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VIRGINIA

FIRE PREVENTION AND CONTROL PLAN

PREPARED BY:
VIRGINIA FIRE SERVICES BOARD COMMITTEE
ON FIRE PREVENTION & CONTROL

A MESSAGE FROM THE FIRE PREVENTION AND CONTROL COMMITTEE

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The following pages represent the newly revised five-year Fire Prevention and Control Plan (FY) 2024 to 2028 for the Commonwealth of Virginia. This plan identifies strategic goals and objectives to reduce fires, casualties, property loss, and improve first responder safety by changing how people think about fire and making fire prevention a way of life in the Commonwealth.

From the United States Fire Administration: In 1971, our nation lost over 12,000 civilians and 250 firefighters to fire. To help decrease tragic losses and to promote professional development of the fire and emergency response community, Congress passed the Federal Fire Prevention and Control Act of 1974. Since 1974, there has been a reduction of more than 70 percent in civilian fire fatalities and more than 60 percent in firefighter fatalities annually from fire.

Fire continues to be a problem in the Commonwealth of Virginia and as such there is a need to have a robust Fire Prevention and Control Plan. The Virginia Fire Services Board, in coordination with the Virginia fire and emergency services community, will strive for continuous improvements and seek positive results to safeguard the Commonwealth and its citizens from fire.



VIRGINIA FIRE SERVICES BOARD

The Virginia Fire Services Board (the Board) is established as a policy board within the meaning of § 2.2-2100 in the executive branch of state government pursuant to § 9.1-202 of the Code of Virginia. Furthermore, the Board is given the authority to ensure the development and implementation of the Virginia Fire Prevention and Control Plan.

ABOUT THE FIRE PREVENTION AND CONTROL COMMITTEE

The Committee on Fire Prevention and Control shall be responsible for providing information and making recommendations to the Virginia Fire Services Board and Agency to ensure the development and implementation of the Virginia Fire Prevention and Control plan; advising the Agency on the development a statewide plan for the collection, analysis and reporting of data related to fires in the Commonwealth; and evaluating all fire prevention and protection programs, and make any recommendations deemed necessary to improve the level of fire prevention and protection in the Commonwealth.



VIRGINIA FIRE SERVICE PARTNERS

THE FOLLOWING AGENCIES AND ORGANIZATIONS HAVE VESTED INTEREST IN THE FIRE PREVENTION AND CONTROL PLAN.



Virginia State Agencies

- Department of Fire Programs
- State Fire Marshal's Office
- Fire Marshal Academy
- Department of Forestry
- Virginia Department of Emergency Management
- Department of Housing and Community Development
- Virginia State Police



Fire Associations and Organizations

- Virginia Fire Prevention Association
- Virginia Fire Chiefs Association
- Virginia Chapter International Association of Arson Investigators
- Virginia Fire and Life Safety Coalition
- Virginia State Firefighters Association
- Virginia Professional Firefighters Association



CURRENT STATE OF FIRE PROBLEMS IN THE COMMONWEALTH OF VIRGINIA

Over the last four years on average civilian fire fatality numbers have remained steady. Cooking and improperly discarded smoking materials are the top two causes of residential fires. Over a five-year period (2018 – 2022) there were 308 Civilian Fire Fatalities reported. The average median age of people that are listed for fire fatalities is 60 years old. Nationally for the last 10 years on average, 81 percent of fire deaths occurred at residential structure fires. While the number of residential fire deaths has reduced substantially since the original “America Burning” report (1974), most of these losses could be reduced through requiring automatic sprinklers systems in residential occupancies.

Absent, non-functional, or outdated smoke alarms are a real issue throughout Virginia. Three out of five fire fatalities occurred in a residence without a functioning smoke alarm. Combining smoke alarms deficiencies with no fire sprinkler system, the ability to prevent fire casualties is seemingly insurmountable.

One significant issue facing the fire service is recruitment and retention, in both the career and volunteer ranks. This challenge increases the risks for communities struggling to provide day-to-day emergency responses and as such directly impacts any capability and capacity to provide Community Risk Reduction activities.



Tall wood frame building construction is becoming increasingly popular because of material availability and costs. An uncontrolled fire in these types of buildings is a tactical challenge for firefighters and can quickly become deadly for occupants. Fire service participation in code development and education is paramount.

The Virginia Department of Forestry (DOF) suppresses an average of 700 wildfires annually burning more than 8,000 acres, it is also estimated that structural fire departments in the commonwealth suppress an additional 2,000 wildfires annually, not reported by the DOF. Virginia wildfires damage or destroy an average of 14 homes and 56 other structures each year. Virginia's growing wildland-urban interface (WUI) presents increasing challenges for Virginia's fire service. Wildfire hazard mitigation efforts that focus on fire prevention, Firewise construction technique, the creation of defensible space, and increases in the rural water supply for firefighting are all important steps that can be taken to reduce the threat by wildfire.

The fire service is also threatened by emerging technologies including electric vehicles, lithium-ion batteries, and energy storage systems. These technologies create increased hazards for firefighters and greater possibility of fires or prolonged incidents. These fires require different equipment and training, underscoring the need for increased efforts in both areas. The fire code, as well as funding for fire departments, must keep pace with these technologies or risk dangerous outcomes.



PLAN GOALS AND OBJECTIVES

Goal 1 – Fire Incident Reporting

Currently, Virginia does not mandate fire incident documentation and reporting. This is a major impairment to research and analysis of fire casualty and property loss information. Incident reports on emergency responses by the fire service are submitted to NFIRS from the state and localities through the VFIRS system. The VFIRS data is the primary source of data for a wide range of analyses and reports. The availability of accurate information concerning fires and other incidents is vital in determining the best and most effective methods of both fire control and fire prevention, as well as predicting future problems in communities, and measuring program performance. The outcomes from such research and analysis can greatly assist in focused community risk reduction initiatives locally, regionally, and statewide. This information would be utilized to improve fire department service delivery and firefighter health and safety.

OBJECTIVES:

01.

The method of incident documentation is not consistent across the Commonwealth, with both handwritten and electronic documentation methods being used. Therefore, discussions should begin towards requiring electronic incident documentation and reporting within the fire service community. Discussion should also begin on what challenges exist to the process of electronic fire reporting.

03.

Identify funding for a Technology/Data Analyst position with VDFP. This position would ensure that an annual and as needed analysis of VFIRS information is completed and shared with the fire service community, the Virginia Fire Services Board, state leadership, and the public.

05.

The Virginia Fire Services Board will continue to award the hardware (continuance) and software (new) grant programs to support the submission of emergency incident reports into the NERIS system.

02.

Discuss the creation of legislation requiring incident reporting with fire service stakeholder's associations and groups.

04.

Develop a statewide policy and training program that identifies the new NERIS system as the system to capture VFIRS information. The Technology/Data Analyst, in conjunction with the VDFP CRR section, will develop and deliver a training program outlining the minimum and procedural requirements for the NERIS reporting system.



Goal 2 – Practical and Useful, Statewide Fire Prevention Code

In recent Virginia code development cycles, the Statewide Fire Prevention Code (SFPC) has undergone significant changes. The primary focus of change was removing unenforceable provisions. The scope of these changes has left the fire inspector with an incomplete document as it compares to the model fire code.



OBJECTIVES:

01.

The Codes and Standards Subcommittee will actively participate in the Virginia code development process. The work of this committee will directly influence the Fire Services Board's vote in the promulgation of the SFPC and the Uniform Statewide Building Code with the Board of Housing and Community Development.

02.

The subcommittee will review future editions of the model codes to be knowledgeable of new or changed provisions.

03.

The Code and Standards Subcommittee will actively pursue code change proposals that identify critical fire and life safety provisions, listed in the model fire code, to justify their re-establishment into the SFPC.

04.

Actively participate in developing fire and building codes that coincide with best practices for new safety measures in Agrotourism activities.

05.

Actively work with the Board of Housing and Community Development on the promulgation of the Statewide Fire Prevention Code. Routinely update the Memorandum of Agreement (MOA) to ensure the process is fair and equitable.



Goal 3 – Automatic Fire Suppression Systems in Townhouses

One of the best ways to reduce the devastation any family may experience from residential fires is to prevent them from happening in the first place. That starts with building safer homes. Compared to single family detached homes, townhouses have increased fire risk, whereas like in an apartment building, the behavior of one tenant will drastically impact the safety of neighboring families, pets, and property. There have been many incidents where a fire in one townhouse unit had catastrophic consequences on neighbors who had nothing to do with the cause of the fire. It is a demonstrated fact that home fire sprinklers are a crucial, life-saving technology, since the risk of dying in a reported home fire is 85 percent lower if sprinklers are present.

OBJECTIVES: —

01. Actively pursue conversations with all stakeholders about the inclusion of model code provisions for sprinkler systems in the Uniform Statewide Building Code for all townhouses.



03. Promote research and prepare an informational document that identifies other states success data, current water supply requirements, developer and builder incentives, and average costs.



02. Provide information and encourage legislation that mandates sprinkler systems in all townhomes.



Goal 4 – Statewide Community Risk Reduction Messaging

Fire causes and casualty's trends are the basis for themes of public fire and life safety messaging in localities. There is currently no identified method to create and deploy messaging for use statewide. Because of the transient nature of our citizens and visitors there is a need to provide unified messaging across the state.

OBJECTIVES:

1. The Virginia Department of Fire Programs (VDFP) Community Risk Reduction (CRR) Coordinator will develop a process to monitor the fire cause and casualty trends utilizing the new NERIS system which will collect and report the VFIRS information. This information will be made available to associations, localities, and other governmental agencies as available or requested.
2. The VDFP CRR Coordinator will develop a fire & life safety message calendar which will be published on the VDFP CRR section webpage. Local fire agencies can utilize this webpage to find an example message and the date it will be utilized in the VDFP Newsletter. This will provide uniform and consistent messaging for use across the state. This messaging, in as many cases as possible, will reflect the messaging schedule promoted by the USFA Fire & Life Safety Communication Initiative.



U.S. Fire
Administration

Goal 5 – Lithium-Ion Battery Safety

Lithium-ion batteries are found in devices and systems that the public and first responders use or interact with. The frequency of fire and explosion incidents involving lithium-ion batteries are increasing across the commonwealth. Battery cell overheating and rupture is possible from overcharging, overheating, short circuits, manufacturing defects, or mishandling. Overheated cells can vent flammable gas. Thermal runaway in one battery will readily spread to adjacent cells. Fires in buildings involving lithium-ion batteries create a new challenge for fire suppression and containment, and the health and safety of first responders. Propagating thermal runaway events generate more severe flammability and toxicity hazards than a typical room and contents fire.

OBJECTIVES: —

1. VDFP, SFMO, and the FMA will collaborate with partners and private organizations to promote current research, findings, and industry best practices in an effort to educate the public and first responders.
2. The Code and Standards Subcommittee will actively pursue code change proposals that are consistent with current research, best practices, and future model code language.



Goal 6 – Public Safety Communication Deficiencies

In new or those existing structures that are altered in a way that affects emergency responder's ability to communicate utilizing the jurisdiction's communication system(s) there must be infrastructure and specific equipment to amplify and propagate signal strength in areas identified with poor signal coverage (dead spots). Poor signals often disrupt incident command efforts, inhibit first responder coordination, miss dispatch communication, compromise emergency responder accountability, and most importantly, adversely affect occupant and first responder safety. Conversely, poorly designed, or improperly installed signal boosting equipment can interfere with radio systems outside of these buildings. The Virginia Uniform Statewide Building Code contains provisions that require amplification systems and components for communications systems utilizing radio-frequency-emitting devices. The missing critical element of this regulation for emergency responder communication enhancement systems is mandating responsibility (financial) for the equipment.

In-building emergency responder radio systems are a critical life safety technology that enable fire, EMS, and police to have an effective and reliable means in which to communicate. Whether it is a major incident or an everyday routine emergency, adequate radio communication within buildings is vital to successful and safe emergency response by today's first responders. Just like in-building standpipes are owner-provided for deploying adequate firefighting water in tall buildings, adequate in-building communication should be an owner-provided and maintained responsibility. How a building is designed and constructed, the size and use of the building, or other nearby structures can affect in-building communication. Deploying a dedicated complete system fit for the purpose of emergency responders is needed to overcome this problem.

OBJECTIVES: —

1. Enhance in-building emergency responder communication coverage.
2. Coordinate with local, state, and federal agencies and workgroups to develop uniform language in codes or regulations to enhance communications for public safety organizations.

Goal 7 – Virginia Dry Hydrant Program

The installation of dry hydrants in existing water sources address a critical need for an improved rural water supply for structural and wildland fire fighting. Virginia's Aid to Localities grant program provides \$100,000 annually for the installation of new dry hydrants, as well as the repair of existing dry hydrants. The Virginia Department of Forestry is charged with administering Virginia's dry hydrant program throughout the Commonwealth.

OBJECTIVES: —

1. The Virginia Department of Forestry (DOF) will develop, promote and handle the operational aspects of the Virginia dry hydrant grant program.
2. Dry hydrant placement across the Commonwealth will be targeted to ensure that the maximum distance to any firefighting water supply will be a maximum of 6 miles.





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