

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For inquires or to report unauthorized use, contact licensing@nfpa.org.

 Print

 Close

Chapter 6 Medical Evaluations Of Candidates

Chapter 6 Medical Evaluations of Candidates

6.1 Medical Evaluation. A medical evaluation of a candidate shall be conducted prior to the candidate being placed in training programs or fire department emergency response activities.

6.1.1* The medical evaluation of a candidate shall include a medical history, examination, and any laboratory tests required to detect physical or medical condition(s) that could adversely affect his/her ability to safely perform the essential job tasks outlined in 5.1.1.

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 the candidate not being able to safely perform one or more of the 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

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For inquires or to report unauthorized use, contact licensing@nfpa.org.

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 any neck condition that results in the candidate not being able to safely perform one or more of the essential job tasks.

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 Category A medical conditions shall include the following:

- (1)* Far visual acuity less than 20/40 binocular, corrected with contact lenses or spectacles, or 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 such as thermal imaging cameras
- (3)* Monocular vision
- (4) Any eye condition that results in the candidate not being able to safely perform one or more of the 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 Category A medical 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

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For inquires or to report unauthorized use, contact licensing@nfpa.org.

(dB) at 500 Hz, 1000 Hz, 2000 Hz, and 3000 Hz when the audiometric device is calibrated to ANSI 224.5, *Audiometric Device Testing*

- (3) Any ear condition (or hearing impairment) that results in the candidate not being able to safely perform one or more of the 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 Category A medical conditions shall include any dental condition that results in inability to safely perform one or more of the essential job tasks.

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 Category A medical conditions shall include the following:

- (1)* Tracheostomy
- (2)* Aphonia
- (3) Any nasal, oropharyngeal, tracheal, esophageal, or laryngeal condition that results in inability to safely perform one or more of the essential job tasks including fit testing for respirators such as N-95 for medical response, P-100 for particulates and certain vapors, and SCBA for fire and hazmat operations

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For inquiries or to report unauthorized use, contact licensing@nfpa.org.

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) Nasopharyngeal polyposis

6.8 Lungs and Chest Wall.

6.8.1 Category A medical conditions shall include the following:

- (1) Active hemoptysis
- (2) Current empyema
- (3) Pulmonary hypertension
- (4) Active tuberculosis
- (5) An FVC or FEV₁ less than 70 percent predicted independent of disease as it prevents the safe use of SCBA due to increased minute ventilation requirements leading to the earlier than expected depletion of air in the SCBA cylinder
- (6)* Obstructive lung diseases (e.g., emphysema, chronic bronchitis, asthma) with an FEV₁/FVC less than 0.75, with both FEV₁ and FVC below normal (less than 0.80) as defined by the American Thoracic Society (*see references in Annex D*)
- (7)* Hypoxemia — oxygen saturation less than 90 percent at rest or exercise desaturation by 4 percent or to less than 90 percent (exercise testing indicated when resting oxygen is less than 94 percent but greater than 90 percent)
- (8)* Asthma — reactive airways disease requiring bronchodilator or corticosteroid therapy for 2 or more consecutive months in the previous 2 years, unless the candidate can meet the requirement in 6.8.1.1
- (9) Any pulmonary condition that results in the candidate not being able to safely perform one or more of the essential job tasks

6.8.1.1* A candidate who has in the past required bronchodilator, corticosteroid, or anti-inflammatory therapy for asthma but who does not believe he/she has asthma shall be evaluated by a pulmonologist or other expert in asthmatic lung diseases such as an allergist to determine the following:

- (1) Asthma has resolved without symptoms off medications for 2 years.
- (2) If allergic, allergen avoidance or desensitization has been successful.
- (3) Spirometry demonstrates adequate reserve (FVC and FEV₁ greater than or equal to 90 percent) and no bronchodilator response measured off all bronchodilators on the day of testing.
- (4) Normal or negative response (less than 20 percent decline in FEV₁) to provocative challenge using cold air, exercise (12 METS), or methacholine. (PC₂₀ greater than 8 is considered normal, as response at dose greater than 8 mg might not be clinically significant.)

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For inquires or to report unauthorized use, contact licensing@nfpa.org.

6.8.1.1.1 Challenge testing shall be performed off all anti-inflammatory medications for 4 weeks preceding the test and off all bronchodilators on the day of testing.

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

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 the candidate not being able to safely perform one or more of the 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

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For inquires or to report unauthorized use, contact licensing@nfpa.org.

- (5) Sinus pause more than 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 greater than or equal to 50 percent reduction in blood flow
- (4)* Peripheral vascular disease resulting in symptomatic claudication
- (5) Any other vascular condition that results in inability to safely perform one or more of the 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 the candidate not being able to safely perform one or more of the essential job tasks

6.10.2 Category B medical conditions shall include the following:

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For inquires or to report unauthorized use, contact licensing@nfpa.org.

- (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 more than 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. See B.1.2.1.

6.11.1 Category A medical conditions shall include any genital condition that results in inability to safely perform one or more of the essential job tasks.

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 the candidate not being able to safely perform one or more of the essential job tasks

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For inquires or to report unauthorized use, contact licensing@nfpa.org.

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 greater than or equal to 40 degrees
- (2) History of spinal surgery involving fusion of two or more vertebrae, 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 less than 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 less than 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 less than 1 year since surgery
- (8) Any spinal or skeletal condition that results in the candidate not being able to safely perform one or more of the 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 less than 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) History of discectomy or laminectomy or vertebral fractures

6.14 Extremities.

6.14.1 Category A medical conditions shall include the following:

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For inquires or to report unauthorized use, contact licensing@nfpa.org.

- (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 mid-proximal phalanx
- (5) Amputation or congenital absence of lower-extremity limb (foot or above)
- (6) Chronic non-healing 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 the candidate not being able to safely perform one or more of the 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 including simple partial, complex partial, generalized, and psychomotor seizure disorders other than as allowed in 6.15.1.1
- (9) Dementia (Alzheimer's and other neurodegenerative diseases) with symptomatic loss of function or cognitive impairment (e.g., less than or equal to 28 on Mini-Mental Status Exam)
- (10) Parkinson's disease and other movement disorders resulting in uncontrolled movements, bradykinesia, or cognitive impairment (e.g., less than or equal to 28 on Mini-Mental Status Exam)
- (11) Any neurological condition that results in the candidate not being able to safely perform one or more of the essential job tasks

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For inquires or to report unauthorized use, contact licensing@nfpa.org.

6.15.1.1 A candidate with epileptic conditions shall have had complete control during the previous 5 years.

6.15.1.2 To be medically qualified a candidate shall meet all of the following:

- (1) No seizures for 1 year off all anti-epileptic medication or 5 years seizure free on a stable medical regimen
- (2) Neurologic examination is normal
- (3) Imaging (CAT or MRI scan) studies are normal
- (4) Awake and asleep EEG studies with photic stimulation and hyperventilation are normal
- (5) A definitive statement from a qualified neurological specialist that the candidate meets the criteria specified in 6.15.1.2(1) through 6.15.1.2(4) and that the candidate is neurologically cleared for fire-fighting training and the performance of a fire fighter's 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 candidate not being able to safely perform one or more of the 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

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For inquires or to report unauthorized use, contact licensing@nfpa.org.

- (6)* Scleroderma (skin)
- (7)* Vasculitic skin lesions
- (8)* Atopic dermatitis/eczema
- (9)* Contact or seborrheic dermatitis
- (10)* Stasis dermatitis
- (11)* Albinism, Darriers disease, ichthyosis, Marfan 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 inability to safely perform one or more of the 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 inability to safely perform essential job tasks

6.18 Endocrine and Metabolic Disorders.

6.18.1 Category A medical conditions shall include the following:

- (1)* Type 1 diabetes mellitus, unless a candidate meets all of the following criteria:
 - (a) Is maintained by a physician knowledgeable in current management of diabetes mellitus on a basal/bolus (can include subcutaneous insulin infusion pump) regimen using insulin analogs.
 - (b) Has demonstrated over a period of at least 1 year the motivation and understanding required to closely monitor and control capillary blood glucose levels through nutritional therapy and insulin administration. Assessment of this shall take into consideration the erratic meal schedules, sleep disruption, and high aerobic and anaerobic workloads intrinsic to fire fighting.
 - (c) Has a dilated retinal exam by a qualified ophthalmologist or optometrist that shows no higher grade of diabetic retinopathy than microaneurysms, as indicated on the International Clinical

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For inquiries or to report unauthorized use, contact licensing@nfpa.org.

Diabetic Retinopathy Disease Severity Scale.

- (d) Has normal renal function based on a calculated creatinine clearance greater than 60 mL/min and absence of proteinuria. (Creatinine clearance can be calculated by use of the Cockcroft-Gault or similar formula. Proteinuria is defined as 24-hour urine excretion of greater than or equal to 300 mg protein or greater than or equal to 300 mg of albumin per gram of creatinine in a random sample.)
- (e) Has no autonomic or peripheral neuropathy. (Peripheral neuropathy is determined by diminished ability to feel the vibration of a 128 cps tuning fork or the light touch of a 10-gram monofilament on the dorsum of the great toe proximal to the nail. Autonomic neuropathy might be determined by evidence of gastroparesis, postural hypotension, or abnormal tests of heart rate variability.)
- (f) Has normal cardiac function without evidence of myocardial ischemia on cardiac stress testing (to at least 12 METS) by ECG and cardiac imaging.
- (g) Has a signed statement from an endocrinologist knowledgeable in management of diabetes mellitus as well as the essential job tasks and hazards of fire fighting as described in & that the candidate meets the following criteria:
 - i. Is being successfully maintained on a regimen consistent with 6.18.1(1)(a) and 6.18.1(1)(b).
 - ii. Has achieved stable control of blood glucose as evidenced by Hemoglobin A1C consistently less than 8 when monitored at least twice yearly. This shall include evidence of a set schedule for blood glucose monitoring and a thorough review of data from such monitoring.
 - iii. Does not have an increased risk of hypoglycemia due to alcohol use or other predisposing factors.
 - iv.* Has had no episodes of severe hypoglycemia (defined as requiring assistance of another) in the preceding 1 year, with no more than one episode of severe hypoglycemia in the preceding 5 years.
 - v. Is certified not to have a medical contraindication to fire-fighting training and operations.

(2) Insulin-requiring Type 2 diabetes mellitus, unless a candidate meets all of the following criteria:

- (a) Is maintained by a physician knowledgeable in current management of diabetes mellitus.
- (b) Has demonstrated over a period of at least 3 months the motivation and understanding required to closely monitor and control capillary blood glucose levels through nutritional therapy and insulin administration. Assessment of this shall take into consideration the erratic meal schedules, sleep disruption, and high aerobic and anaerobic workloads intrinsic to fire fighting.
- (c) Has a dilated retinal exam by a qualified ophthalmologist or optometrist that shows no higher grade of diabetic retinopathy than microaneurysms, as indicated on the International Clinical Diabetic Retinopathy Disease Severity Scale.
- (d) Has normal renal function based on a calculated creatinine clearance greater than 60 mL/min and absence of proteinuria. (Creatinine clearance can be calculated by use of the Cockcroft-Gault or similar formula. Proteinuria is defined as 24-hour urine excretion of greater than or equal to 300 mg protein or greater than or equal to 300 mg of albumin per gram of creatinine in a random sample.)
- (e) Has no autonomic or peripheral neuropathy. (Peripheral neuropathy is determined by diminished ability to feel the vibration of a 128 cps tuning fork or the light touch of a 10-gram monofilament on the dorsum of the great toe proximal to the nail. Autonomic neuropathy can be determined by evidence of gastroparesis, postural hypotension, or abnormal tests of heart rate variability.)

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For inquires or to report unauthorized use, contact licensing@nfpa.org.

- (f) Has normal cardiac function without evidence of myocardial ischemia on cardiac stress testing (to at least 12 METS) by ECG and cardiac imaging.
 - (g) Has a signed statement from an endocrinologist knowledgeable in management of diabetes mellitus as well as the essential job tasks and hazards of fire fighting as described in 5.1.1 that the candidate meets the following criteria:
 - i. Is maintained on a stable insulin regimen and has demonstrated over a period of at least 3 months the motivation and understanding required to closely monitor and control capillary blood glucose levels despite varied activity schedules through nutritional therapy and insulin administration
 - ii. Has achieved stable control of blood glucose as evidenced by Hemoglobin A1C less than 8 when monitored at least twice yearly, which must include evidence of a set schedule for blood glucose monitoring and a thorough review of data from such monitoring
 - iii. Does not have an increased risk of hypoglycemia due to alcohol use or other predisposing factors
 - iv.* Has had no episodes of severe hypoglycemia (defined as requiring assistance of another) in the preceding 1 year, with no more than one episode of severe hypoglycemia in the preceding 5 years
 - v. Is certified not to have a medical contraindication to fire-fighting training and operations
- (3) Any endocrine or metabolic condition that results in the candidate not being able to safely perform one or more of the 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, not on insulin therapy, but controlled by diet, exercise, and/or oral hypoglycemic agents unless all of the following are met:
 - (a) Has achieved a stable blood glucose as evidenced by Hemoglobin A1C level less than 8 during the prior 3-month period.
 - (b) If on oral hypoglycemic agents, has had no episodes of severe hypoglycemia (defined as requiring assistance of another) in the preceding year.
 - (c) Has a dilated retinal exam by a qualified ophthalmologist or optometrist that shows no higher grade of diabetic retinopathy than microaneurysms, as indicated on the International Clinical Diabetic Retinopathy Disease Severity Scale.
 - (d) Has normal renal function based on a calculated creatinine clearance greater than 60 mL/min and absence of proteinuria. (Creatinine clearance can be calculated by use of the Cockcroft-Gault or similar formula. Proteinuria is defined as 24-hour urine excretion of greater than or equal to 300 mg protein or greater than or equal to 300 mg of albumin per gram of creatinine in a random sample.)
 - (e) Has no autonomic or peripheral neuropathy. (Peripheral neuropathy is determined by diminished ability to feel the vibration of a 128 cps tuning fork or the light touch of a 10-gram monofilament on the dorsum of the great toe proximal to the nail. Autonomic neuropathy can be

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For inquires or to report unauthorized use, contact licensing@nfpa.org.

determined by evidence of gastroparesis, postural hypotension, or abnormal tests of heart rate variability.)

(f) Normal cardiac function without evidence of myocardial ischemia on cardiac stress testing (to at least 12 METS) by ECG and cardiac imaging.

6.19 Systemic Diseases and Miscellaneous Conditions.

6.19.1 Category A medical conditions shall include any systemic condition that results in the candidate not being able to safely perform one or more of the essential job tasks.

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, or under active surveillance due to the increased risk for reoccurrence
- (2)** Any tumor or similar condition that results in the candidate not being able to safely perform one or more of the 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 any psychiatric condition that results in the

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For Inquires or to report unauthorized use, contact licensing@nfpa.org.

candidate not being able to safely perform one or more of the essential job tasks.

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 Category A medical 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 international normalized ratio (INR)
- (4) Beta-adrenergic blocking agents, high-dose diuretics, or central acting antihypertensive agents (e.g., clonidine)
- (5) Respiratory medications: inhaled bronchodilators, inhaled corticosteroids, systemic corticosteroids, theophylline, and leukotriene receptor blockers/antagonists
- (6) High-dose corticosteroids for chronic disease
- (7) Anabolic steroids
- (8) Any chemical, drug, or medication that results in the candidate not being able to safely perform one or more of the essential job tasks

6.22.1.1 Tobacco use shall be a Category A medical condition (where state law allows).

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 Category A 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) Psychiatric medications

Copyright by National Fire Protection Association (NFPA). NFPA 1582 is licensed, by agreement for individual use. No other reproduction or transmission in any form permitted without written permission of NFPA. For inquires or to raport unauthorized use, contact licensing@nfpa.org.

- (4) Other than high-dose systemic corticosteroids
- (5) Antihistamines
- (6) Muscle relaxants