# Candidate/New Hire Medicals

# NFPA 1582 OVERVIEW OF CHAPTER 6 NEW HIRE / CANDIDATES ONLY

This is intended as a "quick-sheet" overview and shall not be used without a complete understanding of NFPA 1582 Standard on Comprehensive Occupational Medical Program for Fire Departments

To obtain a copy of NFPA1582, visit the NFPA website at www/nfpa.org

See NFPA1582 Chapter 7 for volunteer, paid on call, part time, or career firefighters

Italic green text indicates changes made in the 2013 version

Minimal medical requirements are clearly delineated in NFPA 1582 - Chapter 6. Nothing is intended to restrict any jurisdiction from exceeding these minimum requirements.

For the Candidates/New Hire the determination is whether the individual is medical sound to perform as a member in a training or emergency operational environment without presenting a significant risk to the safety and health of the person or others is broken into two (2) categories.

# **A** Category A

Medical Condition - Anything in this category would preclude hire. Each category also includes —"Any
condition that results in the candidate not being able to safely perform one or more of the essential job
tasks."

# **B** Category B

Medical Condition - A condition that, based on its severity or degree, could preclude hire but only if
despite the condition the candidate "can perform the essential job tasks without posing a significant
safety and health risk to themselves, members, or civilians".

# **List of Conditions**

#### **NOTICES:**

- An asterisk (\*) indicates that explanatory material is in Annex A of NFPA 1582.
- Requirements are different for volunteer, paid on call, part time, or career firefighters. See NFPA 1582
   Chapter 7

# 6.3 Head and Neck - Candidates/New Hire

#### 6.3.1 Head Category A

- Defect of skull preventing helmet use or leaving underlying brain unprotected from trauma
- Any skull or facial deformity that would not allow for a successful fit test for respirators used by that department
- (A) Any condition that results in the candidate not being able to safely perform one or more of the essential job tasks

#### **Category B**

- B \*Deformities of the skull such as depressions or exostoses
- ® \*Deformities of the skull associated with evidence of disease of the brain, spinal cord, or peripheral nerves
- ® \*Loss or congenital absence of the bony substance of the skull

#### 6.3.2 Neck Category A

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

- B \*Thoracic outlet syndrome
- ® \*Congenital cysts, chronic draining fistulas, or similar lesions
- **B** \*Contraction of neck muscles

# 6.4 Eyes and Vision - Candidates/New Hire

# **Category A**

- A 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
- A \*Color perception—monochromatic vision resulting in inability to use imaging devices such as thermal imaging cameras
- A \*Monocular vision
- Any condition that results in the candidate not being able to safely perform one or more of the essential job tasks

# **Category B**

- ® \*Diseases of the eye such as retinal detachment, progressive retinopathy, or optic neuritis
- ® \*Ophthalmological procedures such as radial keratotomy, Lasik procedure, or repair of retinal detachment
- B 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 - Candidates/New Hire

# Category A

- A Chronic vertigo or impaired balance as demonstrated by the inability to tandem gait walk
- (A) On audiometric testing, average hearing loss in the unaided better ear greater than 40 decibels (dB) at 500 Hz, 1000 Hz, 2000 Hz, and 3000 Hz when the audiometric device is calibrated to ANSI Z24.5, Audiometric Device Testing
- Any condition (or hearing impairment) that results in the candidate not being able to safely perform one or more of the essential job tasks
- A \* Hearing aid or cochlear implant

# **Category B**

- B \*Unequal hearing loss
- B Average uncorrected hearing deficit at the test frequencies 500 Hz, 1000 Hz, 2000 Hz, and 3000 Hz greater than 40 dB in either ear
- B Atresia, stenosis, or tumor of the auditory canal
- **B** \*External otitis, recurrent
- ® \*Agenesis or traumatic deformity of the auricle
- B \*Ménière's syndrome, labyrinthitis, or tinnitus
- \*Otitis media
- Surgical procedures to correct or improve hearing or other conditions of the ear

# 6.6 Dental - Candidates/New Hire

#### Category A

Any condition that results in inability to safely perform one or more of the essential job tasks.

- B \*Diseases of the jaws or associated tissues
- B \*Orthodontic appliances
- B \*Oral tissues, extensive loss
- \*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 - Candidates/New Hire

# **Category A**

- A \*Tracheostomy
- A \*Aphonia
- 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
- Any condition that results in inability to safely perform one or more of the essential job tasks.

# **Category B**

- B \*Congenital or acquired deformity
- B \*Allergic rhinitis
- B Epistaxis, recurrent
- ® \*Sinusitis, recurrent
- B \*Dysphonia
- **B** Anosmia
- B Tracheal stenosis
- B Nasopharyngeal polyposis
- ®\*0bstructive apneas (e.g., sleep apnea) if unresponsive to treatment

# 6.8 Lungs and Chest Wall - Candidates/New Hire

# **Category A**

- A Active hemoptysis
- **A** Current empyema
- A Pulmonary hypertension
- A Active tuberculosis
- A\*A forced vital capacity (FVC) or forced expiratory volume in 1 second (FEV1) less than 70 percent predicted even independent of disease
- \*0bstructive lung diseases (e.g., emphysema, chronic bronchitis, asthma) with an absolute FEVdFVCless than 0.70 and with either the FEV1below normal or both the FEV1 and the FVC below normal (less than 0.80) (see references inE2)
- A \*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)
- 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
- (A) Lung Transplant
- A candidate who has in the past required bronchodilator, corticosteroid, or anti-inflammatory therapy (e.g., leukotriene receptor antagonists, such as Montelukast) 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 if the candidate meets all four requirements in 6.8.1.1
- (A) Challenge testing shall be performed of all anti- inflammatory medications (e.g., inhaled or oral steroids, leukotriene receptor antagonists) for 4 weeks preceding the test, off all antihistamines (e.g., oral allergy medications) for I week, and off all bronchodilators on the day of testing
- Any condition that results in inability to safely perform one or more of the essential job tasks.

#### **Category B**

- ® \*Pulmonary resectional surgery, chest wall surgery, and pneumothorax
- B Pleural effusion
- B \*Fibrothorax, chest wall deformity, and diaphragm abnormalities

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- B \*Interstitial lung diseases
- ® \*Pulmonary vascular diseases or history of pulmonary embolism
- Bronchiectasis, if abnormal pulmonary function or recur- rent infections
- B Infections diseases of the lung or plenral space
- B Cystic fibrosis
- B Central or obstructive apnea (e.g., sleep apnea) if unresponsive to treatment

# 6.9 Aerobic Capacity - Candidates/New Hire

# **Category A**

Aerobic capacity less than 12 metabolic equivalents (METs) (12 METs= 42 mL 02/kg/min).

# 6.10 Heart and Vascular System - Candidates/New Hire

# 6.10.1 Heart Category A

- (A) Coronary artery disease, including history of myocardial infarction, angina pectoris, coronary artery bypass surgery, coronary angioplasty, and similar procedures
- \*Cardiomyopathy or congestive heart failure, including signs or symptoms of compromised left or right ventricular function or rhythm, including dyspnea, S3 gallop, peripheral edema, enlarged ventricle, abnormal ejection fraction, and/ or inability to increase cardiac output with exercise
- A \*Acute pericarditis, endocarditis, or myocarditis
- A \*Syncope, recurrent
- 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
- A Third-degree atrioventricular block
- A \*Cardiac pacemaker
- A Hypertrophic cardiomyopathy, including idiopathic hypertrophic subaortic stenosis
- A Heart Transplant
- (A) Any condition that results in the candidate not being able to safely perform one or more of the essential job tasks

#### **Category B**

- B \*Valvular lesions of the heart, including prosthetic valves
- ® \*Recurrent supraventricular or atrial tachycardia, flutter, or fibrillation
- \*Left bundle branch block
- B Second-degree atrioventricular block in the absence of structural heart disease
- B Sinus pause more than 3 seconds
- ® \*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)
- \*Cardiac hypertrophy or hypertrophic cardiomyopathy
- B \*History of a congenital abnormality
- ® \*Chronic pericarditis, endocarditis, or myocarditis

#### 6.10.2 Vascular System Category A

- A Hypertension (a)\*Uncontrolled or poorly controlled hypertension (b) \*Hypertension with evidence of end organ damage
- A \*Thoracic or abdominal aortic aneurysm
- A Carotid artery stenosis or obstruction resulting in greater than or equal to 50 percent reduction in blood flow
- A \*Peripheral vascular disease resulting in symptomatic claudication
- Any other condition that results in inability to safely perform one or more of the essential job tasks NFPA 1582 Overview of Chapter 6

# **Category B**

- Vasospastic phenomena such as Raynaud's phenomenon
- \*Thrombophlebitis; thrombosis, or varicosities
- ® \*Chronic lymphedema due to lymphadenopathy or venous valvular incompetency
- ® \*Congenital or acquired lesions of the aorta or major vessels
- \*Circulatory instability as indicated by orthostatic hypotension, persistent tachycardia, and peripheral vasomotor disturbances
- B History of surgical repair of aneurysm of the heart or major vessel

# 6.11 Abdominal Organs and Gastrointestinal System - Candidates/New Hire

#### Category A

- A Presence of uncorrected inguinal/femoral hernia regardless of symptoms
- Any condition that results in the candidate not being able to safely perform one or more of the essential job tasks

# **Category B**

- B \*Cholecystitis
- B \*Gastritis
- B \*GI bleeding
- B \*Acute hepatitis
- B Hernia including the following:
  - Uncorrected umbilical, ventral, or incisional hernia if significant risk exists for infection or strangulation
  - Significant symptomatic hiatal hernia if associated with asthma, recurrent pneumonia, chronic pain, or chronic ulcers
  - \*Surgically corrected hernia more than 3 months after surgical correction
- B \*Inflammatory bowel disease or irritable bowel syndrome
- B \*Intestinal obstruction
- \*Pancreatitis
- **B** Diverticulitis
- B \*History of gastrointestinal surgery
- B \*Peptic or duodenal ulcer or Zollinger-Ellison syndrome
- B \*Asplenia
- B \*Cirrhosis, hepatic or biliary
- B \*Chronic active hepatitis

# 6.12 Metabolic Syndrome - Candidates/New Hire

#### **Category A**

Medical conditions shall include metabolic syndrome with aerobic capacity less than 12 METs.

#### **Category B**

B Medical conditions shall include metabolic syndrome with aerobic capacity 12 METs or greater.

# 6.13 Reproductive System (See B1.2.1.) - Candidates/New Hire

#### **Category A**

Any genital condition that results in inability to safely perform one or more of the essential job tasks.

#### **Category B**

- B Pregnancy, for its duration
- B Dysmenorrhea
- B Endometriosis, ovarian cysts, or other gynecologic conditions

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# B Testicular or epididymal mass

# 6.14 Urinary System - Candidates/New Hire

# **Category A**

- A Renal failure or insufficiency requiring continuous ambulatory peritoneal dialysis (CAPD) or hemodialysis
- (A) Any condition that results in the candidate not being able to safely perform one or more of the essential job tasks

# **Category B**

- B Diseases of the kidney
- B Diseases of the ureter, bladder, or prostate

# 6.15 Spine and Axial Skeleton - Candidates/New Hire

# **Category A**

- A Scoliosis of thoracic or lumbar spine with angle greater than or equal to 40 degrees
- A History of spinal surgery with rods that are still in place
- Any spinal or skeletal condition producing sensory or motor deficit(s) or pain due to radiculopathy or nerve root compression
- Any spinal or skeletal condition causing pain that frequently or recurrently requires narcotic analgesic medication
- (A) 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
- A 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
- (A) 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
- Any condition that results in the candidate not being able to safely perform one or more of the essential job tasks

- B Congenital or developmental malformations of the back, particularly those that can cause instability, neurological deficits, pain, or limit flexibility
- B Scoliosis with angle less than 40 degrees
- Arthritis of the cervical, thoracic, or lumbosacral spine
- B Facet atrophism, high lumbosacral angle, hyperlordosis, Schmorl's nodes, Scheuermann's disease, spinal bifida occulta, spondylolisthesis, spondylolysis, or transitional vertebrae
- B History of infections or infarcts in the spinal cord, epidural space, vertebrae, or axial skeletal joints
- B History of diskectomy, laminectomy, or vertebral fractures
- B History of spine fusion that results in instability; reduced mobility, strength, or range of motion; or persistent pain.

#### 6.16 Extremities - Candidates/New Hire

# **Category A**

- A Joint replacement unless all four requirements in 6.16.1 (1) are met
- Amputation or congenital absence of upper-extremity limb (hand or higher)
- Amputation of either thumb proximal to the midproximal phalanx
- Amputation or congenital absence of lower-extremity limb (foot or above) unless the candidate meets all seven requirements listed in 6.16.1 (4)
- A Chronic non-healing or recent bone grafts
- A 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
- (A) Any condition that results in the candidate not being able to safely perform one or more of the essential job tasks

# **Category B**

- ® \*History of shoulder dislocation with surgical repair
- ® 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
- B 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
- ® \*History of meniscectomy or ligamentous repair of knee
- ® \*History of intra-articular, malunited, or nonunion of upper or lower extremity fracture
- B \*History of osteomyelitis, septic, or rheumatoid arthritis
- Bone hardware such as metal plates or rods supporting bone during healing

# 6.17 Neurological Disorders - Candidates/New Hire

# **Category A**

- A Ataxias of heredo-degenerative type
- (A) Cerebral arteriosclerosis as evidenced by a history of transient ischemic attack, reversible ischemic neurological deficit, or ischemic stroke
- A Hemiparalysis or paralysis of a limb
- A \*Multiple sclerosis with activity or evidence of progression within previous 3 years
- A \*Myasthenia gravis with activity or evidence of progression within previous 3 years
- A Progressive muscular dystrophy or atrophy
- A Uncorrected cerebral aneurysm
- All single unprovoked seizures and epileptic conditions, including simple partial, complex partial, generalized, and psychomotor seizure disorders other than as allowed in 6.17.1.1
- (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)
- A 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)
- Any neurological condition that results in the candidate not being able to safely perform one or more of the essential job tasks
- (A) A candidate with epileptic conditions shall have had complete control during the previous 5 years.

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

- No seizures for 1 year off all anti-epileptic medication or 5 years seizure free on a stable medical regimen
- Neurologic examination is normal
- Imaging (CAT or MRI scan) studies are normal

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- Awake and asleep EEG studies with photic stimulation and hyperventilation are normal
- A definitive statement from a qualified neurological specialist that the candidate meets the criteria specified in 6.17.1.1(1) through 6.17.1.1(4) and that the candidate is neurologically cleared for firefighting training and the performance of a fire fighter's essential job tasks
- Any condition that results in the candidate not being able to safely perform one or more of the essential job tasks

# **Category B**

- B Congenital malformations
- B \*Migraine
- B Clinical disorders with paresis, dyscoordination, deformity, abnormal motor activity, abnormality of sensation, or complaint of pain
- B History of subarachnoid or intraparenchymal hemorrhage
- B Abnormalities from recent head injury such as severe cerebral contusion or concussion

#### 6.18 Skin - Candidates/New Hire

# **Category A**

- A Metastatic or locally extensive basal or squamous cell carcinoma or melanoma
- Any dermatologic condition that would not allow for a successful fit test for any respirator required by the fire department
- Any condition that results in the candidate not being able to safely perform one or more of the essential job task

# **Category B**

- ® \*Skin conditions of a chronic or recurrent nature (eczema, cystic acne, psoriasis) that cause skin openings or inflammation or irritation of the skin surface
- B \*Surgery or skin grafting
- **B** \*Mycosis fungoides
- B \*Cutaneous lupus erythematosus
- B \*Raynaud's phenomenon
- B \*Scleroderma (skin)
- B \*Vasculitic skin lesions
- B \*Atopic dermatitis/eczema
- B \*Contact or seborrheic dermatitis
- B \*Stasis dermatitis
- ® \*Albinism, Dariers disease, ichthyosis, Marfan syndrome, neurofibromatosis, and other genetic conditions
- B \*Folliculitis, pseudo-folliculitis, miliaria, keloid folliculitis
- B \*Hidradenitis suppurativa, furuncles, carbuncles, or Grade IV acne (cystic)
- B \*Mechano-bullous disorders (epidermolysis bullosa, Hailey pemphigus, porphyria, pemphigoid)
- B \*Urticaria or angioedema

# 6.19 Blood and Blood-Forming Organs - Candidates/New Hire

#### Category A

- A Hemorrhagic states requiring replacement therapy
- A Sickle cell disease (homozygous)
- A Clotting disorders
- Any condition that results in inability to safely perform one or more of the essential job tasks

# **Category B**

- Anemia
- B Leukopenia
- B Polycythemia vera
- B Splenomegaly
- B History of thromboembolic disease
- B Any other hematological condition that results in inability to safely perform essential job tasks

# 6.20 Endocrine and Metabolic Disorders - Candidates/New Hire

# **Category A**

- A\*Type 1 diabetes mellitus, unless a candidate meets all seven criteria in 6.20.1- (1) a-g
- A Insulin-requiring Type 2 diabetes mellitus, unless a candidate meets all seven criteria in 6.20.1- (2) a-g
- Any condition that results in the candidate not being able to safely perform one or more of the essential job tasks

# **Category B**

- ® \*Diseases of the adrenal gland, pituitary gland, parathyroid gland, or thyroid gland of clinical significance
- Nutritional deficiency diseases or other metabolic disorder
- B Diabetes mellitus, not on insulin therapy, but controlled by diet, exercise, and/or oral hypoglycemic agents unless all of the six criteria in 6.20.2(3) are met.

# 6.21 Systemic Diseases and Miscellaneous Conditions - Candidates/New Hire

# **Category A**

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

#### Category B

- Connective tissue disease, such as dermatomyositis, systemic lupus erythematosus, scleroderma, and rheumatoid arthritis
- B \*History of thermal, chemical, or electrical burn injury with residual functional deficit
- B Documented evidence of a predisposition to recurrent heat stress rhabdomyolysis, metabolic acidosis, or exertion-related incapacitation

#### 6.22 Tumors and Malignant Diseases - Candidates/New Hire

#### Category A

- (A) Malignant disease that is newly diagnosed, untreated, or currently being treated, or under active surveillance due to the increased risk for reoccurrence
- (A) Any condition that results in the candidate not being able to safely perform one or more of the essential job tasks

- B \*Benign tumors
- B \*History of CNS tumor or malignancy
- \*History of head and neck malignancy
- B \*History of lung cancer
- \*History of GI or GU malignancy
- B \*History of bone or soft tissue tumors or malignancies
- \*History of hematological malignancy

# 6.23 Psychiatric Conditions - Candidates/New Hire

# **Category A**

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

# **Category B**

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

# 6.24 Chemicals, Drugs, and Medications - Candidates/New Hire

# **Category A**

- A Those that require chronic / frequent treatment with any of the medications or classes of medications listed in 6.24.1(1-8)
- A Tobacco use (where state law allows)
- (A) Evidence of illegal drug use detected through testing conducted in accordance with Substance Abuse and Mental Health Service Administration (SAMHSA)
- A 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
- Any condition that results in the candidate not being able to safely perform one or more of the essential job tasks

- B Cardiovascular agents
- **B** Stimulants
- B Psychiatric medications
- Other than high-dose systemic corticosteroids
- B Antihistamines
- B Muscle relaxants
- B Lenkotriene receptor antagonists (e.g., Montelnkast) used for allergies that do not affect the lower respiratory system