Hurricane Ike struck the Texas coast, the deaf in the shelters had access to medical care as well as having equal access to the information FEMA was providing. And when FEMA opened Disaster Recovery Centers (DRC's) in Texas so that people could register for FEMA assistance following the hurricanes, Deaf Link was there to provide interpreting services.

In today's world there are ways to make all information accessible to all

people, especially information that could potentially save lives. The first step is to put that information in their own language.

David Cisneros has 20 years experience working as a teacher teaching deaf students who have other disabilities on top of their deafness, as a Specialist assisting people who are deaf to gain and maintain employment and as an interpreter for the deaf. He currently holds his BEI Level 2 Certification in the state of Texas and has been proudly working for Deaf Link for over 5 years.

AFAA

Rocky Mountain Fire Alarm Association

IS PLEASED TO PRESENT

ADDRESSING COMMUNICATION NEEDS OF PEOPLE WITH DISABILITIES IN THE DESIGN OF EMERGENCY NOTIFICATION AND FIRE ALARM SYSTEMS

SPEAKERS

BILL SCOTT – PRESIDENT, ABILITIES UNLIMITED

WAYNE MOORE - PRINCIPAL, HUGHES ASSOCIATES, INC

March 16, 2010
12 Noon – 2:00PM
Holiday Inn Denver Central
4849 Bannock Street
Denver, CO 80216

Cost \$25:00 (includes lunch) RSVP
john.mcGovern@encoreelectric.com

Click for more information



Do you have a story to tell or information to share?

Our readers are people with disabilities, and their relatives, caregivers, and friends.

Our goals are to:

- Provide specialized information about fire and life safety for people with disabilities directly to those with disabilities and to those who assist them to help reduce or eliminate fire deaths and injuries, as well as those resulting from other emergencies, and
- Provide a forum for the collection and dissemination of information for people with disabilities in support of DARAC's mission.
- Provide personal stories about events, ideas or solutions from our readers that can guide others in similar circumstances.

Content for future editions will include:

- NFPA-related news
 - DARAC news
 - NFPA codes- and standards-related information

- Fire safety tips
- Emergency evacuation information
- Articles relating to the safety of people with disabilities from:
 - NFPA staff
 - DARAC members
 - Other national advocates
 - General news
 - Our readers
- Other standards-developing organizations' news
 - U.S. Access Board
 - ANSI/ICC A117, *Standard for Accessible Buildings and Facilities*
 - RESNA
 - U.S. Department of Justice
 - Other

We'd love to hear your stories and opinions! If you'd like to contribute an article or information consistent with the outline above, please e-mail them to Allan B. Fraser, senior building code specialist and *e-Access* coordinator at afraser@nfpa.org.

Did You Miss an Issue?



No problem! [You can read the back issues of e-ACCESS by clicking here.](#)

