RFP 4688-0-2016/DH
Exhibit 5
NFPA 1582 - Chapter 6

NFPA 1582

## Chapter 6 Medical Evaluations of Candidates

**6.1* Medical Evaluation.** Medical evaluations of candidates shall be conducted prior to training programs or participation in departmental emergency response activities.
**6.1.1*** Medical evaluation of candidates including history, examination, and laboratory tests as indicated shall be performed on each candidate in order to detect any physical or medical condition(s) that could adversely affect the candidate's ability to safely perform all essential job tasks under emergency conditions.
**6.1.2** If a candidate presents with a condition that temporarily interferes with his/her ability to safely perform essential job tasks, the pre-placement medical evaluation shall be postponed until the candidate has recovered from that condition.

**6.2 Medical Conditions Affecting Ability to Safely Perform Essential Job Tasks.**
**6.2.1** Medical conditions that can affect a candidate's ability to safely perform essential job tasks shall be designated either Category A or Category B.
**6.2.2** Candidates with Category A medical conditions shall not be certified as meeting the medical requirements of this standard.
**6.2.3** Candidates with Category B medical conditions shall be certified as meeting the medical requirements of this standard only if they can perform the essential job tasks without posing a significant safety and health risk to themselves, members, or civilians.

**6.3 Head and Neck.**
**6.3.1 Head.**
**6.3.1.1** Category A medical conditions shall include the following:
(1) Defect of skull preventing helmet use or leaving underlying brain unprotected from trauma
(2) Any skull or facial deformity that would not allow for a successful respiratory facepiece fit test
(3) Any head condition that results in a person not being able to safely perform essential job tasks
**6.3.1.2** Category B medical conditions shall include the following:
(1)*Deformities of the skull such as depressions or exostoses
(2)*Deformities of the skull associated with evidence of disease of the brain, spinal cord, or peripheral nerves
(3)*Loss or congenital absence of the bony substance of the skull

**6.3.2 Neck.**
**6.3.2.1** Category A medical conditions shall include the following:
(1) Any neck condition that results in a person not being able to safely perform essential job tasks
(2) Reserved
**6.3.2.2** Category B medical conditions shall include the following:
(1)*Thoracic outlet syndrome
(2)*Congenital cysts, chronic draining fistulas, or similar lesions
(3)*Contraction of neck muscles

**6.4 Eyes and Vision.**

**6.4.1** CategoryA medical conditions shall include the following:

(1)*Far visual acuity. Far visual acuity less than 20/40 binocular, corrected with contact lenses or spectacles. Far visual acuity less than 20/100 binocular for wearers of hard contacts or spectacles, uncorrected.

(2)*Color perception. Monochromatic vision resulting in inability to use imaging devices.

(3)*Monocular vision.

(4) Any eye condition that results in a person not being able to safely perform essential job tasks.

**6.4.2** Category B medical conditions shall include the following:

(1)*Diseases of the eye such as retinal detachment, progressive retinopathy, or optic neuritis

(2)*Ophthalmological procedures such as radial keratotomy, Lasik procedure, or repair of retinal detachment

(3) Peripheral vision in the horizontal meridian of less than 110 degrees in the better eye or any condition that significantly affects peripheral vision in *both* eyes

**6.5* Ears and Hearing.**

**6.5.1** CategoryAmedical conditions shall include the following:

(1) Chronic vertigo or impaired balance as demonstrated by the inability to tandem gait walk.

(2) On audiometric testing, average hearing loss in the unaided better ear greater than 40 decibels (dB) at 500 Hz, 1000 Hz, and 2000 Hz when the audiometric device is calibrated to ANSI Z24.5.

(3) Any ear condition (or hearing impairment) that results in a person not being able to safely perform essential job tasks.

**6.5.2** Category B medical conditions shall include the following:

(1)*Unequal hearing loss

(2) Average uncorrected hearing deficit at the test frequencies 500 Hz, 1000 Hz, 2000 Hz, and 3000 Hz greater than 40 dB in *either* ear

(3) Atresia, stenosis, or tumor of the auditory canal

(4)*External otitis

(5)*Agenesis or traumatic deformity of the auricle

(6)*Mastoiditis or surgical deformity of the mastoid

(7)*Ménière's syndrome, labyrinthitis, or tinnitus

(8)*Otitis media

**6.6 Dental.**

**6.6.1** CategoryAmedical conditions shall include the following:

(1) Any dental condition that results in a person not being able to safely perform essential job tasks

(2) Reserved

**6.6.2** Category B medical conditions shall include the following:

(1)*Diseases of the jaws or associated tissues

(2)*Orthodontic appliances

(3)*Oral tissues, extensive loss

(4)*Relationship between the mandible and maxilla that interferes with satisfactory postorthodontic replacement or ability to use protective equipment

**6.7 Nose, Oropharynx, Trachea, Esophagus, and Larynx.**

**6.7.1** CategoryAmedical conditions shall include the following:

(1)*Tracheostomy

(2)*Aphonia

(3) Any nasal, oropharyngeal, tracheal, esophageal, or laryngeal condition that results in not being able to safely perform essential job tasks

**6.7.2** Category B medical conditions shall include the following:

(1)*Congenital or acquired deformity

(2)*Allergic rhinitis

(3) Epistaxis, recurrent

(4)*Sinusitis, recurrent

(5)*Dysphonia

(6) Anosmia

(7) Tracheal stenosis

(8) Naso-pharyngeal polyposis

**6.8 Lungs and Chest Wall.**

**6.8.1** CategoryAmedical conditions shall include the following:

(1) Active hemoptysis.

(2) Empyema.

(3) Pulmonary hypertension.

(4) Active tuberculosis.

(5)*Obstructive lung diseases (e.g., emphysema, chronic bronchitis, asthma, etc.) with an FEV1/FVC <0.75, with both FEV1 and FVC below normal (<0.80%) as defined by the American Thoracic Society *(see references in Annex D)*.

(6)*Hypoxemia—Oxygen saturation <90% at rest or exercise desaturation to <90% (exercise testing indicated when resting oxygen is <94% but >90%). Evaluate VO2max as described by American College of Sports Medicine (ACSM).

(7)*Asthma — Reactive airways disease requiring bronchodilator or corticosteroid therapy in the previous 2 years. A candidate who has required these medications but who does not believe he/she has asthmaa shall demonstrate a normal response to cold air or methacholine (PC20 greater than 16 mg/ml). To be safely administered, this test shall be performed by a qualified specialist and to be valid the candidate shall be off all anti-inflammatory medications for at least 4 weeks and off bronchodilators the day of testing. A negative challenge test [as described by American Thoraic Society (ATS)], along with no recent episode of bronchospasm off medication shall be considered evidence that the candidate does not have clinically significant airways hyperactivity or asthma.

(8) Any pulmonary condition that results in a person not being able to safely perform essential job tasks.

**6.8.2** Category B medical conditions shall include the following:

(1)*Pulmonary resectional surgery, chest wall surgery, and pneumothorax

(2) Pleural effusion

(3)*Fibrothorax, chest wall deformity, and diaphragm abnormalities

(4)*Interstitial lung diseases

(5)*Pulmonary vascular diseases or history of pulmonary embolism

(6)*Bronchiectasis

(7) Infectious diseases of the lung or pleural space

(8) Cystic fibrosis

(9) Central or obstructive apnea

(10) Any other pulmonary condition that results in a person not being able to safely perform as a member

**6.9 Heart and Vascular System.**

**6.9.1 Heart.**

**6.9.1.1** Category A medical conditions shall include the following:

(1)*Coronary artery disease, including history of myocardial infarction, angina pectoris, coronary artery bypass surgery, coronary angioplasty, and similar procedures

(2)*Cardiomyopathy or congestive heart failure, including signs or symptoms of compromised left or right ventricular function, including dyspnea, S3 gallop, peripheral edema, enlarged ventricle, abnormal ejection fraction, and/or inability to increase cardiac output with exercise

(3)*Acute pericarditis, endocarditis, or myocarditis

(4)*Syncope, recurrent

(5)*A medical condition requiring an automatic implantable cardiac defibrillator or history of ventricular tachycardia or ventricular fibrillation due to ischemic or valvular heart disease, or cardiomyopathy

(6) Third-degree atrioventricular block

(7)*Cardiac pacemaker

(8) Idiopathic hypertrophic subaortic stenosis

(9) Any cardiac condition that results in a person not being able to safely perform essential job tasks

**6.9.1.2** Category B medical conditions shall include the following:

(1)*Valvular lesions of the heart, including prosthetic valves

(2)*Recurrent supraventricular or atrial tachycardia, flutter, or fibrillation

(3)*Left bundle branch block

(4) Second-degree atrioventricular block in the absence of structural heart disease

(5) Sinus pause >3 seconds

(6)*Ventricular arrhythmia (history or presence of multifocal PVCs or nonsustained ventricular tachycardia on resting EKG with or without symptoms; history or presence of sustained ventricular tachycardia with or without symptoms)

(7)*Cardiac hypertrophy or hypertrophic cardiomyopathy

(8)*History of a congenital abnormality

(9)*Chronic pericarditis, endocarditis, or myocarditis

**6.9.2 Vascular System.**

**6.9.2.1** Category A medical conditions shall include the following:

(1)*Hypertension with evidence of end organ damage or not controlled by approved medications

(2)*Thoracic or abdominal aortic aneurysm

(3) Carotid artery stenosis or obstruction resulting in ε50 percent reduction in blood flow

(4)*Peripheral vascular disease resulting in symptomatic claudication

(5) Any other vascular condition that results in a person not being able to safely perform essential job tasks

**6.9.2.2** Category B medical conditions shall include the following:

(1) Vasospastic phenomena such as Raynaud's phenomenon

(2)*Thrombophlebitis and varicosities

(3)*Chronic lymphedema due to lymphadenopathy or venous valvular incompetency

(4)*Congenital or acquired lesions of the aorta or major vessels

(5)*Circulatory instability as indicated by orthostatic hypotension, persistent tachycardia, and peripheral vasomotor disturbances

(6) History of surgical repair of aneurysm of the heart or major vessel

**6.10 Abdominal Organs and Gastrointestinal System.**

**6.10.1** Category A medical conditions shall include the following:

(1) Presence of uncorrected inguinal/femoral hernia regardless of symptoms

(2) Any gastrointestinal condition that results in a person not being able to safely perform essential job tasks

**6.10.2** Category B medical conditions shall include the following:

(1)*Cholecystitis

(2)*Gastritis

(3)*GI bleeding

(4)*Acute hepatitis

(5) Hernia including the following:

(a) Uncorrected umbilical, ventral, or incisional hernia if significant risk exists for infection or strangulation

(b) Significant symptomatic hiatal hernia if associated with asthma, recurrent pneumonia, chronic pain, or chronic ulcers

(c)*Surgically corrected hernia >3 months after surgical correction

(6)*Inflammatory bowel disease or irritable bowel syndrome

(7)*Intestinal obstruction

(8)*Pancreatitis

(9) Diverticulitis

(10)*History of gastrointestinal surgery

(11)*Peptic or duodenal ulcer or Zollinger-Ellison syndrome

(12)*Asplenia

(13)*Cirrhosis, hepatic or biliary

(14)*Chronic active hepatitis

**6.11* Reproductive System.**

**6.11.1** Category A medical conditions shall include the following:

(1) Any genital condition that results in a person not being able to safely perform essential job tasks

(2) Reserved

**6.11.2** Category B medical conditions shall include the following:

(1) Pregnancy, for its duration

(2) Dysmenorrhea

(3) Endometriosis, ovarian cysts, or other gynecologic conditions

(4) Testicular or epididymal mass

**6.12 Urinary System.**

**6.12.1** Category A medical conditions shall include the following:

(1) Renal failure or insufficiency requiring continuous ambulatory peritoneal dialysis (CAPD) or hemodialysis

(2) Any urinary condition that results in a person not being able to safely perform essential job tasks

**6.12.2** Category B medical conditions shall include the following:

(1) Diseases of the kidney

(2) Diseases of the ureter, bladder, or prostate

**6.13 Spine and Axial Skeleton.**

**6.13.1** Category A medical conditions shall include the following:

(1) Scoliosis of thoracic or lumbar spine with angle ε40 degrees

(2) History of multiple spinal surgeries or spinal surgery involving fusion of more than 2 vertebrae, diskectomy or laminectomy, or rods that are still in place

(3) Any spinal or skeletal condition producing sensory or motor deficit(s) or pain due to radiculopathy or nerve root compression

(4) Any spinal or skeletal condition causing pain that frequently or recurrently requires narcotic analgesic medication

(5) Cervical vertebral fractures with multiple vertebral body compression greater than 25 percent; evidence of posterior element involvement, nerve root damage, disc involvement, dislocation (partial, moderate, severe), abnormal exam, ligament instability, symptomatic, and/or less than 6 months post injury or 1 year since surgery

(6) Thoracic vertebral fractures with vertebral body compression greater than 50 percent; evidence of posterior element involvement, nerve root damage, disc involvement, dislocation (severe — with or without surgery), abnormal exam, ligament instability, symptomatic, and/or less than 6 months post injury or 1 year since surgery

(7) Lumbosacral vertebral fractures with vertebral body compression greater than 50 percent; evidence of posterior element involvement, nerve root damage, disc involvement, dislocation (partial, moderate, severe), fragmentation abnormal exam, ligament instability, symptomatic, and/or less than 6 months post injury or 1 year since surgery

(8) Any spinal or skeletal condition that results in a person not being able to safely perform essential job tasks

**6.13.2** Category B medical conditions shall include the following:

(1) Congenital or developmental malformations of the back, particularly those that can cause instability, neurological deficits, pain, or limit flexibility

(2) Scoliosis with angle <40 degrees

(3) Arthritis of the cervical, thoracic, or lumbosacral spine

(4) Facet atrophism, high lumbosacral angle, hyperlordosis, Schmorl's nodes, Scheuermann's disease, spina bifida occulta, spondylolisthesis, spondylolysis, or transitional vertebrae

(5) History of infections or infarcts in the spinal cord, epidural space, vertebrae, or axial skeletal joints

**6.14 Extremities.**

**6.14.1** Category A medical conditions shall include the following:

(1) Bone hardware such as metal plates or rods supporting bone during healing

(2) History of total joint replacement

(3) Amputation or congenital absence of upper extremity limb (hand or higher)

(4) Amputation of either thumb proximal to the midproximal phalanx

(5) Amputation or congenital absence of lower extremity limb (foot or above)

(6) Chronic nonhealing or recent bone grafts

(7) History of more than one dislocation of shoulder without surgical repair or with history of recurrent shoulder disorders within the last 5 years with pain or loss of motion, and with or without radiographic deviations from normal

(8) Any extremity condition that results in a person not being able to safely perform essential job tasks

**6.14.2** Category B medical conditions shall include the following:

(1)*History of shoulder dislocation with surgical repair

(2) Significant limitation of function of shoulder, elbow, wrist, hand, or finger, due to weakness, reduced range of motion, atrophy, unequal length, absence, or partial amputation

(3) Significant lack of full function of hip, knee, ankle, foot, or toes due to weakness, reduced range of motion, atrophy, unequal length, absence, or partial amputation

(4)*History of meniscectomy or ligamentous repair of knee

(5)*History of intra-articular, malunited, or nonunion of upper or lower extremity fracture

(6)*History of osteomyelitis, septic, or rheumatoid arthritis

**6.15 Neurological Disorders.**

**6.15.1** Category A medical conditions shall include the following:

(1) Ataxias of heredo-degenerative type.

(2) Cerebral arteriosclerosis as evidenced by a history of transient ischemic attack, reversible ischemic neurological deficit, or ischemic stroke.

(3) Hemiparalysis or paralysis of a limb.

(4)*Multiple sclerosis with activity or evidence of progression within previous 3 years.

(5)*Myasthenia gravis with activity or evidence of progression within previous 3 years.

(6) Progressive muscular dystrophy or atrophy.

(7) Uncorrected cerebral aneurysm.

(8) All epileptic conditions to include simple partial, complex partial, generalized, and psychomotor seizure disorders other than those with complete control during previous 5 years. A candidate shall also have normal neurological examination without structural abnormality on brain imaging, normal awake and asleep EEG with photic stimulation and hyperventilation, as well as a definitive statement from qualified neurological specialist. A candidate with epilepsy shall not be cleared for fire-fighting duty until he or she has completed 5 years without a seizure on a stable medical regimen or 1 year without a seizure after discontinuing all anti-epileptic drugs.

(9) Dementia (Alzheimer's and other neuro-degenerative diseases) with symptomatic loss of function or cognitive impairment (e.g., δ28 on Mini-Mental Status Exam).

(10) Parkinson's disease and other movement disorders resulting in uncontrolled movements, bradykinesia, or cognitive impairment (e.g., δ28 on Mini-Mental Status Exam).

(11) Any neurological condition that results in a person not being able to safely perform essential job tasks.

**6.15.2** Category B medical conditions shall include the following:

(1) Congenital malformations

(2)*Migraine

(3) Clinical disorders with paresis, dyscoordination, deformity, abnormal motor activity, abnormality of sensation, or complaint of pain
(4) History of subarachnoid or intraparenchymal hemorrhage
(5) Abnormalities from recent head injury such as severe cerebral contusion or concussion

**6.16 Skin.**

**6.16.1** Category A medical conditions shall include the following:
(1) Metastatic or locally extensive basal or squamous cell carcinoma or melanoma
(2) Any dermatologic condition that would not allow for a successful respiratory facepiece fit test
(3) Any dermatologic condition that results in the person not being able to safely perform essential job tasks

**6.16.2** Category B medical conditions shall include the following:
(1)*Skin conditions of a chronic or recurrent nature (eczema, cystic acne, psoriasis) that cause skin openings or inflammation or irritation of the skin surface
(2)*Surgery or skin grafting
(3)*Mycosis fungoides
(4)*Cutaneous lupus erythematosus
(5)*Raynaud's phenomenon
(6)*Scleroderma (skin)
(7)*Vasculitic skin lesions
(8)*Atopic dermatitis/eczema
(9)*Contact or seborrheic dermatitis
(10)*Stasis dermatitis
(11)*Albinism Dariers Disease, Ichthyosis Marfan's Syndrome, Neurofibromatosis, and other genetic conditions
(12)*Folliculitis, Pseudo-folliculitis, Miliaria, Keloid folliculitis
(13)*Hidradenitis suppurativa, Furuncles, Carbuncles, or Grade IV acne (cystic)
(14)*Mechano-Bullous Disorders (Epidermolysis Bullosa, Hailey Pemphigus, Porphyria, Pemphigoid)
(15)*Urticaria or Angioedema

**6.17 Blood and Blood-Forming Organs.**

**6.17.1** Category A medical conditions shall include the following:
(1) Hemorrhagic states requiring replacement therapy
(2) Sickle cell disease (homozygous)
(3) Clotting disorders
(4) Any hematological condition that results in a person not being able to safely perform essential job tasks

**6.17.2** Category B medical conditions shall include the following:

(1) Anemia
(2) Leukopenia
(3) Polycythemia vera
(4) Splenomegaly
(5) History of thromboembolic disease
(6) Any other hematological condition that results in a person not being able to safely perform essential job tasks

**6.18 Endocrine and Metabolic Disorders.**

**6.18.1** Category A medical conditions shall include the following:

(1) Diabetes mellitus, which is treated with insulin
(2)*Diabetes not treated by insulin, which is not controlled as evidenced by Hemoglobin A1C (Hb A1C) measurement
(3) Any endocrine or metabolic condition that results in a person not being able to safely perform essential job tasks

**6.18.2** Category B medical conditions shall include the following:

(1)*Diseases of the adrenal gland, pituitary gland, parathyroid gland, or thyroid gland of clinical significance
(2) Nutritional deficiency diseases or other metabolic disorder
(3) Diabetes mellitus that is well controlled on diet, exercise, and/or oral hypoglycemic agents

**6.19 Systemic Diseases and Miscellaneous Conditions.**

**6.19.1** Category A medical conditions shall include the following:

(1) Any systemic condition that results in a person not being able to safely perform essential job tasks
(2) Reserved

**6.19.2** Category B medical conditions shall include the following:

(1) Connective tissue disease, such as dermatomyositis, systemic lupus erythematosus, scleroderma, and rheumatoid arthritis
(2)*History of thermal, chemical, or electrical burn injury with residual functional deficit
(3) Documented evidence of a predisposition to heat stress with recurrent episodes or resulting residual injury

**6.20 Tumors and Malignant Diseases.**

**6.20.1** Category A medical conditions shall include the following:

(1) Malignant disease that is newly diagnosed, untreated, or currently being treated
(2) Any tumor or similar condition that results in a person not being able to safely perform essential job tasks

**6.20.2** Category B medical conditions shall be evaluated on the basis of an individual's current physical condition and on the staging and prognosis of the malignancy (i.e., likelihood that the disease will recur or progress), and include the following:

(1)*Benign tumors
(2)*History of CNS tumor or malignancy
(3)*History of head and neck malignancy
(4)*History of lung cancer
(5)*History of GI or GU malignancy
(6)*History of bone or soft tissue tumors or malignancies
(7)*History of hematological malignancy

**6.21 Psychiatric Conditions.**

**6.21.1** Category A medical conditions shall include the following:

(1) Any psychiatric condition that results in a person not being able to safely perform essential job tasks
(2) Reserved

**6.21.2** Category B medical conditions shall include the following:

(1) A history of psychiatric condition or substance abuse problem
(2) Requirement for medications that increase an individual's risk of heat stress, or other interference with the ability to safely perform essential job tasks

**6.22 Chemicals, Drugs, and Medications.**

**6.22.1** CategoryAmedical conditions shall include those that require chronic or frequent treatment with any of the following medications or classes of medications:

(1) Narcotics, including methadone
(2) Sedative-hypnotics
(3) Drugs that prolong Prothrombin Time, Partial Thromboplastin Time, or INR
(4) Beta-adrenergic blocking agents
(5) Respiratory medications: Inhaled bronchodilators, inhaled corticosteroids, systemic corticosteroids, theophylline, and leukotriene receptor blockers/antagonists
(6) Any chemical, drug, or medication that results in a person not being able to safely perform essential job tasks

**6.22.1.1** Tobacco use shall be a Category A medical condition.

**6.22.1.2** Evidence of illegal drug use detected through testing, conducted in accordance with Substance Abuse and Mental Health Service Administration (SAMHSA), shall be a CategoryA medical condition.

**6.22.1.3** Evidence of clinical intoxication or a measured blood alcohol level that exceeds the legal definition of intoxication according to the AHJ at the time of medical evaluation shall be a Category A medical condition.

**6.22.2*** Category B medical conditions shall include the use of the following:

(1) Cardiovascular agents
(2) Stimulants
(3) Psychoactive agents
(4) Corticosteroids
(5) Antihistamines
(6) Muscle relaxants

## Appendix

*A.6.1* The Americans with Disabilities Act requires that any medical examination must take place after an offer of employment is made and prior to the commencement of duties.

*A.6.1.1* The medical history should include the candidate's known health problems, such as major illnesses, surgeries, medication use, and allergies. Symptom review is also important for detecting early signs of illness. A medical history should also include a personal health history, a family health history, a health habit history, an immunization history, and a reproductive history. An occupational history should also be obtained to collect information about the person's past occupational and environmental exposures. Physical examination should include the following:

(1) Vital signs
(2) Head, eyes, ears, nose, and throat (HEENT)
(3) Neck
(4) Cardiovascular
(5) Pulmonary
(6) Breast
(7) Gastrointestinal (includes rectal exam for mass, occult blood)
(8) Genitourinary (includes pap smear, testicular exam, rectal exam for prostate mass)
(9) Hernia
(10) Lymph nodes
(11) Neurological
(12) Musculoskeletal
(13) Skin (includes screening for cancers)
(14) Vision testing

Laboratory tests on candidates should include the following:

(1) Blood tests including the following:
    (a) CBC with differential, RBC indices and morphology, and platelet count
    (b) Electrolytes (Na, K, Cl, HCO3, or CO2)
    (c) Renal function (BUN, creatinine)
    (d) Glucose
    (e) Liver function tests (ALT, AST, direct and indirect bilirubin, alkaline phosphatase)
    (f) Total cholesterol, HDL, LDL, clinically useful lipid ratios (e.g., percent LDL), and triglycerides

(2) Urinalysis. Dipstick test for glucose, ketones, leukocyte esterase, protein, blood, and bilirubin.

(3) Audiology. Hearing assessed in each ear at each of the following frequencies: 500 Hz, 1000 Hz, 2000 Hz, 3000 Hz, 4000 Hz, 6000 Hz, and 8000 Hz. Results should be corrected for age as permitted by OSHA. Baseline audiometry is performed in accordance with 29 CFR 1910.95, "Occupational Noise Exposure." The basics of this standard include the following:

(a) The first audiogram done (for members this will probably be done during their pre-placement exam) becomes the baseline audiogram.

(b) If subsequent audiograms are better than the baseline, then the best one becomes the baseline. All audiograms should be done with no exposure to industrial noise for 14 hours.

(4) Spirometry. Pulmonary function testing (spirometry) is conducted to measure the member's forced vital capacity (FVC), forced expiratory volume in 1 second (FEV1), and the FEV1/FVC ratio. Data is corrected within American Thoracic Society Guidelines and normative equations. (Knudson et al., 1983 and ACOEM 2000)

(5) Chest radiography. Chest X-ray posterior-anterior and lateral views.

(6) Electrocardiograms (EKG). A resting 12-lead EKG.

(7) Immunizations and infectious disease screening. The following infectious disease immunizations or infectious disease screening are to be provided, as indicated:

(a) Tuberculosis screen (PPD).

(b) Hepatitis C virus screen (baseline).

(c) Hepatitis B virus vaccinations.

(d) Tetanus/diphtheria vaccine (booster every 10 years).

(e) Measles, mumps, rubella vaccine (MMR).

(f) Polio vaccine given to uniformed personnel if vaccination or disease is not documented.

(g) Hepatitis A vaccine. Vaccine offered to high risk (HazMat, USAR, and SCUBA) and other personnel with frequent or expected frequent contaminated water exposures.

(h) Varicella vaccine. Vaccine offered to all non-immune personnel.

(i) Influenza vaccine. Vaccine offered to all personnel.

(j) HIV screening. Screening available to all personnel.

(k) HIV testing offered on a confidential basis as part of post-exposure protocols and as requested by the physician or patient.

(l) All results from HIV tests are provided directly to the patient and will be maintained by the physician as a highly confidential document, and will not be forwarded to any local, state, provincial, national, or international database unless mandated by public health statute.

*A.6.3.1.2(1)* Deformities of the skull can result in the member's inability to properly wear protective equipment.

*A.6.3.1.2(2)* These deformities can result in the potential for sudden incapacitation, the inability to properly wear protective equipment, and the inability to communicate effectively due to oropharyngeal dysfunction.

*A.6.3.1.2(3)* Loss of or congenital absence of the bony substance of the skull can result in the inability to properly wear protective equipment and the inability to communicate effectively due to oropharyngeal dysfunction.
*A.6.3.2.2(1)* Thoracic outlet syndrome can result in frequent episodes of pain or inability to safely perform work.
*A.6.3.2.2(2)* Congenital cysts, chronic draining fistulas, or similar lesions can result in the inability to properly wear protective equipment and the inability to communicate effectively due to oropharyngeal dysfunction.
*A.6.3.2.2(3)* The contraction of neck muscles can result in the inability to properly wear protective equipment and the inability to safely perform functions as a member due to limitation of flexibility.
*A.6.4.1(1)* Far visual acuity is at least 20/30 binocular, corrected with contact lens or spectacles. Far visual acuity uncorrected is at least 20/40 binocular for wearers of hard contacts or spectacles. Successful long-term soft contact lens wearers (that is, 6 months without a problem) are not subject to the uncorrected standard. Inadequate far visual acuity can result in the failure to be able to read placards and street signs or to see and respond to imminently hazardous situations.
A.6.4.1(2) Persons with severe color vision loss will likely fail the acuity requirement. Formerly, color vision deficiency was listed as a Category B medical condition. However, it is felt that within most cases this condition will not affect the ability of a member to safely perform the essential functions of his or her job. The fire service physician should consider the color vision deficiency of the individual and consider the color vision requirements of the member's job and reach an individual determination.
A.6.4.1(3) Candidates with monocular vision are not allowed to drive per DOT/CDL regulations.
A.6.4.2(1) These diseases of the eye can result in the failure to read placards and street signs or to see and respond to imminently hazardous situations.
A.6.4.2(2) With retinal detachment, sufficient time (1 to 2 weeks for radial keratotomy and Lasik-type surgeries, and 3 months for retinal detachment) must have passed to allow stabilization of visual acuity and to ensure that there are no post-surgical complications. These ophthalmological procedures can result in the failure to be able to read placards and street signs or to see and respond to imminently hazardous situations.
A.6.5 Currently, no hearing tests will allow the fire department physician to accurately predict whether the fire fighter will adequately be able to safely perform essential job duties. Job-specific hearing tests should be individualized for each department and its specific job functions. The following list of hearing-specific tasks can assist to direct development of hearing protocols:

(1) Understanding spoken commands, both over the radio and while wearing SCBA
(2) Hearing alarm signals, including building evacuation, low air alarm on the SCBA, and PASS alarms
(3) Hearing and locating the source of calls for assistance from victims or other fire fighters

All of these tasks will need to be performed with reasonably simulated incident scene background noise and SCBA noise. The inability to hear sounds of low intensity or to

distinguish voice from background noise can lead to failure to respond to imminently hazardous situations. (See 5.1.3.1.)

A.6.5.2(1) Unequal hearing can result in the inability to localize sounds, leading to failure in the ability to safely perform search and rescue and other localization tasks.

A.6.5.2(4) Severe external otitis, that is, recurrent loss of hearing can result in the inability to hear sounds of low intensity or to distinguish voice from background noise, leading to failure to respond to imminently hazardous situations.

A.6.5.2(5) Severe agenesis or traumatic deformity of the auricle can result in the inability to properly wear protective equipment and the inability to hear sounds of low intensity or to distinguish voice from background noise, leading to failure to respond to imminently hazardous situations.

A.6.5.2(6) Severe mastoiditis or surgical deformity of the mastoid can result in the inability to properly wear protective equipment and the inability to hear sounds of low intensity or to distinguish voice from background noise, leading to failure to respond to imminently hazardous situations.

A.6.5.2(7) Ménière's syndrome or severe labyrinthitis can result in the potential for sudden incapacitation and the inability to safely perform job functions due to limitations of balance.

A.6.5.2(8) Otitis media (chronic) can result in frequent episodes of pain or the inability to safely perform work and the inability to hear sounds of low intensity or to distinguish voice from background noise, leading to failure to respond to imminently hazardous situations.

A.6.6.2(1) Diseases of the jaws or associated tissues can result in the inability to properly wear protective equipment.

A.6.6.2(2) The wearing of orthodontic appliances can result in the inability to properly wear protective equipment.

A.6.6.2(3) Extensive loss of oral tissues can result in the inability to properly wear protective equipment and the inability to communicate effectively due to oropharyngeal dysfunction.

A.6.6.2(4) This condition can result in the inability to properly wear protective equipment and the inability to communicate effectively due to oropharyngeal dysfunction.

A.6.7.1(1) Atracheostomy can result in the inability to properly wear protective equipment, the inability to safely perform job functions due to limitations of endurance, and the inability to communicate effectively due to oropharyngeal dysfunction.

A.6.7.1(2) Aphonia can result in the inability to communicate effectively due to oropharyngeal dysfunction.

A.6.7.2(1) A congenital or acquired deformity can result in the inability to properly wear protective equipment.

A.6.7.2(2) Allergic rhinitis can result in frequent episodes of pain, the inability to safely perform work, and the inability to safely perform functions as a member due to limitations of endurance.

A.6.7.2(4) Recurrent sinusitis can result in frequent episodes of pain and the inability to safely perform work.

A.6.7.2(5) Severe dysphonia can result in the inability to communicate effectively due to oropharyngeal dysfunction.

A.6.8.1(5) Chronic obstructive airways disease can result in the inability to safely perform functions as a member due to limitations of endurance.
A.6.8.1(6) Hypoxemic disorders can result in the inability to safely perform functions as a member due to limitations of endurance.
A.6.8.1(7) Bronchial asthma or reactive airways disease can result in frequent episodes of pain or the inability to safely perform work, the potential for sudden incapacitation, and the inability to safely perform functions as a member due to limitations of endurance.
A.6.8.2(1) These conditions can result in the inability to safely perform functions as a member due to limitations of strength or endurance and can result in the potential for sudden incapacitation.
A.6.8.2(3) Fibrothorax, chest wall deformity, and diaphragm abnormalities can result in the inability to safely perform functions as a member due to limitations of endurance.
A.6.8.2(4) Interstitial lung diseases can result in the inability to safely perform functions as a member due to limitations of endurance.
A.6.8.2(5) Pulmonary vascular diseases and pulmonary embolism can result in frequent episodes of pain and the inability to safely perform functions as a member due to limitations of endurance.
A.6.8.2(6) Bronchiectasis can result in the inability to safely perform functions as a member due to limitations of endurance.
A.6.9.1.1(1) Angina pectoris can result in frequent episodes of pain or inability to safely perform work, progressive illness leading to functional impairment, and the potential for sudden incapacitation.
A.6.9.1.1(2) Heart failure can result in frequent episodes of pain or inability to safely perform work, progressive illness leading to functional impairment, and the potential for sudden incapacitation.
A.6.9.1.1(3) These conditions can result in frequent episodes of pain or the inability to safely perform work.
A.6.9.1.1(4) Recurrent syncope can result in the potential for sudden incapacitation.
A.6.9.1.1(5) A medical condition requiring an automatic implantable cardiac defibrillator can result in the potential for sudden incapacitation.
A.6.9.1.1(7) If the person is pacemaker-dependent, then the risk for sudden failure due to trauma is not acceptable. Those with cardiac pacemakers can have the potential for sudden incapacitation.
A.6.9.1.2(1) Specific recommendations include the following:

(1) Mitral stenosis. Mitral stenosis is acceptable if in sinus rhythm and stenosis is mild, that is, valve area is >1.5 cm2 or pulmonary artery systolic pressure is ? 35 mm Hg.

(2) Mitral insufficiency. Mitral insufficiency is acceptable if in sinus rhythm with normal left ventricular size and function.

(3) Aortic stenosis. Aortic stenosis is acceptable if stenosis is mild, that is, mean aortic valvular pressure gradient is ? 20 mm Hg.

(4) Aortic regurgitation. Aortic regurgitation is acceptable if left ventricular size is normal or slightly increased and systolic function is normal.

(5) Prosthetic valves. Prosthetic valves are acceptable unless full anticoagulation is in effect.

A.6.9.1.2(2) Recurrent paroxysmal tachycardia can result in the potential for sudden incapacitation and the inability to safely perform job functions due to limitations of strength or endurance.
A.6.9.1.2(3) These blocks will result in disqualification unless exercise can be performed with an adequate heart rate response. They can result in frequent episodes of pain, the inability to safely perform work, and have the potential for sudden incapacitation.
A.6.9.1.2(6) Ventricular tachycardia can result in the potential for sudden incapacitation and the inability to safely perform job functions due to limitations of strength or endurance.
A.6.9.1.2(7) Hypertrophy of the heart can result in the potential for sudden incapacitation and the inability to safely perform job functions due to limitations of endurance.
A.6.9.1.2(8) Ahistory of a congenital abnormality that has been treated by surgery but with residual complications or that has not been treated by surgery, leaving residuals or complications can result in frequent episodes of pain or inability to safely perform work and the potential for sudden incapacitation.
A.6.9.1.2(9) These conditions can result in the inability to safely perform job functions due to limitations of endurance.
A.6.9.2.1(1) Hypertension that is uncontrolled, poorly controlled, or requires medication likely to interfere with the performance of duties. Hypertension is an illness that can lead to functional impairment and potential for sudden incapacitation.
A.6.9.2.1(2) An aneurysm of the heart or major vessel, congenital or acquired, can result in inability to safely perform essential job tasks and the potential for sudden incapacitation.
A.6.9.2.1(4) Peripheral vascular disease can impair sensation, can increase the likelihood of injury, and can result in frequent episodes of pain or the inability to safely perform essential job tasks due to limitations of endurance.
A.6.9.2.2(2) Recurrent thrombophlebitis can result in frequent episodes of pain or the inability to safely perform work and the inability to safely perform functions as a member due to limitations of endurance.
A.6.9.2.2(3) Chronic lymphedema can result in the inability to safely perform functions as a member due to limitations of endurance.
A.6.9.2.2(4) Congenital or acquired lesions of the aorta or major vessels, for example, syphilitic aortitis, demonstrable atherosclerosis that interferes with circulation, and congenital acquired dilatation of the aorta, can result in the potential for sudden incapacitation and the inability to safely perform job functions due to limitations of endurance.
A.6.9.2.2(5) Marked circulatory instability can result in the inability to safely perform job functions due to limitations of endurance and the inability to safely perform job functions due to limitations of balance.
A.6.10.2(1) Cholecystitis (that which causes frequent pain due to stones or infection) can result in frequent episodes of pain or the inability to safely perform work.
A.6.10.2(2) Gastritis (that which causes recurrent pain and impairment) can result in frequent episodes of pain or the inability to safely perform work.
A.6.10.2(3) GI bleeding can cause fatigue and/or hemodynamic instability resulting in inability to safely perform work.

A.6.10.2(4) Acute hepatitis (until resolution of acute hepatitis as determined by clinical examination and appropriate laboratory testing) can result in frequent episodes of pain or the inability to safely perform work.
A.6.10.2(5)(c) The member should be evaluated for persistent abnormality causing increased risk of infection and/or strangulation.
A.6.10.2(6) Inflammatory bowel disease (that which causes disabling pain or diarrhea) can result in frequent episodes of pain or the inability to safely perform work. It is a progressive illness leading to functional impairment.
A.6.10.2(7) Intestinal obstruction (that is, recent obstruction with impairment) can result in frequent episodes of pain, the inability to safely perform work, and the potential for sudden incapacitation.
A.6.10.2(8) Pancreatitis (chronic or recurrent) can result in frequent episodes of pain or the inability to safely perform work.
A.6.10.2(10) A bowel resection (if frequent diarrhea precludes performance of duty) can result in frequent episodes of pain or the inability to safely perform work.
A.6.10.2(11) A gastrointestinal ulcer (where symptoms are uncontrolled by drugs or surgery) can result in frequent episodes of pain or the inability to safely perform work.
A.6.10.2(12) The member should be evaluated for underlying disease, history of trauma, or associated infections.
A.6.10.2(13) Cirrhosis, hepatic or biliary (that which is symptomatic or in danger of bleeding), can result in frequent episodes of pain or the inability to safely perform work.
A.6.10.2(14) Chronic active hepatitis can result in weakness, general malaise, or the inability to safely perform work.
A.6.11 See B.1.2.1.
A.6.14.2(1) The member should be evaluated for residual instability (subluxation) or significant limitation of motion.
A.6.14.2(4) The member should be evaluated for residual instability or laxity of ligament or intra-articular arthritis, which could cause instability in limb, inadequate range of motion, or increased pain, or use would limit crawling, kneeling, jumping, safe ladder use, or safe stretcher carrying.
A.6.14.2(5) The member should be evaluated for residual signs or symptoms (e.g., pain, swelling, atrophy, range of motion, gait).
A.6.14.2(6) The member should be evaluated for resulting functional impairment, disease activity, and chronicity.
A.6.15.1(4) Candidate must be free of clinical disease for 3 years, neurologic exam must be normal, and candidate must not require drugs that can impair ability to safely perform essential job tasks. In considering performance of essential job tasks, the impact of the operational environment (e.g., heat, stress, activity, variable night shifts) on exacerbations must be considered and specifically addressed by the neurological specialist and the medical officer.
A.6.15.1(5) The candidate must be free of clinical disease for 3 years and off all drug and other treatment. Cognitive function, neurologic exam, and respiratory status must all be normal and the candidate must be free of disease exacerbations for 3 years and off all drug treatment.

A.6.15.2(2) Exam and imaging studies must be normal and medications needed to control chronic pain will not affect neurologic or cardiac function (energy, cognitive ability, equilibrium, etc.). Examples include the following:

(1) Neuropathy (cranial, peripheral, plexus, etc.). Motor and sensory neurological exams and diagnostic/imaging studies (as needed) must be normal and medications needed to control pain will not affect nervous system function (energy, cognitive ability, equilibrium, etc.).

(2) Myopathy and/or myositis. Motor strength is normal, pain is controlled without narcotics, renal function is normal, and neither heart nor diaphragm is involved.

(3) History of infectious myo-neuropathies (e.g., Guillain-Barre, post-botulism, post-polio syndrome). Cognitive function, neurologic exam, and diagnostic imaging studies (as needed) must be normal.

A.6.16.2(1) The member should be evaluated for severity, chronicity, pain, likelihood of serious occupational infectious exposure, requirement for continuous medication, and impairment of ability to safely perform essential job tasks.

A.6.16.2(2) The member should be evaluated for thinned, stretched skin that is at risk for easy breakdown, burn damage, abnormal sensations, or infection.

A.6.16.2(3) The member should be evaluated for systemic involvement, skin involvement that interferes with function, or if localized complications such as fissures, weeping, or ulcerations are present due to risk of burn injury and/or infection.

A.6.16.2(4) The member should be evaluated for associated systemic lupus, skin integrity, and Raynaud's phenomenon.

A.6.16.2(5) The member should be evaluated for functional limitation of hand and/or foot when exposed to cold or systemic involvement of skin, muscles, heart, lungs, or joints.

A.6.16.2(6) The member should be evaluated for sclerodactyly with significant loss of function or systemic involvement.

A.6.16.2(7) The member should be evaluated for associated leg swelling, loss of function, or systemic involvement.

A.6.16.2(8) The member should be evaluated for percent body involvement with redness and scaling, requirement for regular application of lubrication/medication, and/or potential effect on performance of essential job tasks.

A.6.16.2(9) The member should be evaluated for extent, severity, chronicity, and known precipitants with attention to potential risk of serious, occupational infectious exposures or other interference with safe performance of essential job tasks.

A.6.16.2(10) The member should be evaluated for swelling, redness, scaling, itching, weeping, and/or cracking, pain, loss of function (e.g., cannot stand for long periods of time), or ulceration.

A.6.16.2(11) The member should be evaluated for functional limitations, ability to wear helmet, SCBA facepiece and protective clothing, and requirements for continuous treatment.

A.6.16.2(12) The member should be evaluated for extent, chronicity, and interference with essential job task performance.

A.6.16.2(13) The member should be evaluated for extent, chronicity, pain, ability to wear protective ensemble, and risk of occupational infectious exposure.

A.6.16.2(14) The member should be evaluated for extent and acuity of blistering, loss of function, aggravating agent(s) if known, ability to wear protective ensemble, ability to tolerate moderate, incidental, job-related trauma to skin, risk of occupational infectious exposure, or inability to safely perform essential job tasks.
A.6.16.2(15) The member should be evaluated for severity, chronicity, association with underlying medical condition, and requirement for medications (antihistamines) that interfere with ability to safely perform essential job tasks.
A.6.18.1(2) A Hemoglobin A1C ? 6.5 is a reasonable serum blood test of diabetes control according to the American Diabetes Association.
A.6.18.2(1) The member should be evaluated for absence of orthostatic hypotension, electrolyte disorders, ability to maintain hydration during exercise under extreme environmental conditions, and for normal thyroxine levels with supplementation.
A.6.19.2(2) Previous burn injury per se does not interfere with the essential job tasks of fire fighting. Extensive burn injury with or without the need for skin grafting can result in skin surfaces that are easily damaged, sensitive to chemical or solvent exposure, or lacking in sweat or sebaceous glands. The member should be evaluated for heat or cold intolerance, range of motion and motor strength, and ability to wear personal protective clothing and equipment.
A.6.20.2(1) The member should be evaluated for space occupying lesion, treatment, or sequelae affecting ability to perform essential job tasks.
A.6.20.2(2) The member should be evaluated for history or risk of seizure, residual effects on balance, coordination, strength, speech, judgment, and medication requirements.
A.6.20.2(3) The member should be evaluated for ability to wear SCBA and maintain nutrition and oral hydration.
A.6.20.2(4) The member should be evaluated for residual pulmonary function and medication requirements.
A.6.20.2(5) The member should be evaluated for abnormal bowel or urinary function that would interfere with emergency operations where toilet facilities are unavailable, ability to maintain nutrition and hydration, and medication requirements.
A.6.20.2(6) The member should be evaluated for muscle strength, deformity interfering with function, or ability to wear protective ensemble.
A.6.20.2(7) The member should be evaluated for anemia, leukopenia, or thrombocytopenia, residual cardiac, pulmonary, GI, dermatological or neurological effects of surgery, radiation, or chemotherapy.
A.6.22.2 The member should be evaluated for underlying condition requiring the medication and effects of medication that could affect ability to safely perform essential job tasks.