VIRGINIA
FIRE PREVENTION
& CONTROL PLAN

2013

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Virginia Fire Services Board

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1.0: INTRODUCTION

The original Fire Prevention and Control Plan was created to provide a means to address the problems facing the fire service at the time of its creation. It was an excellent document that addressed fire concerns and resources in all state and local agencies. Many of the recommendations have been achieved, others have been addressed by the creation of additional committees and new challenges have arisen since the documents creation.

Today, through the growth and development of the Virginia Fire Services Board (Board) in their committee process, along with the positive working relationship with the Virginia Department of Fire Programs (VDFP) and the Secretary of Public Safety, there are new means to address most problems facing Virginia's fire service.

In subsequent editions, this report has been narrowed down to reflect the needs of the Fire Prevention Community that can be addressed by the Virginia Fire Services Board and the Virginia Department of Fire Programs.

2.0: HISTORY

In 1977, the Virginia Advisory Legislative Council examined issues surrounding the coordination of Virginia's fire prevention and protection activities. The Senate Joint Resolution requesting the study noted that the state had a serious, but un-quantified fire loss problem. It also noted the absence of "orderly plans for the development of priorities towards reducing fire losses within the Commonwealth."

To answer this concern the Fire Prevention and Control Plan was published in 1987 by the Department of Housing and Community Development (DHCD). The plan was written by DHCD staff from the Office of the State Fire Marshal (SFMO) and Office of Policy Analysis and Research along with staff from the Virginia Department of Fire Programs (VDFP). In addition, there was considerable input from members of the fire service.

The 329-page document covered many aspects of the fire service and the problems associated with various issues in the mid 1980's. Subjects included the collection of fire related data,

training and certification, fire safety education, fire codes, fire insurance, arson and telecommunications (Emergency Dispatch Centers).

In 1998, at the request of the Board, a process was initiated to update the plan but to concentrate on the issues dealing with Fire and Life Safety. Through multiple meetings across the Commonwealth, fire and life safety individuals met, discussed and proposed changes for the future.

3.0: VIRGINIA PARTNERS

This chapter will address the organization of the fire service at the state level and the partnerships with fellow agencies and fire organizations. A cooperative effort between all the entities has enabled great strides in providing better service to Virginia's fire services which in turn has provided better service to Virginia's citizens.

3.1: Virginia Fire Services Board

The Virginia Fire Services Board (VFSB) is the policy making board within the Virginia Department of Fire Programs. It was created pursuant to §9-153.1 of the Code of Virginia. The Board is comprised of 15 members appointed by the Governor to represent various fire service organizations throughout Virginia, as well as the general public.

Board members include the following individuals:
- An appointed representative of the insurance industry
- Two appointed members of the general public with no connection to the fire services, one of which shall be a representative of those industries affected by SARA Title III and OSHA training requirements
- State Fire Marshal
- State Forester
- A member of the Board of Housing and Community Development, to be appointed by the chair of that Board.
- A member of the Virginia Chapter of the International Society of Fire Service Instructors who is a faculty member who teaches fire science at a state institution of higher learning

There shall be at least one representative from each of the following organizations:
- Virginia Fire Chiefs Association
- Virginia State Firefighters Association
- Virginia Professional Firefighters Association
- Virginia Fire Service Council
- Virginia Fire Prevention Association
- Virginia Chapter of the International Association of Arson Investigators
- Virginia Municipal League
- Virginia Association of Counties

Of these appointees, at least one must be a volunteer firefighter. Each of the organizations represented submits names for the Governor's consideration in making these appointments.

3.2: Virginia Department of Fire Programs (VDFP)

The Virginia Department of Fire Programs is a state agency, reporting to the Secretary of Public Safety. The agencies two primary functions are to distribute the Fire Programs Fund and to provide training to Virginia's firefighters. There are several other duties that the agency undertakes as part of their role in state government and in carrying out the policies established by the Virginia Fire Services Board.

3.2.1: The Agency

The agency has five Branches to carry out their duties, each Branch reports to an appointed Executive Director. They consist of the State Fire Marshal's Office (SFMO), Fiscal, Administration, Training & Operations (OPS) and Training & Technical Services (TTS). Within the SFMO and the Training Branches are several Divisions or Regions. The SFMO along with OPS have offices across the Commonwealth. They are located in Chilhowie, Roanoke, Farmville, Orange, Fairfax, Fort Monroe and Glen Allen. TTS provides training in the specialty areas of Airport Rescue Fire Fighting, Incident Management, Technical Rescue, Fire Marshal Training, Logistics, Course Development and Quality Assurance. A member of the TTS team is also assigned to the Virginia Fusion Center (VFC).

Fiscal, among its many duties, also runs the agency Book Store. Administration handles Marketing, social media (Twitter, Facebook, etc.), our agency Website, Data from the Fire Incident Reporting System and provides support to the Fire Services Board.

3.2.2: Cooperation with other State Agencies

In the process of carrying out their duties, Fire Programs has many partnerships to both receive and provide assistance. One such agency who could be considered our sister agency is the *Virginia Department of Emergency Management (VDEM)* with whom we share common training venues in hazardous materials and incident management. VDFP also provides staffing to the Virginia Emergency Operations Center (run by VDEM) during times of regional or statewide disasters. In addition to staffing ESF-4 Firefighting, staff also has assignments in Logistics (ESF-7) and Search and Rescue (ESF-9).

VDFP has a working relationship with the *Department of Criminal Justice Services (DCJS)* for the approval of training materials for the Virginia Fire Marshal Academy, Law Enforcement School for Fire Marshals. It is the same with the *Department of Housing and Community Development (DHCD)* where the agency works with their staff to assure consistent training of Virginia's Fire Marshals who enforce the Statewide Fire Prevention Code.

The *Virginia Department of Forestry (DOF)* has been partner and contributor of many public fire and life safety venues including the creation of previous versions of this report and other

publications on fire and life safety. There is also common ground on the training of firefighters across the commonwealth.

Another partnership with DOF is the state Dry Hydrant program. Each year $100,000 of the Fire Programs Fund is transferred to DOF for the installation and maintenance of dry hydrants across the Commonwealth. There are more than 1600 of these hydrants in service today. More important, after negotiations with the Insurance Services Office (ISO), these dry hydrants have been recognized and approved as a viable water source. In turn, this allows for the possible reduction in insurance rates for homes and businesses in proximity to these hydrants.

There are a host of other agencies from the *Virginia State Police (VSP)* where we share instructors in law enforcement venues and we assist in the training of their fire investigative staff; to the *Department of Juvenile Justice (DJJ)* who has been extremely gracious in providing locations and facilities for our training programs, storage and parking of our fleet of training trailers.

3.2.3: Cooperation with Fire Associations

There are several associations dedicated to one area of the fire service or another. Each association has their own mission and provides vital services to their membership. These associations, when standing together can make a significant positive change to the fire service. For this reason the Virginia Fire Services Board and the Department of Fire Programs considers them valuable partners. All of the associations have a fire prevention role in one form or another over the years. Both the *Virginia Fire Chiefs Association* and the *Virginia State Firefighters Association* have provided fire prevention related training in their annual conventions in Virginia Beach and in Hampton. Each association has subcommittees who addressed fire prevention related concerns and promote safe practices.

The *Virginia Professional Fire Fighters* have also played a role in fire safety concerns by supporting fire safe legislation and sub-committees who have addressed fire safety concerns. Many of the members of the union are career fire inspectors, fire investigators and public fire & life safety educators. The most dramatic role taken on by the union has been the support for the burn camps across the nation and their several other charitable endeavors.

Other associations such as the Virginia Fire Serves Council assist with legislation that would be fire safety related. The Virginia Chapter of the International Society of Fire Service Instructors also contributes to many of the fire safety related course.

3.2.4: Virginia Fire Associations with Primary Fire Prevention Role
Every fire related association takes on some fire prevention role. However, there are three Virginia associations whose primary role is to prevent fires from occurring.

3.2.4.1: Virginia Fire Prevention Association

The objectives and purposes of the Virginia Fire Prevention Association (VFPA) include the following goals:

- To promote the development and improvement of the art and science of fire prevention and inspection, as well as the enforcement of the fire prevention laws and codes of the Commonwealth of Virginia and the political subdivisions thereof
- To promote and maintain a high professional standing among its members
- To foster, maintain, and continue educational advancements for and among its members
- To provide a medium for the discussion and exchange of information concerning the methods, techniques, interpretations, and problems related to fire prevention
- To promote compliance with the State Fire Prevention and Control Plan

VFPA has been active in promoting state and local codes and regulations developed to provide safety to life and property from the hazards of fire. Such codes and regulations generally mirror national codes and standards. The Association is also active in code development at the national level by sending key members to the International Code Council meetings across the United States.

The VFPA has been the strongest promoter in the area of fire code related training. Traditionally this started at the Donaldson Brown Center at Virginia Tech. The primary host at that time was the State Fire Marshal's Office. Over the years, this developed into the training we know today as the VFPA Spring Conference, which has been in Virginia Beach for the past several years. This training venue includes an outstanding list of instructors and draws in excess of 100 code enforcers for their 24-hour training event. Over the past several years, they also host a fall conference, which has been in the western part of the state.

3.2.4.2: VA Chapter International Association of Arson Investigators

The International Association of Arson Investigators (IAAI) serves as the global resource for fire investigation training, technology, research, and investigation. They are dedicated to improving the professional development of fire and explosion investigators by being the global resource for fire investigation training, technology, and research.

The objectives and purposes of the Virginia Chapter International Association of Arson Investigators include the following goals:

- To unite for mutual benefits those public officials and private persons engaged in the control of arson and kindred crimes
- To provide for exchange of technical information and developments
- To encourage cooperation among public service agencies and associations to further fire prevention and the suppression of crime
- To encourage high professional standards of conduct among arson investigators and to continually strive to eliminate all factors that interfere with administration of crime suppression
- To foster greater professional competence

The investigation of fires has a direct impact on the prevention of future similar fires. By identifying the cause of an accidental fire, we can educate or create codes to prevent such future events. The successful conviction of an arsonist is also a deterrent to someone being tempted to commit arson in the future.

Like the VFPA, the IAAI puts on great annual training. Fire investigators from the fire service, law enforcement and the private sector (insurance fraud investigators and private investigators) attend the annual one-week school featuring both local and nationally recognized instructors.

3.2.4.3: Virginia Fire and Life Safety Coalition

The purpose of Virginia Fire and Life Safety Coalition is to serve as a statewide representative voice to address fire and life safety issues, and to continually improve the level of fire and life safety in the Commonwealth through the following pursuits:

- serving as an advocate for fire and life safety issues
- sharing fire and life safety resources with our peers
- assisting the Virginia Fire Services Board with maintaining the public education section of the Virginia Fire Prevention and Control Document
- assisting state agencies, fire and EMS agencies, allied organizations, and our corporate partners with their fire and life safety programs and efforts
- assisting schools and educators with integrating fire and life safety education into their curricula, and presenting fire and life safety programs to their students
- assisting jurisdictions with developing and delivering community-based fire and life safety education programs
- reviewing, developing, promoting, and sponsoring public fire and life safety educator and juvenile fire-setter training and certification
- supporting burn survivors and the efforts of "burn camps"
- planning annual public educator conferences to offer training, develop skills, and make professional connections
- encouraging the organization of regional coalitions around the state and supporting their continued success.

The Coalition's constituency is comprised of the citizens of the Commonwealth of Virginia, state agencies, fire and EMS agencies, allied agencies, and corporate partners.

Chapter 4.1: Virginia Fire Data

The Fire Services Board recognizing the importance of fire statistics had listed in the original Fire Prevention and Control Plan the necessity for all fire departments to report fire incident data. Over the years, they also made funds available through a grant system to provide computers to local fire departments and fire stations for the collection of this data for use in statistical analysis.

Accurate statistical data is crucial in future legislation to provide for the fire service. It will also provide the necessary facts to support fire prevention measures that are crucial to the prevention of fires and the ultimate prevention of injuries as well as saving lives. This data is also necessary

to provide for the justification of local funds to support fire department operations, in particular suppression forces.

4.1: 2012 Statistical Analysis

Fire service in Virginia has the responsibility to be prepared to respond to many different types of situations and events. Firefighters respond to all types of fires, but also have to be equipped to handle medical emergencies, rescue operations, hazardous conditions, and severe weather occurrences. Fire service also performs many tasks of providing public service assistance to their local communities.

Incident Types

In 2012, fire departments responded to 747,654 incidents in Virginia. These incidents included 25,150 fires, 512,155 rescue and EMS incidents, 31,087 hazardous condition calls, 46,355 service calls, 73,303 good intent calls, 52,465 false calls and 7,139 other calls. (See Table 1.) There were 44,156 incidents in which a fire department provided assistance (mutual or automatic aid given) to another jurisdiction. In addition, there were 352 fire incidents that were fire exposures (fires large enough to cause fire damage beyond the property where the fire started).

Table 1. Incident Type Summary, Virginia, 2012

Incident Type	Total	Percent
Fires	25,150	3.4%
Rescue and EMS	512,155	68.5%
Hazardous Condition	31,087	4.2%
Service	46,355	6.2%
Good Intent	73,303	9.8%
False Alarm	52,465	7.0%
Other Calls	7,139	1.0%
Total Incidents	**747,654**	**100.0%**
Aid Given	44,156	
Fire Exposures	352	
Grand Total	**792,162**	

Fire incidents accounted for 3 percent of the total incidents responded to by fire departments in Virginia for 2012. (See Figure 1.) Rescue and emergency medical service incidents made up 69 percent of the total calls handled by fire departments.

Figure 1. Incident Type Summary, Virginia, 2012
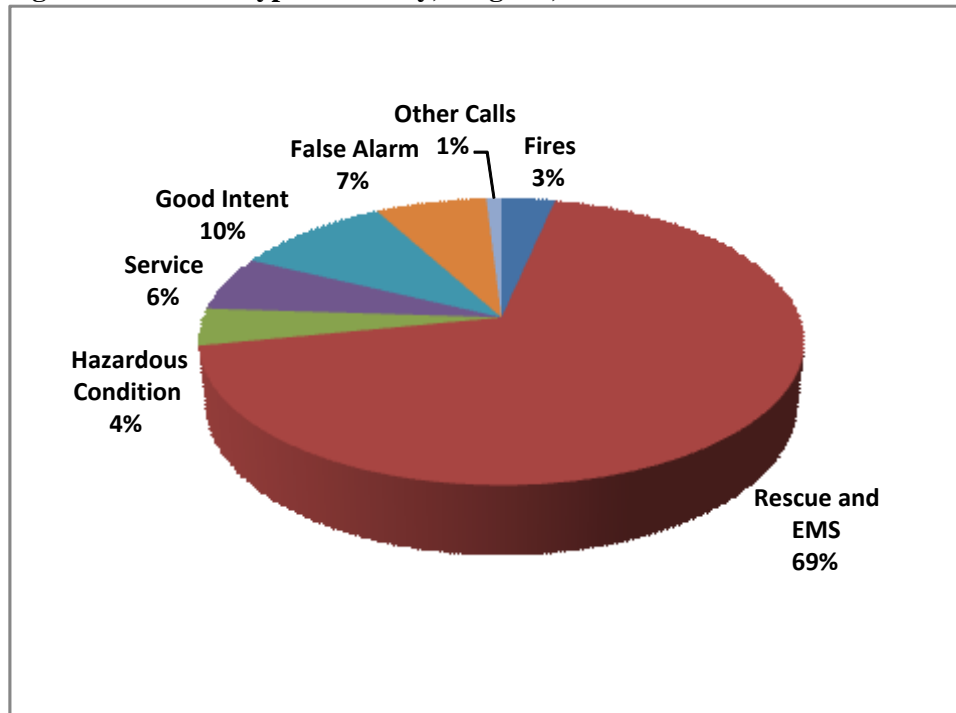
Table 2. Top 10 Incident Types, Virginia, 2012

Top	Incident Type	Description	Total	Percent
#1	321	EMS call, excluding vehicle accident with injury	380,699	50.9%
#2	611	Dispatched & canceled en route	45,250	6.1%
#3	311	Medical assist, assist EMS crew	43,310	5.8%
#4	322	Vehicle accident with injuries	30,920	4.1%
#5	300	Rescue, emergency medical call (EMS) call, other	25,549	3.4%
#6	324	Motor vehicle accident with no injuries	17,605	2.4%
#7	553	Public service	14,354	1.9%
#8	600	Good intent call, other	11,468	1.5%
#9	745	Alarm system sounded, no fire - unintentional	10,596	1.4%
#10	700	False alarm or false call, other	8,254	1.1%

Table 3. Top 10 Incident Types By Incident Series, Virginia, 2012

Incident Series	Incident Type	Description	Total	Percent *
Fires	111	Building fires	4,567	18.2%
	142	Brush, or brush and grass mixture fire	3,650	14.5%
	131	Passenger vehicle fire	3,053	12.1%
	113	Cooking fire, confined to container	2,504	10.0%
	151	Outside rubbish, trash or waste fire	1,317	5.2%
	140	Natural vegetation fire, other	1,106	4.4%
	100	Fire, other	1,038	4.1%
	154	Dumpster or other outside trash receptacle fire	951	3.8%
	143	Grass fire	936	3.7%
	150	Outside rubbish fire, other	826	3.3%
Overpressure Rupture, Explosion, Overheat (No Ensuing Fire)	251	Excessive heat, scorch burns with no ignition	978	71.3%
	200	Overpressure rupture, explosion, overheat other	85	6.2%
	221	Overpressure rupture of air or gas pipe/pipeline	66	4.8%
	240	Explosion (no fire), other	64	4.7%
	243	Fireworks explosion (no fire)	47	3.4%
	220	Overpressure rupture from air or gas, other	29	2.1%
	210	Overpressure rupture from steam, other	27	2.0%
	211	Overpressure rupture of steam pipe or pipeline	19	1.4%
	231	Chemical reaction rupture of process vessel	16	1.2%
	223	Air or gas rupture of pressure or process vessel	13	0.9%
Rescue and Emergency Medical Service (EMS) Incidents	321	EMS call, excluding vehicle accident with injury	380,699	74.3%
	311	Medical assist, assist EMS crew	43,310	8.5%
	322	Vehicle accident with injuries	30,920	6.0%
	300	Rescue, emergency medical call (EMS) call, other	25,549	5.0%
	324	Motor vehicle accident with no injuries	17,605	3.4%
	320	Emergency medical service, other	6,393	1.2%
	323	Motor vehicle/pedestrian accident (MV Ped)	2,058	0.4%
	353	Removal of victim(s) from stalled elevator	1,729	0.3%
	381	Rescue or EMS standby	1,414	0.3%
	352	Extrication of victim(s) from vehicle	777	0.2%
Hazardous Condition (No Fire)	463	Vehicle accident, general cleanup	6,801	21.9%
	444	Power line down	5,630	18.1%
	412	Gas leak (natural gas or LPG)	4,153	13.4%
	445	Arcing, shorted electrical equipment	2,619	8.4%
	440	Electrical wiring/equipment problem, other	2,269	7.3%
	400	Hazardous condition, other	1,671	5.4%
	411	Gasoline or other flammable liquid spill	1,422	4.6%
	424	Carbon monoxide incident	1,062	3.4%
	460	Accident, potential accident, other	874	2.8%
	441	Heat from short circuit (wiring), defective/worn	767	2.5%
Service Call	553	Public service	14,354	31.0%
	554	Assist invalid	6,389	13.8%
	550	Public service assistance, other	4,855	10.5%
	500	Service Call, other	4,680	10.1%
	531	Smoke or odor removal	2,546	5.5%
	511	Lock-out	2,486	5.4%
	561	Unauthorized burning	1,948	4.2%
	551	Assist police or other governmental agency	1,880	4.1%
	510	Person in distress, other	1,679	3.6%
	552	Police matter	1,500	3.2%

Table 3. Top 10 Incident Types By Incident Series, Virginia, 2012 (cont.)

Incident Series	Incident Type	Description	Total	Percent *
Good Intent Call	611	Dispatched & canceled en route	45,250	61.7%
	600	Good intent call, other	11,468	15.6%
	622	No incident found at dispatch address	6,562	9.0%
	651	Smoke scare, odor of smoke	4,721	6.4%
	631	Authorized controlled burning	1,976	2.7%
	671	Hazmat release investigation w/ no hazmat	1,162	1.6%
	652	Steam, vapor, fog or dust thought to be smoke	666	0.9%
	661	EMS call, party transported by non-fire agency	408	0.6%
	650	Steam, other gas mistaken for smoke, other	359	0.5%
	621	Wrong location	238	0.3%
False Alarm and False Call	745	Alarm system sounded, no fire - unintentional	10,596	20.2%
	700	False alarm or false call, other	8,254	15.7%
	743	Smoke detector activation, no fire - unintentional	7,766	14.8%
	735	Alarm system sounded due to malfunction	5,868	11.2%
	733	Smoke detector activation due to malfunction	3,813	7.3%
	740	Unintentional transmission of alarm, other	3,649	7.0%
	730	System malfunction, other	3,324	6.3%
	744	Detector activation, no fire - unintentional	3,042	5.8%
	736	CO detector activation due to malfunction	1,437	2.7%
	746	Carbon monoxide detector activation, no CO	848	1.6%
Severe Weather and Natural Disaster	813	Wind storm, tornado/hurricane assessment	876	44.2%
	800	Severe weather or natural disaster, other	625	31.5%
	814	Lightning strike (no fire)	257	13.0%
	815	Severe weather or natural disaster standby	92	4.6%
	811	Earthquake assessment	81	4.1%
	812	Flood assessment	53	2.7%

* Percent is based on the total number of incidents from each Incident Series category and not the total for each Top 10 listing.
Note: The category, Severe Weather and Natural Disaster, contains only 6 different incident types and, therefore, all listings are shown.

Incident Trends

The total number of incidents reported by fire departments in Virginia have increased since 2008. (See Table 4. and Figure 2.) The total number of incidents increased by 63,454 from 2011 to 2012. Rescue and EMS calls have increased over the last five years, while fire incidents have decreased. Participation has also been similarly increasing with fire departments since 2008.

Table 4. Incident Type Summary, Virginia, 2008-2012

Incident Type	2008	2009	2010	2011	2012
Fires	29,392	26,138	28,198	25,906	25,150
	4.7%	4.0%	4.3%	3.8%	3.4%
Rescue and EMS	394,900	424,135	430,683	451,988	512,155
	63.7%	65.7%	65.6%	66.1%	68.5%
Hazardous Condition	32,170	30,518	30,316	32,603	31,087
	5.2%	4.7%	4.6%	4.8%	4.2%
Service	39,997	40,819	43,267	47,930	46,355
	6.5%	6.3%	6.6%	7.0%	6.2%
Good Intent	60,366	61,877	63,016	64,121	73,303
	9.7%	9.6%	9.6%	9.4%	9.8%
False Alarm	54,998	54,579	54,061	53,753	52,465
	8.9%	8.5%	8.2%	7.9%	7.0%
Other Calls	7,736	7,432	6,648	7,899	7,139
	1.2%	1.2%	1.0%	1.2%	1.0%
Total Incidents	**619,559**	**645,498**	**656,189**	**684,200**	**747,654**
VFIRS Participation / Population Represented	**94.8%**	**95.3%**	**95.9%**	**96.2%**	**97.5%**

Figure 2. Number of Incidents By Incident Type By Year, Virginia, 2008-2012
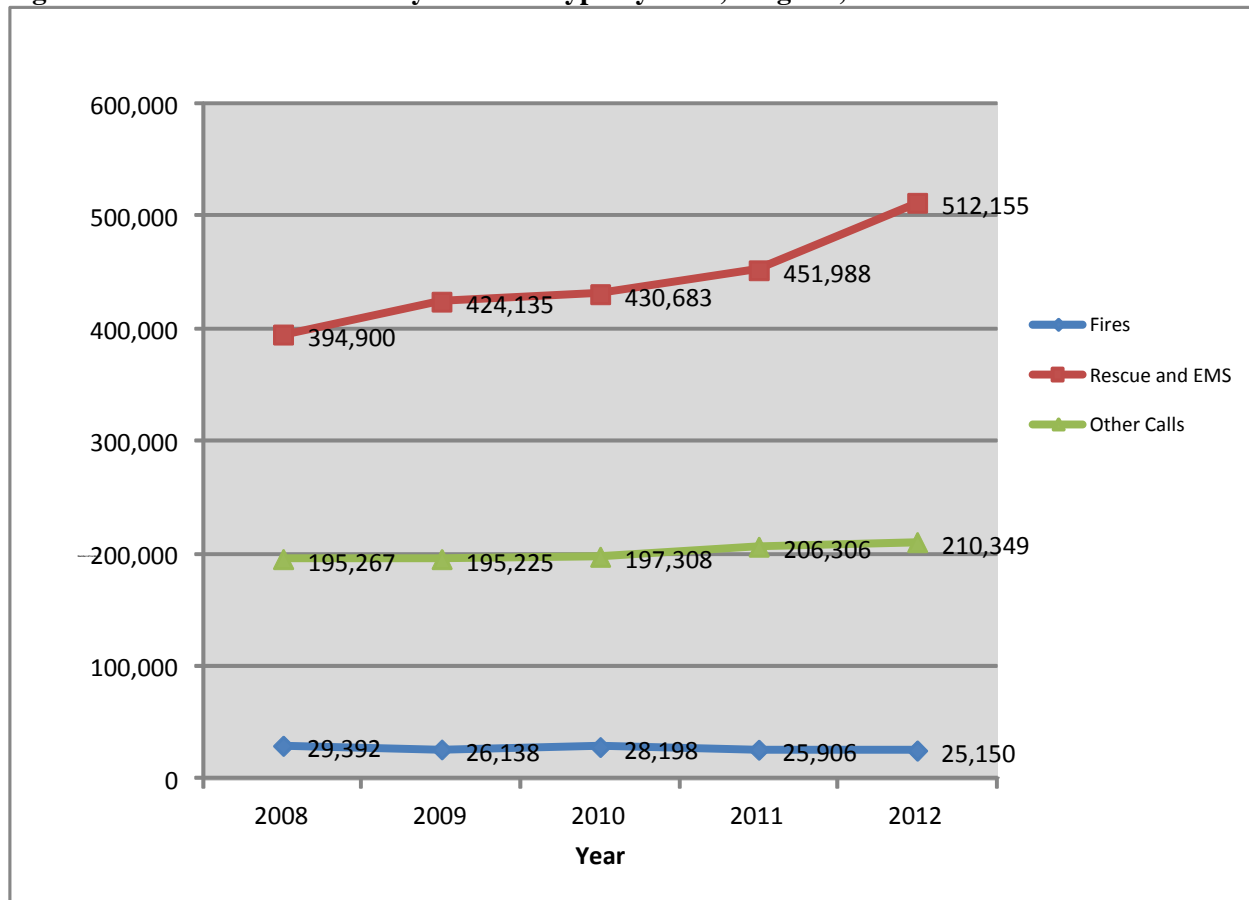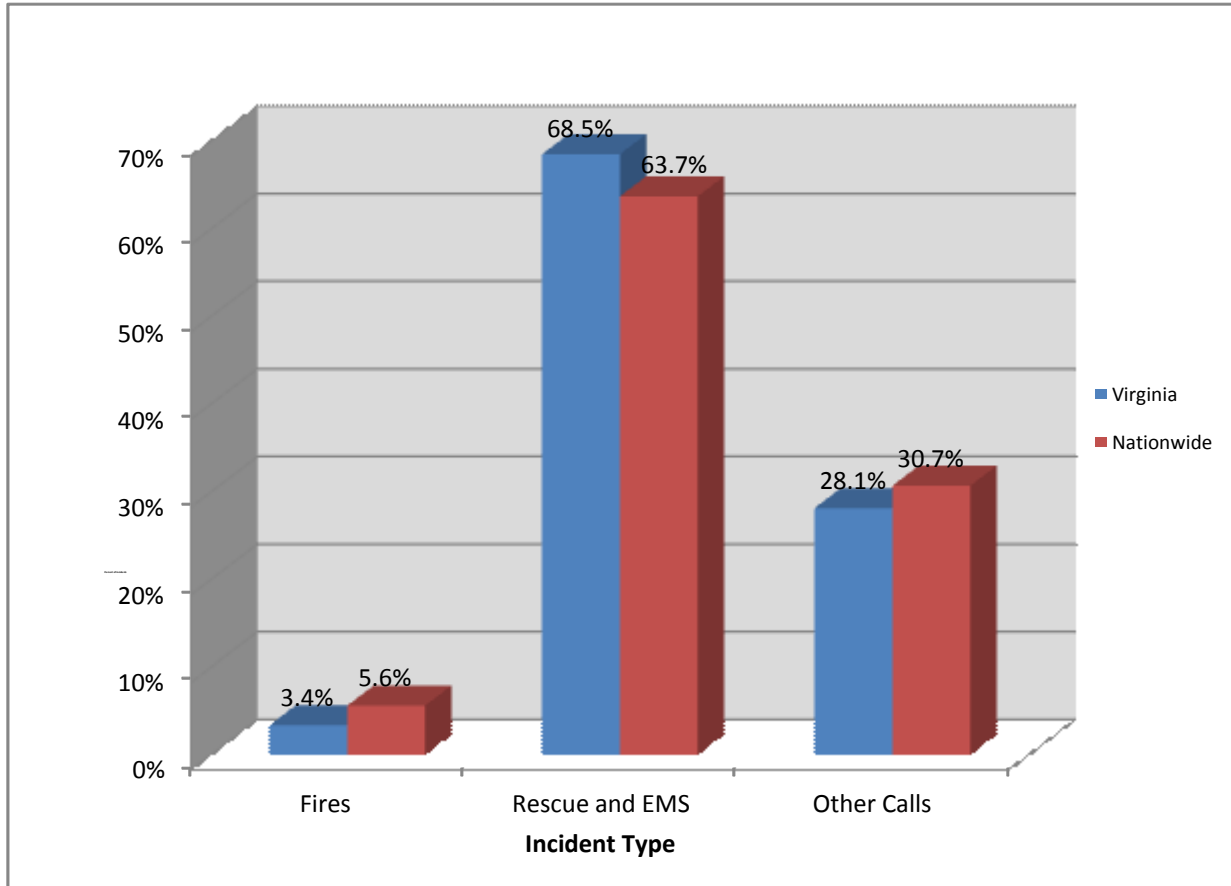
Figure 3. Incident Type Summary, Virginia / Nationwide Comparison, 2012

Note: Data was compiled by the National NFIRS Program from incident data reported as of 04/02/2013.

For 2012, Virginia had a lower percentage of fire incidents (3%) compared to the national numbers. (See Figure 3.) Sixty-nine percent (69%) of incidents in Virginia were Rescue and EMS calls, while nationwide, 64% of all calls were Rescue and EMS.

Incident Rates

Overall, in Virginia, there were 95.8 incidents for every 1,000 residents in 2012. (See Table 5.) Fires occurred at a rate of 3.2 per 1,000 residents, while Rescue and EMS calls accounted for a rate of 65.7. The incident rate with fires, as well as, Rescue and EMS incidents remained closely the same from 2011 to 2012. (See Figure 4.)

Table 5. Incident Rates By Incident Type, Virginia, 2011-2012

Incident Type	2011		2012	
	Total	Rate Per 1,000 Residents	Total	Rate Per 1,000 Residents
Fires	25,906	3.4	25,150	3.2
Rescue and EMS	451,988	58.7	512,155	65.7
Hazardous Condition	32,603	4.2	31,087	4.0
Service Calls	47,930	6.2	46,355	5.9
Good Intent	64,121	8.3	73,303	9.4
False Alarm	53,753	7.0	52,465	6.7
Other Calls	7,899	1.0	7,139	0.9
Total Incidents	684,200	88.9	747,654	95.8

Note: Incident Rate calculation is based on the 2010 U.S. Census Population for Virginia (8,001,024) and the VFIRS Response Rate of 96.2% for 2011 and 97.5% for 2012.

Figure 4. Incident Rate Comparison By Incident Type, Virginia, 2011-2012
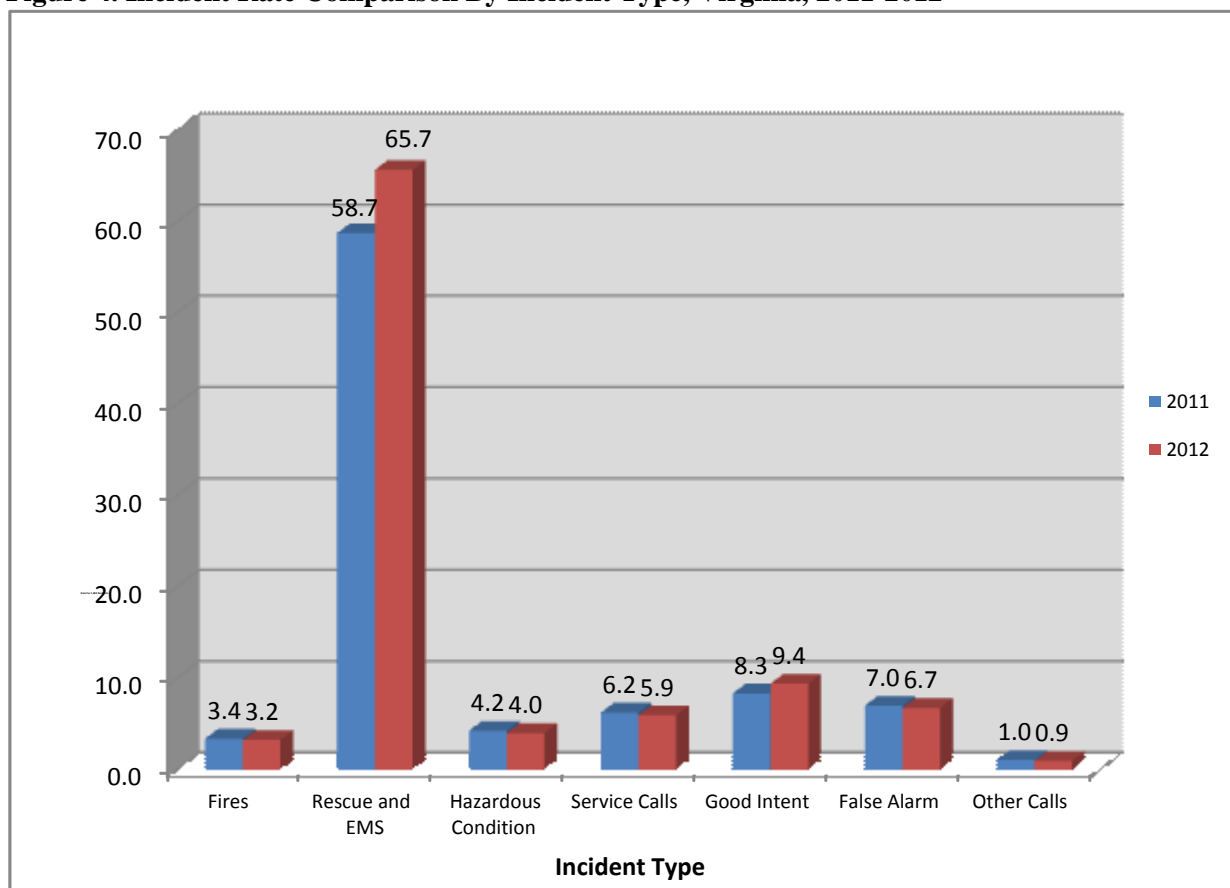

The total incident rate per 1,000 Virginia residents has increased since 2007 from 79.8 to 95.8. The fire incident rate has showed a decrease over the years and had an incident rate of 3.2 per 1,000 residents in 2012. (See Table 6. and Figure 5.)

Table 6. VFIRS Incident Rate Summary, Virginia, 2007-2012

Year	Number of Fires	Total Number of Incidents	VFIRS Population Protected	Fire Incident Rate Per 1,000 Residents	Total Incident Rate Per 1000 Residents
2007	34,015	605,849	94.9%	4.5	79.8
2008	29,392	619,559	94.8%	3.9	81.7
2009	26,138	645,498	95.3%	3.4	84.7
2010	28,198	656,189	95.9%	3.7	85.5
2011	25,906	684,200	96.2%	3.4	88.9
2012	25,150	747,654	97.5%	3.2	95.8

Figure 5. VFIRS Incident Rates, Virginia, 2007-2012
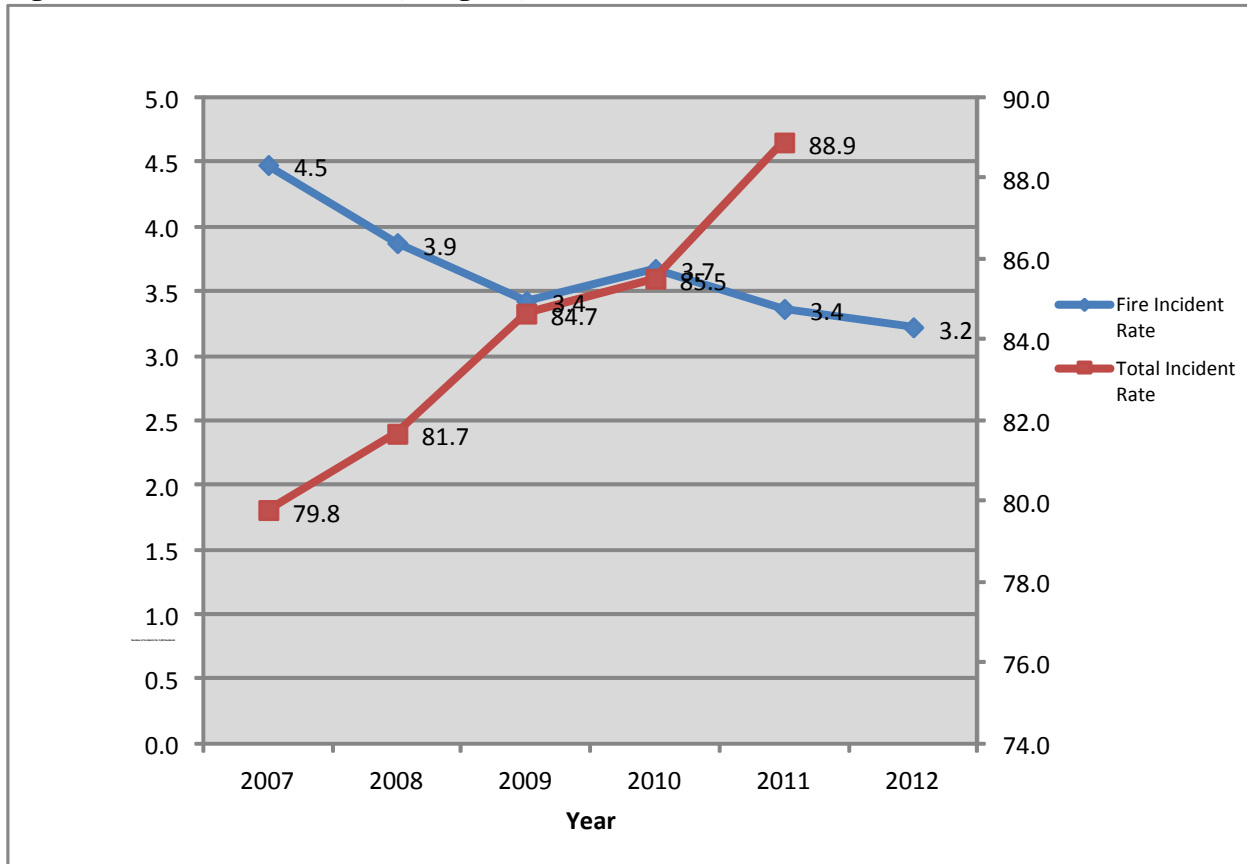
Total Fire Dollar Loss

The estimated property and contents dollar loss is required for all fire incidents and help determine the magnitude of the loss of each incident. The total dollar loss reported with all fire incidents for 2012 was $273,455,147. (See Table 7.) Structure fires accounted for the largest average (mean) dollar loss with $23,349 per incident.

Table 7. Fire Dollar Loss By Incident Category, Virginia, 2012

Incident Category	Number of Fire Incidents with Dollar Loss	Total Property Loss	Total Contents Loss	Total Dollar Loss	Average Dollar Loss Per Incident
Structure Fire	8,246	$131,522,075	$61,011,526	$192,533,601	$23,348.73
Fire in Mobile Property (Used as a Fixed Structure)	196	$2,134,575	$757,601	$2,892,176	$14,756.00
Mobile Property (Vehicle) Fire	3,730	$67,803,573	$3,510,905	$71,314,478	$19,119.16
Natural Vegetation Fire	5,408	$395,651	$173,963	$569,614	$105.33
Outside Rubish Fire	2,503	$159,494	$42,890	$202,384	$80.86
Special Outside Fire	1,016	$2,388,447	$462,015	$2,850,462	$2,805.57
Cultivated Vegetation, Crop Fire	105	$86,005	$75,920	$161,925	$1,542.14
Other	771	$2,349,689	$580,818	$2,930,507	$3,800.92
Grand Total	**21,975**	**$206,839,509**	**$66,615,638**	**$273,455,147**	**$12,443.92**

Note: For dollar loss amounts, mutual/automatic aid given incidents were excluded and exposure incidents were included with the numbers.

Casualties

Casualties are unfortunate losses that result from incidents and have a great impact on the public resulting in personal loss to families. Fire service equally suffers the loss and additionally results in a reduction of staff providing services. In 2012, there were a total of 474 civilian fire casualties (419 injuries and 55 deaths) caused by fire incidents. (See Table 8.) Fire service casualties with all types of incidents totaled 694 casualties and had 690 injuries and 4 deaths. (See Table 9.)

Table 8. Civilian Fire Casualty Summary, Virginia, 2012

Incident Category	Number of Incidents with Civilian Fire Casualties	Civilian Fire Injuries	Civilian Fire Deaths	Total Civilian Casualties (Injuries / Deaths)	Civilian Casualty Rate Per 100,000 Residents
Structure Fire	300	324	37	361	4.63
Fire in Mobile Property (Used as a Fixed Structure)	14	18	5	23	0.29
Mobile Property (Vehicle) Fire	35	46	6	52	0.67
Natural Vegetation Fire	12	12	2	14	0.18
Outside Rubish Fire	2	2	0	2	0.03
Special Outside Fire	8	7	1	8	0.10
Cultivated Vegetation, Crop Fire	0	0	0	0	0.00
Other	13	10	4	14	0.18
Grand Total	**384**	**419**	**55**	**474**	**6.08**

Table 9. Fire Service Casualty Summary, Virginia, 2012

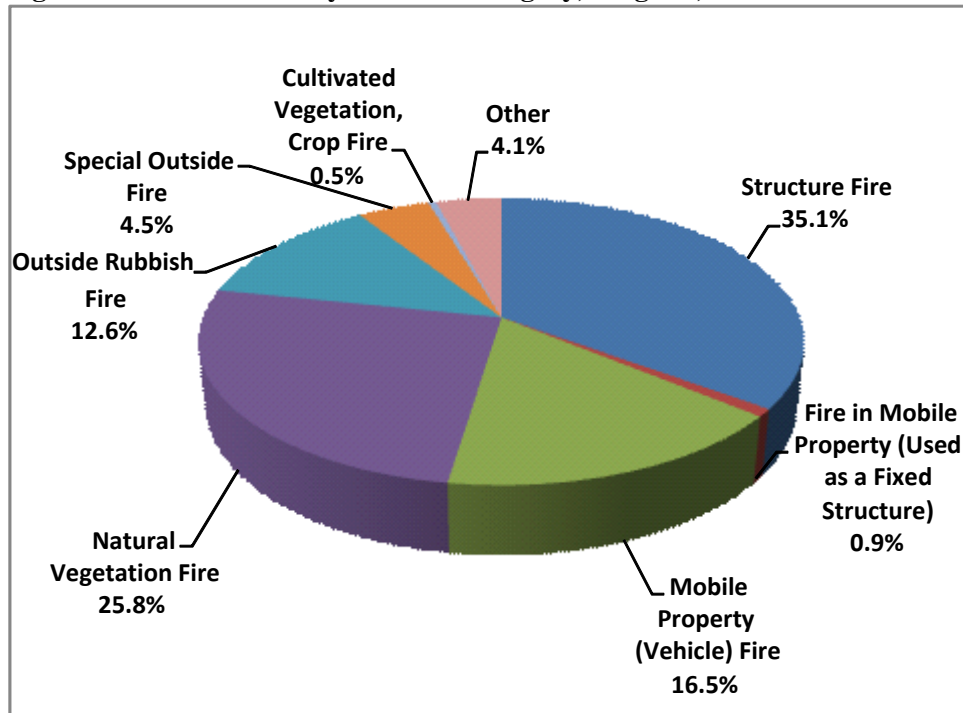| Incident Series	Number of Incidents with Fire Service Casualties	Fire Service Injuries	Fire Service Deaths	Total Fire Service Casualties (Injuries / Deaths)	Fire Service Casualty Rate Per 100,000 Residents
Fires	190	272	2	274	3.51
Rescue and EMS	287	323	2	325	4.17
Hazardous Condition	19	31	0	31	0.40
Service	18	18	0	18	0.23
Good Intent	6	7	0	7	0.09
False Alarm	4	4	0	4	0.05
Other Calls	31	35	0	35	0.45
Total Incidents	**555**	**690**	**4**	**694**	**8.90**

Fire Incidents

Fire departments reported in 2012 that they responded to 25,150 fire incidents during the year. (See Table 10.) Structure fires (35.1%) made up the largest incident category with fire incidents, while natural vegetation fires accounted for 26 percent. (See Figure 6.) Mobile property vehicle fires accounted for 17 percent of the total fires in 2012.

Table 10. Fire Incidents By Incident Category, Virginia, 2012

Incident Category	Total	Percent
Structure Fire	8,825	35.1%
Fire in Mobile Property (Used as a Fixed Structure)	215	0.9%
Mobile Property (Vehicle) Fire	4,138	16.5%
Natural Vegetation Fire	6,497	25.8%
Outside Rubish Fire	3,177	12.6%
Special Outside Fire	1,141	4.5%
Cultivated Vegetation, Crop Fire	119	0.5%
Other	1,038	4.1%
Grand Total	**25,150**	**100.0%**

Figure 6. Fire Incidents By Incident Category, Virginia, 2012

Cultivated Vegetation, Crop Fire 0.5%

Other 4.1%

Special Outside Fire 4.5%

Outside Rubbish Fire 12.6%

Structure Fire 35.1%

Fire in Mobile Property (Used as a Fixed Structure) 0.9%

Natural Vegetation Fire 25.8%

Mobile Property (Vehicle) Fire 16.5%

Figure 7. Fire Incidents By Incident Category, Virginia, 2011-2012
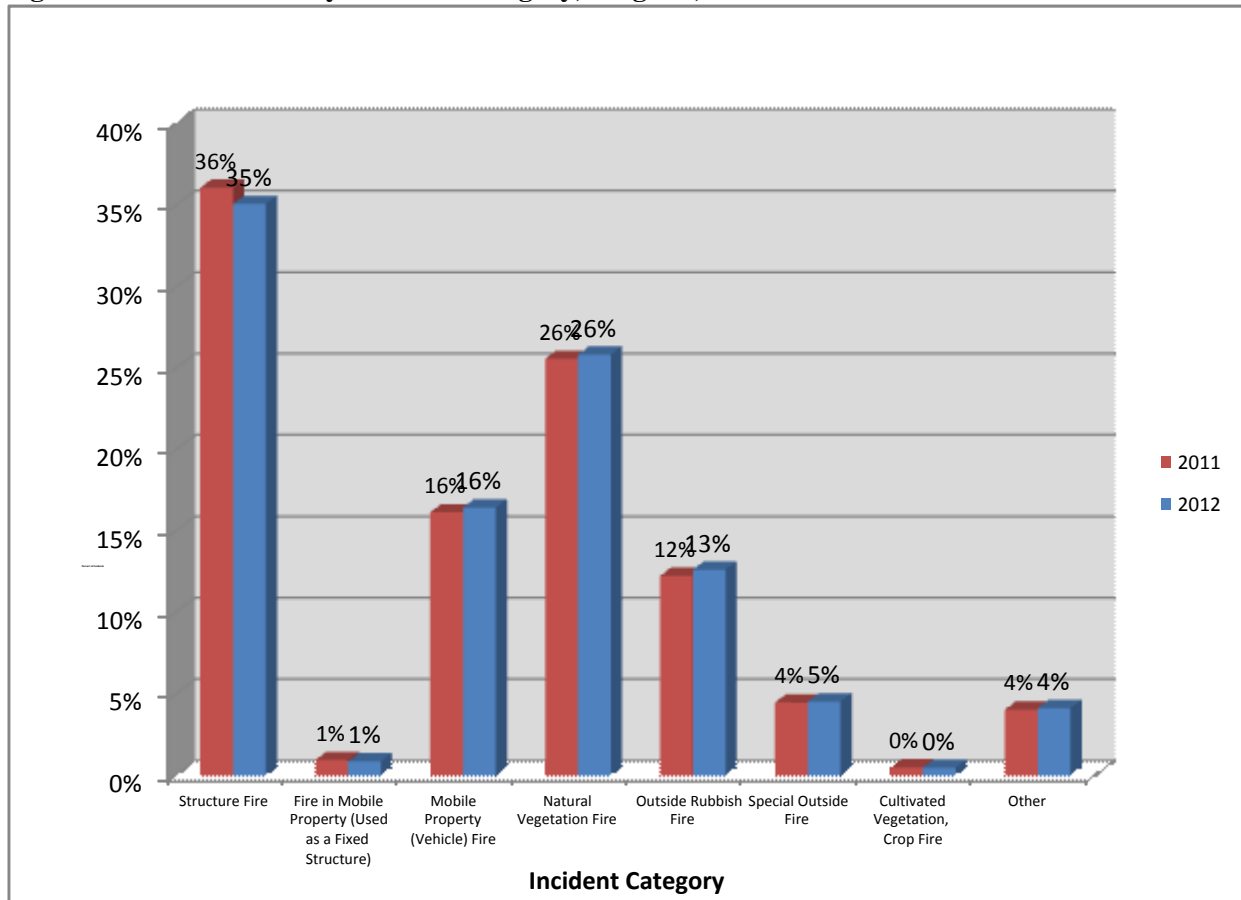
Residential Structure Fire Causes

Cooking was the leading known fire cause with residential structure fires, and accounted for 38 percent of the incidents. (See Table 11 and Figure 8.) Heating made up 15% of the residential structure fire causes. Fires that were incendiary or suspicious accounted for 5% of the total fire causes.

Table 11. Residential Structure Fire Causes Summary, Virginia, 2012

Fire Cause	Total	Percent	Total Property Loss	Total Contents Loss	Total Dollar Loss	Civilian Injuries	Civilian Deaths	Fire Service Injuries	Fire Service Deaths
Incendiary, Suspicious	336	4.8%	$10,233,447	$3,004,513	$13,237,960	18	7	18	0
Children Playing	14	0.2%	$159,500	$60,000	$219,500	3	0	0	0
Smoking	157	2.2%	$5,177,414	$1,973,754	$7,151,168	21	4	10	0
Heating	1,055	15.0%	$3,643,265	$1,132,113	$4,775,378	19	2	7	0
Cooking	2,655	37.8%	$5,654,148	$2,362,473	$8,016,621	112	1	12	0
Electrical Distribution	303	4.3%	$5,551,221	$1,856,687	$7,407,908	15	1	36	0
Appliances, Air Conditioning	315	4.5%	$7,165,914	$1,960,795	$9,126,709	24	0	15	0
Open Flame, Ember, Torch	324	4.6%	$4,863,791	$1,595,184	$6,458,975	15	4	4	0
Other Heat, Flame, Spark	194	2.8%	$5,094,318	$1,823,002	$6,917,320	9	2	7	0
Other Equipment	51	0.7%	$833,871	$290,950	$1,124,821	4	2	0	0
Natural	123	1.8%	$5,873,400	$1,415,101	$7,288,501	3	0	5	0
Exposure	67	1.0%	$7,095,137	$1,925,784	$9,020,921	4	1	8	0
Unknown Cause	1,429	20.3%	$41,423,792	$15,655,665	$57,079,457	49	13	56	0
Total	**7,023**	**100.0%**	**$102,769,218**	**$35,056,021**	**$137,825,239**	**296**	**37**	**178**	**0**

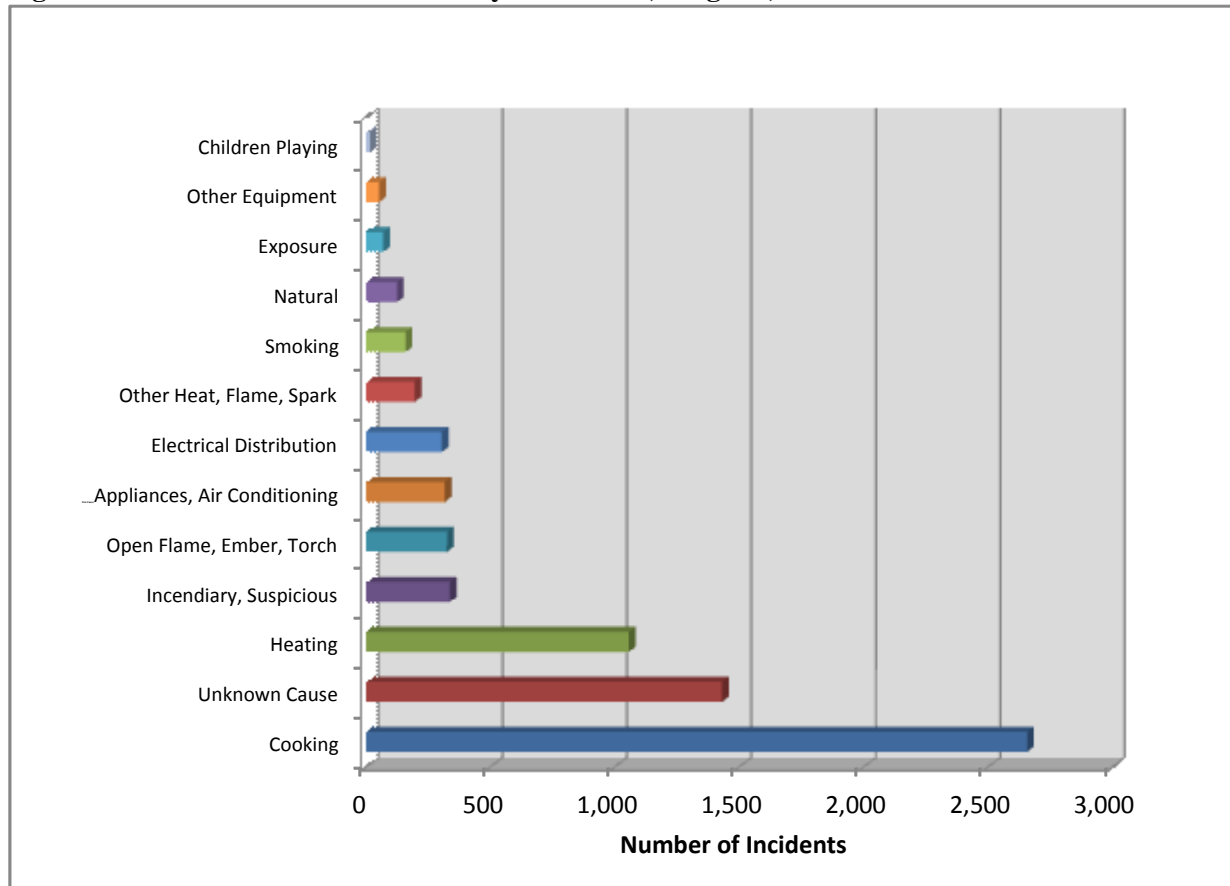**Figure 8. Residential Structure Fires By Fire Cause, Virginia, 2012**

Table 12. Residential Structure Fires Caused By Cooking, Virginia, 2007-2012

Year	Fires Caused By Cooking	Total Residential Structure Fires	Percent	Total Fire Dollar Loss	Civilian Injuries	Civilian Deaths	Fire Service Injuries	Fire Service Deaths
2007	2,398	8,365	28.7%	$5,416,940	106	2	2	0
2008	2,614	8,277	31.6%	$4,961,128	126	3	7	0
2009	2,700	8,186	33.0%	$5,568,333	81	3	2	0
2010	2,598	8,018	32.4%	$5,329,054	115	4	8	0
2011	2,631	7,784	33.8%	$6,552,542	128	1	13	0
2012	2,655	7,023	37.8%	$8,016,621	112	1	12	0
Total	**15,596**	**47,653**	**32.7%**	**$35,844,618**	**668**	**14**	**44**	**0**

Table 13. Residential Structure Fires Caused By Heating, Virginia, 2007-2012

Year	Fires Caused By Heating	Total Residential Structure Fires	Percent	Total Fire Dollar Loss	Civilian Injuries	Civilian Deaths	Fire Service Injuries	Fire Service Deaths
2007	1,392	8,365	16.6%	$6,260,116	16	1	7	0
2008	1,352	8,277	16.3%	$4,167,482	10	0	4	0
2009	1,303	8,186	15.9%	$3,839,287	17	3	4	0
2010	1,379	8,018	17.2%	$5,093,333	18	0	7	0
2011	1,133	7,784	14.6%	$3,401,441	20	0	10	0
2012	1,055	7,023	15.0%	$4,775,378	19	2	7	0
Total	7,614	47,653	16.0%	$27,537,037	100	6	39	0

Note: Data is compiled from NFIRS web-based reports and reflects all incidents reported to the Virginia Fire Incident Reporting System (VFIRS) for 2007-2011 as of 4/15/2013 and for 2012 as of 3/14/2013.

Figure 9. Residential Structure Fires Caused By Cooking and By Heating, Virginia, 2007-2012
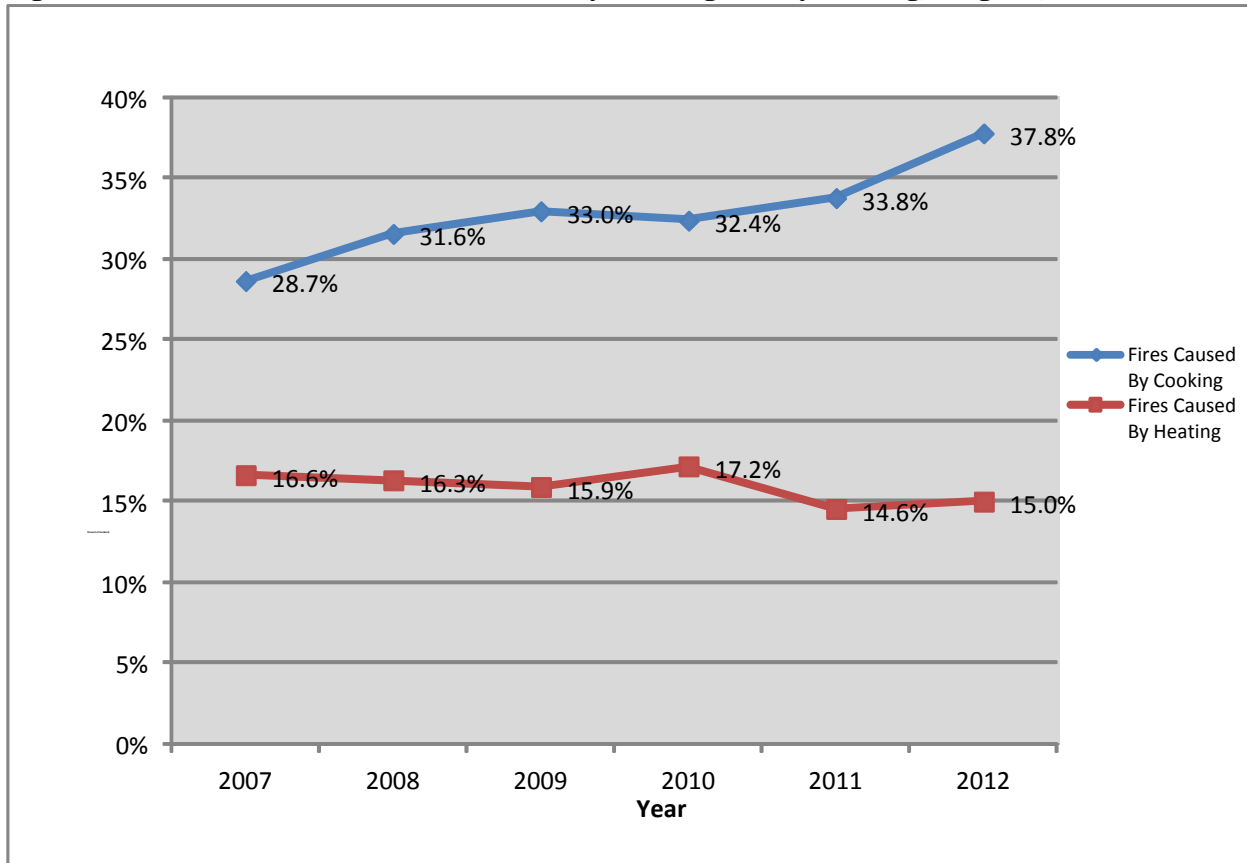
Detector Use

Thirty-two percent (31.7%) of residential structure fires had a detector that operated & alerted the occupants. (See Table 14. and Figure 10.) Thirty-one percent (30.7%) of the fires had an unknown or undetermined detector use.

Table 14. Residential Structure Fires Detector Use Summary, Virginia, 2012

Detector Use	Number	Percent	Civilian Injuries	Civilian Fatalities	Total Civilian Casualties	Casualty Rate Per 100 Fires
Detector Operated & Alerted Occupants	2,237	31.7%	110	4	114	5.1
Detector Operated, But Failed to Alert Occupants or There Were No Occupants	1,092	15.5%	33	0	33	3.0
Detector Failed to Operate or Fire Too Small to Activate	540	7.7%	31	5	36	6.7
Detector Present, But Operation or Effectiveness Unknown	336	4.8%	27	9	36	10.7
No Detector Present	683	9.7%	40	8	48	7.0
Unknown Or Not Reported	2,163	30.7%	60	16	76	3.5
Total	**7,051**	**100.0%**	**301**	**42**	**343**	**4.9**

Figure 10. Detector Use with Residential Structure Fires, Virginia, 2012
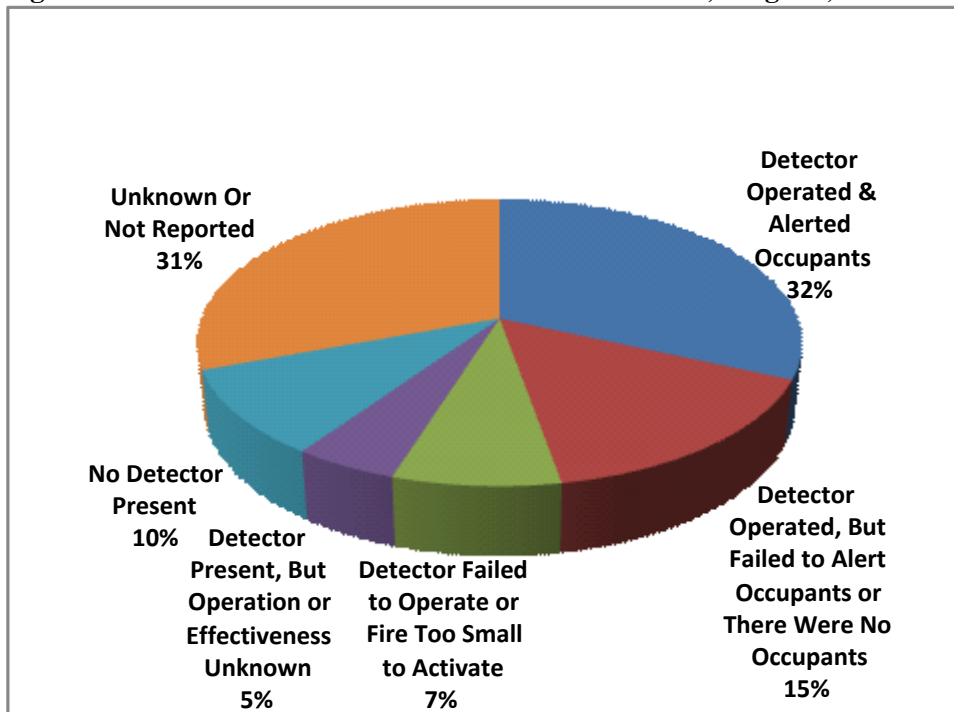
Automatic Extinguishing System (AES)

Eighty-five percent (85.2%) of structure fires reported that an automatic extinguishing system was not present and that the total fire dollar loss was $154 million. (See Table 15.)

Table 15. Structure Fires Dollar Loss Summary By Automatic Extinguishing System (AES) Presence By Property Use, Virginia, 2012

Property Series	AES Present			None Present			Unknown or Not Reported			Grand Total		
	Total	Percent	Total Fire Dollar Loss	Total	Percent	Total Fire Dollar Loss	Total	Percent	Total Fire Dollar Loss	Total	Percent	Total Fire Dollar Loss
Assembly	30	0.6%	$356,720	67	1.4%	$2,978,886	16	0.3%	$124,610	113	2.4%	$3,460,216
Educational	14	0.3%	$185,860	17	0.4%	$1,588,636	6	0.1%	$2,652	37	0.8%	$1,777,148
Health Care, Detention, and Correction	16	0.3%	$138,001	28	0.6%	$2,982,533	6	0.1%	$6,550	50	1.0%	$3,127,084
Residential	164	3.4%	$6,355,655	3,322	69.6%	$119,144,291	270	5.7%	$11,621,632	3,756	78.7%	$137,121,578
Mercantile, Bus	46	1.0%	$922,691	136	2.8%	$5,353,317	28	0.6%	$103,800	210	4.4%	$6,379,808
Industrial, Utility, Defense, Agriculture, Mining	3	0.1%	$11,200	20	0.4%	$4,862,999	4	0.1%	$1,190,040	27	0.6%	$6,064,239
Manufacturing, Processing	29	0.6%	$3,652,101	31	0.6%	$3,633,553	2	0.0%	$35,000	62	1.3%	$7,320,654
Storage	7	0.1%	$426,451	353	7.4%	$11,807,039	23	0.5%	$120,150	383	8.0%	$12,353,640
Outside or Special Property	1	0.0%	$52,000	62	1.3%	$521,236	17	0.4%	$285,350	80	1.7%	$858,586
Other	0	0.0%	$0	12	0.3%	$317,450	7	0.1%	$175,000	19	0.4%	$492,450
None	1	0.0%	$0	15	0.3%	$78,000	11	0.2%	$19,800	27	0.6%	$97,800
Unknown or Not Reported	1	0.0%	$4,500,000	4	0.1%	$302,010	5	0.1%	$251	10	0.2%	$4,802,261
Grand Total	**312**	**6.5%**	**$16,600,679**	**4,067**	**85.2%**	**$153,569,950**	**395**	**8.3%**	**$13,684,835**	**4,774**	**100.0%**	**$183,855,464**

Intentional / Incendiary Fire Incidents

There were 1,318 intentional or incendiary fires in Virginia in 2012 that accounted for $10.6 million dollars of total dollar loss, 29 civilian casualties, and 14 fire service casualties. (See Table 16.)

Table 16. Intentional / Incendiary Fire Incidents By Property Use, Virginia, 2012

Property Series	Number of Intentional / Incendiary Fire Incidents	Percent	Total Property Loss	Total Contents Loss	Total Dollar Loss	Civilian Injuries	Civilian Deaths	Fire Service Injuries	Fire Service Deaths
Assembly	42	3.2%	$54,492	$16,311	$70,803	1	0	0	0
Educational	35	2.7%	$103,459	$52,805	$156,264	0	0	0	0
Health Care, Detention, and Correction	4	0.3%	$45,005	$15,025	$60,030	1	0	0	0
Residential	433	32.9%	$6,480,406	$1,919,498	$8,399,904	13	6	9	0
Mercantile, Bus	35	2.7%	$120,720	$345,782	$466,502	0	0	0	0
Industrial, Utility, Defense, Agriculture, Mining	42	3.2%	$1,000	$0	$1,000	0	0	0	0
Manufacturing, Processing	2	0.2%	$8,050	$50	$8,100	0	0	0	0
Storage	41	3.1%	$440,700	$366,500	$807,200	0	0	2	0
Outside or Special Property	650	49.3%	$600,164	$26,970	$627,134	8	0	3	0
Other	14	1.1%	$1,035	$10	$1,045	0	0	0	0
None	15	1.1%	$0	$0	$0	0	0	0	0
Unknown or Not Reported	5	0.4%	$50,000	$0	$50,000	0	0	0	0
Grand Total	1,318	100.0%	$7,905,031	$2,742,951	$10,647,982	23	6	14	0

Note: Data is compiled from information reported to the Virginia Fire Incident Reporting System (VFIRS) for 2012 as of 3/14/2013.

Unless otherwise noted, for all frequency or incident counts, mutual/automatic aid given and fire exposure incidents were excluded from the numbers. For casualty statistical information, mutual/automatic aid given incidents were included for all fire service and excluded for all civilian data, and, in addition, fire exposure incidents were included with all casualty numbers. For dollar loss amounts, mutual/automatic aid given incidents were excluded and exposure incidents were included with the numbers. Percentages may not add to totals due to rounding.

4.1 Recommendations

The following items are recommendations and guides identified by participants, and endorsed by the action of the Fire Prevention and Control Committee and then the full Virginia Fire Services Board. Some items have been discussed in more detailed with other agencies and entities to give them a voice in the future.

This is a living document to be changed on a regular basis, but to be reviewed at least once a year. As such, the Virginia Department of Fire Programs will keep the current document posted on their website to be accessible to anyone and everyone as a tool for change.

4.1.1 Public Fire & Life Safety Education

There are several areas where efforts can be enhanced in Public Fire & Life Safety Education. The Fire Prevention and Control Committee make the following recommendations:

4.1.1.1: Improve State Agency National Partnerships.

Currently there is no one State Agency acting as a partner to national fire and life safety groups, such as USFA, NFPA, LOWE'S Home Safety, and the Home Safety Council, to bring their programs to Virginia and provide them with a point of contact and representative through which their programs can be promulgated in the state. There needs to be an advocate at the state level to resolve this issue and to make every effort to coordinate these efforts.

4.1.1.2: Public Education Materials and Handouts

In the early and mid 1990's the Virginia Department of Fire Programs was deeply involved in providing materials for K through 12 and for other specialized groups. However, through uncontrollable circumstances that effort has not been duplicated in almost two decades. It is recommended that the Virginia Department of Fire Programs, with the encouragement of the Virginia Fire Services Board, take steps to work with the Virginia Department of Education to produce and make available additional public domain materials for teachers and public educators across the state. These materials should be age and grade specific for children from Kindergarten to High School Seniors following nationally recognized guidelines when available.

4.1.1.3: Public Fire & Life Safety Funding

Public Fire and Life Safety Educators in Virginia need a dependable source of "seed" money to develop local programs and to promulgate state and national programs in their jurisdictions or regions. The Virginia Fire Services Board encourages VDFP to seek additional grant funding from other local, state, national and private sources that can be used for Public Fire and Life Safety Education.

4.1.1.4: Reporting of Fire Injuries

There is a need for a better system of reporting fire and burn statistics from hospitals and healthcare. Existing laws require the reporting of gunshot wounds. The Virginia Fire Services Board encourages Public Education and Investigative associations to amend or create existing wording for future legislation. If legislation is identified, the Virginia Fire Services Board encourages the Virginia Department of Fire Programs to seek Governors approval to support such legislation.

4.1.1.5 Adding Public Education to Firefighter Training

Add public fire and life safety education skills to basic and advanced firefighter or officer training certification requirements, as appropriate, to enhance their professional development and ability to serve the public need. This would certainly leverage a scarce resource and raise the level of the professional firefighter in the public's view.

4.1.1.6: Residential Sprinkler Systems

Take steps to educate the building industry and the public in the benefits for residential sprinkler systems. Encourage the promulgation of sections of the Statewide Building Code (SBC) that would require the installation of residential sprinkler systems in all new residential occupancies. If necessary, the Board will support the fire prevention associations in their endeavors to seek legislation that would mandate residential sprinkler systems in new residential occupancies.

4.1.2: Fire Prevention: Seek 100% participation in the Virginia Fire Incident Reporting System

VFIRS currently provides important information about fire-related incidents in Virginia. The current fire department participation rate of 89.9% (which represents 97.5% of our population) is outstanding and illustrates local departments' strong commitment to this program. The system would, however, be improved by even greater rates of participation. There are numerous ways this participation could be increased, including incentives for participation, mandatory participation, and awareness campaigns aimed at educating non-participating departments about the importance of VFIRS.

4.1.3: Education, Training, and Certification of Fire Personnel

The Virginia Fire Services Board endorses VDFP efforts to have all programs meet national level of accreditation through the National Professional Qualifications System (ProBoard).

This would include all aspects of prevention activities and those in suppression as well. Prevention areas already meeting the ProBoard standards are:

> 1031   Fire Inspector, levels I and II
> 1033   Fire Investigator
> 1035   Public Fire and Life Safety Educator levels I & II

Additional programs to consider for the future ProBoard accreditation would be:

      1031   Fire Inspector level III
      1035   Public Fire and Life Safety Educator level III
      1051   Wildland

4.1.4: Statewide Fire Prevention Code

It is a proven fact that we save lives through education and code enforcement. Steps taken to enhance and increase both can go a long way in protecting the citizens of the Commonwealth.

4.1.4.1: Fire Codes Code Development and Code Enforcement

The Virginia Fire Services Board maintains an active *Fire Code Committee* to be the advocate of the Board in the development of the Statewide Fire Prevention Code and areas of the Statewide Building Code that address' fire safety issues. It is recommended that VDFP continue to provide staff support to include the State Fire Marshal Offices representative on the Fire Board's Fire Code Committee.

Currently code changes are proposed by staff from DHCD and then voted on as per the MOU between the Housing Board and the Fire Board. The voice from the Fire Code Committee has been limited to public hearings on the code changes. It has been much appreciated that some of the DHCD staff have attended the Fire Code Committee meetings.

However, it is hoped that through a cooperative effort between the two Boards that the future will be for the fire code to be developed jointly between the DHCD staff and the Fire Code Committee before changes are brought before the two Boards for action.

4.1.4.2: Enforcement of Statewide Fire Prevention Code

The Statewide Fire Prevention Code is not locally adopted and enforced in all areas of the Commonwealth. The Board should encourage localities to adopt the Statewide Fire Prevention Code and employ staff (fire inspectors) in the same why they have in hiring inspectors for the Building Officials Offices. Currently the State Fire Marshals Office is responsible for 62.1% of the land area and 16.9% of the population. The SFMO has insufficient staffing to adequately serve and protect this population and area of the Commonwealth.

4.1.5: Fire Insurance

The Board encourages the insurance industry to continue to participate in all aspects of the Fire Board activities. Currently the insurance industry is a mechanism for acquiring the funding necessary for fire training in the Commonwealth. The Fire Programs Fund comes directly from the 1% fee on various insurance premiums.

The insurance industry is an active participant in various fire related associations such as the Virginia Chapter of the IAAI and Virginia Chapter of the International Association of Special Investigation Units (IASIU). There is a direct correlation to the insurance industries interest in lowering claims and the level of fire prevention activities in the state. As a team, this contributes to a reduction of loss of property and life as it relates to fire.

4.1.6: Fire and Arson Investigation

There are several issues that relate directly to the investigation of fires and the improvements that can enhance the overall success of such activities.

4.1.6.1: Virginia Fire Incident Reporting System (VFIRS)

In order to obtain a true and accurate picture of the fire problem there is need for 100 percent participation in the submission of the Virginia Fire Incident Reporting System (VFIRS). The second and vital part of this process is the necessity of updating this information as new information becomes available on each incident. This is most prevalent in the fire investigation field. As each investigator completes their assignment it would be necessary for them to go back to the VFIRS and input any new data on the fire origin and cause along with all supporting information such as first material ignited, etc.

4.1.6.2 Uniform Crime Report (UCR)

As with VFIRS, each and every fire investigator should be providing the same relevant data to the Uniform Crime Report once the fire is determined to be incendiary in nature. If there is no local fire marshal with investigative authority then the responsibility will be for the local law enforcement to complete the necessary reports.

4.1.6.3: Fire Marshals with Police Powers receiving Criminal Intelligence

The Virginia Fusion Center handles the dissemination of Homeland Security issues to local law enforcement agencies. VDFP provides one full time employee to work in the VFC with the primary role to maintain a list of current Fire Marshals with police powers and to enable them to have access to law enforcement sensitive data.

The next role of the VFC staff is to seek a means to train local fire department personal on what situations would warrant being a suspicious activity that should be reported. The training program has already been designed and is currently being delivered to local law enforcement across the state. Efforts must be made to give that same training to Virginia's fire personnel.

6.0: GLOSSARY

Board: Unless mentioned otherwise the Board shall refer to the Virginia Fire Services Board

Board of Housing and Community Development: A state agency reporting to the Secretary of Commerce for the Commonwealth of Virginia. They have the responsibility to promulgate, in conjunction with the Virginia Fire Services Board, the Statewide Fire Prevention Code.

Coalition: Unless mentioned otherwise, Coalition shall refer to the Virginia Fire and Life Safety Coalition

Fire Prevention and Control Committee: A committee of the Virginia Fire Services Board members assigned to review prevention items including the oversight of the Fire Prevention and Control Plan.

K through 12: Refers to educational levels of kindergarten through a senior in High School.

National Fire Protection Association (NFPA): A private, international, entity dedicated to fire prevention through the development of fire related codes and standards.

National Professional Qualifications System: A series of professional standards that outline expectations for a specific discipline in the fire service from firefighter through fire officers. These standards are written by Committee's established through NFPA, with specific guidance and oversight. Each committee on a specific discipline is comprised of experts from that specific field. Final documents are through a consensus vote, which is then offered up for vote by the NFPA membership at their annual meeting. All such documents are offered for peer review by the public.

National Board on Fire Service Professional Qualifications (Pro Board): The mission of Pro Board is to establish an internationally recognized means of acknowledging professional achievement in fire service and related fields. Their primary goal is to accredit organizations that certify "uniform" members of public fire departments, both career and volunteer.

Pro Board: The National Board on Fire Service Professional Qualifications

Virginia Department of Emergency Management: State agency reporting to the Secretary of Public Safety for the Commonwealth of Virginia. They are responsible for coordinating the state's emergency preparedness, mitigation, response and recovery efforts.

Virginia Department of Fire Programs (VDFP): State agency reporting to the Secretariat of Public Safety for the Commonwealth of Virginia. They are charge with many duties from distribution of the Fire Programs Fund to the delivery of training to Virginia's Fire Service.

Virginia Fire Incident Reporting System (VFIRS): The reporting system used by the fire service to document all calls and responses. These are detailed reports that allow for the collection of data to be used in prevention efforts and budget preparation. Data collected

includes apparatus and equipment use, personnel and others involved in the fire as well as all aspects of the fire cause and actions of existing installed detection & suppression equipment. VFIRS is critical to the success of the modern fire service today.

Virginia Fire Services Board (Board): The Virginia Fire Services Board is created within the Virginia Department of Fire Programs pursuant to § 9-153.1 of the Code of Virginia as seen below. The Board is comprised of 15 members appointed by the Governor. Board members serve four-year terms.

7.0 ACRONYMS

BCI: Bureau of Criminal Investigations

CFFI: Certified Forensic Fire Investigator

DHCD: Department of Housing and Community Development

ED: Executive Director

IAFF: International Association of Fire Fighters

IASIU: International Association of Special Investigation Units

OSHA: Occupational Safety and Health Administration or Occupational Safety and Health Act

IAAI: International Association of Arson Investigators

ISFSI: International Society of Fire Service Instructors

SFMO: State Fire Marshal's Office

SARA: Superfund Amendments and Reauthorization Act

SBC: Statewide Building Code

SFPC: Statewide Fire Prevention Code

TTS: Training and Technical Services

UCR: Uniform Crime Report

USBC: Uniform Statewide Building Code

USFA: United States Fire Administration

VAHMRS: Virginia Association of Hazardous Materials Response Specialists

VDEM: Virginia Department of Emergency Management

VDFP: Virginia Department of Fire Programs

VFCA: Virginia Fire Chief's Association

VFIRS: Virginia Fire Incident Reporting System

VFPA: Virginia Fire Prevention Association

VFSC: Virginia Fire Services Council

VPBSR: Virginia Public Building Safety Regulations

VPFF: Virginia Professional Fire Fighters

VSFA: Virginia State Firefighter's Association

WUI: Wildland Urban Interface