



SINGLE SOURCE/SOLE SOURCE JUSTIFICATION

Purchasing and Services Division

777 B STREET • HAYWARD • CA • 94541-5007

510-583-4800 • 510-583-3600 FAX

WWW.HAYWARD-CA.GOV

Instructions: Use this form whenever a specific product or services is required and no other acceptable alternatives is available and/or suitable. Please submit this form to the Purchasing Division **completed with the approval of the City Manager or Assistant City Manager.**

Section 1: Type of Justification – Check ONLY ONE BOX below.

- ☐ **SINGLE SOURCE JUSTIFICATION:** Item or services being requested has unique performance features not found in other items but is available on the open market from multiple sources. Specific brand or manufacturer is required to complete task but it can be obtained from more than once source at the time.
- ☒ **SOLE SOURCE JUSTIFICATION:** Item or services being requested has unique performance features not found in other items **and is available only from a single manufacturer or from single dealer with exclusive distribution rights.**

Section 2: Required Information

All questions below must be fully completed to support a sole brand or sole source procurement. Attach any additional information to expand justification.

1. What is the particular product/services and the vendor chosen?

Life Scan Wellness Centers provide NFPA 1582 compliant annual physicals that incorporate early detection imaging/ultrasound.

2. What are the unique performance features of the product/service you have specified that are not available from any other source? Be specific.

Life Scan Wellness program was the first, and currently only program to offer Firefighter physical in the United States that are in compliance with both NFPA 1582/1583 standards, as well as provides the enhanced early detection and prevention of cancer and heart disease. The Life Scan Wellness program is an integrated physical that combines the essential components of NFPA 1582/1583 with the unique model of enhanced ultrasound imaging studies, advanced blood work, extensive physical exam, cardiopulmonary testing, and medically related fitness evaluations with a foundation in patient education and risk reduction. The Life Scan Wellness ultrasound-aided physical exam has been the cornerstone of Life Scan Wellness physicals for over two decades and the key to their success in the fight against cancer, heart disease and a constellation of public safety occupational disease processes.

Public safety has been recognized to be among the most stressful and hazardous of professions with long-term exposure to toxic materials and infectious disease, high levels of physical demands, frequent spontaneous fluctuations in blood pressure resulting from the “fight or flight” response, exposure to emotionally devastating events, and the effect of shift work schedules and impaired sleep. Studies confirm that the average firefighter and police officer has almost three times the incident of heart disease, lung disease, and cancer than the average population.

3. Why are these specific performance features required to perform its intended function? Explain why the design/performance features are essential.

Life Scan has a distinctive approach to occupational medicine.

- The Life Scan public safety physical is an integrated medical approach to occupational exams that combines the NFPA 1582 physical with early detection of the major diseases such as heart disease, stroke, cancer, diabetes, and aneurysms before they reach a catastrophic level. It provides the Firefighters with a thorough assessment of their health as well as recommendations for achieving and maintaining long term health and managing medical risks. Each Life Scan physical exam follows the standards and guidelines of NFPA 1582 (2018 Edition), OSHA, and the IAFF/IAFC Health and Wellness Initiative, including:
- the added-value benefit of Life Scan ultrasound assessments of the internal organs and cardiovascular system

- more extensive laboratory blood profiles
- behavioral wellness assessment
- diet and nutritional analysis,
- a state-of-the-art fitness evaluation
- and a personalized wellness plan

4. Explain efforts made to obtain best possible price. What is the anticipated cost for this purchase? Why do you consider the price to be fair and reasonable?

Life Scan proposes to provide an on-site program that can help to ensure an expedient time frame for services, as well as provides an option to keep employees on-duty resulting in a reduction in costs, time away from the job, or even overtime and operational efficiencies.

Life Scan specializes in providing government agencies with public safety physical exams that comply with NFPA 1582, the IAFF/IAFC Wellness Fitness Initiatives as well as incorporating an advanced level of medical assessments for the early detection of cancer, cardiovascular diseases, and other potentially catastrophic illness. The Life Scan model of “ultrasound-aided physical exams” for Public Safety Officers has been incorporated into the medical standards for over 350 fire service, EMS, and Law enforcement departments. As a result, they have the proven ability to identify cardiovascular disease, aneurysms, diabetes, and cancer more accurately and in much early stages in the disease process resulting in a substantial, long-term disability, absenteeism, and health care cost savings to the employer and the potential for lives saved. Their expertise provides the most cost-effective pricing available. Their Electronic Medical Record system allows for high level de-identified wellness trending to further focus organizational health and wellness successes.


The cost is approximately \$102,000 (\$850/employee).

5. What other comparable products or services are available and why were they rejected and does not meet the department’s needs? State specific reasons to include manufacturer, brand name, model and vendor name.



There is currently nothing on the market that can provide the specifics Life Scan Wellness is able to provide.

Section 3: Certification

I am aware of the requirement for competitive bidding and the established criteria for justification of sole source purchases. As an authorized department representative, I have gathered the required technical information and have made a concentrated effort to review comparable products and services for this purchase.

Requestor – Print Name: Tara Reyes, Fire Services Supervisor	Date: 7/27/21
Department Head Signature: 	Department: Fire

Section 4: Approval/Endorsement

Director of Finance: 	Date: 07/28/2021
City Manager/Assistant City Manager: 	Date: 8/6/2021

What is Life Scan Wellness Centers?



LIFE SCAN **Wellness Centers**

The Life Scan Wellness Centers program focuses on early detection and prevention for public safety officers. All services provided by Life Scan are carefully selected to maintain uniformed personnel's overall health status including physical and mental capabilities. The selection of services is based on the National Fire Protection Agency (NFPA) and the Fire Service Joint Labor Management Wellness-Fitness Initiative (WFI); these are the governing organizations that establish the health and wellness guidelines to which public safety officers comply. The Life Scan program described in this book is up to date with the current NFPA 1582(2018) and 1583 editions as well as the WFI 4th edition. To assure an effective wellness program, all Life Scan specialists thoroughly understand the essential job tasks of uniformed personnel and the program is tailored to meet the specific needs of this population.

Life Scan's vision of a strategic plan of health and wellness for your employees is exciting and should become a benchmark for the future of healthcare for employers as we embark on a new healthcare system for our country. Life Scan's background in the area of professional medical services and prevention-based health, wellness, and fitness programs spans over fifteen successful years in development and implementation of programs for state municipalities and counties to fit their specific needs. Life Scan's unique formula generates a healthier and more productive work force resulting in reduced absenteeism, better interventional care, and substantial healthcare cost savings to the employer with the potential to save the lives of America's heroes.



For more information, visit the NFPA website at www.nfpa.org

WE PROTECT THOSE WHO PROTECT US.

Exclusively designed to meet the unique needs of public safety officers, Life Scan offers an annual occupational health, wellness, and fitness evaluation that focuses on early detection and prevention. We will assist your department in complying with OSHA and state guidelines as well as NFPA medical standards; meeting your health and wellness initiatives and going beyond.

WE TACKLE THE BIG ISSUES: CANCER, HEART DISEASE AND BEHAVIORAL HEALTH

Cancer is on everyone's radar early detection saves lives. It's a fact: And first responders risk and rates of cancer is a national crisis. The bottom line is that a standard physical cannot find cancer until it is too late. And with first responders the cause of cancer is so often from exposure and the resulting cancer is often extremely aggressive and spreads quickly.

Cardiovascular Disease is still the leading cause of first responders deaths today and now claims its victims younger and younger every year. Enlarged hearts as well as aortic valve damage are best measured by ultrasound and not identified by just listening with a stethoscope.

Behavioral Health: First responders are exposed to scenes and situations that are beyond comprehension. Life Scan incorporated a behavioral health/trauma screening into our physical exam.

- Heart Disease
- Cancer
- Aneurysms
- Stroke
- Diabetes
- and more

NFPA and OSHA Compliant

The Life Scan public safety physical is an integrated medical approach to occupational exams that combines NFPA 1582 physicals, NFPA 1583/Wellness Fitness Initiative fitness evaluations, and OSHA 1910.134 Respirator Medical Clearance and Mask Fit Testing with advanced medical assessments for the early detection of the major diseases such as heart disease, stroke, cancer, diabetes, and aneurysms before they reach a catastrophic level. It provides your employees with a thorough assessment of their health as well as recommendations for achieving and maintaining long term health and managing medical risks.



"The people at LIFE SCAN are highly recommended. My cancer was detected so early that it

"Thank You to the members and staff of LIFE SCAN. Not only did you save my life

LIFE SCAN WELLNESS PROGRAM

For Fire Rescue and Police Departments

Comprehensive Public Safety Physical(NFPA 1582 compliant)

- Hands -on Physical Exam
- Medical &Occupational/Environmental History Questionnaire
- Back Health Assessment
- Breast Exam
- Vision Exam (Titmus) Ishihara, color, binocular, and depth perception
- Audiology
- Skin Cancer Assessment
- Personal Consultation with review of testing results

Behavioral Health Assessments

- Behavioral Health Resource Toolkit
- National Recognized Board of Behavioral Health Experts
- Evidenced-Based Assessment and Screenings
- Sleep Disturbance and Mental Health Questionnaires

Blood Analysis and Laboratory Tests

- Colon Cancer Screening (Hemoccult Test)
- Urinalysis Dip
- Lipid Panel (Cholesterol, Ratio, and Blood Glucose)
- Diabetes Tests (Hemoglobin A1C and Glucose)
- Comprehensive Metabolic Panel(Renal and Liver Functions)
- Thyroid Panel
- PSA (men)

Cancer, Heart, Vascular, and Disease Screenings

- Echocardiogram (Heart Ultrasound)
- Aorta and Aortic Valve Ultrasounds
- Carotid Arteries Ultrasound with CIMT Calculation
- Thyroid Ultrasound
- Liver, Gall Bladder, Spleen, & Kidney Ultrasounds
- Bladder Ultrasound
- Pelvic Ultrasounds for Women (Ovaries and Uterus)
- Prostate and Testicular Ultrasounds for Men

Cardiopulmonary Assessment

- Resting EKG
- Cardiac Treadmill Stress Test with EKG (Bruce Protocol)
- Pulmonary Function Test (Spirometry)

Fitness Evaluation (NFPA 1583-WFI Guidelines)

- Muscular Strength and Endurance Evaluation
- Aerobic Endurance Evaluation (VO2 Max Calc)
- Flexibility (Sit and Reach)
- Nutrition and Diet Recommendations
- Personal Fitness Recommendations and Exercise Prescription
- Body Weight and Composition (Body fat, Calipers)

Medical Clearances

- OSHA Respirator Medical Clearances
- Firefighter Medical Clearances NFPA 1582

Improved Fitness

Life Scan's WFI - Compliant Firefighter Fitness Analysis ensures firefighters are in top physical condition for better on the job performance and overall wellbeing. Our integrated fitness initiative includes diet and nutritional analysis, a state-of-the-art fitness evaluation, and a personalized wellness plan to create an ongoing customized fitness plan for each individual officer and firefighter.

Cost Containments

Life Scan offers on-site, same day examinations that reduce absences and allow firefighters to remain on duty while receiving their evaluations. Our successful early detection rates reduce health care costs and workers compensation costs because many health issues are identified before they reach catastrophic levels.

my blood work was still normal and I felt really good with no signs or symptoms at all."

Life but you save the lives of firefighters and police officers every day!"



Physical Examination

The Life Scan Mid-Level Practitioner is responsible for providing an annual comprehensive medical assessment for uniformed personnel. The medical examination provides invaluable health status assessments of both the individual and department wide. The



medical evaluation is intended to identify whether an individual is physically and mentally able to perform essential job duties without undue risk of harm to self or others, monitor acute and long-term effects of the working environment of uniformed personnel, detect patterns of disease in the workforce that might indicate underlying work-related health concerns, provide quantifiable medical information on the entire workplace, and inform uniformed personnel of their occupational hazards and health status. This medical evaluation complies with federal, state, provincial and local health and safety requirements. The Mid-Level Practitioner has a thorough understanding of the public service officer positions including essential job tasks, physical demands, psychosocial

stressors, various environmental exposures and the effects of medical conditions on essential job tasks. The following outlines the medical evaluation provided by the Mid-Level Practitioner:

Health History Questionnaire

A medical history questionnaire is completed by each patient prior to the physical examination. This questionnaire is essential for establishing a medical baseline and annual questionnaires provide follow-up information to aid in identifying changes in health status.

Vital Signs

The Mid-Level Practitioner, in addition to the other specialists at Life Scan Wellness Centers, checks each patient's most basic body functions including:

- **Body Temperature-** measured orally
- **Pulse Rate-** measured and recorded by the Clinical Exercise Specialist through the use of an electrocardiogram (EKG) and measured manually by the Mid-Level Practitioner
- **Blood Pressure-** measured and recorded by the Clinical Exercise Specialist both at rest and during the (EKG) stress test.
- **Respiratory Rate-** manually assessed

Head, Eyes, Ears, Nose and Throat (HEENT) Exam

The hands-on physical examination includes the assessment of the head, eyes, ears, nose and throat (HEENT) with the inclusion of occupational hearing and vision examinations. The HEENT includes a thorough evaluation of:

- **Head-** searching for shape abnormalities or evidence of previous trauma that may interfere with the use of SCBA or other Personal Protective Equipment (PPE).
- **Eyes-** searching for inadequate eye function or diseases that can potentially impair essential job tasks such as driving capabilities as well as the ability to accurately read placards and street signs. The eye exam consists of tests for visual acuity, pupil function, and extra ocular muscle motility as well as external examination of the eyes.
- **Ears-** the physical assessment of the ears includes an evaluation of the auditory canal and tympanic membrane. Public safety officers should have adequate hearing in order to hear and understand the spoken voice under conditions of high background noise, or hear, recognize and directionally locate cries or audible alarms.
- **Nose-** inspected for deformities or diseases which could potentially affect the ability to properly secure facial personal protective equipment (PPE) or to detect harmful toxins and chemical fumes
- **Mouth/Throat-** evaluation of the oropharyngeal cavity, gums, teeth/dental structures, palate, tongue, tonsils and posterior pharyngeal wall is conducted to detect pre-cancerous changes due to environmental exposure
- **Neck-** evaluation of major vessels, lymph nodes, salivary and thyroid glands, physiologic functioning (e.g., swallowing, saliva production), and an assessment for abnormal masses, gland enlargement, or suspicious skin lesions. Range of motion of the cervical spine is also assessed and noted. Any neck or throat abnormalities can impair the safety and performance of one or more of the essential job tasks.

Occupational Vision and Hearing

The assessment of vision includes evaluation of distance, near, peripheral, and color vision; more in depth, the visual evaluation comprises: visual acuity screening for both far vision acuity and near vision acuity with the eyes tested separately, vision testing to determine both uncorrected and corrected visual acuity, color vision testing using color plates, and a peripheral vision evaluation. This screening is used to detect presbyopia, or near visual loss, which is common in adults and escalates in prevalence with increasing age. Other common visual disorders that may be identified are cataracts, macular degeneration, glaucoma, and diabetic retinopathy.

A hearing examination, which is done in accordance with 29 CFR 1910.95, "Occupational Noise Exposure," is conducted at the following frequencies: 500 Hz, 1000 Hz, 2000 Hz, 3000 Hz, 4000 Hz, 6000 Hz and 8000 Hz. The testing is done in an ANSI-approved soundproof booth with pure tones presented at various intensities until a threshold is established. This test is important for uniformed personnel because by nature of their occupation, they are at an increased risk for noise-induced hearing impairment at an earlier age.

Cardiovascular and Pulmonary Function

The Mid-Level Practitioner manually evaluates cardiovascular and pulmonary function in addition to the electrocardiogram (EKG) and echocardiogram provided by the other Life Scan specialists. This portion of the examination includes auscultation of the heart (identifying heart sounds, extra sounds, clicks and murmurs) and major arteries. Inquiring about changes in a patient's aerobic capacity as well as identifying and explaining modifiable and non-modifiable cardiac risk factors is part of this portion of the examination as it could indicate pulmonary or cardiac disease. The respiratory exam includes an inspection for respiratory rate and effort, presence of coughing, sneezing or other signs indicative of respiratory diseases, and auscultation for breath sounds and any abnormal sounds. Spirometry is an effective screening and surveillance exam for pulmonary disease and is included as part of Life Scan's examining process; however, this screening is conducted by the Exercise Physiologist who further discusses the results (See page 9). Additionally, OSHA Respiratory Clearance is provided to any departments that require it.

Gastrointestinal Examination

The gastrointestinal exam includes inspection, palpation, percussion and auscultation. Generally, the right upper quadrant is palpated for evidence of liver, colon or gall bladder disease; the left upper quadrant is palpated for spleen or colon pathology; palpating the right and left lower quadrants is helpful for evaluation of colon disease. This exam aids in the detection of masses such as tumors, hernias or lymph node enlargement.

Genitourinary Examination

The genitourinary examination for men includes testicular, penis and inguinal hernia evaluations. This part of the examination allows the Mid-Level Practitioner the opportunity to discuss testicular and prostate cancer screenings as well as techniques for self-examination of the testicles. This exam may be deferred if the patient prefers to obtain these exams from his own primary care physician. The genitourinary examination for women includes a clinical breast exam and an evaluation of the gynecologic Pap smear and mammography. This part of the examination allows the Mid-Level Practitioner to discuss breast and cervical cancer screenings and techniques for self-examinations of the breasts. This exam may be deferred if the patient prefers to obtain these exams from her own primary care physician.

The rectal screening scans for rectal masses and mucosal abnormalities such as hemorrhoids, anal fissures, and cancerous lesions; it also detects prostate abnormalities in men. These assessments are critical to safely performing a majority of the essential job tasks such as crawling, lifting and carrying heavy objects, wearing protective gear, and operating from heights or uneven surfaces.

LIFE SCAN

Wellness Centers

Neurological Evaluation

The neurological examination for uniformed personnel includes a general assessment of mental status, cranial nerve function, cerebellar function/coordination, motor system, sensory system, balance and gait, and the reflexes. Significant neurological abnormalities can greatly affect a public service officer's ability to perform the essential job duties. This population's exposure to heat, stress, activity and variable shift work have the capacity of taking a toll on the neurological system.

Behavioral Health Evaluation

First responders are exposed to scenes and situations that are beyond the comprehension and coping capabilities of the average person; they see, hear, and smell what no human being should ever have to experience. Life Scan incorporated behavioral health/trauma screening into our physical exam.

Consultation with Review of Results and a Personalized Health Plan

Upon completion of the physical examination the Mid-Level Practitioner reviews the results obtained by all the Life Scan specialists, the patient's lab work (completed prior to the patient's visit to Life Scan), and the results of any other scans or tests (e.g., MRI's, chest/lumbar x-rays, mammograms and CTA of heart). In reviewing the results, the examiner takes the time to focus on patient education and the incorporation of a personalized health and wellness plan. This health and wellness plan includes an exercise prescription as well as diet and nutritional recommendations; these recommendations are based on the patient's laboratory analysis and the findings and recommendations from the Clinical Exercise Physiologist. The Mid-Level Practitioner also refers patients to appropriate interdisciplinary health practitioners for follow up care (e.g., cardiology, endocrinology, primary care physician, etc.) in the event of significant abnormal findings. The Mid-Level Practitioner works closely with the Ultrasound Technician and Clinical Exercise Specialist to provide detailed and beneficial recommendations that are tailored to each patient's specific needs based on the results of all examinations conducted by each specialist.



Hemoccult Test

This test is used to detect the presence of fecal occult blood (FOB), which is blood in the feces that cannot be seen through the collection of a small sample of the patient's stool. This test is most often used to help detect colorectal cancer; however, other positive results may include: gastroesophageal cancer, GI bleeds, diverticulae, hemorrhoids, anal fissures, colon polyps, ulcerative colitis, Crohn's disease, celiac disease, GERD, esophagitis, peptic ulcers, gastritis, inflammatory bowel disease, vascular ectasias, portal hypertensive gastropathy, aortoenteric fistulas, hemobilia, endometriosis, and trauma. This simple test is necessary for public service officers because research has shown that firefighters have a 21% increased risk of developing colorectal cancer.

Lymph Node Inspection

The Mid-Level Practitioner palpates and inspects various areas of the body to detect abnormalities. An examination of the lymph nodes for enlargement, tenderness, and mobility in the cervical (neck), supraclavicular (above the clavicle), inguinal (groin) and the axillary (upper limb and breasts) regions is conducted.

Musculoskeletal Evaluation

In the musculoskeletal exam, the Mid-Level Practitioner inspects and palpates for structural asymmetries, active range of motion of all major joints, the sensation of pain with any of the above and a complete joint specific examination. Limitations or abnormalities are noteworthy in order to provide timely provision of physical therapy and to record those injuries that may be relevant to future worker's compensation, pension or disability claims.

Skin Cancer Screening

The examiner inspects the skin for color, vascularity, lesions, and edema. Examination of the skin for moles or other suspicious lesions is critical because these sites could be cancerous; in fact, firefighters face approximately a 39% increased risk for skin cancer. The examiner closely inspects areas of the skin that are often overlooked, such as between the fingers and toes, because these sites are where dangerous carcinogens like melanoma can be found. Inspection of the skin may also aid in determining if an individual is at increased risk for burn damage and infection.

Ultrasound Studies

The ultrasound technician conducts a thorough evaluation of each patient's internal organs and provides the patient with copies of still images (sonograms) that may be passed on to the patient's primary physician for further evaluation and/or diagnostic purposes.

Ultrasound scanning is a noninvasive, safe and painless method that uses sound waves to create real time images of the inside of the body. Performing ultrasound scans and searching for abnormalities in the major internal organs assures that the public service officers can adequately perform essential job tasks with as little risk as possible. It also aids to track the yearly effects of the environmental exposure the job entails such as exposure to toxic fumes, irritants, particulates, biological and nonbiological hazards, and/or heated gases. The following provides a comprehensive list and description of each scan conducted by the ultrasound technician at Life Scan Wellness Centers:

Echocardiogram Heart Scan

An echocardiogram is a test that uses sound waves to create a moving picture of the heart. The echoes of the sound waves are picked up by transducers and transmitted as electrical impulses, thus converting these impulses into moving pictures of the heart. This noninvasive scan allows the technician to see the heart beating as well as the heart valves and chambers of the heart. The echocardiogram allows physicians to diagnose, evaluate and monitor: abnormal heart valves, atrial fibrillation (a fast and irregular heart rhythm), congenital heart disease, damage to the heart muscle, heart murmurs, pericarditis (infection in the sac around the heart), infectious endocarditis (infection on or around the heart valves), pulmonary hypertension (abnormally high blood pressure in the arteries of the lungs), the pumping function of the heart (especially for those with heart failure), and the source(s) of blood clots. Ultimately, an echocardiogram heart scan can detect abnormalities ranging from those that are very minor and do not pose serious risks to those that indicate signs of severe heart disease requiring further evaluation by a cardiologist.

Carotid Artery Scan

The carotid artery duplex scan assesses the blood flow of the arteries that supply blood from the heart through the neck to the brain. This noninvasive procedure uses two modes of ultrasound (Doppler and B-mode) to obtain both an image of the carotid arteries as well as an evaluation of the velocity and direction of blood flow in the vessel. This particular scan is used to assess blockage or narrowing of the carotid arteries of the neck and/or branches of the carotid artery caused by plaque, blood clots or other substances in the blood stream. Blockages detected by this scan may serve as an early warning sign of a possible stroke. This scan may also aid in evaluating previously performed procedures to restore blood flow to the area (i.e., angioplasty or bypass surgery), locating a hematoma (a collection of clotted blood that may slow and eventually stop blood flow) and detecting dissection of the carotid artery that may lead to obstruction of blood flow or weakening of the wall of the artery.

Aortic Aneurysm Scan

An abdominal aortic aneurysm (AAA) is the 13th leading cause of death in the United States. The lethality of a ruptured AAA is devastating; the mortality rate after rupture approaches 90%. Therefore, it is essential to perform this preventative exam or to recognize AAA promptly. Abdominal palpation correctly diagnoses AAA only 68% of the time; whereas ultrasound is an ideal method for detecting AAA's due to its near 100% accuracy.

An AAA occurs when a bulging, weakened area develops in the side of the aorta. The aorta is the body's major artery and is crucial in delivering oxygen and nutrients to all parts of the body. Abdominal aortic aneurysms, if left untreated, can grow and may rupture or tear, which may cause life-threatening internal bleeding. The aortic aneurysm scan analyzes the circumference of the aorta; an AAA is diagnosed when the diameter exceeds 3.0 cm.

Liver, Pancreas, Gall Bladder, Kidneys and Spleen (Abdominal Organ Scan)

An ultrasound of the upper abdomen consists of examining the liver, pancreas, gall bladder, kidneys and spleen; this examination requires that the patient fasts for approximately six hours before the scan. An abdominal organ scan can detect various abnormalities including but not limited to hernias, tumors and cancer, ascites (excess fluid in the space between the tissues lining the abdomen and abdominal organs), abdominal organ swelling and stones in the gall bladder or kidney. It can also aid in determining the cause of various symptoms including abdominal pain and swelling, kidney infections, fevers as well as the cause of abnormal blood tests such as liver function tests or kidney tests.

Ovaries/Uterus Scan (Female Only)

For women, a pelvic ultrasound uses sound waves to make a picture of the organs and structures in the lower belly, specifically the ovaries and uterus. This specific exam looks at the size and shape of the uterus and ovaries as well as the thickness of the uterine lining. The procedure may ultimately detect lumps, cysts, uterine fibroids or pelvic inflammatory disease and can determine the cause of vaginal bleeding and/or pelvic pain.

A normal pelvic ultrasound for women is defined by the ovaries, cervix and uterus being normal in shape, size and location as well as being absent of growths, tumors, fluid or other problems. Small cysts in the ovaries may be normal in certain women. An abnormal pelvic ultrasound is present in women who present with the following conditions: a large or abnormally shaped uterus, the presence of cysts or tumors, a thicker than normal endometrial stripe (lining of the uterus) which may indicate an increased risk for endometrial cancer, an abnormal amount of fluid in the pelvis, or the presence of pelvic inflammatory disease or abscesses.

Testicular/Prostate Scan (Male Only)

For men, a pelvic ultrasound uses sound waves to look at the seminal vesicles and the prostate gland, check for prostate cancer, and determine if urinary problems are caused by an enlarged prostate. A normal pelvic ultrasound in men is one which the prostate gland and seminal vesicles are normal in size and shape and no growths, tumors or other problems are present. One of the most common abnormal findings in this exam is an enlarged prostate gland (also known as benign prostatic hypertrophy). Other findings that result in an abnormal testicular/prostate scan include an abscess, tumor or abnormal amount of fluid in the pelvis. According to a study by the University of Cincinnati, firefighters face a 102% increased risk of developing testicular cancer and 28% increased risk of prostate cancer, emphasizing the importance of this screening.

Bladder Scan

The bladder scan portion of the abdominal ultrasound scan is conducted on both men and women to determine whether the bladder empties completely during urination by viewing the bladder both before and after urination and to find the cause of urinary problems or urine in the blood. For the test it is required that the bladder is full to obtain the best results; therefore, patients are advised to drink 4-6 glasses of water within the hour of the scan.

A normal bladder scan will show a bladder that is an appropriate size and shape with no stones or abnormal growths. The scan should confirm that the bladder empties completely before and after urination and that urine flows normally from the ureters into the bladder. If the bladder has an abnormal shape or thick wall, a growth or stone is seen within, or the bladder does not completely empty after urination then further evaluation may be suggested.

Thyroid Scan

A thyroid ultrasound is an imaging method used to see the thyroid, a gland in the neck that regulates metabolism. This scan checks the thyroid for normal size, shape and position; the ultrasound can determine the difference between a sac containing fluid (cyst) and abnormal tissue that may or may not be cancerous (tumor). Abnormalities of the thyroid may be due to cysts, goiter (enlargement of the thyroid gland) or thyroid nodules (raised bumps that are wider than 0.5 cm). This scan can ultimately lead to the detection of one of several types of cancers that may be present in or around the thyroid gland.

Urinalysis

The ultrasound technician performs a comprehensive urinalysis exam which serves various purposes. It is required as a drug test as part of the pre-employment process and for employees the urinalysis is utilized for screening purposes. The technician searches for urinary tract infections as well as proteins, ketones, and glucose in the urine. Employees may be required to submit to drug testing as well; this is verified in departments' individual contracts.

Cardio-Pulmonary/ Fitness Evaluations

Life Scan's unique 8-level fitness analysis conducted by a Clinical Exercise Physiologist makes certain that public safety officers are in top physical condition to ensure better on-the-job performance and overall wellbeing. An integrated fitness initiative includes diet and nutritional analysis, a state-of-the-art fitness evaluation, and a personalized wellness plan to create an ongoing customized fitness program for each officer and firefighter. Life Scan's cardio-pulmonary and fitness evaluation protocols are specifically chosen to meet the 2013 NFPA 1582 and 1583 standards as well as OSHA standards. The following provides a comprehensive list and description of the fitness assessments conducted at Life Scan Wellness Centers, including references to specific NFPA standards as well as the 13 essential job tasks as described by the NFPA which necessitate the conduction of these assessments:

Electrocardiogram (EKG)

The resting electrocardiogram (EKG) is a noninvasive procedure that records the electrical activity of the heart over a period of time. The EKG is used to measure the rate and regularity of heart beats, as well as the size and position of the chambers, the presence of any damage to the heart, and the effects of drugs or devices used to regulate the heart. An EKG is a way to measure and diagnose abnormal rhythms of the heart, particularly abnormal rhythms caused by damage to the conductive tissue that carries electrical signals, or abnormal rhythms caused by electrolyte imbalances or oxygen deficiencies.

The Clinical Exercise Physiologist at Life Scan Wellness Centers performs baseline (resting) assessments including a resting EKG and blood pressure to search for signs of heart disease and hypertension (high blood pressure) prior to beginning a stress test.



St. Petersburg Fire & Rescue

Cardiac Treadmill Stress Test with EKG

Once a resting EKG is conducted and baseline values are established, the Clinical Exercise Physiologist may begin the stress test with the patient if resting values are conducive to testing. The term exercise stress test refers to stressing the body by putting an exercise load on it and measuring the response; this type of testing is considered the “Gold Standard” academically and medically for heart disease screening. The stress test conducted at Life Scan is a sub-maximal stress test, which means the patient works until a pre-determined heart rate is achieved; this pre-determined heart rate is 85% of the predicted maximum heart rate. The protocol used for the treadmill stress test is the Bruce Protocol, which is the most widely used for a treadmill test; this is a multistage protocol consisting of several stages of progressively greater workloads (the treadmill’s incline becomes steeper and its speed becomes faster with the advancement of each stage) until the target heart rate is attained. Overall, the EKG stress test allows the exercise specialist to determine maximal exercise capacity (VO_{2max}) while also detecting early signs of coronary artery disease.

Overall, stress testing is an important tool in assessing public service officers because it aids in:

- Determining whether an individual is physically fit to perform essential job duties without undue risk of harm to self or others
- Monitoring the effects of exposure to specific biological, physical, or chemical agents that may be related to hazardous working conditions
- Detecting any patterns of disease in the workforce that might indicate underlying work-related problems
- Providing the safety officer with information about his/her current health
- Providing a cost-effective investment in the early detection, disease prevention, and health promotion of the fire fighter
- Developing recommendations for exercise prescription and rehabilitation
- Complying with federal, state, provincial, and local requirements

An exercise stress test is just one diagnostic test that may be used in the determination of an individual’s fitness for duty. The determination of fitness for duty must not be made on the basis of a single test, but rather on a comprehensive evaluation of the individual that includes diagnostic testing, personal medical history, and other indicators of health status. For example, another assessment built into the Life Scan format to compliment the stress test is the echocardiogram which is part of Life Scan’s ultrasound studies; the Exercise Physiologist will often refer to results from the Ultrasound Technician or vice versa to reinforce certain findings. The NFPA suggests the importance of the stress test to ensure that the public service officer is capable of withstanding unpredictable emergency requirements for prolonged periods of extreme physical exertion without benefit of warm-up, scheduled rest periods, meals, access to medication(s), or hydration (NFPA 6.9.1).



Pulmonary Function Test (Spirometry)

The pulmonary function test (PFT) is a method of assessing the function of the lungs; PFT's are a way of detecting and quantifying abnormal lung function in a noninvasive manner and are one of the most common diagnostic tests for measuring lung function. Spirometry measures how quickly air can be expelled from the lung and is performed by having an individual blow into a device called a spirometer. This machine measures the volume of air that is exhaled as a function of time. Spirometry does not measure the amount of air in the lungs, just the amount of air entering or leaving the lungs; therefore, it is most useful for measuring diseases that cause obstruction to air flow (i.e., asthma, COPD, chronic bronchitis, emphysema).

Although many measurements can be made from a PFT, the Life Scan Exercise Physiologist focuses special attention on the Forced Vital Capacity (FVC), Forced Expiratory Volume in 1 second (FEV_1), and the ratio of FEV_1 to FVC (FEV_1/FVC). Stated simply, FVC is the volume of air (liters) that can forcibly be blown out after full inspiration and FEV_1 is the volume of air that can forcibly be blown out in one second. The ratio FEV_1/FVC can suggest the presence of the following pulmonary diseases: obstructive lung disease if the FEV_1/FVC ratio is less than 75% of predicted; mixed pattern disease if the FEV_1/FVC ratio is between 75-85% of predicted AND both FEV_1 and FVC are reduced; or restrictive lung disease if the FEV_1/FVC ratio is greater than 85% of predicted and both FEV_1 and FVC are reduced.

As indicated by the NFPA, public service officers may be exposed to toxic fumes, irritants, particulates, biological (infectious) hazards, nonbiological hazards and/or heated gases despite the use of personal protective ensembles and SCBA (NFPA 6.8; 7.7.4); the unique nature of these individuals' work environment necessitates spirometry. It is recommended because it may reflect early changes in the lungs, prior to the onset of symptoms; this allows for earlier intervention and treatment of a potential medical problem. The Wellness/ Fitness Initiative does not recommend the use of spirometry to automatically exclude a fire fighter or public safety officer from work but rather, to monitor changes over time and to treat abnormalities before they become clinically significant. Additionally, an FVC or FEV_1 less than 70% of predicted prevents the safe use of SCBA due to increased minute ventilation requirements leading to earlier than expected depletion of air in the SCBA cylinder.



Metabolic Analysis with Body Fat

The Clinical Exercise Physiologist performs a body fat assessment using skinfold measurements; this method of assessing body fat involves the use of calipers to pinch the skin in distinct areas to determine the thickness of the skin. Skinfold measurements are one of the most practical and accurate ways of determining body fat percentage. The accuracy of predicting percent fat from skinfolds is approximately $\pm 3.5\%$; whereas most other methods of determining body fat percentage, including the popularly referenced Body Mass Index (BMI), have greater than $\pm 5.0\%$ error. Skinfold measurements produce more accurate results because they distinguish fat from muscle mass and bone; unlike methods such as BMI, which merely attempt to predict body composition solely upon one's height and weight. Life Scan uses a 3-site method for assessing body fat using skinfold calipers; for men, the three sites are the chest/pectoral, abdominal and thigh; for women, the three sites include the triceps, suprailiac (above the hip bone), and thigh. These sites are specific to the 2013 NFPA 1582 Annex C.2.1.2.

By assessing the patient's height, weight, age, body fat percentage, resting heart rate, aerobic capacity as well as other biometric variables, the Clinical Exercise Physiologist may then conduct a metabolic analysis to estimate daily caloric expenditure and needs of the patient. Understanding body fat percentage and the health risks associated with being overweight and obese is imperative for a public service officer due to the physical demands of the position. The Life Scan Exercise Physiologist assists patients in understanding their current body fat classification and how to maintain or develop lower risk stratification.

Strength, Endurance and Flexibility Assessments

Physical fitness is important for all public safety officers based on the high demands of their job duties. This is exemplified by the fact that while wearing personal protective ensembles and SCBA, safety officers must search, find, and rescue-drag or carry victims ranging from newborns to adults weighing over 200 pounds to safety despite hazardous conditions and low visibility (NFPA 8.2.2.2). Public safety officers must also be able to climb six or more flights of stairs while wearing protective ensemble, including SCBA, weighing at least 50 pounds, or a duty belt, and carrying equipment/tools weighing an additional 20 to 40 pounds (NFPA 8.2.2.4). The following describes the fitness assessments conducted by the Clinical Exercise Physiologist which encompasses all aspects of muscular strength, endurance and flexibility:

Muscular Strength

Muscular strength is assessed by a Jamar Hydraulic Hand Dynamometer (used for grip strength) as specified in the 2013 NFPA 1582 Annex C.2.1.5. Bilateral grip strength measurements serve to detect muscle imbalances and nerve impingements in the arms, shoulders and neck. According to the WFI, adequate grip strength is crucial in numerous emergency tasks such as lifting and carrying equipment, moving patients, holding and operating hose lines, raising extension ladders and removing victims.

Muscular Endurance

To assess muscular endurance, Life Scan utilizes the push-up or bench press test as well as the static plank evaluation. The YMCA bench press test is an assessment which uses a constant weight for all individuals based on gender to assess upper body endurance; males bench 80 pounds and females bench 35 pounds. The Exercise Physiologist sets a metronome to



60 beats per minute (bpm) then instructs the patient to lie supine on the bench in the five-point contact position. The patient then performs as many complete bench presses as possible, extending the arm fully and bringing the bar down to the chest. In the event a bench press is unavailable for use at a department or station, the Exercise Physiologist will conduct a push-up test in its place. The push-up test spans over 2 minutes and the patient is instructed to stay on cue with a metronome set to 80 bpm. An object is placed 5 inches in height under the patient's chin and a push-up is counted only if the chin touches the object. Additionally, the Exercise Physiologist will have the patient perform the static plank

evaluation which is an indicator of core endurance. This is a timed test that involves the patient lying prone while supporting the body on forearms and toes and maintaining a neutral position by keeping the back flat. Any deviations from appropriate posture warrant two verbal warnings and a third infraction is cause for termination of the test. The test is also terminated if the knees touch the ground, or if the patient achieves the NFPA optimal time of 4 minutes. These assessments are specific to the 2013 NFPA 1582 Annex C.2.1.9 and C.2.1.11.

Flexibility

Life Scan implements the YMCA sit-and-reach protocol which uses a sit-and-reach box or a tape measure to assess lower body flexibility; this test is NFPA's 2013 specified protocol and is indicative of flexibility in the low back, hamstrings, and shoulders (Annex C.2.1.12). According to the WFI, the leading type of line of duty injury within the fire service is sprains and strains. Furthermore, the most prevalent line of duty injury that leads to premature departure is back injuries. Back health and flexibility are critical to the health and safety of uniformed personnel, which makes assessing this component of fitness imperative.

Diet and Nutritional Recommendations/ Personal Exercise Prescription

Based upon the results of the previous assessments the Clinical Exercise Physiologist at Life Scan consults with the patient regarding a personalized exercise prescription and the establishment of realistic goals for enhanced health and wellness. The Exercise Physiologist provides tips and strategies for achieving these goals including, but not limited to, educational handouts, tips on useful phone applications and web pages, as well as personalized diet and nutritional recommendations.

SIGNIFICANT FINDINGS

2017 AGGREGATE DATA 11,967 FIREFIGHTERS

LIFE SCAN FIGHTING CANCER AND HEART DISEASE

According to a multi-year study released in 2015 by The National Institute for Occupational Safety and Health (NIOSH), firefighters have a 9 percent higher risk of being diagnosed with cancer and a 14 percent higher risk of dying from cancer than the general population. The report also delves into the even greater risks firefighters face for developing certain types of cancers. Another key takeaway from the study is that 61 percent of line of duty deaths for career firefighters between 2002 and 2016 were attributed to cancer. “The Firefighter Cancer Support Network FACT Check”

“Cardiovascular disease is on the increase as well. The Harvard Study (2017) found 45% of the nation’s line-of-duty firefighter fatalities are due to cardiovascular disease (CVD).

The following Aggregate Data represents significant findings from a cross-section of Life Scan’s thirty thousand firefighter patients from both career and volunteer fire departments located in twelve states during 2017. This critical data is supportive of the conclusions from prestigious studies on firefighter health and their increased risk for heart disease and cancer. These significant findings are potentially catastrophic diseases that were identified early through Life Scan’s integrated approach that includes a comprehensive physical, laboratory blood work, ultrasound imaging, and cardiopulmonary testing.

2017 AGGREGATE DATA SIGNIFICANT FINDINGS

Masses/Suspicious Cancer	
Gallbladder	33
Liver	44
Kidney	92
Spleen	40
Bladder	11
Prostate	14
PSA (Prostate Specific Antigen) Increase over 1 Year	122
Testicular	34
Ovarian	28
Uterine	92
Pancreas	22
Thyroid	193
Thyroid Suspicious Nodules being monitored	679
Total	1404
Cardiovascular Disease	
Elevated LDL/HDL ratio (Heart Disease Risk)	511
*Stage 2 Hypertension (Stroke Risk)	187
*Abnormal ECG/Stress Test (Abnormal Rhythm)	495
*Carotid Stenosis >50% (Stroke Risk)	54
Hypertrophy (Thickening/Enlargement of the Heart)	120
*Severe Heart valve Dysfunction	90
*Bicuspid Aortic Valve	16
*Pericardial Effusion	3
*Abdominal Aorta Aneurysm (>4)	8
*Decreased heart function (low EF)	8
Total	1500
Pulmonary Function	
*Abnormal Pulmonary Function Test (Spirometry)	228
Total	228
Critical Abnormal Bloodwork	
HAZMAT (Heavy Metals and Cholinesterase)	36
Positive Hepatitis C	7
*Diabetes, Elevated A1c >8.1 (Diabetes)	148
Decreased WBC (At risk for viral infections and Leukemia)	290
Chronic Kidney Disease/Renal Failure (low eGFR)	168
Total	649
Total Critical Abnormal Findings	3363

SIGNIFICANT FINDINGS

2018 AGGREGATE DATA

7,392 FIREFIGHTERS

LIFE SCAN FIGHTING CANCER AND HEART DISEASE

The following Aggregate Data represents significant findings from a cross-section of Life Scans firefighter patients from both career and volunteer fire departments during 2018. This critical data is supportive of the conclusions from prestigious studies on firefighter health and their increased risk for heart disease and cancer. These significant findings are potentially catastrophic diseases that were identified early through Life Scan's integrated approach that includes a comprehensive physical, laboratory blood work, ultrasound imaging, and cardiopulmonary testing.

2018 AGGREGATE DATA SIGNIFICANT FINDINGS

Masses/Suspicious Cancer (Ultrasound Findings)	
Gallbladder	8
Liver	50
Kidney	28
Spleen - enlarged	87
Bladder	0
Prostate	12
Prostate Antigen Level increase over 1 Year with Enlarged Prostate	86
Testicular	15
Ovarian	1
Uterine	8
Pancreas	1
Thyroid	218
Thyroid Nodules > 1 cm, monitoring for increase over 1 Year	300
Total	814
Cardiovascular Disease	
Elevated LDL/HDL ratio (Heart Disease Risk)	674
*Stage 2 Hypertension (Stroke Risk)	41
*Abnormal ECG/Stress Test (Abnormal Rhythm)	253
Total	968
Cardiovascular Disease (Ultrasound Findings)	
*Carotid Stenosis >50% (Stroke Risk)	3
Z (Thickening/Enlargement of the Heart)	160
*Severe Heart valve Dysfunction	46
*Bicuspid Aortic Valve	0
*Pericardial Effusion	0
*Abdominal Aorta Aneurysm (>4)	98
*Decreased heart function (low EF)	14
Total	321
Pulmonary Function	
*Abnormal Pulmonary Function Test (Spirometry)	282
Total	282
Critical Abnormal Bloodwork	
HAZMAT (Heavy Metals and Cholinesterase)	75
Positive Hepatitis C	7
*Diabetes, Elevated A1c >8.1 (Diabetes)	229
Decreased WBC (At risk for viral infections and Leukemia)	56
Chronic Kidney Disease/Renal Failure (low eGFR)	263
Total	630
Total Critical Abnormal Findings	3015

*In NFPA 1582 Guidelines.

Cross-section of Life Scan patients from Career and Volunteer Fire Departments located in 12 States.

BROWARD SHERIFF'S OFFICE

2016-2017 SIGNIFICANT EARLY DETECTION FINDINGS

HEART & ARTERIAL DISEASE

Left Ventricular Hypertrophy	37
Cardiac Valve Insufficiency (Follow Up Needed)	2
Decreased Ejection Fraction	2
Carotid Artery Blockages (Severe)	5
Pericardial Effusion	3
Hypertension (Currently Undiagnosed or Uncontrolled)	60
Abnormal EKG (Follow Up Needed to Monitor)	7
Abnormal Stress Test (i.e., BP Response, PVC Patterns)	8

AORTA

Aortic Root (Dilated >4 cm)- Currently Being Monitored	6
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CANCER & ORGAN DISEASES

Diabetes (Currently Undiagnosed or Uncontrolled)	18
Kidney	22
Liver	55
Pancreatic	1
Spleen Enlargement	8
Spleen Mass	2
Gallbladder Polyps	20
Ovarian Cyst (Follow Up Needed)	1
Uterus	3
Prostate Enlargement	26
Prostate Mass	9
Hypogonadism	44
Thyroid Nodules(follow up)6 confirmed Thyroidectomy:6 Confirmed Thyroid Nodules	55
Thyroid Nodules (Monitor/ No Follow Up Needed)	83
Testicular Cancer (Confirmed Cancerous)	1

PULMONARY/ RESPIRATORY

Pulmonary Function Test (Less Than 70%)	11
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OTHER SIGNIFICANT FINDINGS

Obesity	79
High Cholesterol/Triglycerides	42
Elevated PSA Blood Levels (Prostate)	13
Low Testosterone (< 200 mg/dl)	68
Abnormal TSH (Thyroid Function)	19
Hepatitis C	2
Complete Blood Count (CBC) Abnormality	11
Significant Thrombocytopenia	4
Aberrant Nevus (Follow Up Needed)	2
Decreased Renal Function (eGFR < 59 mL/min/1.73)	2
Severe Bilateral Hearing Loss	3
Positive Fecal Occult Stool Test (Follow Up Needed)	3

TOTAL NUMBER OF SIGNIFICANT FINDINGS:
737



Polk County Professional Firefighters - Local 3531

P.O. Box 998 Highland City, Florida 33846-998

Office: (863) 585-8301

Jeff Calcutt
President

Danny Washington
Vice-President

Jay Schwartz
Treasurer

Heather Coburn
Secretary

Jeremiah Gilley
Grievance Chairman

IAFF Local 3531 is submitting this letter to explain why our Polk County Fire Rescue firefighters need a more comprehensive annual physical examination. A firefighter is often the first person on the scene of some of the most disturbing and devastating events in people's lives. This may include the death of a child, homicide, suicide, rape, child abuse, family violence, drowning, fatal car accidents and acts of terrorism. They also wear heavy and restrictive clothing, carry awkward equipment and work in dangerous environments. Firefighters often enter buildings in smoky and hot conditions and may even hang from buildings and perform high angle rescues. They also handle situations involving hazardous materials that could include biological, chemical and nuclear agents.

These high levels of stress, physical demands and long-term exposure to chemicals and infectious disease can take their toll on the health of firefighters and especially to their cardiovascular system. This intense work in environments of high heat, low oxygen, high carbon monoxide and other combustible products often produces a maximum heart response. These and other risks are what account for nearly 50% of fire ground deaths being heart-related," (*New England Journal of Medicine*, March 07). Cardiovascular, respiratory and thermoregulatory strain on firefighters is profound, increasing the odds of heart attack from 12-126 times while firefighting. Cancer is also another hazard of the job. An analysis of 32 studies published in the *Journal of Emergency Medicine* in 2006 showed that many cancers were significantly associated with firefighting. These included testicular (highest risk), multiple myeloma, malignant melanoma, non-Hodgkin's lymphoma, prostate, skin, brain, rectum, pharynx, stomach, colon and leukemia. The University of Cincinnati conducted a study in 2009 where researchers revealed that firefighters developed 10 types of Cancer more frequently than any other occupation. The most virulent was testicular cancer. Firefighters also face a 53% greater risk of contracting Multiple Myeloma, which is a deadly cancer that attacks bone marrow. When a firefighter sweats, it opens the pores on all areas of the skin, which includes the arm pits, groin, neck, jaw angle, and scalp. Chemicals then utilize these areas to travel into the bloodstream, attacking the body's blood cells.

The most common types of cancer and increased risks to firefighters are: Testicular-102%, Multiple Myeloma-53%, Non-Hodgkin's Lymphoma-51%, Skin-39%, Brain-32%, Prostate-28%, Stomach-22%, and Colon-Rectal-21%.

Because of the physical nature of their work, firefighters are also at a significant risk for musculoskeletal injury with back injury being the highest reported, followed by the upper and lower extremities. In a given year, the IAFF Death and Injury Survey indicates that one out of every five firefighters will die or be injured in the line of duty, so prevention and proper rehab is essential. That is why the *International Associations of Fire Chiefs and International Association of Fire Fighters* recommend that a "Fire Service Occupational Physician" monitor their patient's long-term effects of the working environment, including exposure to chemical and biological agents and disease patterns that might indicate work-related health concerns.

Therefore, it would be ideal for our Polk County Fire Rescue firefighters to have a comprehensive NFPA 1582 yearly medical exam performed by a company that specializes in and has vast knowledge of NFPA 1582 physicals that would include the following: head to toe physical exam per NFPA 1582, vital signs, skin cancer screening, visual acuity test, hearing exam, breast exam, personal consultation with review of testing results at physical appointment, recommendations for medical intervention & behavioral modification changes, cardiac assessment to include: Echocardiogram, resting EKG, cardiac treadmill stress test with V02 max calculation (Bruce Protocol), carotid arteries ultrasound, aortic aneurysm ultrasound, cancer and disease assessment to include, thyroid ultrasound, liver, pancreas, gall bladder, spleen, & kidney ultrasounds, bladder ultrasound, pelvic ultrasound for women (external), testicular ultrasound for men, laboratory blood tests to include: thyroid panel, occult blood screen, PSA for men (prostate cancer marker), CA-125 for women (ovarian cancer marker), lipid panel, diabetes tests (glucose and hemoglobin A1C), pulmonary function test, urinalysis with chem strip, complete blood count (hemogram with diff), comprehensive metabolic panel (CMP), OSHA respirator medical clearance, fitness program (NFPA 1582 Guidelines) to include: fitness and agility evaluation, body composition analysis, stretching/flexibility/endurance analysis, nutrition and diet recommendations, personal fitness recommendations, medical clearances to include: OSHA respirator medical clearance, Hep B antibody screening, Hep B Antigen (titer), Hep C Screening, and TB Test (interferon).

The Union is presenting this request after having determined our current physical process was not covering some of the most important health risks of our occupation. Early detection is the key in reducing the mortality rate and providing our firefighters with a comprehensive look at the occupational hazards we face everyday working as firefighters. While studying the differences in the Wellness Center physical and a Lifescan physical, it was determined that a Lifescan physical can be performed in a more efficient manner and with an eventual cost savings to the county's general fund by reducing long term health care costs. Life Scan will come to any location we set and perform comprehensive NFPA 1582 physicals at a rate of nine firefighters a day or forty-five a week. Life Scan will complete all firefighter physicals within a two-month time period. All physicals will be completed while on duty, thus saving the two hours of overtime now paid to firefighters for the Wellness Center process.

Wellness Center physicals have had and will continue to have a negative effect on the county's general fund and do nothing to help early detection of life changing catastrophic illnesses that could affect our firefighters, their families and co-workers. As you can see, not only does this have a negative impact on our firefighters lives but it also has a negative impact on the long-term cost of health care for the County. It has been shown that early detection of serious illnesses can have a smaller impact on claims and reduce the mortality rate.

In closing, we have attached information on firefighter deaths from 2007-2012. This information was taken directly from the *International Association of Firefighters* website database of firefighter deaths. We would like you to review the nature of death column. It is under this column that we believe that the validity of this request stands proven, we need to do everything in our power to provide the most comprehensive physicals possible for the health and well being of our firefighters as well as being good stewards of the tax payer's money in the long run.

Thank you for taking the time to read this letter and for your efforts in optimizing the health of our Polk County Fire Rescue firefighters.