



# 2010 VACo Achievement Awards

Deadline: June 1, 2010

## Application Form

All applications must include the following information. Separate applications must be submitted for each eligible program. Deadline: June 1, 2010.

### Program Information

Locality County of Louisa  
Program Title Wellness-Fitness Initiative for Fire and EMS  
Program Category Organizational Development  
Population Category 30,001 to 50,000

### Contact Information

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### Signature of county administrator or chief administrative officer

Name Dale G. Mullen  
Title County Administrator  
Signature\* *Dale G. Mullen*

\*Entries without this signature will not be accepted.



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Virginia Association of Counties

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Virginia Association of Counties  
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# Call for Entries

## **WELLNESS-FITNESS INITIATIVE FOR FIRE AND EMS**

The Wellness-Fitness initiative for Louisa County Fire and Emergency Medical Services (EMS) was implemented in 2009 because physical fitness levels needed to safely perform the duties of the fire and EMS services are imperative to the well-being of uniformed personnel and the citizens in their care. There are many benefits of wellness for uniformed personnel including but not limited to: greater strength and stamina; decreased risk of death, injury, or disability from disease; increased job performance and work satisfaction; enhanced capacity to recover from strenuous and exhaustive work; and improved mobility, balance, and coordination.

In 2008, Louisa County made the first steps toward blending career fire and EMS providers with a previously all-volunteer organization, resulting in the county's substantial investment in personnel, ultimately hiring 34 full time and 20 part-time firefighter/EMT's. It was in the best interests of the county, as well as its newly hired employees, to protect our investment and to provide for the highest level of safety possible in a very unsafe profession. Establishing the Wellness-Fitness initiative prior to hiring the first employees was a critical factor in long-term health and wellness of newly hired fire and EMS providers. The process included: pre-employment health screening including a drug and alcohol test and physical abilities examination; employment contract, requiring the employee to remain tobacco-free on and off duty; recruit school which includes daily physical fitness; successful completion of an annual comprehensive physical.

It is hoped that our model can be used by other organizations to provide the necessary safeguards to protect their investment of personnel and capital into an effective and efficient public safety organization.

***What is the Wellness-Fitness initiative for Louisa County Fire and EMS?***

Fire fighting & Emergency Medical Services (EMS) continues to be one of the most dangerous occupations in the United States. Research reveals the need for high levels of physical fitness to safely perform the necessary duties of the Fire and EMS service. The long hours, shift work, sporadic high intensity work, strong emotional involvement, and exposure to human suffering places Fire and EMS among the most stressful occupations in the world.

High levels of stress, intense physical demands, arduous work and short and long-term exposure to chemicals and infectious disease contribute to heart disease, lung disease and cancer, which are the three leading causes of death and occupational disease disability.

Wellness is important concept for all uniformed personnel in Louisa County. As in many departments, some individuals may gravitate to job tasks other than fire fighting because of personal necessity or interest and can include: technical rescue; hazardous materials response; or fire investigations.

However, all tasks include significant physical and emotional stresses. Wellness is a personal commitment that all uniformed personnel must make to survive and to sustain a successful career in Louisa County Fire and EMS. When uniformed personnel are ill or injured, malnourished or overweight, over stressed or out of balance, it affects their ability to effectively carry out the duties of their profession.

There are many benefits of wellness for uniformed personnel and include greater strength and stamina; weight reduction and/or maintenance; lower cholesterol and blood pressure levels; decreased risk of death, injury, or disability from disease; increased job

performance and work satisfaction; improved physical performance; better posture and joint functioning; reduced anxiety, stress, tension, and depression; increased energy, general vitality, and mental sharpness; enhanced self-esteem and self-image; improved sleep; enhanced capacity to recover from strenuous and exhaustive work; increased homeostasis ability; and improved mobility, balance, and coordination.

***What is the problem, challenge, or situation faced by the locality?***

In 2008, Louisa County made the first steps toward blending career Fire and EMS providers with a previously all-volunteer organization. With the hiring of the County's first career Fire Chief, plans were made for the hiring, training and assignment of these providers. The challenge for Louisa was in the fact that we had never hired career firefighter/EMT's, previously only hiring medics to run EMS.

This substantial investment in personnel, which ultimately included 34 full time and 20 part-time firefighter/EMT's, cost the county in excess of \$600,000. Therefore, it was in the best interests of the county, as well as its newly hired employees, to protect our investment and to provide for the highest level of safety possible in a very unsafe profession. It is hoped that our model can be used by other organizations to provide the necessary safeguards to protect their investment of personnel and capitol into an effective and efficient public safety organization.

***How the program was carried out, including financing and staffing, and the program's results?***

The process

When designing the process, the Fire Chief developed a department wide wellness-fitness initiative for all uniformed employees based on the national recognized

program recommended by the International Association of Fire Chiefs (IAFC) and International Association for Firefighters (IAFF). Establishing the program prior to hiring the first employees was a critical factor in long-term health and wellness of newly hired fire and EMS providers. The process includes:

1. Pre-employment health screening including a drug and alcohol test;
2. Pre-employment physical abilities examination (PAE);
3. Employment contract which requires the employees to remain tobacco-free on and off duty, mandatory participation in the physical fitness program, and mandatory successful completion of the annual PAE;
4. Recruit school which includes daily physical fitness;
5. Successful completion of an annual comprehensive physical

The Louisa County Board of Supervisors took the proactive step to fund these programs in the amount of \$25,000 as part of the hiring process of the now 34 full-time and 20 part-time firefighter/EMT's.

#### Annual Medical Evaluation

The medical evaluation is intended to accomplish the following:

1. Identify whether an individual is physically and mentally able to perform essential job duties without undue risk of harm to self or others;
2. Monitor the acute and long-term effects of the working environment of uniformed personnel, including exposure to chemical and biological agents, and the effects of physical and psychosocial stressors in the workplace;

3. Detect patterns of disease in the workforce that might indicate underlying work-related health concerns;
4. Provide quantifiable medical information on the entire workplace;
5. Inform uniformed personnel of their occupational hazards and health status;
6. Provide a cost-effective investment in health promotion and disease prevention in the Fire and EMS service;
7. Comply with federal, state, provincial and local health and safety requirements.

#### Fitness Program

Throughout the history of the Fire and EMS service, the proper implementation of fitness programs in fire departments has been extensively debated. Research has demonstrated the need for high levels of aerobic fitness, muscular endurance, muscular strength, muscular power, flexibility, and body composition in order to perform safely and effectively in the fire service. Physical fitness is critical to maintaining the wellness of our uniformed personnel. Fitness is incorporated into the overall Louisa County Fire and EMS service philosophy through a partnership with a local fitness facility which, through a contract, provides fitness programs to all uniformed personnel. Additionally, the department requires on-duty physical fitness activities daily.

#### ***How is this initiative cost effective for the County?***

The national Wellness-Fitness Initiative (WFI) began in the late 1990's with studies conducted in large Fire and EMS department throughout the U.S. and Canada. The WFI sites (Fairfax, Indianapolis, Los Angeles, and Phoenix) and non-WFI sites

(Austin, Calgary, Miami-Dade, and Seattle) beginning with pre-implementation, 1991-1997, to post implementation, 1998 - 2004.

Pre-implementation, for the WFI sites, there were a total of 3,033 claims, with a total of 40,611 days lost, and an incurred cost totaling \$21,695,644, an average cost per claim over the seven years was \$56,845 per department. For the seven years post WFI implementation, there was a five percent increase in claims, a 28 percent reduction in days lost, a three percent increase in total incurred costs to \$22,276,143, and a 23 percent decrease in the average cost per claim.

By contrast, in the non-WFI departments there was a 22 percent increase in claims from 1991- 1997 to 1998 – 2004, a 55 percent increase in days lost, a 58 percent increase in total incurred costs, and a 35 percent increase in average cost per claim per fire department.

Statistically, there was a significant difference ( $p < .026$ ) for occupational claims and costs between the Fire departments that implemented the WFI and those sites not implementing the WFI. Regarding occupational claims, there was a five percent increase over the seven years for a WFI department versus a 22 percent increase for a non-WFI department over the seven years.

For a non-WFI Fire department, this represented an increase of 81 claims per year when compared to 25 claims per year for a WFI fire department. When comparing lost hours, there is a 28 percent reduction in lost hours for the WFI departments compared to a 55 percent increase in lost hours for non-WFI departments.

When assessing total incurred costs, there was a three percent increase in costs over the seven years for the pre- and post-implementation WFI departments and a 58

percent increase in total costs for the non-WFI fire departments for both pre- and post-implementation. These results demonstrate that the WFI departments had a total cost savings of \$1,336,535 the first year of implementation per site (due to start up costs) and \$1,952,000 annually per site thereafter.

This appears to be a positive return on investment with getting most of the initial costs back the first year and then receiving a positive return on investment of at least 1:2 for year two. **Therefore, for every one dollar spent on uniformed personnel wellness, via implementation of the WFI, results in an almost immediate return of over two dollars in occupational injury and illness costs.**

Another positive consideration is that these numbers underestimate the true cost savings since this does not take into account non-occupational injuries and the long-term medical costs of premature morbidity and mortality. Substantial long-term cost savings are expected from preventing cardiovascular disease, certain cancers, and reducing early disability from musculoskeletal and back injury.

***What results have come from the implementation of the Wellness-Fitness initiative for Louisa County Fire and EMS?***

While we are now just completing our first full year into the program, the annual physicals and fitness program have resulted in no significant on-the-job injuries and no lost work time. Some employees found minor medical conditions during the annual physical which were easily treatable by their personal physicians. This type of early detection is a key in the future success of our program.

For Louisa County, the hiring of 54 employees was a dramatic step in improving the safety of the residents and visitors to Louisa. This substantial investment in public

safety requires that the County ensure there is a long-term plan for protecting that investment. Through the departments' wellness-fitness program that investment should prove to be as cost-effective as possible.

**BOARD OF SUPERVISORS  
COUNTY OF LOUISA  
RESOLUTION**

At a regular meeting of the Board of Supervisors of the County of Louisa held in the Louisa County Office Building at 5:00 p.m. on the 20<sup>th</sup> day of April 2009, at which the following members were present, the following resolution was adopted by a majority of all members of the Board of Supervisors, the vote being recorded in the minutes of the meeting as shown below:

<u>PRESENT</u>	<u>VOTE</u>
Willie L. Harper, Chairman.....	No
Willie L. Gentry, Jr., Vice-Chairman.....	Yes
Fitzgerald A. Barnes .....	Yes
Daniel W. Byers .....	Yes
Richard A. Havasy.....	Yes
P.T. Spencer, Jr. ....	Yes
Jack T. Wright .....	No

On the motion of Mr. Gentry, seconded by Mr. Barnes, which carried by a vote of 5-2, with Messrs Harper and Wright voting against, the following resolution was adopted:

**A RESOLUTION OF SUPPORT FOR A CONDITIONS OF EMPLOYMENT  
AGREEMENT SETTING STANDARDS AND CONDITIONS FOR HEALTH,  
SAFETY AND PROFESSIONALISM FOR NEW HIRE LOUISA COUNTY  
EMERGENCY SERVICES PERSONNEL**

**WHEREAS**, the Louisa County Board of Supervisors recognized the need for additional Firefighter/EMT's positions, and acted by resolution RES09.017 to implement the recommendations of the Needs Assessment; and,

**WHEREAS**, the Louisa County Board of Supervisors is committed to providing core public services including professional, paid and dependable Emergency Services for County residents today and in generations to come; and,

**WHEREAS**, recruiting, training and retaining qualified and competent personnel who are fit for duty represents a significant financial commitment by the Louisa County Board of Supervisors and, in fact, all Louisa County taxpayers; and,

**WHEREAS**, fire fighting and emergency medical response continues to be one of the most dangerous occupations in the United States and Canada. Research reveals the need for high levels of physical fitness to safely perform the necessary duties of the fire service. The long hours, shift work, sporadic high intensity work, strong emotional involvement, and exposure to human suffering places fire fighting among the most stressful occupations in the world. High levels of stress, intense physical demands, arduous work and short and long-term exposure to chemicals and infectious disease contribute to heart disease, lung disease and cancer; and,

WHEREAS, the National Fire Protection Association's 2005 U.S. Firefighter Fatalities Due to Sudden Cardiac Death, 1995-2004 include the following statistics:

- 1) Four hundred and forty firefighters out of 1,006 (or 43.7 percent) who died on the job experienced sudden cardiac death, typically triggered by stress or exertion;
- 2) fifty percent of all volunteer firefighter deaths and 39-percent of career firefighter deaths resulted from a heart attack;
- 3) ninety-seven percent of the victims had at least a 50-percent arterial blockage;
- 4) seventy-five percent of the firefighters who died of a heart attack were working with known or detectable heart conditions or risk factors, such as high cholesterol, high blood pressure, and diabetes.

WHEREAS, lung cancer is the most common kind of cancer caused by smoking and places the smoker at a high risk for lung disease; and,

WHEREAS, regular physical activity offers many benefits to individual health. Aerobic, endurance-type activities, such as brisk walking, undertaken for 30 minutes on a regular basis (three or more days per week) will strengthen the heart and blood vessels, improve body composition, and lower blood pressure and blood cholesterol; and,

WHEREAS, the U.S. Fire Administration (USFA), working with the National Volunteer Fire Council (NVFC), has issued a revised Health and Wellness Guide for the Volunteer Fire and Emergency Services and has determined that efforts to promote fitness including aerobic exercise, flexibility, strength training, diet; smoking cessation; and other areas will have a positive impact on fitness for duty and operational effectiveness; and,

WHEREAS, the USFA and NVFC have found "... the prevalence of cardiovascular illness and deaths and work-inhibiting strains and sprains among firefighters illustrates the need for a comprehensive health and wellness program in every department."; and,

**NOW, THEREFORE BE IT RESOLVED**, on this 20<sup>th</sup> day of April 2009, that the Louisa County Board of Supervisors hereby resolves to support efforts and initiatives of the County Administrator, the Fire Chief and Human Resources to implement such lawful Conditions of Employment that may be necessary to promote professionalism, health, wellness and fitness for duty among Emergency Services Staff and Leadership, including, but not limited to developing Policies, Procedures and Guidelines for Recruitment, Hiring, Training and Retention that require:

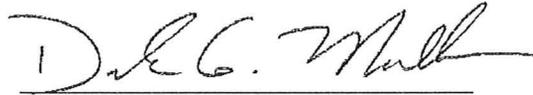
1. Maintaining any and all Department or County required certification or license;
2. Demonstrating an ability to provide basic and/or advanced life support services (BLS-ALS);
3. Refraining from the on and off-duty use of tobacco products while employed with Louisa County Emergency Services;
4. Maintaining a level of physical fitness as allowed by law and as determined necessary and proper by the Fire Chief that will allow the uniformed staff to

safely, effectively, and efficiently perform all of the tasks required of Department of Fire and EMS employees;

5. Mandating participation in a physical fitness program;
6. Refraining from participation or maintaining active or associate status in or with any volunteer Fire or EMT organization(s) within Louisa County that may be in violation of existing law, County Code, Department Rules or that may, in the opinion of the Fire Chief negatively impact the image of the Department or the employees fitness for duty;
7. Requiring compliance with all applicable rules and regulations of the County; and,
8. Promoting and upholding the Department's values and mission.

**BE IT FURTHER RESOLVED**, that these requirements shall be communicated to potential applicants and such Conditions of Employment shall be made in writing and signed and agreed to prior to an offer of full or part time employment in the Louisa County Department of Emergency Services.

A Copy, teste:



Dale G. Mullen, Clerk  
Board of Supervisors  
Louisa County, Virginia



# County of Louisa

## *Department of Emergency Services*

### Fire/Emergency Medical Personnel General Conditions of Employment

#### **A. PURPOSE**

To adequately perform the firefighting and medical emergency services required by the Louisa County Board of Supervisors and by state law, all uniformed emergency services personnel must be highly proficient in the performance of their duties and to that end, the following standards are established.

#### **B. CONDITIONS**

The following conditions of employment are required of all uniformed emergency services personnel:

1. Upon employment, personnel have and maintain in good standing the certifications required by the state for the position held with the Department of Emergency Services.
2. All uniformed emergency services personnel operate under the license of the Operating Medical Director. Only with the approval of the Operating Medical Director will personnel be able to perform emergency medical services. Accordingly, the employee will be allowed to assume the full duties of the position when such approval is granted. Should the Operating Medical Director not approve an employee to work under his or her license, the employee may be terminated on the grounds of "inability to perform the required job duties."
3. Should the need arise, the Fire Chief may require a Full-time Firefighter/EMT to attend an ALS training course in order to become certified as an ALS provider; once certified as an ALS provider, the employee will assume the duties of Fire/Medic.
4. All uniformed emergency services personnel shall have and maintain a valid Virginia Drivers' License with no driving restrictions and with a driving record that would allow the employee to be covered under the County's insurance policies without any additional premium costs.
5. Uniformed emergency services personnel with employment dates after June 30, 2009 shall not smoke or use tobacco products on or off duty. Uniformed emergency services personnel employed on or before June 30, 2009 shall not smoke or use tobacco products while on duty or in uniform.

6. Uniformed emergency services personnel shall maintain a level of physical fitness such that the duties of the position can be safely, effectively, and efficiently performed under the conditions normally found in firefighting, rescue, and other emergency activities. The physical standards are set forth in the Physical Agility Standards and Procedures (attached). These standards shall not apply to personnel hired with no firefighting responsibilities.
7. Uniformed emergency services personnel may not volunteer with another Fire, Rescue, or EMT organization without the permission of the Fire Chief. Such volunteer work will be evaluated under the same standards as "outside employment" requests are evaluated; the time engaged in the outside activities shall not interfere with, or impact in any way, the duties to be performed for the Department.

These conditions supplement those found in the Employee Handbook of Louisa County and may be amended as needed.

I acknowledge that I have received and read a copy of the General Conditions of Employment along with the Physical Agility Standards and Procedures. I also acknowledge that if I have any questions regarding these conditions, or if I should need any accommodations with respect to meeting these requirements because of a disability, I have been advised that I can discuss the accommodations with the Fire Chief.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name