

**STATE OF WEST VIRGINIA**

**PRELIMINARY PERFORMANCE REVIEW OF THE  
State Fire Commission**

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**West Virginia's High Fire Death  
Rate requires the State Fire  
Commission to devote more  
Resources to Public Awareness  
Programs and Fire Statistics Analysis**

**The State Fire Commission does not have  
a Plan to Reduce the State's High Fire  
Death Rate**

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**September 2000**

**PE00-23-181**

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**September 2000**

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Antonio E. Jones, Ph.D.  
Director

September 10, 2000

The Honorable Edwin J. Bowman  
State Senate  
129 West Circle Drive  
Weirton, West Virginia 26062

The Honorable Vicki V. Douglas  
House of Delegates  
Building 1, Room E-213  
1900 Kanawha Boulevard, East  
Charleston, West Virginia 25305-0470

Dear Chairs:

Pursuant to the West Virginia Sunset Law, we are transmitting a **Preliminary Performance Review of the State Fire Commission**, which will be presented to the Joint Committee on Government Operations on Sunday, September 10, 2000. The issues covered herein are "*West Virginia's High Fire Death Rate requires the State Fire Commission to Devote more Resources to Public Awareness Programs and Fire Statistics Analysis; and The State Fire Commission does not have a Plan to Reduce the State's High Fire Death Rate.*"

We conducted an exit conference on August 29, 2000 with the Oil and Gas Conservation Commission. We received the agency response on September 6, 2000.

Let me know if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "John Sylvia".

John Sylvia  
Acting Director

JS/wsc



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## Executive Summary

According to the West Virginia Fire Commission, the mission of the commission is to “*improve the quality of life of the citizens of West Virginia, through leadership, development and administration of fire safety programs that reduce loss of life and property.*” However, West Virginia consistently has one of the highest fire death rates in the country. The Fire Commission acknowledges in its annual reports, that “*West Virginia continues to experience a grossly unacceptable fire death rate per capita.*” Further study shows that between 1994 and 1998, 93% of all structure fire deaths occur in one and two family dwellings, an area where the Fire Commission has no direct enforcement authority. Therefore, in order to impact this area, the Commission needs to educate the public and ensure that Fire Departments are operating effectively.

### **Issue Area 1: West Virginia’s high fire death rate requires the State Fire Commission to devote more resources to public awareness programs and fire statistic analysis.**

One way to impact the fire death rate in areas outside of the Commission’s enforcement authority is through public awareness programs. However, the Commission only has one staff member in charge of public education, and overall, the Commission devotes less than 6% of total resources to public education. Furthermore, the Commission has devoted very little resources in giving away smoke detectors which increase the chances of surviving a fire by 50%. Also, much of the educational efforts of the Commission to date have been focused in areas which fall under the direct enforcement jurisdiction of the Commission where the death rate is low, and not in areas outside of the Commission’s enforcement authority where the death rate is high. Much of the educational efforts of the Commission have also been focused in Kanawha County, an area of the state which has a lower fire death rate than other areas of the state. **In essence, the State Fire Commission is missing the bigger picture with respect to reducing fire losses in the State.**

The Fire Commission does not conducting enough detailed analysis of West Virginia’s fire statistics as required by law. The Commission conducts a limited analysis but has not developed comprehensive state or county profiles which would be useful in targeting specific educational needs. The Commission should also consider exploring ways to encourage greater public interest, and seek private grants and other funding sources to enhance smoke detector giveaways and its public awareness programs.

### **Issue Area 2: The State Fire Commission does not have a comprehensive plan on how it intends to lower the State’s high fire death rate.**

By law (§29-3-9), the State Fire Commission is required to develop a *Fire Prevention and Control* plan. Such a plan should be comprehensive in assessing the needs and effectiveness of the 446 recognized fire departments, as well as identifying specific public education needs throughout the State. Currently, the Commission has no such plan in place, however, it indicates that many if

not all of the items mentioned in the law are addressed at some level. However, this review indicates that many of the items required to be assessed in the Fire Prevention and Control plan are not being addressed. Because the Commission has not developed a fire prevention and control plan, **the State does not have a formalized strategy to reduce the State's high fire death rate.**

As mandated by law, the Commission is charged with establishing standards for fire departments which ensure that each fire department is capable of providing the maximum amount of fire protection possible for any given fire service area. However, only two of five standards have been established. The Commission performs evaluations on fire departments to ensure that Fire Departments are conforming to these two standards, but the Commission is currently reviewing less than 10% of recognized fire departments each year. A survey conducted by a private organization indicates that there are 38 fire districts that were evaluated as having less than minimum recognized protection. However, the State Fire Commission does not receive the individual reports for each fire district that list the deficiencies in these areas. Such information is necessary in assessing the State's fire protection needs.

**Issue Area 3: The State Fire Commission is not paying fire departments to report fires as required by law.**

According to *WV Code §29-3-20*, the Fire Commission is required to pay a \$10 fee to fire departments for each fire reported. This fee is not applicable to any fire department that has a salaried fire chief or a fire chief that is paid a fee for each fire fought. Furthermore, the fee is not applicable to any fire department where the mayor of the municipality receives a salary in excess of \$20 per year. Therefore, this \$10 fee is limited to those fire departments that are composed entirely of volunteer members and are not in incorporated areas.

This fee has not been paid by the Commission to any fire department. The Commission has indicated that this fee is not being paid because money was never appropriated to pay the fee. The Commission indicated it made attempts to obtain the necessary funding from the Legislature to pay the fee. The Legislative Auditor's Office was unable to determine the exact amount of the payments that have not been made because of data limitations. However, it is reasonable to estimate that a large number of the 9,000 reported fires each year are reported from paid fire departments and incorporated areas, which means they are ineligible for the fee. Therefore, the actual amount that would be paid by the Commission would be considerably less than \$90,000 (\$10 times 9,000 reports) a year. It is possible that the amount could be about \$25,000 or less. Although this amount is relatively small, there are many fire departments in unincorporated areas that could use any funding that they might receive.



## **Objective, Scope and Methodology**

The preliminary performance review of the West Virginia Fire Commission is required and authorized by the West Virginia Sunset Law, Chapter 4, Article 10, Section 5 of the West Virginia *Code*, as amended. The West Virginia Fire Commission is mandated to prevent the loss of West Virginia lives and property due to fires.

### **Objective**

The objective of this review is to determine the effectiveness of the State Fire Commission in achieving its ultimate outcome of reducing the loss of life and property due to fires.

### **Scope**

The scope of this report examined the Fire Commission's activities since FY 1993. Of primary interest is the Commission's efforts to reduce the State's fire death rate in one and two family dwellings, which has been among the highest in the nation.

### **Methodology**

The report includes a review of the Fire Commission minutes, a review of the Fire Commission's Annual Reports, interviews with staff of the Fire Marshal, interviews with individuals at the Insurance Services Office, and a survey of other state programs. This performance evaluation complied with **Generally Accepted Government Auditing Standards**.



## Introduction and Background

### West Virginia has one of the Highest Fire Related Death Rates in the Country

According to the United States Fire Administration (USFA), the three leading causes of fire related deaths in the United States are **smoking, heating, and arson**. Furthermore, according to the USFA, deaths per fire in **manufactured housing** are approximately twice that of other dwellings, and the **aged population** is subject to higher fire death rates. West Virginia demographics place it at a high risk to the leading causes of fire related deaths, and not surprisingly has resulted in the state having one of the highest fire death rates in the country.

#### Smoking Related Deaths

According to the USFA, “*About 1,000 deaths, 3,000 serious injuries, and several billion dollars in costs of property loss, health care, and pain and suffering result each year in the U.S. from fires started by dropped cigarettes.*” Furthermore, mishandling of cigarettes accounts for 23 percent of all fire related deaths each year. Most fires caused by the misuse of cigarettes are caused when individuals drop cigarettes on upholstered furniture or bedding, often by someone who has been drinking. Given the fact that West Virginia has a high fire death rate, it should come as no surprise that **West Virginia has the fifth highest tobacco use rate among adults age 18 and over.**

#### Alternative Heating Sources

Heating fires account for 19 percent of all fire related deaths in the United States. Heating includes central heating, fixed and portable heating units, fireplaces and chimneys, and water heaters. Furthermore, according to the USFA, the majority of fires from alternative heating occur in the chimney or fireplace area. People with lower income are more likely to use alternative heating sources. According to the U.S. Bureau of Census, **West Virginia has the lowest per capita income of all fifty states.**

#### Manufactured Housing

As was previously stated, deaths per fire in manufactured housing are approximately twice that of other dwellings. Manufactured housing also has a much greater share of fire deaths (11 percent) relative to its share of fires (4 percent). According to the Manufactured Housing Institute, **West Virginia ranks fourth among all states with the highest number of manufactured houses per capita.** Each year the West Virginia Fire Marshal’s Office investigates an average of six fire related deaths in manufactured homes.

#### Age

**West Virginia has the oldest population per capita of all fifty states.** According to the USFA, people over age 55 have a higher fire death rate than the average population. Table 1 shows the death rates per million population for the average as well as aged population over 55 years of age.

**Table 1**  
**Aged Adults VS National Average Deaths per Million Population**

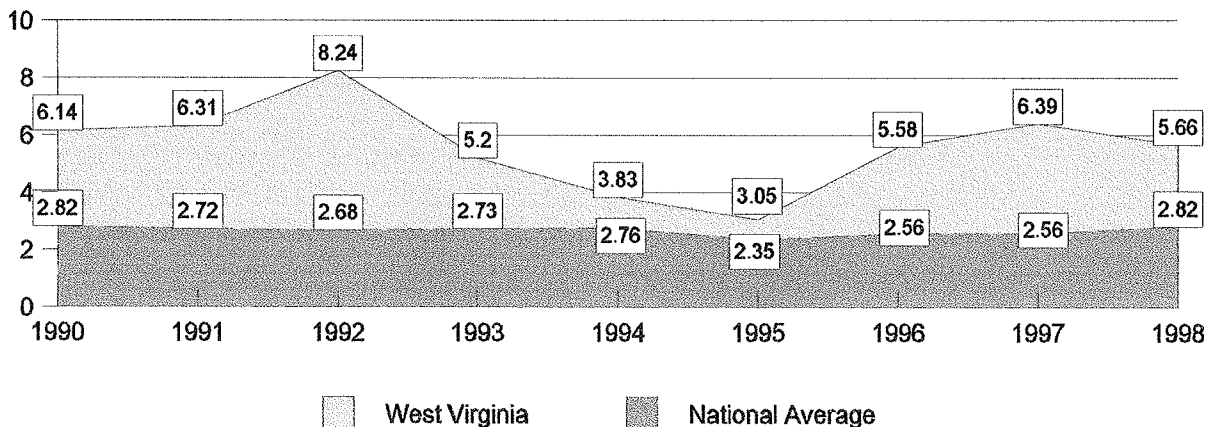
<b>Age Group</b>	<b>Deaths Per Million Population</b>
National Average	18.8
55 - 59	21.1
60 - 64	22.1
65 - 69	23.1
70 - 74	32.9
75 - 79	40.0
80 - 84	43.6
85 or older	81.8

**Issue Area 1: West Virginia’s high fire death rate requires the State Fire Commission to devote more resources to public awareness programs and fire statistics analysis.**

The Office of the West Virginia Fire Marshal was first created in 1909. In 1976, the West Virginia Fire Commission was created and the Fire Marshal’s Office was placed under the jurisdiction of the Fire Commission. According to the Commission, “*The mission of the State Fire Commission is to improve the quality of life of the citizens of West Virginia through leadership, development and administration of fire safety programs that reduce loss of life and property.*” The State Fire Marshal is responsible for implementing the policies of the State Fire Commission.

A major outcome to be achieved by the State Fire Commission is to reduce the loss of life due to fire. However, according to the United States Fire Administration (USFA), West Virginia is second only to Alaska in the number of civilian (non-firefighter) fire related deaths per 1000 fires in the 1990’s. According to the Fire Marshal’s Office (FMO), “*West Virginia continues to experience a grossly unacceptable (fire death) rate per capita.*”<sup>1</sup> Figure 1 shows West Virginia versus the National average for civilian fire related deaths per 1000 fires.<sup>2</sup>

**FIGURE 1**  
Civilian Deaths Per 1000 Fires



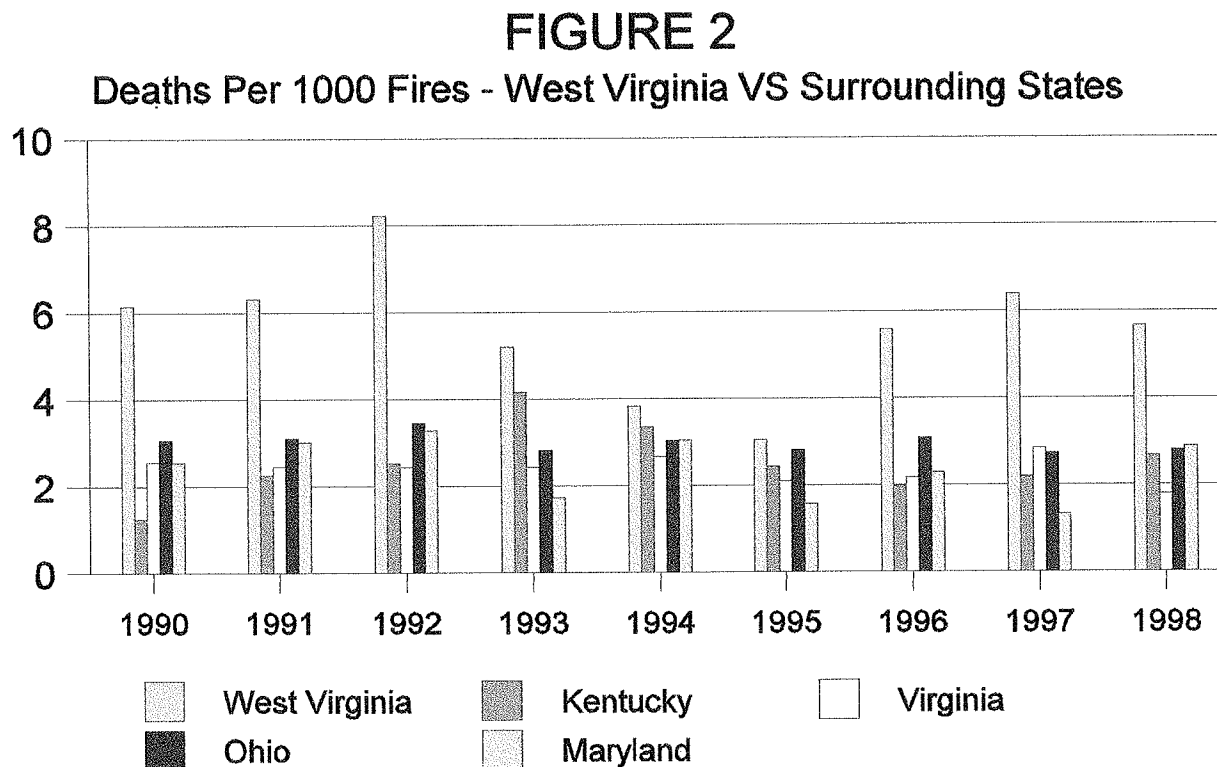
Compared to the national average, West Virginia’s fire death rate for several years is two

<sup>1</sup> This statement has been made in the State Fire Commission’s annual reports for five of the last six years (1994-1999).

<sup>2</sup>

West Virginia has the highest reporting rate of fire statistics of all states at 96 percent. While the national average reporting rate (53% in 1996) of states that report is not as high as West Virginia, it is not certain if this skews the comparison. This would depend on whether those areas of states that do not report fires and deaths are above, below or equal to their state’s fire death rates.

to three times higher. Figure 2 shows West Virginia versus surrounding states fire related deaths per 1000 fires. The graph shows that West Virginia consistently has the highest rate of deaths due to fires among surrounding states. In many years, West Virginia is significantly higher than the other states.<sup>3</sup>



### Most Fire Deaths Occur in Occupancies where the FMO Has No Direct Jurisdiction

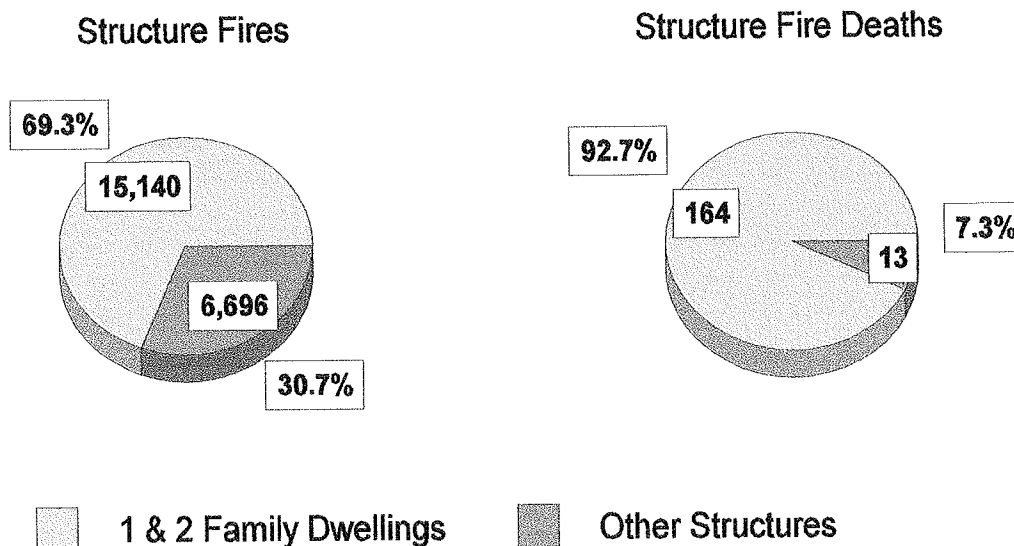
Between 1994 and 1998, nearly 70% of all structure fires and 93% of all structure fire related deaths occurred in one and two family dwellings (see Figure 3). **The State Fire Commission has no direct authority over one and two family dwellings** because these dwellings are excluded by law from the provisions of inspection and review, as well as fire code enforcement. Figure 3 shows the percentage of structure fires and deaths that occurred in one and two family dwellings compared to those structures where the FMO has direct authority. For the 1994-1998 time period, only 7.3% of all fire related deaths occurred in occupancies where the Fire Marshal has direct authority to review plans and inspect premises for fire code violations. This relatively small percentage of fire deaths is an indication of the value of inspections and plan reviews. On the other hand, nearly 93% of fire deaths occurred in occupancies where the Fire Marshal has no direct jurisdiction.

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<sup>3</sup> Pennsylvania is one of 11 states that do not report fire statistics to the USFA. Ohio's reporting rate in 1996 was 75%, Kentucky's was 68%, Virginia's was 70%, and Maryland's was 92%.

### Figure 3

## Total Number of Fires & Deaths - (1994 - 1998)



### Greater Emphasis on Public Awareness Programs is Needed

Since the State has demographic characteristics that make it susceptible to a high fire death rate as mentioned previously, and because most deaths occur in occupancies in which the FMO has no jurisdiction, the FMO needs to provide a greater emphasis on public awareness programs. Also, the FMO needs to be more involved in encouraging a greater use of smoke detectors. According to the State Fire Commission:

*While many of these deaths were either directly or indirectly caused by alcohol/drug abuses, the majority were preventable through increased fire safety awareness by the public, use of smoke detectors, statewide fire code enforcement, and increased media attention to fire safety as an important year-round topic.<sup>4</sup>*

The United States Fire Administration also indicates that smoke alarms have accounted for a significant part of the decrease in reported fires and fire deaths since the mid 1970's.<sup>5</sup>

Despite the acknowledgment by the FMO that smoke detectors and greater public awareness would prevent many fire deaths, the FMO's efforts to date have been limited in these areas, due

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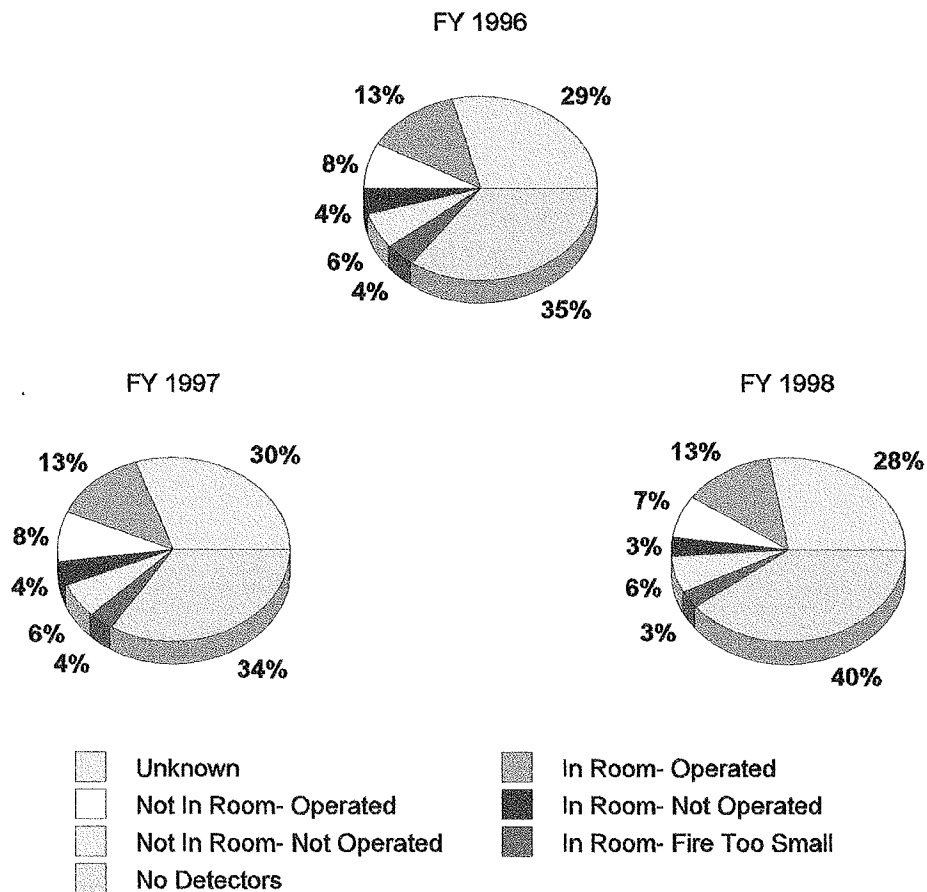
<sup>4</sup> State Fire Commission FY 1998-99 Annual Report, page 55.

<sup>5</sup> United States Fire Administration, *Fire in the United States, 1987-1996*, p. 65. The greater use of smoke alarms has likely given residents enough warning to where they do not need to report a fire.

primarily to a perceived lack of resources. For example, the FMO has participated in a limited manner in smoke detector giveaways. In FY 1998, the FMO collaborated with WOWK TV-13 on a segment entitled “*Learn not Burn.*” This segment emphasized the necessity for having a working smoke detector. The FMO was able to purchase 300 smoke detectors through donations. These smoke detectors were distributed to area fire departments to deliver the detectors to families that the fire departments knew needed the detectors. Also, the FMO has distributed five smoke detectors each day of the WV State Fair during the last three years. This amounts to about 45 smoke detectors given away in each of the last three years.

However, when you consider that in West Virginia over 1,000 fires are reported annually for 1 and 2 family dwellings in which no smoke detectors were present, 45 smoke detectors a year is relatively small. Figure 4 shows smoke detector performance for FY 1996 through FY 1998. In 35% to 40% of reported fires for one and two family dwellings, smoke detectors were not present. That percentage may be higher because in nearly 30% of reported fires, the fire were severe enough where it could not be determined if smoke detectors were present.

**Figure 4**  
**Smoke Detectors in Reported Fires of 1 & 2 Family Dwellings**





Furthermore, the FMO only has one Public Education Officer and this staff member is charged with additional duties of inspection and enforcement. The position of Public Education Officer was established only recently in 1996. Much of the public education efforts of the FMO prior to 1996 were primarily delivered to workers in inspected facilities (schools, nursing homes, etc.) where the death rate is relatively low.

The Public Education Officer was posted as an “Assistant Fire Marshal II,” and shares the same duties and responsibilities as other Assistant Fire Marshals which includes but is not limited to: fire prevention, fire safety inspection, arson/explosives investigations, and any training pertinent to those areas. According to the Public Education Officer:

*Since my employment as Assistant Fire Marshal/Public Education Officer, I have assisted in fire/arson investigations and in explosives recognition classes, and have conducted building inspections when requested. My position as an Assistant Fire Marshal differs from the civil service description only in that I do not work under the supervision of a Field Deputy Fire Marshal, and my assigned geographic area includes all 55 counties.*

When you consider the salary and benefits of the Public Education Officer, and other expenses for public education, six percent of the State Fire Commission’s budget goes towards public education. However, since the Public Education Officer’s duties include other activities outside the scope of public education, **the State Fire Commission devotes less than 6 percent of total resources toward public education.**

The types of activities the Public Education Officer is involved in are as follows:

1. Distribute literature to various audiences including seniors and adults, school age children, people with disabilities, business office personnel, chemical/industrial plant workers, and others.
2. Distribute monthly safety newsletters which are provided to fire departments, media, and health care agencies, colleges, and enforcement agencies.
3. Attend Fire/Life Safety events sponsored by the Red Cross, Wal-Mart, schools, state agencies, and other meetings.

Another program that the FMO is involved in is the “*Risk Watch*” program. “*Risk Watch*” is an injury prevention curriculum targeted at pre-school through eighth grade school students and is designed to be taught in schools. By law, schools have been required to teach fire prevention and since 1921. The primary source for curriculum for fire prevention is the National Fire Protection Association (NFPA). According to the NFPA, “*Learn Not to Burn*” was introduced in 1979 and is a comprehensive fire safety education curriculum. However, in 1998, the NFPA began to switch its focus to the “*Risk Watch*” program. According to the NFPA, unlike “*Learn not to Burn*”, “*Risk Watch*” focuses on injury prevention and includes fire prevention. Furthermore, “*Risk Watch*” attempts to involve not only teachers in injury prevention, but also community safety personnel as

- The Public Education Officer has a limited amount of time and resources available given the fact that there is only one staff member charged with public education and that staff member also has other duties and responsibilities as discussed earlier.
- Finally, the Public Education Officer is also a member in other safety/health advocacy groups, many of which are based in Kanawha County.

Because of the limited time and resources of the Public Education Officer, Kanawha County receives a disproportionate share of the public education effort, despite the fact that Kanawha County has a relatively small number of deaths per 1000 fires. Table 2 shows the five year average of fire deaths per 1000 fires for West Virginia counties. The State Fire Commission needs to devote more resources towards public education that is directed to residents of 1 and 2 family dwellings, and to more areas of the State.

**Table 2**  
**Average Fire Deaths Per 1000 Fires by County, 1994 - 1998**

<u>County</u>	<u>Deaths per 1000</u>	<u>County</u>	<u>Deaths per 1000</u>
Lewis	20.4	Berkeley	4.0
Pleasants	20.1	Taylor	3.7
Webster	15.4	Cabell	3.7
Pendelton	13.2	Ohio	3.5
Mingo	11.5	Grant	3.5
Pocahontas	11.5	<b>Kanawha</b>	<b>3.3</b>
Wetzel	10.0	Wayne	3.3
Brooke	9.9	Braxton	3.0
Greenbrier	9.8	Hardy	2.9
McDowell	9.7	Summers	2.7
Randolph	9.5	Nicholas	2.2
Fayette	9.0	Roane	2.0
Harrison	9.0	Jackson	1.8
Upshur	6.7	Lincoln	1.4
Marion	6.4	Mineral	1.3
Tucker	5.7	Putnam	1.1
Preston	5.6	Monongalia	0.7
Jefferson	5.6	Monroe	0.0
Gilmer	5.6	Clay	0.0
Boone	5.5	Ritchie	0.0
Hancock	4.9	Doddridge	0.0
Logan	4.7	Barbour	0.0
Wood	4.4	Tyler	0.0
Mercer	4.3	Calhoun	0.0
Marshall	4.2	Morgan	0.0
Raleigh	4.2	Wirt	0.0
Mason	4.2	Hampshire	0.0
Wyoming	4.2		

## **Greater Analysis of West Virginia Fire Statistics is Needed**

Another area which would assist the FMO's public education efforts is a comprehensive analysis of West Virginia's Fire Loss statistics. This analysis should detail such facts as what areas of the state are at greater risk, and the probable causes of these fires. The State Fire Commission collects a variety of West Virginia fire statistics for the USFA. **The Commission is to be commended in having the highest reporting rate of its fire statistics to the USFA in the country. Ninety-six percent of the State's fire departments submit fire reports to the Fire Marshal's Office.**

West Virginia's statistics are compiled into a national report issued by the USFA. Although the national statistics provide useful information that is common for all states, a detailed analysis is necessary on the state level to custom fit West Virginia's fire loss initiatives. Furthermore, such an analysis is required by law. According to *WV Code §29-3-11(b)*, the FMO shall conduct "*critical analysis and evaluation of West Virginia's fire loss statistics for determination of problems and solutions.*" In other words, there is a need to have an understanding of fire related characteristics that are specific to West Virginia. The statistics to perform a critical analysis are collected by the FMO; however, it has not given priority to develop a comprehensive county or statewide profile. These profiles could indicate a greater need for public education in specific subjects in specific counties. Statistics that could be useful in evaluating areas in the state that may have a greater need of public education are:

- fire death rates by county;
- statistics showing prevalent causes of fires by county;
- performance of smoke detectors;
- counties which may have a high percentage of fires in manufactured housing;
- county fire statistics where alternative heating sources were the cause.

Since the state provides a fee to collect fire statistics, the FMO should enhance its efforts to make greater use of these statistics. According to the FMO,

*There has been limited analysis of fire loss statistics conducted over the last five years. Currently all fire loss statistics are transmitted to the United States Fire Administration and the National Fire Prevention Association for comparison and analysis. This office uses these statistics to "pinpoint" certain occupancies where fire deaths have occurred throughout the state.*

## **Smoke Detector Use and Public Education Have Been Proven Successful**

One such program that was utilized effectively was "Get Alarmed, South Carolina." According to the USFA, "***The program has been credited with helping the State record the lowest number of fire deaths in five years and to begin to reverse a trend in recent years toward higher and higher fire death rates.***"<sup>6</sup> The program was initially started with an investment of \$50,000 by the South Carolina Fire Marshal's Office. Half of the money was used to purchase smoke detectors

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<sup>6</sup> *United States Fire Administration, Get Alarmed, South Carolina, p.1.*

and half of the money was put into public education. The smoke detectors were distributed to area fire departments who agreed to perform the following:

1. join forces with some community organization to promote the program and leverage funds for the purchase of additional smoke detectors;
2. give priority to distributing detectors to the poor, elderly, and handicapped in the community; and
3. issue annual reminders to smoke detector recipients to reinforce the importance of detector maintenance.

In addition, "Get Alarmed" fire safety messages were carried on about 200 billboards throughout the state. The billboards were donated by their owners or paid for by other organizations; the State only had to pay for the printing. Six video public service announcements (PSAs) were produced and distributed to all major television stations serving the South Carolina market. A package of 22 radio public service announcements also was produced and sent to every radio station in the state.

The program lasted for the two year period between 1986 to 1988. Table 3 indicates that the total number of fire deaths in South Carolina dropped to a significantly lower level after the conclusion of the Get Alarmed program. According to the USFA:

*The results achieved in the first two full years of the "Get Alarmed, South Carolina" program are eye opening. More than 25,000 smoke detectors -- five times the number originally funded by the state -- were placed in homes throughout the state, and more than two-thirds of the state's 700 fire departments got involved in smoke detector installation and maintenance programs in their communities. In addition, there is a broader awareness among the citizens of South Carolina about fire safety and the value of smoke detectors.<sup>7</sup>*

The USFA also wrote that:

*Limited funding does not have to be a barrier to development and implementation of good fire prevention and safety programs. If there is one thing the people of South Carolina demonstrated in the "Get Alarmed" program, it is that there is money out there. Seeking out and building relationships with civic and service organizations, other local agencies, and even individual benefactors is the key.<sup>8</sup>*

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<sup>7</sup>Ibid, p. 6.

<sup>8</sup>Ibid, p.9.

**Table 3**  
 South Carolina Fire Deaths  
 1986 - 1999

1986	189
1987	168
1988	164
1989	178
1990	117
1991	84
1992	100
1993	125
1994	120
1995	108
1996	137
1997	93
1998	69
1999	79
<i>Source: South Carolina Fire Marshal Office</i>	

The West Virginia Fire Commission should explore ways to increase public interest, and seek private grants and other funding sources to expand its smoke detector giveaways and public education programs.

### Conclusion

There is concern that for several years West Virginia has had one of the highest fire death rates in the country. The State Fire Commission has indicated for several years that this distinction is “*grossly unacceptable*.” However, the Commission’s efforts to reduce the State’s high fire death rate has not been commensurate with the concern. Most of these fire deaths are occurring in occupancies in which the Commission cannot directly impact through inspections or enforcement of fire safety regulations. The State Fire Commission acknowledges that greater public awareness, and greater use of smoke detectors would prevent many fire related deaths. Success in the state of South Carolina proves that this approach can work. However, the FMO has had limited involvement in smoke detector giveaways, and its public awareness programs have been restricted in the amount of resources and in the area of the state. The Commission’s enforcement efforts have been successful

in minimizing fire deaths in those occupancies where fire safety regulations can be enforced. However, the Commission is missing the bigger picture by not placing a greater emphasis on reducing fire deaths in occupancies where it has no enforcement authority.

Given the high death rate in West Virginia, the FMO must enhance its efforts to educate the public. According to the USFA,

*Many Americans believe "fires can only happen to other people - not to me and not in my home." Yet, over 80 percent of fire deaths occur in the home, most often claiming the lives of the young, the elderly and the disadvantaged. Fire kills more Americans than all natural disasters combined. Every year more than 5,000 people die in fires, over 25,000 are injured, and direct property loss is estimated at over \$9 billion. **Fortunately, most fire losses can be prevented through effective public education and awareness initiatives.** [Emphasis added]*

The State Fire Commission should also take greater measures to comply with the statutory requirement to perform a critical analysis of West Virginia fire loss statistics to identify problem areas and solutions. A wealth of statistics are collected by the FMO; however, a higher priority needs to be established to develop a comprehensive state and county profile of important fire statistics. This analysis would also facilitate the Commission's public awareness program. The Commission should consider exploring ways to encourage greater public interest, and seek private grants and other funding sources to enhance smoke detector giveaways and its public awareness programs.

**Recommendation 1:**

*The West Virginia Fire Commission should devote a greater amount of resources to educating the public in fire and burn prevention and encouraging greater smoke detector use.*

**Recommendation 2:**

*The West Virginia Fire Commission should conduct more detailed analysis of state fire statistics to develop county fire loss profiles and a state fire loss profile.*

**Recommendation 3:**

*The State Fire Marshal should attempt to obtain private grants to assist in expanding its smoke detector giveaway programs and its public education in fire and burn prevention.*

**Issue Area 2: The State Fire Commission does not have a comprehensive plan on how it intends to lower the State's high fire death rate.**

By law (§29-3-9), the State Fire Commission is required to develop a *Fire Prevention and Control* plan which shall include, but not be limited to, a variety of issues related to local fire departments such as:

1. Manpower Needs;
2. Location of Training Centers;
3. Communications;
4. Fire Fighting Facilities;
5. Water Sources;
6. Vehicular Needs;
7. Evaluation of Personnel;
8. Public Education and Information;
9. Public Participation;
10. Outline of Fire Prevention Programs;
11. Accessibility of Fire Prevention Information.

Such a plan should be comprehensive in assessing the needs and effectiveness of the 446 recognized fire departments, as well as identifying specific public education needs throughout the State. A comprehensive Fire Prevention and Control plan would facilitate the Commission's efforts in reducing the fire death rate in those occupancies it does not have enforcement jurisdiction.

The Legislative Auditor asked the Commission if it had developed a Fire Prevention and Control plan. The Commission's response was that:

*There is no actual "Fire Prevention and Control" plan enacted by the State Fire Commission. However, most if not all these areas of concern are addressed or evaluated at some level.*

It is the Legislative Auditor's opinion that many of the areas required to be addressed in the Fire Prevention and Control plan are addressed, some by the Commission, and some are addressed by other entities. For example, the FMO indicated some of the areas are addressed by the *Insurance Services Office* (ISO). The Insurance Services Office is a supplier of statistical, actuarial, and underwriting information for the property/casualty insurance industry. ISO provides advisory services to more than 1,500 participating insurers and their agents. According to the Fire Marshal:

*ISO conducts a very detailed analysis and evaluation of all respective fire departments in the state to determine a "benchmark" grading scale. This assigned grade (1 through 10, with 10 representing the low-end [poor] scale and 1 the top-end [good] scale) is used to determine the premium policy amounts for homeowners and businesses in West Virginia. ISO's evaluations are recognized nationally by the insurance industry and the state Insurance Commissioner as "the" authority on fire protection evaluations.*

The Legislative Auditor's review of the ISO analysis indicates that many of the items required to be evaluated by the Commission are evaluated by ISO. For example, in assigning grades for fire districts, ISO evaluates water supply and water pressure, manpower and personnel needs,

communications, equipment levels, and training. However, it is not clear that ISO evaluates response times, and ISO does not review public education, fire prevention programs or public participation. Furthermore, while the FMO does receive the total grading scores for fire districts, **it does not receive any of the ISO reports for each district that indicate why ratings were assigned to certain fire districts.** According to the FMO:

*We do not receive any documents from ISO with regard to the rating assigned or any deficiencies that may have prevented the area from obtaining a better rating.*

Receiving individual reports for each fire district that indicate any deficiencies would be helpful to the Commission. The Commission should develop a way that the local fire departments can provide their ISO reports to the Commission. The Commission also indicates that it has a cooperative arrangement with other state entities concerning fire training centers, and a fire service training facility is being developed at Jackson's Mill.

Although, many issues of a Fire Prevention and Control plan are being addressed at different levels and by several entities, there is no comprehensive written plan that coordinates and centralizes this information at the State level. While progress has been made in fire services at the local level, there still are significant needs. The Commission indicated that over the years, the number of fire districts that did not have a fire rating has been reduced from 156 to 6. However, there still are many areas in the State that the Commission indicates do not have a fire department. And according to the ISO analysis, West Virginia currently has 38 fire districts with a rating of 10, that is, less than the minimum recognized protection.

It would be beneficial to develop a plan, as required by law, that assesses the various fire protection needs throughout the state and identifies possible solutions to prevalent problems. This plan needs to gather information from the different sources to give a comprehensive statewide assessment of West Virginia's fire protection needs, and how the Commission intends to address these issues.

### **Standards for Fire Departments are Incomplete**

As mandated by law, the Commission is charged with establishing the following standards for fire departments:

1. Develop minimum training levels for firefighters;
2. Develop minimum levels of equipment within fire service areas;
3. Develop minimum response time standards;
4. Develop minimum communication standards;
5. Develop minimum levels of water flow and pressure;
6. Other performance standards necessary to meet the overall goals of improved fire prevention and control.

Clearly the purpose of these standards is to ensure that each fire department is capable of ensuring the maximum amount of fire protection possible for any given fire service area. However, the only standards that have been established are minimum training, and minimum equipment. The remaining three standards and any others that may be needed have not been developed. According to the FMO, *"The remaining items...are not evaluated by the State Fire Marshal due to lack of resources."*



## **Commission Audits on Fire Department are a Small Number**

As was previously stated, the FMO has established standards for fire departments with respect to training and equipment. The FMO performs evaluations on fire departments to ensure that Fire Departments are conforming to these standards. During these evaluations, the FMO routinely finds Fire Departments with officers that need additional training and equipment that needs replaced. However, the FMO only evaluates 10% or less of fire departments each year. This means that a fire department could use substandard equipment, or operate with firemen who do not have proper training for up to 10 years before being audited by the FMO. Table 4 shows the number of fire departments evaluated for the past six fiscal years.

**Table 4  
Fire Departments Audited**

Fiscal Year	Fire Departments Audited
1993	40
1994	42
1995	42
1996	44
1997	44
1998	43
1999	37

## **Conclusions**

A Fire Protection and Control plan is needed to address the State's high fire death rate. The plan should be comprehensive in evaluating the needs and effectiveness of local fire departments, and identify areas in the State in which greater public education on specific issues are needed. Some of the items needed in the plan are addressed at different levels and by other entities. An effort should be made by the Commission to coordinate this information into a planning document which identifies possible solutions.

However, some items required in the plan are not addressed by anyone, and the Commission has no knowledge of the deficiencies that are evaluated by the ISO. Certain standards required by law have not been established by the Commission, and the audits of fire departments are restricted to a relatively small number of fire departments each year, and they are restricted to only two standards.

It is clear from the audits conducted by the Commission, and by the grading scores assigned to fire districts by the ISO that there are important deficiencies in the delivery of fire protection services. However, there is no plan established by the Commission to address these issues. There also

is no plan on identifying specific needs in various parts of the State, or developing public awareness programs tailored to address these specific needs. Consequently, **the State Fire Commission does not have a coordinated plan on how it intends to reduce the State's high fire death rate**, which at times is the second highest in the nation.

**Recommendation 4:**

*The West Virginia Fire Commission should develop a fire prevention and control plan as required by WV Code §29-3-9(f). This plan should be comprehensive in identify the Commission's strategy to reduce the State's high fire death rate.*

**Recommendation 5:**

*The West Virginia Fire Commission should complete the requirement to establish the standards as required by WV Code §29-3-9(d). These standards should include minimum performance standards for response times, communications, minimum levels of water flow and pressure, and other performance standards necessary to accomplish improved fire protection and control.*

**Recommendation 6:**

*The West Virginia Fire Commission should consider conducting a greater number of audits on fire departments.*

**Recommendation 7:**

*The West Virginia Fire Commission should develop a process in which it can receive individual ISO reports from each fire district in the state.*

**Issue Area 3:      The State Fire Commission is not paying fire departments to report fires as required by law.**

According to *WV Code §29-3-20*, the Fire Commission is required to pay a \$10 fee to fire departments for each fire reported. This fee is not applicable to any fire department that has a salaried fire chief or a fire chief that is paid a fee for each fire fought. Furthermore, the fee is not applicable to any fire department where the mayor of the municipality receives a salary in excess of \$20 per year. Therefore, this \$10 fee is limited to those fire departments that are composed entirely of volunteer members and are not in incorporated areas.

This fee has not been paid by the Commission to any fire department. The Commission has indicated that this fee is not being paid because money was never appropriated to pay the fee. According to the FMO:

*These payments have never been made since the enactment of the Fire Prevention and Control Act of 1976. Requests for appropriations to comply with this provision were submitted by the State Fire Administrator beginning in the early 80's up until 1990. These requests for funds were never honored.*

However, the amount of funding necessary to pay the fee would not be a significant amount. The Legislative Auditor's Office did not determine the exact amount of the payments that have not been made because of data limitations. However, the total number of fires that are reported each year is around 9,000. At \$10 to be paid for each fire report, the maximum amount to be paid fire departments would be around \$90,000 a year. It is reasonable to estimate that a large number of these reported fires were reported from paid fire departments and incorporated areas, which means they are not eligible for the fee. Therefore, the actual amount that would be paid by the Commission would be considerably less than \$90,000. It is possible that the amount could be about \$25,000 or less. Although the fee is relatively small and may not seem significant, there are many fire departments in unincorporated areas that could use any funding that they might receive.

**Recommendation 8:**

*The West Virginia Fire Commission should pay the \$10 reporting fee to all eligible fire departments as required by law.*



**APPENDIX A**  
**Transmittal Letter to Agency**



**WEST VIRGINIA LEGISLATURE**  
*Performance Evaluation and Research Division*

Building 1, Room W-314  
1900 Kanawha Boulevard, East  
Charleston, West Virginia 25305-0610  
(304) 347-4890  
(304) 347-4939 FAX



Antonio E. Jones, Ph.D.  
Director

September 1, 2000

Arnett B. Corley, Jr., Administrative Assistant  
West Virginia Fire Commission  
1207 Quarrier Street, Suite 202  
Charleston, WV 25301

Dear Mr. Corley:

Attached is a copy of the report with changes we discussed in the exit conference last Wednesday. I appreciated the time you and the others provided to meet with us. Each page that has changes are flagged and highlighted. After our discussion I felt it was necessary to add a third issue concerning the \$10 fee for fire reports that is not being paid. For the most part, the attached report is final and it should be the version you should base your written and verbal response on.

As we discussed, we would need your written response to the report by next Tuesday, September 5<sup>th</sup> or at the latest by noon Wednesday September 6<sup>th</sup>. In any case please contact us when the response is ready and I will have someone pick it up. Please do not send it by interdepartmental mail.

Finally, would you arrange a time next week, if possible, for us to talk to the Chairman of the Commission about the report. It can be done over the telephone if necessary. If you have any concerns just contact me at 347-4894. Thank you again for your cooperation.

Sincerely,

  
John Sylvia

\_\_\_\_\_ *Joint Committee on Government and Finance* \_\_\_\_\_





**APPENDIX B**  
**Agency Response**





The Department of Military Affairs and Public Safety

Sterling Lewis, Jr.  
State Fire Marshal

Phone: (304) 558-2191  
Fax: (304) 558-2537

Cecil H. Underwood, Governor  
**STATE FIRE MARSHAL'S OFFICE**  
1207 Quarrier St, 2<sup>nd</sup> Floor  
Charleston, WV 25301

05 SEPT 2000

Mr. John Sylvia  
Research Manager  
Legislative Auditor's Office  
Performance Evaluation & Research Division  
State Capitol Complex  
Building 1, Room W-314  
Charleston, WV 25305-0610

RECEIVED

SEP 6 2000

RESEARCH AND PERFORMANCE  
EVALUATION DIVISION

Dear Mr. Sylvia:

Pursuant to your exit conference with my staff members last Thursday, I am submitting the State Fire Commission's written response to your revised evaluation review. I want to extend my thanks to you and Mr. Barnette for the time you spent re-examining points of concern in the preliminary copy.

Please be advised that, due to existing workloads and time constraints, we do not at this time intend to fully address every area of concern in the report; rather, we are summarizing our official response for inclusion in your bound copy to be presented before the Joint Committee on Government Operations on 10 SEPT 2000.

We are in full agreement with your stated **Issue Area 1** and **Issue Area 2** (*Executive Summary, page 3*): The State Fire Commission fully acknowledges the need to devote more resources to public awareness programs, to fire statistic analysis, and to a documented statement of intent outlining a strategy to reduce the state's high fire death rate.

**Issue Area 3** (paying fire departments to report fires as required by law): As discussed Thursday, the payment of the fee has never been made to fire departments due in part to the fact that necessary funding was never appropriated by the Legislature for such purpose, nor does our agency have adequate internal resources to carry out such a program.

**Per the eight (8) recommendations contained in pgs. 19-27, we respond as follows:**

**Recommendation 1:** We are in full agreement that a greater amount of resources should be devoted to public fire and burn prevention education, as well as to smoke detector use. Also, the idea of residential sprinkler systems deserves equal support as an important home fire protection feature.

- Recommendation 2:** Agreed.
- Recommendation 3:** Please note that, as stated in the exit conference, use of smoke detectors, while very important, should not be touted as a universal "cure" for fire deaths: **prevention through education** must remain the State Fire Commission's educational priority. Smoke detector giveaways are valuable awareness projects, but the fundraising efforts required to initiate and maintain them are, again, dependent upon adequate staff and resources.
- Recommendation 4:** Agreed.
- Recommendation 5:** Although many of these areas of concern have been identified and discussed by the State Fire Commission during its tenure, it is agreed that more uniform minimum performance standards should be set and upheld.
- Recommendation 6:** Agreed. However, it should also be noted that the present Fire Marshal has already accelerated the fire department (audit) evaluation program.
- Recommendation 7:** Strongly agreed.
- Recommendation 8:** As stated on the previous page of this letter (Issue Area 3), the State Fire Commission has never paid this fee to fire departments, although the Commission readily acknowledges its obligation under Code to do so. Due to this agency's current level of funding and existing scope of duties and responsibilities already being carried out, the implementation of such a program would present additional difficulties (processing costs, personnel shortages, etc.). Also, assessment of fire department funding sources indicates that monies received by departments for reports would be relatively insignificant, and are offset to a considerable extent by yearly state funding (\$25,000 per department).

The State Fire Commission strongly feels that it is incumbent upon our agency, as well as our state's elected representatives, to provide the best fire protection services possible to all West Virginians. To this end, we welcome the opportunity to identify areas in which we need to improve, as well as to acknowledge what we consider to be our strengths.

Please do not hesitate to contact our office with any questions or comments you might have concerning this matter.

Respectfully submitted,



Sterling Lewis, Jr.  
State Fire Marshal

SLjr/cn