

Report of the Committee on**Fire Service Occupational Safety and Health**

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Rep. International Safety Equipment Association
Jodi A. Gabelmann, Cobb County Fire and Emergency Services, GA [L]
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Joseph W. Rivera, US Air force, FL [U]
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Nonvoting

Robert B. Bell, US Department of Labor, DC [E]
(Alt. to Matthew I. Chibbaro)
Matthew I. Chibbaro, US Department of Labor, DC [E]
Thomas R. Hales, US Department of Health & Human Services, OH [RT]
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Staff Liaison: **Carl E. Peterson**

Committee Scope: This Committee shall have primary responsibility for documents on occupational safety and health in the working environment of the fire service. The Committee shall also have responsibility for documents related to medical requirements for fire fighters.

This list represents the membership at the time the Committee was balloted on the text of this edition. Since that time, changes in the membership may have occurred. A key to classifications is found at the front of this book.

The Committee on **Fire Service Occupational Safety and Health** is presenting two Reports for adoption, as follows:

Report I of this Report on Comments was prepared by the **Technical Committee on Fire Service Occupational Safety and Health**, and documents its action on the comments received on its Report on Proposals on NFPA 1500, **Standard on Fire Department Occupational Safety and Health Program**, 2002 edition, as published in the Report on Proposals for the 2006 June Meeting.

NFPA 1500 has been submitted to letter ballot of the **Technical Committee on Fire Service Occupational Safety and Health**, which consists of 31 voting members. The results of the balloting, after circulation of any negative votes, can be found in the report.

Report II of this Report on Comments was prepared by the **Technical Committee on Fire Service Occupational Safety and Health**, and documents its action on the comments received on its Report on Proposals on NFPA 1582, **Standard on Comprehensive Occupational Medical Program for Fire Departments**, 2003 edition, as published in the Report on Proposals for the 2006 June Meeting.

NFPA 1582 has been submitted to letter ballot of the **Technical Committee on Fire Service Occupational Safety and Health**, which consists of 31 voting members. The results of the balloting, after circulation of any negative votes, can be found in the report.

1582-1 Log #CC1
(Chapter 3 Definitions (GOT))**Final Action: Accept in Principle****Submitter:** Technical Committee on Fire Service Occupational Safety and Health**Comment on Proposal No:** 1582-1**Recommendation:** Adopt the preferred definitions from the NFPA Glossary of Terms for the following terms:**Candidate.** (preferred) NFPA 1500, 2002, ed.

A person who has submitted an application to become a member of the fire department.

Candidate. (secondary) NFPA 1582, 2003 ed.

A person who has made application to commence performance as a member.

Health and Safety Officer. (preferred) NFPA 1500, 2002, ed.

The member of the fire department assigned and authorized by the fire chief as the manager of the safety and health program.

Health and Safety Officer. (secondary) NFPA 1582, 2003 ed.

The member of the fire department assigned and authorized by the fire chief as the manager of the safety and health program and who performs the duties and responsibilities specified in this standard.

Infection Control Program. (preferred) NFPA 1500, 2002, ed.

The fire department's formal policy and implementation of procedures relating to the control of infectious and communicable disease hazards where employees, patients, or the general public could be exposed to blood, body fluids, or other potentially infectious materials in the fire department work environment.

Infection Control Program. (secondary) NFPA 1582, 2003 ed.

This program includes, but is not limited to, implementation of written policies and standard operating procedures regarding exposure follow-up measures, immunizations, members' health screening programs, and educational programs.

Member. (preferred) NFPA 1500, 2002, ed.

A person involved in performing the duties and responsibilities of a fire department under the auspices of the organization.

Member. (secondary) NFPA 1582, 2003 ed.

A person involved in performing the duties and responsibilities of a fire department under the auspices of the organization. A fire department member can be a full-time or part-time employee or a paid or unpaid volunteer, can occupy any position or rank within the fire department, and can engage in emergency operations.

Occupational Safety and Health Program. (preferred) NFPA 1521, 2002, ed.

The overall program to provide occupational safety and health in a fire department as defined in NFPA 1500, Standard on Fire Department Occupational Safety and Health Program.

Occupational Safety and Health Program. (secondary) NFPA 1582, 2003 ed.

An occupation specific program, implemented to reduce the risks associated with the occupation, that outlines the components of a program and the roles and responsibilities of the fire department and its members.

Substantiation: Adoption of preferred definitions will assist the user by providing consistent meaning of defined terms throughout the National Fire Codes.**Committee Meeting Action: Accept in Principle**

Use the preferred definition for Candidate, Health and Safety Officer, and Infection Control Program

Move the second sentence of the definition of Member to the annex

Keep the definition as shown in NFPA 1582 for Occupational Safety and Health Program.

Committee Statement: Moving the second sentence of the definition of Member to the annex will make the definition in NFPA 1582 consistent with that in NFPA 1500.

The definition for Occupational Safety and Health Program shown in NFPA 1582 will be used in the next edition of NFPA 1521.

Number Eligible to Vote: 31**Ballot Results:** Affirmative: 28**Ballot Not Returned:** 3 Norris, S., Stewart, D., Turen, C.

1582-2 Log #9

Final Action: Accept in Principle

(Chapter 6 and Chapter 9)

Submitter: David J. Prezant, New York City Fire Department**Comment on Proposal No:** 1582-5**Recommendation:** Currently there is no specific pulmonary function for SCBA use.

We believe that a FVC or FEV1 less than 80% predicted is for candidates a category A condition. For incumbents it should not be as strict and instead an FVC or FEV1 between 60% and 79% should be "may compromise the member's ability to safely perform essential job task 2."

Substantiation: The 2003 and 2006 version of 1582 is job task specific in terms of how injuries and illness affect the member's ability to safely perform specific essential tasks. However, by being so oriented to injuries

and illness, the document fails to provide guidance on pulmonary function requirements for the safe use of SCBA (essential job task #2) in the absence of documented Pulmonary Illness. By discussing this only from a disease perspective, pulmonary function requirements throughout this document are based on moderate to severe obstruction (FEV1/FVC ratio =0.59) or moderate to severe restriction (FVC <60% of predicted with an FEV1/FVC ratio =0.90). The American Thoracic Society defines the limits of normal pulmonary function as 80 to 120% predicted. This large range of normal is purposely designed to reduce falsely positive abnormal readings. Thus, a FVC or FEV-1 less than 80% predicted (for age, gender, race and height) is clearly abnormal. Although pulmonary function between 60% and 79% predicted may not be due to clear and obvious illness (minimal illness), it nevertheless is far less than 100% predicted and is less than the lower limits of normal at 80% predicted. SCBA weighs an average 25 pounds and the total gear and equipment frequently carried by a firefighter is 80 to 100 pounds. SCBA increases resistance to breathing and minute ventilation requirements. Work conditions are such that despite improvements in technology, it is typical and usual behavior that firefighters remove their mask for various reasons and are exposed to the external noxious, toxic environment (super heated gases, particulates, toxins, and carbon monoxide) during many firefighting scenarios. All of the above requires adequate ventilatory reserve which is not present when pulmonary function is less than 80% predicted.

Committee Meeting Action: Accept in Principle

Add a new 6.8.1(5) to read:

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.

Renumber existing 6.8.1(5) through 6.8.1(8) as 6.8.1(6) through 6.8.1(9).

Committee Statement: The committee feels that an FVC or FEV1 less than 80 percent predicted is too strict as there are people who can function very well slightly below that level. However, at an FVC or FEV1 less than 70 percent predicted, candidates will have trouble using SCBA.**Number Eligible to Vote:** 31**Ballot Results:** Affirmative: 28**Ballot Not Returned:** 3 Norris, S., Stewart, D., Turen, C.1582-3 Log #6
(6.5.2)**Final Action: Reject****Submitter:** David J. Prezant, New York City Fire Department**Comment on Proposal No:** 1582-5**Recommendation:** 6.5.2 HEARING LOSS Category B medical conditions shall include the following:

(1)* "Unequal hearing loss"

We believe that if properly defined this should be a Category A condition. Unequal hearing loss does require a definition. We suggest that the magnitude of the difference should probably not exceed 25-35 dB, in that unilateral losses are likely to interfere with localization abilities.

(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"

We believe that this should be a Category A condition. However, we do not feel that the standard should be rewritten as -- The uncorrected hearing level at any single test frequency (500, 1000, 2000 and 3000 Hz) shall not exceed 25 decibels (dB) in either ear. The uncorrected hearing level at 4000 Hz shall not exceed 35 dB in either ear.**Substantiation:** Our reasons for this are as follows:

- The American Medical Association and most ENT and audiologic experts consider 25 dB at any single test frequency (500, 1000, 2000 and 3000 Hz) to be the limit of normal
- These standards would be consistent with NYC Fire and Police Departments

- Normally if the average hearing loss exceeds 25 dB at test frequencies (500, 1000, 2000 and 3000 Hz) then once hired the member already has a compensable hearing loss in many jurisdictions. Assuming an individual had 40 dB thresholds at all of these frequencies, computation of percentage hearing impairment utilizing the formula promulgated by the American Academy of Otolaryngology/Head & Neck Surgery as adopted by the American Medical Association in their Guides to the Evaluation of Permanent Impairment (5 th Ed), would yield a binaural impairment of 22.5%; a compensable hearing disability in many jurisdictions.

Averaging techniques allow for significant losses in a particular hearing range that may be of detrimental significance to the ability of a firefighter to hear and communicate in the fire ground. For example:

- Significant high frequency hearing losses, even if limited to 2000 and 3000 (i.e., 500= 0 dB, 1000= 0 dB, 2000 = 70 dB, 3000= 90 dB - this example is chosen because the average does not exceed 40 dB) would place a firefighter at significant risk on the fire ground because of an inability to hear PASS devices which typically generate a 3000 Hz tone at no more than 90 dB.

- The ability to successfully communicate in background noise would be seriously compromised. The work of Alice Suter (author of the OSHA Noise Exposure regulations, 29 CFR 1910.95) in her doctoral

dissertation stressed the importance of hearing ability at 3000 Hz in noisy environments.

- Even an average loss of 40 dB is excessive with respect to hearing speech even in quiet environments. This magnitude of loss is roughly equivalent to seating earplugs in the ear canals while wearing "noise excluding ear muffs."

Committee Meeting Action: Reject

Committee Statement: Functional data to substantiate or justify the proposed changes were not included for item #1 or #2. The committee believes the current wording as proposed for the next edition of NFPA 1582 better serves the fire department in screening candidates.

Number Eligible to Vote: 31

Ballot Results: Affirmative: 28

Ballot Not Returned: 3 Norris, S., Stewart, D., Turen, C.

1582-4 Log #7

Final Action: Accept

(6.8.1.1)

Submitter: David J. Prezant, New York City Fire Department

Comment on Proposal No: 1582-5

Recommendation: Revise 6.8.1(7) to read:

"Asthma - Reactive airways disease requiring bronchodilator or corticosteroid therapy for 2 or more consecutive months in the previous + year 2 years unless the candidate can meet 6.8.1.1.

Revise 6.8.1.1 to read:

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 (ex. allergist) to determine that:

(a) asthma has resolved without symptoms off medications for + year 2 years

(b) if allergic, that allergen avoidance or desensitization has been successful and

(c) spirometry demonstrating adequate reserve (FVC and FEV-1 \geq 90%) and no bronchodilator response measured off all bronchodilators on the day of testing.

(d) normal or negative response (<20% decline in FEV1) to provocative challenge using either cold air, exercise (12 METS) or methacholine (PC20>8 is considered normal as response at dose >8mg may not be clinically significant). Challenge testing should be performed off all anti-inflammatory medications for 4 weeks preceding the test and off all bronchodilators on the day of testing."

Substantiation: Asthma is for many young adults seasonal or intermittent. We believe that the fire service would be better served if the standard is changed back to a 2 year time requirement as in 1582 ed. 2003. The fact that the 2006 edition has clarified the definition of asthma better for both candidates and incumbents, so that it no longer includes temporary wheezing associated with a cold or URI but rather "symptoms requiring treatment for 2 or more consecutive months" should also favor the continued use of a 2 year time requirement for the absence of asthma.

Committee Meeting Action: Accept

Number Eligible to Vote: 31

Ballot Results: Affirmative: 28

Ballot Not Returned: 3 Norris, S., Stewart, D., Turen, C.

1582-5 Log #3

Final Action: Reject

(6.13.1(2))

Submitter: David J. Prezant, New York City Fire Department

Comment on Proposal No: 1582-5

Recommendation: Change the wording of 6.13.1920 to read:

"History of spinal surgery at 2 or more vertebrae (fusion or discectomy), or rods that are still in place"

Substantiation: 6.13.1(2) currently reads: "History of spinal surgery involving fusion of 2 or more vertebrae, or rods that are still in place" We believe this should be stricter.

Committee Meeting Action: Reject

Committee Statement: The committee feels this requirement is too strict. Persons with a discectomy are evaluated as a Category B condition.

Number Eligible to Vote: 31

Ballot Results: Affirmative: 28

Ballot Not Returned: 3 Norris, S., Stewart, D., Turen, C.

1582-6 Log #2

Final Action: Reject

(6.18 and 9.6)

Submitter: David J. Prezant, New York City Fire Department

Comment on Proposal No: 1582-2

Recommendation: The 1582 standard should be set at 6.5 or 7.0 (or normal for your laboratory) but not 8.0 for Hemoglobin A1C.

Substantiation: For both type I and type II diabetes the standard requires candidates to have "stable control of blood glucose as evidenced by

Hemoglobin A1C consistently <8 when monitored at least twice yearly" and incumbents to have "stable control of blood glucose as evidenced by Hemoglobin A1C level <8 during the prior three-month period." The standard for diabetes are well written and clearly demonstrate a philosophy that diabetic firefighters must be in excellent physical condition without evidence for end organ damage. The standards are appropriately rigid about eye, renal and cardiac function. Yet, they require only a Hemoglobin A1C level <8. Why so high? Normal is 6.5 or less.

Committee Meeting Action: Reject

Committee Statement: Based on exhaustive discussions with medical experts from the American Diabetes Association and other medical experts the threshold level of 8.0 rather than 6.5 to 7.0 was chosen. However in reviewing this section again, the committee did realize that its recommendations for Hemoglobin A1C less than 8.0 should be identical for all diabetics (Type I and Type II) if they are on insulin.

See committee comment 1582-7 (Log #CC2) which changes this wording change in sections 6.18.1(2)(g)ii and 9.6.4.1(7)(b).

Number Eligible to Vote: 31

Ballot Results: Affirmative: 28

Ballot Not Returned: 3 Norris, S., Stewart, D., Turen, C.

1582-7 Log #CC2

Final Action: Accept

(6.18.1(2)(g)ii and 9.6.4.1(7)(b).)

Submitter: Technical Committee on Fire Service Occupational Safety and Health

Comment on Proposal No: 1582-2

Recommendation: Revise 6.18.1(2)(g)ii to read: Has achieved stable control of blood glucose as evidenced by Hemoglobin A1C less than 8 when monitored at least twice yearly during the prior 3-month period. This shall include evidence of a set schedule for blood glucose monitoring and a thorough review of data from such monitoring.

Revise 9.6.4.1(7)(b) to read: Has achieved stable control of blood glucose as evidenced by Hemoglobin A1C less than 8 when monitored at least twice yearly during the prior 3-month period, which must include evidence of a set schedule for blood glucose monitoring and a thorough review of data from such monitoring

Substantiation: This standardizes the wording related to monitoring the blood glucose for Type 1 and Type 2 diabetes mellitus requiring treatment with insulin.

Committee Meeting Action: Accept

Number Eligible to Vote: 31

Ballot Results: Affirmative: 28

Ballot Not Returned: 3 Norris, S., Stewart, D., Turen, C.

1582-8 Log #4

Final Action: Accept in Principle

(6.20.1)

Submitter: David J. Prezant, New York City Fire Department

Comment on Proposal No: 1582-5

Recommendation: Change the wording of 6.20.1 to read:

6.20.1 Category A medical conditions shall include the following:

(1) Malignant disease that is newly diagnosed, untreated, currently being treated or less than 5 years in remission."

Substantiation: We believe this should be stricter.

Committee Meeting Action: Accept in Principle

Revise 6.20.1(1) to read:

Malignant disease that is newly diagnosed, untreated, or currently being treated, or under active surveillance due to the increased risk for reoccurrence.

Committee Statement: Different cancers have different time frames for being considered in remission. The committee feels that for the purpose of this standard, the best to consider cancer that is under active surveillance as a Category A medical condition.

Number Eligible to Vote: 31

Ballot Results: Affirmative: 28

Ballot Not Returned: 3 Norris, S., Stewart, D., Turen, C.

1582-9 Log #11

Final Action: Accept in Principle

(6.22 and 9.16)

Submitter: David J. Prezant, New York City Fire Department

Comment on Proposal No: 1582-1

Recommendation: We believe that systemic corticosteroids should be for candidates Category A and for incumbents "compromise the member's ability to safely perform essential job tasks 5 and 8 due to risk for dehydration, electrolyte disorders, and lethargy."

Substantiation: Systemic Corticosteroids are used to control Pulmonary, Rheumatologic, Hematologic and other illnesses. First, their use indicates that the underlying disease is serious as these are not first line agents and they are not used to prevent flareups. Second, their use can cause

significant immune suppression that places firefighters at significant risk for life-threatening infections.

Committee Meeting Action: Accept in Principle

Revise 6.22.1 to read:

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 INR

(4) Beta-adrenergic blocking agents, high dose diuretics, or central acting anti-hypertensive 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) ~~(6)~~ Any chemical, drug, or medication that results in the candidate not being able to safely perform one or more of the essential job tasks

Revise 6.22.2 to read:

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

- (1) Cardiovascular agents
- (2) Stimulants
- (3) Psychoactive agents
- (4) Other than high dose systemic corticosteroids
- (5) Antihistamines
- (6) Muscle relaxants

Add a new requirement as 9.16.10

9.16.10 High Dose Corticosteroids.

9.16.10.1 Physician Evaluation. High dose corticosteroids for chronic disease compromise the member's ability to safely perform essential job tasks 5 and 8 due to the underlying disease or the risk for dehydration, electrolyte disorders, myopathy, altered sensorium, and/or lethargy due to high dose steroids, and the physician shall report the applicable job limitations to the fire department.

9.16.10.1 Physician Evaluation. High dose corticosteroids for chronic disease compromise the member's ability to safely perform essential job tasks 5 and 8 due to risk for dehydration, electrolyte disorders, and lethargy.

9.16.10.2 Physician Guidance. If the member is on systemic corticosteroids, other than high dose corticosteroids, the physician shall refer the member back to his/her physician for consideration of the underlying disease which might compromise the member's ability to safely perform the essential job tasks.

Committee Statement: High dose corticosteroids impact the functional capabilities (mental status, muscle strength and endurance, bone mass) in a way that is detrimental to the candidate's or member's ability to safely perform essential job tasks. Less than high dose corticosteroids may compromise the candidate's or member's ability to safely perform essential job tasks depending upon the underlying disease.

Number Eligible to Vote: 31

Ballot Results: Affirmative: 28

Ballot Not Returned: 3 Norris, S., Stewart, D., Turen, C.

1582-10 Log #12
(6.22 and 9.16)

Final Action: Accept in Principle

Submitter: David J. Prezant, New York City Fire Department

Comment on Proposal No: 1582-1

Recommendation: Anabolic steroids for candidates should be Category A and for incumbents they "compromise the member's ability to safely perform essential job tasks 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13 due to alterations in mental status including vigilance, judgment, and other neurologic functions."

Substantiation: Systemic anabolic steroids are illegal performance enhancers. Unless there is a clear policy, anabolic steroids may be used by candidates or incumbents to pass physical performance evaluations. NFPA 1582 and the Fire Service should follow the lead of an increasing number of professional sports associations/organizations that specifically ban their use.

Committee Meeting Action: Accept in Principle

To implement this comment, the following changes will be made.

Add 6.22.1(7) to read as follows:

(7) Anabolic steroids

Add a new 9.16.11 to read

9.16.11 Anabolic Steroids.

9.16.11.1 Physician Evaluation. Anabolic steroids compromise the member's ability to safely perform essential job tasks 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13 due to alterations in mental status including vigilance, judgment, and other neurologic functions.

Committee Statement: The committee is accepting the submitter's recommendation and showing the actual wording changes in the committee meeting action.

Number Eligible to Vote: 31

Ballot Results: Affirmative: 28

Ballot Not Returned: 3 Norris, S., Stewart, D., Turen, C.

1582-11 Log #5

(6.22.2, 9.16.8, 9.16.8.1 and 9.16.10.2)

Final Action: Accept

Submitter: David J. Prezant, New York City Fire Department

Comment on Proposal No: 1582-5

Recommendation: The term "Psychoactive Agents" is no longer used in Psychiatric practice and we suggest that it be replaced with the term "Psychiatric medications".

Substantiation: We agree that these agents should be Category B for candidates and for incumbents "may compromise the member's ability to safely perform essential job tasks 5, 8, 11, and 13 due to increased risk of heat stress, movement disorders, and somnolence." However, the term "Psychoactive Agents" is no longer used in Psychiatric practice.

Committee Meeting Action: Accept

Number Eligible to Vote: 31

Ballot Results: Affirmative: 28

Ballot Not Returned: 3 Norris, S., Stewart, D., Turen, C.

1582-12 Log #1

(7.13)

Final Action: Accept in Principle

Submitter: Jeffery Jones, City of Menominee

Comment on Proposal No: 1582-5

Recommendation: Revise text as follows:

7.13 Fecal Occult Blood Test: Fecal Occult Blood Test shall be provided to all members above the age of 50 or earlier if clinically indicated.

Substantiation: To date, the high costs, invasiveness, and lack of data on safety associated with the colonoscopy have precluded most major expert groups from issuing screening guidelines that designate colonoscopy as a screening strategy that is preferable to FOBT, sigmoidoscopy, or double-contrast barium enema. Doctors generally only recommend a colonoscopy once every 5 years for at risk individuals. Also 1 in 500 colonoscopies results in complications such as internal tearing or other injuries.

Committee Meeting Action: Accept in Principle

Revise 7.7.12 to read as follows:

Screening Colonoscopy Services: Colon Cancer Screening. Fecal occult blood testing shall be provided to all members above the age of 40 or earlier if clinically indicated. Screening colonoscopy services shall be recommended provided to all members above the age of 50 or earlier if clinically indicated.

Committee Statement: Fecal occult blood testing is an inexpensive test and the committee is recommending that such testing starting at age 40 unless otherwise clinically indicated. The committee agrees with the submitter that screening colonoscopy services should not be required for members above age 50 unless clinically indicated but is recommending such testing for members of that age.

Number Eligible to Vote: 31

Ballot Results: Affirmative: 28

Ballot Not Returned: 3 Norris, S., Stewart, D., Turen, C.

1582-13 Log #CC6

(Chapter 9)

Final Action: Accept

Submitter: Technical Committee on Fire Service Occupational Safety and Health

Comment on Proposal No: 1582-1

Recommendation: Revise Chapter 9 to read as shown:

Chapter 9 Essential Job Tasks — Specific Evaluation of Medical Conditions in Members

9.1 Essential Job Tasks.

9.1.1 The essential job tasks listed by number in this chapter are the same as those listed in Chapter 5 and shall be validated by the fire department as required by Chapter 5.

9.1.2 The fire department physician shall use the validated list of essential job tasks in evaluating the ability of a member with specific medical conditions to perform specific job tasks.

9.1.3 Essential job tasks referenced throughout this chapter by number only shall correspond to the following model list:

(1)* Performing fire-fighting tasks (e.g., hoseline operations, extensive crawling, lifting and carrying heavy objects, ventilating roofs or walls using power or hand tools, forcible entry, etc.), rescue operations, and other emergency response actions under stressful conditions while wearing

PPE and SCBA, including working in extremely hot or cold environments for prolonged time periods

(2) Wearing an SCBA, which includes a demand valve-type positive pressure facepiece or HEPA filter masks, which requires the ability to tolerate increased respiratory workloads

(3) Exposure to toxic fumes, irritants, particulates, biological (infectious) and nonbiological hazards, and/or heated gases, despite the use of PPE including SCBA

(4) Depending on the local jurisdiction, climbing six or more flights of stairs while wearing fire protective ensemble weighing at least 50 lb (22.6 kg) or more and carrying equipment/tools weighing an additional 20 to 40 lb (9 to 18 kg)

(5) Wearing fire protective ensemble that is encapsulating and insulated, which will result in significant fluid loss that frequently progresses to clinical dehydration and can elevate core temperature to levels exceeding 102.2°F (39°C)

(6) Searching, finding, and rescue-dragging or carrying victims ranging from newborns up to adults weighing over 200 lb (90 kg) to safety despite hazardous conditions and low visibility

(7) Advancing water-filled hoselines up to 2 1/2 in. (65 mm) in diameter from fire apparatus to occupancy [approximately 150 ft (50 m)], which can involve negotiating multiple flights of stairs, ladders, and other obstacles

(8) Climbing ladders, operating from heights, walking or crawling in the dark along narrow and uneven surfaces, and operating in proximity to electrical power lines and/or other hazards

(9) Unpredictable emergency requirements for prolonged periods of extreme physical exertion without benefit of warm-up, scheduled rest periods, meals, access to medication(s), or hydration

(10) Operating fire apparatus or other vehicles in an emergency mode with emergency lights and sirens

(11) Critical, time-sensitive, complex problem solving during physical exertion in stressful, hazardous environments, including hot, dark, tightly enclosed spaces, that is further aggravated by fatigue, flashing lights, sirens, and other distractions

(12) Ability to communicate (give and comprehend verbal orders) while wearing PPE and SCBA under conditions of high background noise, poor visibility, and drenching from hoselines and/or fixed protection systems (sprinklers)

(13) Functioning as an integral component of a team, where sudden incapacitation of a member can result in mission failure or in risk of injury or death to civilians or other team members

9.2 Special Teams.

9.2.1 In addition to essential job tasks specified in 9.1.3(1) through 9.1.3(13), members of specialized teams such as hazardous materials units, SCUBA teams, technical rescue teams, EMS teams, or units supporting tactical law enforcement operations shall be evaluated for their ability to perform essential job tasks related to the duties of those specialized teams.

9.2.2 The fire department shall define those essential job tasks and shall provide the fire department physician with a description of the risks associated with those tasks and additional medical and/or physical requirements that are not enumerated in this standard.

9.2.3 In defining those tasks, the fire department shall consider the impact on the members required to wear or utilize specialized PPE that can increase weight, environmental isolation, sensory deprivation, and/or dehydration potential above levels experienced with standard fire suppression PPE.

9.3 Fire Department Physician Roles. After individually evaluating the member and the member's medical records (including job-related medical rehabilitation records), the fire department physician shall recommend restricting members from performing only those specific job tasks that cannot be safely performed by the member given his/her medical condition.

9.3.1 If an illness, injury, or other debilitating condition has altered a member's ability to safely perform an essential job task, the fire department physician shall notify the fire department that the member is restricted from performing that task while on duty.

9.3.2* The fire department shall determine possible accommodations for members restricted from certain job tasks.

9.4* Cardiovascular Disorders.

9.4.1 Cardiovascular disorders shall include any disorder of the cardiovascular system including but not limited to supraventricular or ventricular arrhythmias (abnormal heart beats), coronary artery disease, and cardiac muscle disease or valve disease.

~~**9.4.2** For potential interference with the performance of essential job tasks, the member shall be individually evaluated as required in 9.4.3 through 9.4.22.~~

9.4.2 If the member has any cardiovascular disorders, the member shall be individually evaluated in accordance with 9.4.3 through 9.4.22 to determine if the disorders compromise the member's ability to safely perform the essential job tasks.

9.4.3 Coronary Artery Disease.

9.4.3.1 Physician Evaluation. The following clinical conditions referable to coronary artery disease including history of myocardial infarction, coronary artery bypass surgery, coronary angioplasty with stent placement, or similar procedures compromise the member's ability to safely perform essential job tasks 1, 2, 4, 5, 6, 7, 9, and 13, and the physician shall report the applicable job limitations to the fire department if any one of the following are present:

(1) Current angina pectoris even if relieved by medication

(2) Persistent significant stenosis in any coronary artery (greater than 70 percent lumen diameter narrowing) following treatment

(3) Lower than normal left ventricular ejection fraction as measured by radionuclide scan, contrast ventriculography, or echocardiography

(4) Maximal exercise tolerance of less than 42 ml O₂/min/kg or less than 12 metabolic equivalents (METS).

(5) Exercise-induced ischemia or ventricular arrhythmias observed by radionuclide stress test during an evaluation reaching at least a 12-METS workload

(6) History of myocardial infarction (MI), angina, or coronary artery disease with persistence of modifiable risk factor(s) for acute coronary plaque rupture (e.g., tobacco use, hypertension despite treatment or hypercholesterolemia with cholesterol greater than or equal to 180 or low density lipoproteins greater than or equal to 100 despite treatment, or glycosylated hemoglobin greater than 7 despite exercise and/or weight reduction)

9.4.3.2 Physician Guidance. The physician shall consider the following when evaluating a member:

(1) Evaluation of coronary artery disease requires a stress testing with imaging and/or coronary angiogram and some assessment of left ventricular function. Following a myocardial infarction or a coronary revascularization procedure, a radionuclide stress test shall be performed to evaluate exercise tolerance and the presence of exercise-induced myocardial ischemia or ventricular arrhythmias.

(2) Reports of left ventricular ejection fraction for evaluation of 9.4.3.1(3) should include "normal" values for the lab performing the test and formal interpretation by a cardiologist.

(3) Workload demands of fire fighting have been shown to exceed the levels shown in 9.4.3.1(4).

9.4.4 Congestive Heart Failure.

9.4.4.1 Physician Evaluation. Congestive heart failure due to any etiology including any disease leading to a lower than normal left or right ventricular ejection fraction, even if corrected by medication, compromises the member's ability to safely perform essential job tasks 1, 2, 4, 7, 9, and 13, and the physician shall report the applicable job limitations to the fire department.

9.4.4.2 Physician Guidance. The physician shall consider that if the heart failure is due to a reversible process that ultimately results in no abnormality in cardiac performance off all cardiac medications (e.g., hyperthyroidism, anemia), then a history of congestive heart failure does not permanently prevent a member from safely performing the essential job tasks.

9.4.5 Restrictive Cardiomyopathy and Constrictive Pericarditis.

9.4.5.1 Physician Evaluation. Restrictive cardiomyopathy and constrictive pericarditis when resulting in heart failure compromise the member's ability to safely perform essential job tasks 1, 2, 4, 7, and 9, and the physician shall report the applicable job limitations to the fire department.

9.4.6 Acute Pericarditis, Acute Endocarditis, and Acute Myocarditis.

9.4.6.1 Physician Evaluation. Acute pericarditis, acute endocarditis, and acute myocarditis compromise the member's ability to safely perform essential job tasks 1, 4, 5, 6, 7, 9, and 13, and the physician shall report the applicable job limitations to the fire department.

9.4.7 Pericarditis, Endocarditis, or Myocarditis.

9.4.7.1 Physician Evaluation. Chronic pericarditis, endocarditis, or myocarditis when resulting in heart failure or significant valvular incompetence or arrhythmias compromises the member's ability to safely perform essential job tasks 1, 4, 5, 6, 7, and 13, and the physician shall report the applicable job limitations to the fire department.

9.4.7.2 Physician Guidance. Members with pericarditis, endocarditis, or myocarditis, cardiac function, rhythm, and valvular competence need to be carefully assessed at least annually by cardiac echo or other noninvasive or invasive monitoring in consultation with a cardiologist.

9.4.8 Hypertrophic Obstructive Cardiomyopathy.

9.4.8.1 Physician Evaluation. Hypertrophic obstructive cardiomyopathy (idiopathic hypertrophic subaortic stenosis) can might compromise the member's ability to safely perform essential job task 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.4.8.2 Physician Guidance. The physician shall consider that this condition is associated with sudden cardiac death without previous symptoms of heart failure.

9.4.9 Recurrent Syncope.

9.4.9.1* Physician Evaluation. Recurrent syncope compromises the member's ability to safely perform essential job task 13, and the physician shall report the applicable job limitations to the fire department.

9.4.10 Pacemaker or Automatic Implantable Defibrillator.

9.4.10.1* Physician Evaluation. A medical condition requiring a pacemaker or automatic implantable defibrillator compromises the member's ability to safely perform essential job task 13, and the physician shall report the applicable job limitations to the fire department.

9.4.11 Mitral Valve Stenosis.

9.4.11.1 Physician Evaluation. Moderate to severe mitral valve stenosis defined as valve area less than or equal to 1.5 cm² or pulmonary artery systolic pressure greater than 35 mm Hg compromises the member's ability to safely perform essential job tasks 1, 4, 5, 7, and 9, and the physician shall report the applicable job limitations to the fire department.

9.4.12 Mitral Valve Insufficiency.

9.4.12.1 Physician Evaluation. Moderate to severe mitral valve insufficiency, defined as the presence of left ventricular dysfunction, compromises the member's ability to safely perform essential job tasks 1, 4, 5, 7, and 9, and the physician shall report the applicable job limitations to the fire department.

9.4.12.2 Physician Guidance: Mitral valve prolapse only interferes with safe performance of critical job tasks if associated with arrhythmias or if moderate to severe mitral regurgitation is present.

9.4.13 Aortic Valve Stenosis.

9.4.13.1 Physician Evaluation. Moderate to severe aortic valve stenosis defined as mean aortic valvular gradient greater than or equal to 20 mm Hg and/or valve area less than or equal to 1.0 cm² compromises the member's ability to safely perform essential job tasks 1, 4, 5, 6, 7, 9, and 13, and the physician shall report the applicable job limitations to the fire department.

9.4.14 Aortic Valve Insufficiency.

9.4.14.1 Physician Evaluation. Moderate to severe aortic valve insufficiency when the cause of left ventricular dysfunction compromises the member's ability to safely perform essential job tasks 1, 4, 7, and 9, and the physician shall report the applicable job limitations to the fire department.

9.4.15 Prosthetic Cardiac Valves.

9.4.15.1 Physician Evaluation. Prosthetic cardiac valves, when full dose anticoagulation is required or when left ventricular dysfunction is present compromises the member's ability to safely perform essential job task 8 if full dose anticoagulation is required and essential job tasks 1, 4, 6, 7, and 9 if left ventricular dysfunction is present, and the physician shall report the applicable job limitations to the fire department.

9.4.16 Wolff-Parkinson-White (WPW) Syndrome.

9.4.16.1* Physician Evaluation. Wolff-Parkinson-White (WPW) syndrome with a history of supraventricular tachycardia (SVT) compromises the member's ability to safely perform essential job task 13, and the physician shall report the applicable job limitations to the fire department.

9.4.17 Other Supraventricular Arrhythmias, Atrial Fibrillation, or Atrial Flutter.

9.4.17.1* Physician Evaluation. Other supraventricular arrhythmias, atrial fibrillation, or atrial flutter when persistent (even if rate controlled) or if full dose anticoagulation is required compromises the member's ability to safely perform essential job task 13 and essential job task 8 if full-dose anticoagulation is required, and the physician shall report the applicable job limitations to the fire department.

9.4.17.2 Physician Guidance. The physician shall consider that if the atrial fibrillation is recurrent but self-limited off cardiac medications, there is no evidence of ischemia, and the echocardiogram reveals both a normal mitral valve and a normal sized left atrium, then the member might be able to safely perform full duties. Paroxysmal atrial tachycardia can sometimes be resolved with modification of diet or treatment of other underlying noncardiac conditions.

9.4.18 Ventricular Arrhythmias and Ectopy.

9.4.18.1 Physician Evaluation.

9.4.18.1.1 The physician shall evaluate the member to determine if a history of ventricular arrhythmias (e.g., ventricular tachycardia and ventricular fibrillation) compromises the member's ability to safely perform essential job task 13, and the physician shall report the applicable job limitations to the fire department.

9.4.18.1.2 A history of ventricular ectopy might compromise the member's ability to safely perform essential job task 13, and after evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.4.18.2 Physician Guidance. The physician shall consider the following:

- (1) A history of ventricular arrhythmias including ventricular tachycardia or ventricular fibrillation poses significant risk for life-threatening sudden incapacitation in the presence of either structural abnormalities, functional abnormalities, or ectopy that occurs during exercise.
- (2) A history of ventricular ectopy might pose a significant risk for life-threatening sudden incapacitation if structural or Ischemic heart disease is present or if ventricular ectopy increases during exercise.
- (3) Holter (24-hour ECG recording) might show ventricular ectopy but should show no evidence of ventricular arrhythmias.
- (4) Echocardiograph must show normal function and no evidence of structural abnormalities.
- (5) Stress testing off cardiac medications must show no evidence for ischemia, ventricular tachycardia, or ventricular fibrillation.
- (6) Premature ventricular contractions (PVCs) should resolve with increasing levels of exercise up to 12 METS.

9.4.19 Atrioventricular Block

9.4.19.1 Physician Evaluation.

9.4.19.1.1 Third-degree or complete atrioventricular block compromises the member's ability to safely perform essential job task 13, and the physician shall report the applicable job limitations to the fire department.

9.4.19.1.2 Other types of atrioventricular block with sinus pause greater than 3 seconds, left bundle branch block, right bundle branch block, or second degree Type I atrioventricular block might compromise the member's ability to safely perform job task 13 if cardiac structural (i.e., coronary arteries, valves, myocardium) abnormalities are present, if left ventricular function is abnormal, or if heart rate does not increase with exercise in the absence of a mechanical pacemaker, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.4.20 Uncontrolled Hypertension.

9.4.20.1* Physician Evaluation. Severe uncontrolled hypertension [defined as systolic pressure greater than 180 mm Hg, diastolic pressure greater than 100 mm Hg, or mean systolic blood pressure (1/3 systolic + 2/3 diastolic) greater than 120 mm Hg] or malignant hypertension (defined as hypertension with the presence of target organ damage) compromise the member's ability to safely perform essential job tasks 1, 5, 7, 9, and

13, and the physician shall report the applicable job limitations to the fire department.

9.4.21 Cardiac Congenital Abnormality.

9.4.21.1 Physician Evaluation. A history of a cardiac congenital abnormality that has been treated by surgery but with residual complications or that has not been treated by surgery, leaving residuals or complications might compromise the member's ability to safely perform essential job tasks 1, 4, 5, 6, 7, 9, and 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.4.22 Cardiac Hypertrophy.

9.4.22.1 Physician Evaluation. Cardiac hypertrophy when not a normal response to exercise of the heart might compromise the member's ability to safely perform essential job task 13 and other job functions due to limitations of endurance, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.4.22.2 Physician Guidance. The physician shall consider that this condition can result in the potential for sudden incapacitation.

9.5 Vascular Disorders.

9.5.1 Vascular disorders shall refer to any disorder of the vascular (arterial or venous) system including but not limited to aneurysm, peripheral vascular insufficiency, and thromboembolic disease.

~~**9.5.2 Physician Guidance.** Heart rate, blood pressure, and shear forces on vessel walls are increased when performing many of the essential job tasks, increasing the risk of acute dissection, rupture, and/or embolic phenomena that even in a normal environment can result in life-threatening sudden incapacitation.~~

9.5.2 If the member has any vascular disorders, the member shall be individually evaluated in accordance with 9.5.3 through 9.5.12 to determine if the disorders compromise the member's ability to safely perform the essential job tasks recognizing that heart rate, blood pressure, and shear forces on vessel walls are increased when performing many of the essential job tasks, increasing the risk of acute dissection, rupture, and/or embolic phenomena that even in a normal environment can result in life-threatening sudden incapacitation.

9.5.3 Aortic Aneurysm.

9.5.3.1 Physician Evaluation. Aortic aneurysm (thoracic aortic aneurysm of any size or abdominal aortic aneurysm greater than or equal to 4 cm) compromises the member's ability to safely perform essential job tasks 1, 4, 6, 7, and 13, and the physician shall report the applicable job limitations to the fire department.

9.5.3.2 Physician Guidance. When evaluating a member with an abdominal aortic aneurysm less than 4 cm, the physician shall recognize that treatment requires careful control of blood pressure and regular follow up with cardiac imaging.

9.5.3.2.1 A minimum of 6 months post-surgical repair of any aortic aneurysm shall be required before the member can be evaluated for return-to-duty status.

9.5.4 Carotid Artery Disease.

9.5.4.1 Physician Evaluation. Carotid artery disease when symptomatic and/or reduction in blood flow of greater than 70 percent is present compromises the member's ability to safely perform job task 13, and the physician shall report the applicable job limitations to the fire department.

9.5.5 Thoracic Outlet Syndrome.

9.5.5.1 Physician Evaluation. Thoracic outlet syndrome (symptomatic) compromises the member's ability to safely perform essential job tasks 1 and 13, and the physician shall report the applicable job limitations to the fire department.

9.5.6 Peripheral Vascular Disease.

9.5.6.1 Physician Evaluation. Peripheral vascular disease (arterial or venous) when symptomatic (claudication) or severe peripheral edema is present compromises the member's ability to safely perform essential job tasks 1, 4, 5, 7, and 9, and the physician shall report the applicable job limitations to the fire department.

9.5.7 Thrombophlebitis.

9.5.7.1 Physician Evaluation.

9.5.7.1.1 Thrombophlebitis and/or deep venous thrombosis that is recurrent, persistent, or requires full-dose anticoagulation compromises the member's ability to safely perform essential job tasks 1, 4, 5, 7, and 9, and the physician shall report the applicable job limitations to the fire department.

9.5.7.1.2 Full-dose anticoagulation compromises the member's ability to safely perform essential job task 8, and the physician shall report the applicable job limitations to the fire department.

9.5.8 Circulatory Instability.

9.5.8.1 Physician Evaluation. Circulatory instability as indicated by orthostatic hypotension or persistent tachycardia compromises the member's ability to safely perform essential job tasks 1, 5, 9, and 13, and the physician shall report the applicable job limitations to the fire department.

9.5.9 Peripheral Vascular Disease.

9.5.9.1 Physician Evaluation. Peripheral vascular disease, such as severe Raynaud's phenomenon, might compromise the member's ability to safely perform essential job tasks (e.g., under certain conditions, including cold weather), and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.5.10 Lymphedema.

9.5.10.1 Physician Evaluation. Chronic, severe lymphedema or massive edema of any type (e.g., due to lymphadenopathy, severe venous valvular incompetency, endocrine abnormalities, or low flow states) compromises the member's ability to safely perform essential job tasks 1, 4, 5, and 8, and the physician shall report the applicable job limitations to the fire department.

9.5.11 Lesions of Aorta or Major Vessels .

9.5.12.1 Physician Evaluation.

9.5.12.1.1 Congenital or acquired lesions of the aorta or major blood vessels might interfere with circulation and prevent the safe performance of essential job tasks 1, 4, and 7 due to limitations of endurance, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.5.12.1.2 Congenital or acquired lesions of the aorta or major blood vessels and could increase the potential for life-threatening sudden incapacitation, which might compromise the member's ability to safely perform essential job task 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.6* Endocrine and Metabolic Disorders.

9.6.1 Endocrine and metabolic disorders shall include disorders of the hypothalamic-pituitary-thyroid-adrenal axis.

~~**9.6.2** If the member has any endocrine and metabolic disorders, the member shall be individually evaluated for potential interference with the performance of essential job tasks, as required by 9.6.3 through 9.6.7-9.6.5.~~

9.6.2 If the member has any endocrine and metabolic disorders, the member shall be individually evaluated in accordance with 9.6.3 through 9.6.7 to determine if the disorders compromise the member's ability to safely perform the essential job tasks.

9.6.3 Type 1 Diabetes Mellitus that Requires Treatment with Insulin.

9.6.3.1* Physician Evaluation. Type 1 diabetes mellitus that requires treatment with insulin compromises the member's ability to safely perform essential job tasks 5, 9, and 13, and the physician shall report the applicable job limitations to the fire department, unless the member meets all of the following criteria:

(1) 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.

(2) 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 member's experience and history dealing with erratic meal schedules, sleep disruption, and high aerobic and anaerobic workloads intrinsic to fire fighting.*

(3) Has a dilated retinal exam by a qualified ophthalmologist or optometrist that shows no higher grade of diabetic retinopathy than microaneurysms (International DR severity scores ref).

(4) 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.)

(5) 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.)

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

(7) 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 Section 9.1 that the member meets the following criteria:

(a) Is maintained on a stable basal/bolus regimen using insulin analogs and has demonstrated over a period of at least 1 year the motivation and understanding required to closely monitor and control capillary blood glucose levels despite varied activity schedules through nutritional therapy and insulin administration

(b) Has achieved stable control of blood glucose as evidenced by Hemoglobin A1C consistently less than 8 when monitored at least twice yearly

(c) Does not have an increased risk of hypoglycemia due to alcohol use or other predisposing factors

(d) 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

(e) Is certified not to have a medical contraindication to fire-fighting training and operations

9.6.3.2 Physician Guidance. When evaluating a member with Type 1 diabetes mellitus, the physician shall recognize that episodes of severe hypoglycemia are associated with an increased risk of subsequent episodes and that hypoglycemia can interfere with cognitive function and judgment. Presence of microvascular and neurological complications of diabetes might increase the risk of hypoglycemic events.

9.6.4 Type 2 Diabetes Mellitus that Requires Treatment with Insulin.

9.6.4.1* Physician Evaluation. Type 2 diabetes mellitus that requires treatment with insulin compromises the member's ability to safely perform essential job tasks 5, 9, and 13, and the physician shall report the applicable job limitations to the fire department, unless the member meets all of the following criteria:

(1) Is maintained by a physician knowledgeable in current management of diabetes mellitus.

(2) 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 member's experience and prior history dealing with* the erratic meal schedules, sleep disruption, and high aerobic and anaerobic workloads intrinsic to fire fighting.

(3) Has a dilated retinal exam by a qualified ophthalmologist or optometrist that shows no higher grade of diabetic retinopathy than microaneurysms (International DR severity scores ref).

(4) 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.)

(5) 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.)

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

(7) 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 Section 9.1 that the member meets the following criteria:

(a) 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

(b) Has achieved stable control of blood glucose as evidenced by Hemoglobin A1C less than 8 when monitored at least twice yearly during the prior 3-month period, which must include evidence of a set schedule for blood glucose monitoring and a thorough review of data from such monitoring

(c) Does not have an increased risk of hypoglycemia due to alcohol use or other predisposing factors

(d) 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

(e) Is certified not to have a medical contraindication to fire fighting training and operations.

9.6.4.2 Physician Guidance. When evaluating a member with Type 2 diabetes mellitus, the physician shall recognize that episodes of severe hypoglycemia are considered the best predictors of an increased risk of subsequent episodes and hypoglycemia interferes with cognitive function and judgment.

9.6.5 Diabetes Mellitus That Does Not Require Insulin Therapy.

9.6.5.1 Physician Evaluation. Diabetes mellitus that does not require insulin therapy and that is controlled by diet, exercise, and/or oral hypoglycemic agents compromises the member's ability to safely perform essential job tasks 5, 9, and 13, and the physician shall report the applicable job limitations to the fire department, unless the member meets all of the following criteria:

(1) Has achieved a stable blood glucose as evidenced by Hemoglobin A1C level less than 8 during the prior 3-month period

(2) If on oral hypoglycemic agents, has had no episodes of severe hypoglycemia (defined as requiring assistance of another in the preceding year)

(3) Has a dilated retinal exam by a qualified ophthalmologist or optometrist that shows no higher grade of diabetic retinopathy than microaneurysms (International DR severity scores ref)

(4) 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.)

(5) 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.)

(6) Has normal cardiac function without evidence of myocardial ischemia on cardiac stress testing (to at least 12 METS) by ECG and cardiac imaging

9.6.6 Nutritional Deficiencies.

9.6.6.1 Physician Evaluation. Nutritional deficiencies, including those caused by congenital or acquired disorders of metabolism, might compromise the member's ability to safely perform essential job tasks 1, 5, and 9, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.6.6.2 Physician Guidance. When evaluating a member with nutritional deficiencies, the physician shall perform an assessment of severity and functional impact and should include percent of ideal body weight, BMI, muscle strength, endurance, energy levels and abilities to feed, hydrate, and absorb essential nutrients pre- and post-fire activities.

9.6.7 Diseases of the Adrenal Gland, Pituitary Gland, Parathyroid Gland, or Thyroid Gland.

9.6.7.1 Physician Evaluation. Untreated or inadequately controlled diseases of the adrenal gland, pituitary gland, parathyroid gland, or thyroid gland of clinical significance ~~shall~~ compromises the member's ability to safely perform essential job tasks 1, 5, and 9, and the physician shall report the applicable job limitations to the fire department.

9.6.7.2 Physician Guidance. When evaluating a member, the physician shall recognize that clinically controlled diseases of the adrenal gland, pituitary gland, parathyroid, or thyroid gland with normal exam and serum levels do not compromise the member's ability to safely perform essential job tasks.

9.7* Lung, Chest Wall, and Respiratory Disorders.

9.7.1 Lung, chest wall, and respiratory disorders shall include disorders of breathing and the exchange of respiratory gases (oxygen and carbon dioxide), central neurologic control of respiratory drive, nose, sinuses, throat, pharynx, larynx, trachea, airways, lungs, pleura, and chest wall.

9.7.2 When evaluating a member for lung, chest wall, and respiratory disorders, the physician shall consider the following:

- (1) Efficient breathing and respiratory gas exchange is required for essential job tasks 1, 2, 3, 4, 5, 7, 9, and 13.
- (2) Wearing protective clothing increases the oxygen consumption required to safely perform these tasks and, therefore, increases the respiratory workload.
- (3) SCBA is a positive pressure demand valve respirator that provides a barrier against the inhalation of noxious/toxic gases and particulate matter but at increased metabolic cost due to its weight and increased respiratory workload (resistance and dead space).
- (4) If respiratory function or gas exchange is already compromised (increased work of breathing from structural or functional abnormalities, hypoxia, and/or hypercapnia) prior to the performance of essential job tasks, then the increased oxygen demand of strenuous physical exertion, while wearing PPE and/or SCBA, leads to early onset of fatigue or respiratory insufficiency.

~~(5) 9.7.3~~ Lung, chest wall, and respiratory disorders can compromise the member's ability to safely perform essential job tasks 1, 2, 3, 4, 5, 7, 9 and 13.

~~9.7.3.1~~ The member shall be individually evaluated as required by 9.7.4 through 9.7.24.

9.7.3 If the member has any lung, chest wall, or respiratory disorders, the member shall be individually evaluated in accordance with 9.7.4 through 9.7.24 to determine if the disorders compromise the member's ability to safely perform the essential job tasks.

9.7.4 Tracheostomy.

9.7.4.1 Physician Evaluation. Tracheostomy compromises the member's ability to safely wear SCBA (essential job task 2), communicate effectively due to oropharyngeal dysfunction (essential job task 12), and effectively clear secretions or inhaled particulate matter (essential job task 3), and the physician shall report the applicable job limitations to the fire department.

9.7.4.2 Physician Guidance. The physician shall consider that a member with a history of tracheostomy that is now sealed and without persistent respiratory disease or dysfunction does not prevent safe performance of essential job tasks.

9.7.5 Chronic Cough.

9.7.5.1 Physician Evaluation. Chronic cough with or without hemoptysis might compromise the member's ability to safely wear SCBA (essential job task 2) and to safely perform in an irritant environment (essential job task 3), and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.7.5.2 Physician Guidance. The physician shall consider the severity of the cough, the impact of irritants and SCBA use on cough severity, and the impact of cough severity on the ability to safely wear SCBA and perform strenuous exertion. The cause of chronic cough and/or hemoptysis needs to be evaluated, as the underlying conditions can also produce increased work of breathing, gas exchange abnormalities, or airway hyperreactivity.

9.7.6* Asthma.

9.7.6.1 Physician Evaluation. Asthma compromises the member's ability to safely perform essential job tasks 1, 2, 3, 4, 5, 7, 9, and 13, and the physician shall report the applicable job limitations to the fire department, unless the following provisos are met:

- (1) ~~(3)~~ The member denies bronchospasm during exertion, temperature/humidity extremes, irritant exposures, fire activities, or hazmat activities.
- (2) ~~(4)~~ The member denies the use of bronchodilator rescue medications during exertion, temperature/humidity extremes, irritant exposures, fire activities, or hazmat activities.
- (3) ~~(5)~~ The member's fire department records (training, operations, rehabilitation, and medical) should be reviewed to verify that no asthmatic episodes have occurred during fire suppression or hazardous materials operations or training.
- (4) ~~(+)~~ As defined by the "Guidelines for the Diagnosis and Management of Asthma," the member has mild asthma classified as either "Step One" (no control medications and requires inhaled bronchodilator rescue medications for attacks no more than 2 times per week) or "Step Two" (daily control medications needed consisting of low-dose inhaled corticosteroids or cromolyn or oral leukotrienes modifiers — for example, Montelukast — and requires inhaled bronchodilator rescue medications for attacks no more than 2 times per week).
- (5) ~~(2)~~ The member's asthma has not required systemic corticosteroids, emergency room treatment or hospital admission in the last 2 years.
- (6) The member should show adequate reserve in pulmonary function (FVC and FEV-1 greater than or equal to 90 percent) and no bronchodilator response measured off all bronchodilators on the day of testing.
- (7) The member has a normal or negative response (less than 20 percent decline in FEV1) to provocative challenge testing using either 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). If the member reports good control only when taking prescribed control anti-inflammatory medications (e.g. inhaled corticosteroids, cromolyn, or leukotriene modifiers), then consideration should be given to continuing these medications during the testing. The member should not use bronchodilators (short or long-acting bronchodilators) the day of testing because these medications can undermine the purpose of this test — that is, demonstrating normal pulmonary function without clinically significant bronchodilator response or airway hyperreactivity. Provocative challenge testing should be performed the first time the member is evaluated for asthma and only if all of the provisos in 9.7.6.1(1) through 9.7.6.1(7) indicate that the member's asthma is under acceptable control. Provocative challenge testing is not required annually and should only be repeated if clinically indicated.
- (8) The Fire Department provides and the member agrees to wear SCBA during all phases of fire suppression (i.e., ingress, suppression, overhaul and egress).
- (9) The member has a signed statement from a pulmonary or asthma specialist, knowledgeable in the essential job tasks and hazards of fire fighting, that he/she meets the criteria specified in 9.7.6.1(1) through 9.7.6.1(6) and that the member can safely perform essential job tasks 1, 2, 3, 4, 5, 7, 9, and 13 without the use of bronchodilator "rescue" medications.

9.7.6.2 Physician Guidance. The physician shall consider the following when evaluating the member's asthmatic condition:

- (1) Exposures to exertion, temperature extremes, combustion by-products, irritants, and particulate matter are all potent provokers of asthma attacks.
- (2) Bronchodilator medications are not adequate maintenance therapy to control symptoms in the irritant environment of the fire ground or hazardous materials incident scene because (1) their use has not been approved by the FDA for use on the fire ground or hazardous materials incident scene and (2) several studies have implicated the frequent use of beta-agonists (short and long-acting bronchodilators) as an independent predictor or risk for sudden death and myocardial infarction in the U.S., Canada, Britain, New Zealand, and Australia.
- (3) Acute hyperreactivity in this environment can induce immediate or progressive clinical asthma (bronchospasm and wheeze) that can lead to sudden incapacitation from status asthmaticus and/or cardiac ischemia.
- (4) The member's work history, as well as clinical findings on annual evaluation, should be used as an assessment of the member's practical ability to safely perform the essential job tasks.

9.7.7* Allergic Lower Respiratory Disorders.

9.7.7.1 Physician Evaluation. ~~The physician shall evaluate the member to determine if Allergic lower respiratory disorders might compromise the member's ability to safely perform essential job tasks 1, 2, 3, 4, 5, 7, 9, and 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.~~

9.7.7.2 Physician Guidance. The physician shall consider that allergic lower respiratory disorder, a term used to define asthma (clinical reversible bronchospasm), is triggered by a known allergic insult and once triggered these patients have demonstrable airway hyperreactivity for weeks to months; it can be recurrent and/or become permanent.

9.7.8* Chronic Obstructive Airways Disease.

9.7.8.1 Physician Evaluation. Chronic obstructive airways disease (chronic bronchitis, emphysema), if moderate to severe (FEV₁/FVC ratio less than or equal to 0.59), compromises the member's ability to safely perform essential job tasks 1, 2, 3, 4, 5, 7, 9, and 13, and the physician shall report the applicable job limitations to the fire department.

9.7.9 Hypoxemic Disorders.

9.7.9.1 Physician Evaluation. Hypoxemic disorders when moderate to severe (oxygen saturation less than or equal to 90 percent or a P_{O₂} less than or equal to 65 mm Hg, measured at rest and corrected to sea level) or the presence of significant exercise desaturation compromises the member's ability to safely perform essential job tasks 1, 2, 3, 4, 7, and 13, and the physician shall report the applicable job limitations to the fire department.

9.7.9.2 Physician Guidance. The physician shall recognize the following situations when evaluating the member:

(1) A resting oxygen saturation of 91 to 93 percent corrected to sea level requires measurement at exercise to determine if desaturation occurs (decrease in oxygen saturation by greater than or equal to 4 percent from baseline or to less than or equal to 90 percent).

(2) Hypoxia can be the result of central regulatory disturbances, obstructive sleep apnea, asthma, chronic obstructive airways diseases, interstitial lung disease, pulmonary hypertension, chronic pulmonary embolism, and so forth.

(3) In this environment, gas exchange abnormalities and respiratory insufficiency no matter the cause has the potential for life-threatening sudden incapacitation from cardiopulmonary insufficiency.

9.7.10 Hypercapnic Disorders.

9.7.10.1 Physician Evaluation. Hypercapnic disorders (elevated carbon dioxide with serum P_{CO₂} greater than or equal to 45 mm Hg) found during evaluation of respiratory complaints or disease compromises the member's ability to safely perform essential job tasks 1, 2, 3, 4, 5, 7, and 13, and the physician shall report the applicable job limitations to the fire department.

9.7.10.2 Physician Guidance. The physician shall consider that hypercapnia can be the result of central regulatory disturbance, medications, obstructive sleep apnea, severe asthma, end-stage chronic obstructive airways diseases, or end-stage interstitial lung disease. In this environment, gas exchange abnormalities and respiratory insufficiency no matter the cause has the potential for life-threatening sudden incapacitation from cardiopulmonary insufficiency.

9.7.11 Pulmonary Hypertension.

9.7.11.1 Physician Evaluation. Pulmonary hypertension compromises the member's ability to safely perform essential job tasks 1, 3, 4, 7, and 13, and the physician shall report the applicable job limitations to the fire department. [For further details see sections on hypoxia (9.7.9), pulmonary embolism (9.7.20), and cardiac valve dysfunction (9.4.11).]

9.7.12 Tracheal Stenosis.

9.7.12.1 Physician Evaluation. Tracheal stenosis might compromise the member's ability to safely perform essential job tasks 1, 2, 3, 4, 5, 7, and 12 if pulmonary dysfunction is reduced (FVC less than 60 percent of predicted or abnormal inspiratory flow volume loop) or if the underlying cause of the stenosis prevents the successful and safe performance of the essential job tasks, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.7.13 Pulmonary Resection Surgery, Chest Wall Surgery, or Traumatic Pneumothorax.

9.7.13.1 Physician Evaluation.

9.7.13.1.1 If the member has had pulmonary resection surgery, chest wall surgery, and/or traumatic pneumothorax, the physician shall evaluate the member for full recovery from the surgery with pulmonary function testing (PFT).

9.7.13.1.2 Abnormal PFTs or decreased gas exchange might ~~can~~ compromise the member's ability to safely perform essential job tasks 1, 2, 3, 4, 7, and 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.7.13.2 Physician Guidance. The physician shall consider the following when evaluating the member:

(1) Pulmonary function tests should be performed after adequate healing and pain resolution; generally, this is 4 weeks after thorascopic surgery and 6 to 8 weeks after open chest surgery.

(2) Pulmonary function tests should be either normal or show only a minimal restrictive disorder without evidence for interstitial disease or gas exchange abnormalities.

(3) Moderate to severe restriction (FVC less than 60 percent of predicted with an FEV₁/FVC ratio greater than or equal to 0.90) compromises the member's ability to safely perform essential job tasks unless a more complete evaluation of gas exchange and exercise capacity shows the ability to exercise at a 12-METS workload without evidence of exercise desaturation.

9.7.14* Spontaneous Pneumothorax.

9.7.14.1 Physician Evaluation. ~~The physician shall evaluate the member to determine if Spontaneous pneumothorax, when present, might compromise the member's ability to safely perform essential job tasks 1, 2, 3, 4, 7 and 13 due to pain and dyspnea and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.~~

9.7.14.2 Physician Guidance. The physician shall consider that members with a history of spontaneous pneumothorax and cystic/bullous disease (e.g., as demonstrated on chest CAT scan) whose essential job task #4 includes SCUBA diving cannot safely perform this task since pressure changes during diving can induce recurrence.

9.7.15 Fibrothorax, Chest Wall Deformity, and/or Diaphragm Abnormalities.

9.7.15.1 Physician Evaluation. Fibrothorax, chest wall deformity, and/or diaphragm abnormalities might ~~can~~ compromise the member's ability to safely perform essential job tasks 2, 4, and 7, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.7.15.2 Physician Guidance: The physician shall consider that moderate to severe restriction (FVC less than 60 percent of predicted with an FEV₁/FVC ratio greater than or equal to 0.90) compromises the member's ability to safely perform essential job tasks unless a more complete evaluation of gas exchange and exercise capacity shows the ability to exercise at a 12-METS workload without evidence of hypoxia or exercise desaturation.

9.7.16* Pleural Effusions.

9.7.16.1 Physician Evaluation. Pleural effusions might compromise the member's ability to safely perform essential job tasks 2, 4, and 7 and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.7.17 Bronchiectasis and/or Bronchiolitis Obliterans.

9.7.17.1 Physician Evaluation. Bronchiectasis and/or bronchiolitis obliterans might compromise the member's ability to safely perform essential job tasks 1, 2, 3, 4, 5, and 7 and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.7.17.2 Physician Guidance. The physician shall consider that the ability to safely perform essential job tasks is based on symptom (frequent productive cough, wheezing, and/or dyspnea) and disease severity (Chest CT scan demonstrating multi-lobe disease and pulmonary function tests demonstrating moderate to severe obstructive or restrictive dysfunction or gas exchange abnormalities).

9.7.18 Interstitial Lung Diseases.

9.7.18.1 Physician Evaluation. Interstitial lung diseases including pneumoconiosis (coal, silicosis, asbestosis), hypersensitivity pneumonitis, eosinophilic pneumonitis, idiopathic pulmonary fibrosis, inhalation pneumonitis, and extensive pulmonary infections might compromise the

member's ability to safely perform essential job tasks 1, 2, 3, 4, and 7, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.7.18.2 Physician Guidance. The physician shall consider that moderate to severe restriction (FVC less than 60 percent of predicted with an FEV₁/FVC ratio greater than or equal to 0.90) compromises the member's ability to safely perform essential job tasks unless a more complete evaluation of gas exchange and exercise capacity shows the ability to exercise at a 12-METS workload without evidence of hypoxia or exercise desaturation.

9.7.19 Sarcoidosis.

9.7.19.1 Physician Evaluation. Sarcoidosis resulting in moderate or severe pulmonary dysfunction, significant visual impairment, cardiac dysfunction (cardiomyopathy or arrhythmia) at rest or exercise, other moderate to severe end-organ dysfunction, or the need for current treatment with systemic corticosteroids compromises the member's ability to safely perform essential job tasks 1, 2, 3, 4, 7, 8, and 13, and the physician shall report the applicable job limitations to the fire department.

9.7.19.2 Physician Guidance. The physician shall consider the following when evaluating a member with sarcoidosis:

(1) Most patients with sarcoidosis are asymptomatic with abnormal chest imaging studies but normal function.

(2) If functional assessment by individual examination, pulmonary function tests, electrocardiogram, and echocardiogram is normal, the member is capable of safely performing essential job tasks.

(3) Moderate to severe restriction (FVC less than 60 percent of predicted with an FEV₁/FVC ratio greater than or equal to 0.90) compromises the member's ability to safely perform essential job tasks unless a more complete evaluation of gas exchange and exercise capacity shows the ability to exercise at a 12-METS workload without evidence of exercise desaturation.

(4) Cardiac function should be formally assessed with echocardiography and ECG.

9.7.20 Pulmonary Embolism.

9.7.20.1 Physician Evaluation.

9.7.20.1.1 Acute, recent, or chronic pulmonary embolism requiring anticoagulation compromises the member's ability to safely perform essential job task 8, and the physician shall report the applicable job limitations to the fire department.

9.7.20.1.2 Moderate to severe pulmonary dysfunction (restriction or gas exchange abnormalities) or pulmonary hypertension is rare but if present compromises the member's ability to safely perform essential job tasks 1, 2, 4, and 7, and the physician shall report the applicable job limitations to the fire department.

9.7.21 Disorders of Respiratory Regulation.

9.7.21.1 Physician Evaluation. Disorders of respiratory regulation can result in gas exchange abnormalities that might compromise the member's ability to safely perform essential job tasks 1, 2, 4, 7, and 9, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.7.21.2 Physician Guidance. The physician shall consider that conditions including but not limited to obstructive sleep apnea, central apnea, and disordered central breathing regulation require evaluation of medical history, physical exam, pulmonary function tests, gas exchange, exercise tests, sleep tests, and other tests as deemed necessary.

9.7.22 Cystic Lung Diseases.

9.7.22.1 Physician Evaluation.

9.7.22.1.1 Cystic lung diseases (e.g., congenital bullous disease, pneumatocele, blebs, cystic fibrosis) with significant abnormalities on chest film or moderate to severe pulmonary dysfunction (FVC less than 60 percent predicted or gas exchange abnormalities) compromise the member's ability to safely perform essential job tasks 1, 2, and 4, and the physician shall report the applicable job limitations to the fire department.

9.7.22.1.2 Members shall be restricted from SCUBA diving (essential job task 14) if disease is moderate to severe on chest CAT imaging, even if pulmonary function tests are normal.

9.7.23 Tuberculosis. See Section 9.8.

9.7.24 Lung Cancer. See Section 9.17.

9.8 Infectious Diseases.

9.8.1 Infectious diseases shall include systemic, local, acute, and chronic infections as well as post-infectious processes.

9.8.2 When evaluating a member for infectious diseases, the physician shall consider the following:

(1) Many infections interfere with control of body temperature, hydration, and nutritional status.

(2) Many also produce severe pain, muscle weakness, compromise mobility, and/or ability to safely perform heavy physical exertion.

(3) Members must be able to safely interact with other fire fighters and civilians without posing a significant public health risk due to contagious disease.

(4) Acute and/or self-limited infectious processes can require temporary work restriction. Examples include influenza or upper respiratory tract infection, which can interfere with safe performance of essential job tasks 2 and 3, or acute dermatitis, which would interfere with safe performance of essential job task 3.

(5) Following resolution of these acute processes, members can return to full duty.

~~**9.8.3** If the member has any infectious diseases, the member shall be individually evaluated as the infectious diseases might compromise the member's ability to safely perform essential job tasks, as required by 9.8.4 through 9.8.12.~~

9.8.3 If the member has any infectious diseases, the member shall be individually evaluated in accordance with 9.8.4 through 9.8.12 to determine if the diseases compromise the member's ability to safely perform the essential job tasks.

9.8.4 Skin Infections and Draining Ulcers or Cysts.

9.8.4.1 Physician Evaluation. Skin infections and draining ulcers or cysts might compromise the member's ability to wear personal protective clothing (essential job tasks 2 and 5) or present too high a risk for exposure to infectious agents and toxins (essential job task 3), and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.8.5 Upper or Lower Respiratory Infections.

9.8.5.1 Physician Evaluation. Upper or lower respiratory infections that result in excessive cough, inability to use SCBA, or pulmonary dysfunction might compromise the member's ability to safely perform essential job tasks 1, 2, 3, 4, 5, and 7, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.8.6 Ear Infections.

9.8.6.1 Physician Evaluation. Ear infections that interfere with balance and/or hearing might compromise the member's ability to safely perform essential job tasks 8 and 12, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.8.7 Gastrointestinal Infections.

9.8.7.1 Physician Evaluation. Gastrointestinal infections including parasites that result in dehydration or frequent use of toilet facilities at least temporarily might compromise the member's ability to safely perform essential job tasks 1, 5, 8, and 9, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.8.8 Kidney or Urinary Infections.

9.8.8.1 Physician Evaluation. Kidney or urinary infections that result in dehydration or the frequent use of toilet facilities might compromise the member's ability to safely perform essential job tasks 1, 5, and 9, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.8.9* Infection that Results in Dizziness, Weakness, Significant Weight Loss, or Pain.

9.8.9.1 Physician Evaluation. Any infection that results in dizziness, significant weakness, significant weight loss, or significant pain limiting functional capacity compromises the member's ability to safely perform essential job tasks 1, 5, 8, and 9, and the physician shall report the applicable job limitations to the fire department.

9.8.10* Active Pulmonary Tuberculosis.

9.8.10.1 Physician Evaluation. Active pulmonary tuberculosis by posing a public health risk to the community and other members compromises the member's ability to safely perform essential job tasks 2, 4, 5, and 12, and the physician shall report the applicable job limitations to the fire department.

9.8.11* Hepatitis.

9.8.11.1 Physician Evaluation. Hepatitis, specifically infectious diseases of the liver caused by viruses including but not limited to A, B, C, D, and E, and the treatment of hepatitis might compromise the member's ability to safely perform essential job tasks 1, 2, 4, 5, 7, 9, and 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.8.11.2 Physician Guidance: Medical management of members following occupational exposure or development of any viral hepatitis shall conform to the current CDC guidelines, which includes recommendations for restriction from various types of duty. [See Section 7.11(2)].

9.8.12* Human Immunodeficiency Virus (HIV) Infection.

9.8.12.1 Physician Evaluation. If the member has been diagnosed with human immunodeficiency virus (HIV) infection, the physician shall evaluate the member to determine if the member can perform the essential job tasks, as follows:

9.8.12.1.1 (†) AIDS and significant organ damage or dysfunction resulting from HIV infection compromise the member's ability to safely perform essential job tasks 1, 2, 4, 5, 7, 8, and 9 due to debilitation, and the physician shall report the applicable job limitations to the fire department.

9.8.12.1.2 (‡) Anemia, cardiopulmonary dysfunction, or neurologic dysfunction compromises the member's ability to safely perform essential job tasks 1, 2, 3, 4, 5, 7, 9, and 13, and the physician shall report the applicable job limitations to the fire department.

9.8.12.1.3 (‡) Peripheral neuropathy compromises the member's ability to safely perform essential job tasks 1, 3, and 5, and the physician shall report the applicable job limitations to the fire department.

9.8.12.1.4 (‡) Dementia compromises the member's ability to safely perform essential job tasks 1, 11, and 12, and the physician shall report the applicable job limitations to the fire department.

9.9* Spine Disorders.

9.9.1 Spine disorders shall include conditions of the cervical, thoracic, and lumbosacral spine such as strains, fractures, and discogenic disease as well as cord, cauda equina, and paraspinous syndromes.

9.9.2 When evaluating a member for spine disorders, the physician shall consider the following:

(1) Fire fighters with active, ongoing, or recurrent spinal disorders can have difficulty due to reduced motor strength, sensation, and flexibility as well as problems with fatigue, coordination, gait, and equilibrium.

(2) The PPE and SCBA can place the fire fighter's spine at a biomechanical disadvantage due to added weight and altered center of gravity.

9.9.3 Spine disorders might compromise the member's ability to safely perform essential job tasks, as required by 9.9.4 through 9.9.9:

9.9.3 If the member has any spine disorders, the member shall be individually evaluated in accordance with 9.9.4 through 9.9.9 to determine if the disorders compromise the member's ability to safely perform the essential job tasks.

9.9.4 Spinal Fusion.

9.9.4.1 Physician Evaluation. Degenerative changes from spine fusion at two or more levels compromises the member's ability to safely perform essential job tasks 1, 2, 4, 5, 6, 7, 8, and 13, and the physician shall report the applicable job limitations to the fire department.

9.9.5 Ankylosing Spondylitis.

9.9.5.1 Physician Evaluation. Ankylosing spondylitis might compromise the member's ability to safely perform essential job tasks 1, 2, 4, 5, 6, 7, and 8, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.9.6 Spinal Condition with Significant Radiculopathy.

9.9.6.1 Physician Evaluation. Spinal condition with significant radiculopathy resulting in peripheral motor weakness, loss of strength, loss of sensation, and loss of reflexes affecting endurance, strength, flexibility, pain, and/or gait disturbances compromises the member's ability to safely perform essential job tasks 1, 2, 4, 5, 6, 7, 8, and 13, and the physician shall report the applicable job limitations to the fire department.

9.9.7 Use of Narcotics or Muscle Relaxants.

9.9.7.1 Physician Evaluation. The use of narcotics or muscle relaxants to treat any spinal condition compromises the member's ability to safely perform essential job tasks 1, 2, 4, 5, 6, 7, 8, and 13, and the physician shall report the applicable job limitations to the fire department.

9.9.7.2 Physician Guidance. The physician shall consider that medication-induced somnolence, discoordination, and/or disequilibrium compromises a member's ability to safely operate in hazardous environments.

9.9.8 Spine Structural Abnormality, Fracture, or Dislocation.

9.9.8.1 Physician Evaluation. Spine structural abnormality, fracture, or dislocation that causes progressive or recurrent impairment might compromise the member's ability to safely perform essential job tasks 1, 2, 4, 5, 6, 7, 8, and 13 due to limitations of endurance, strength, flexibility, or pain, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.9.8.2 Physician Guidance. The physician shall consider that spinal structural abnormality, a fracture, or a dislocation can also result in ligament instability increasing the risk for future dislocation and neurologic compromise.

9.9.9 Herniation of Nucleus Pulposus.

9.9.9.1 Physician Evaluation. Herniation of nucleus pulposus or a history of laminectomy, discectomy, or single level fusion might compromise the member's ability to safely perform essential job tasks 1, 2, 4, 5, 6, 7, 8, and 13 due to pain or limitations of endurance, strength, or flexibility, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.10* Orthopedic Disorders.

9.10.1 Orthopedic disorders shall include injuries and illnesses involving upper extremities, pelvis, and lower extremities including nerves, muscles, tendons, joints, and bones.

9.10.2 When evaluating a member for orthopedic disorders, the physician shall consider the following:

(1) Fire fighters with active, ongoing, or recurrent orthopedic disorders can have difficulty due to reduced motor strength, sensation, and flexibility as well as problems with fatigue, coordination, gait, and equilibrium.

(2) The PPE and SCBA can place the fire fighter's involved extremity (upper or lower) at a biomechanical disadvantage due to added weight and altered center of gravity.

(3) Certain medications (narcotics and muscle relaxants) used to treat orthopedic conditions can produce or worsen somnolence, discoordination, and disequilibrium.

9.10.3 If the member has any orthopedic disorders, the member shall be individually evaluated for potential interference with the performance of essential job tasks, as required by 9.10.4 through 9.10.20:

9.10.3 If the member has any orthopedic disorders, the member shall be individually evaluated in accordance with 9.10.4 through 9.10.20 to determine if the disorders compromise the member's ability to safely perform the essential job tasks.

9.10.4 Amputation of Arm, Hand, or Thumb.

9.10.4.1 Physician Evaluation. Amputation of an arm, hand, or thumb compromises the member's ability to safely perform essential job tasks 1, 2, 6, 7, and 8, and the physician shall report the applicable job limitations to the fire department.

9.10.4.2 Physician Guidance. When evaluating a member with an amputation of the arm, hand or thumb, the physician shall consider the following:

(1) The amputation of these limbs or joints interferes with grip and other physical abilities required to safely perform essential job tasks.

(2) Prosthetic limbs do not provide adequate function to safely perform these essential job tasks rapidly in a life-threatening, unforgiving environment.

9.10.5 Amputation of Leg.

9.10.5.1 Physician Evaluation. Amputation of a leg above or below the knee or an entire foot compromises the member's ability to safely perform essential job tasks 1, 4, 6, 7, and 8, and the physician shall report the applicable job limitations to the fire department.

9.10.5.2 Physician Guidance. When evaluating a member with an amputation of a leg (above or below the knee) or entire foot, the physician shall consider the following:

- (1) The amputation of these limbs or joints prevents ambulation and other physical abilities required to safely perform essential job tasks.
- (2) Prosthetic limbs do not provide adequate function to safely perform these essential job tasks rapidly in a life-threatening, unforgiving environment.

9.10.6 Amputation of Finger(s), Other than Thumb.

9.10.6.1 Physician Evaluation. Amputation of finger(s), other than thumb, might compromise the member's ability to safely perform essential job tasks 1, 2, 6, 7, and 8, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.10.6.2 Physician Guidance. The physician shall consider that the amputation of these limbs or joints might interfere with grip and other physical abilities required to safely perform essential job tasks.

9.10.7 Amputation of Partial Foot or Toe(s).

9.10.7.1 Physician Evaluation. Amputation of a partial foot or toe(s) might compromise the member's ability to safely perform essential job tasks 1, 4, 6, 7, and 8, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.10.7.2 Physician Guidance. The physician shall consider that the amputation of these limbs or joints might prevent ambulation and other physical abilities required to safely perform essential job tasks.

9.10.8 Dislocation of a Joint.

9.10.8.1 Physician Evaluation. Single episode of joint dislocation or dislocation with residual limitation of motion (depending upon degree) might ~~can~~ compromise the member's ability to safely perform essential job tasks 1, 2, 4, 6, 7, and 8, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.10.8.2 Physician Guidance. The physician shall consider that successful surgery for shoulder dislocation, if range of motion and strength were intact, would not interfere with the safe performance of essential job tasks.

9.10.9 Recurrent Joint Dislocation of a Major Joint.

9.10.9.1 Physician Evaluation. Recurrent joint dislocation of a major joint (e.g., shoulder) compromises the member's ability to safely perform essential job tasks 1, 2, 4, 6, 7, and 8, and the physician shall report the applicable job limitations to the fire department.

9.10.9.2 Physician Guidance. When evaluating a member for recurrent joint dislocation, the physician shall consider the following:

- (1) Unrepaired, repeated joint dislocations indicate an unstable shoulder or hip, which can easily dislocate leading to sudden incapacitation, placing the member or the person depending on the member at life-threatening risk.
- (2) Post-surgical repair, the member can safely perform essential job tasks if joint exam shows full functional motion, strength, and stability.

9.10.10 Ligament and/or Meniscus Knee Disease.

9.10.10.1 Physician Evaluation. Ligament and/or meniscus knee disease with symptoms of locking, buckling, or giving-way compromises the member's ability to safely perform essential job tasks 1, 4, 6, 7, and 8, and the physician shall report the applicable job limitations to the fire department.

9.10.10.2 Physician Guidance. When evaluating a member for ligament and/or meniscus knee disease, the physician shall consider the following:

- (1) Ligament and/or meniscus knee disease can lead to sudden incapacitation, placing the member or the person depending on the member at life-threatening risk.
- (2) Post-surgical repair, the member can safely perform essential job tasks if joint exam shows full functional motion, strength, and stability.

9.10.11 Joint Replacements or Artificial Joints.

9.10.11.1 Physician Evaluation. Joint replacements or artificial joints compromise the member's ability to safely perform essential job tasks 1, 4, 6, 7, and 8, and the physician shall report the applicable job limitations to the fire department.

9.10.11.2 Physician Guidance. When evaluating a member with joint replacements or artificial joints, the physician shall consider the following:

- (1) Competitive athletes with artificial hip joints are not cleared for contact sports where explosive effort, high impact, and blunt trauma are frequent.
- (2) Fire fighting presents similar limitations and stress, especially as their consequence can place the member or others at risk for life-threatening injuries.

9.10.12 Limitation of Joint Motion.

9.10.12.1 Physician Evaluation. Limitation of joint motion (depending upon degree) might compromise the member's ability to safely perform essential job tasks 1, 2, 4, 6, 7, and 8 due to reduced flexibility, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.10.13 Joint Reconstruction.

9.10.13.1 Physician Evaluation. Joint reconstruction in cases where there is significant residual limitation of motion or strength compromises the member's ability to safely perform essential job tasks 1, 4, 6, 7, and 8, and the physician shall report the applicable job limitations to the fire department.

9.10.13.2 Physician Guidance. The physician shall consider that surgery for a torn anterior cruciate ligament or meniscus can interfere with safe performance of essential job tasks 1, 4, 6, 7, and 8 if quadriceps strength is reduced or if the knee is unstable or develops pain or swelling when stressed

9.10.14 Fractures.

9.10.14.1 Physician Evaluation. Fracture(s), might compromise the member's ability to safely perform essential job tasks 1, 4, 6, 7, and 8, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.10.14.2 Physician Guidance. When evaluating a member with a fracture, the physician shall consider the following:

- (1) Fractures, including hip fractures requiring internal fixation, should not interfere with safe performance of essential job tasks as long as the radiograph demonstrates healing and exam is normal.
- (2) Non-union fractures are not healed, and members cannot safely perform essential job tasks 1, 4, 6, 7, and 8 until union is achieved.

9.10.15 Appliances.

9.10.15.1 Physician Evaluation. Appliances (screws, pins, and/or metal plates) might compromise the member's ability to safely perform essential job tasks 1, 4, 6, 7, and 8, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.10.15.2 Physician Guidance. When evaluating a member with appliances, the physician shall consider the following:

- (1) If the appliances are superficial, they could lead to perforation of the skin under the normal abrasive conditions of fire fighting.
- (2) If the underlying condition responsible for the surgical implantation has healed, surgical consultation is advised to determine the risk-benefit analysis for removing the appliance.
- (3) After removing the appliance, radiographic evidence of bone healing (approximately 6 months) should be obtained before the member is allowed to safely perform the essential tasks.

9.10.16 Bone Grafts.

9.10.16.1 Physician Evaluation. Bone grafts might compromise the member's ability to safely perform essential job tasks 1, 4, 6, 7, and 8, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.10.16.2 Physician Guidance. The physician shall consider that bone grafts, if well healed, do not interfere with the safe performance of job tasks as long as the radiograph demonstrates healing and the exam is normal.

9.10.17 Chronic Osteoarthritis or Traumatic Arthritis.

9.10.17.1 Physician Evaluation. Chronic osteoarthritis or traumatic arthritis resulting in frequent episodes of pain and/or reduced range of motion, strength, or endurance compromises the member's ability to safely perform essential job tasks 1, 4, 6, 7, and 8, and the physician shall report the applicable job limitations to the fire department.

9.10.18 Inflammatory Arthritis.

9.10.18.1 Physician Evaluation. Inflammatory arthritis (in cases where it is severe, recurrent, or a progressive illness or associated with deformity or limitation of range of motion) and which can result in frequent episodes of pain, reduced strength, and reduced flexibility, compromises the member's ability to safely perform essential job tasks 1, 4, 6, 7, and 8, and the physician shall report the applicable job limitations to the fire department.

9.10.19 Reflex Sympathetic Dystrophy.

9.10.19.1 Physician Evaluation. Reflex sympathetic dystrophy where pain is severe, narcotics or muscle relaxants are required, or strength/flexibility is limited compromise the member's ability to safely perform essential job tasks 1, 4, 6, 7, and 8, and the physician shall report the applicable job limitations to the fire department.

9.10.20 Osteomyelitis or Septic Arthritis.

9.10.20.1 Physician Evaluation. Osteomyelitis or septic arthritis, if active and causing pain, local drainage, systemic infection, and/or increased risk for pathologic or traumatic fractures compromises the member's ability to safely perform essential tasks 1, 4, 6, 7, and 8, and the physician shall report the applicable job limitations to the fire department.

9.11 Disorders Involving the Gastrointestinal Tract and Abdominal Viscera.

9.11.1 Disorders involving the gastrointestinal tract and abdominal viscera shall include conditions of the abdominal wall and peritoneum, as well as esophagus, stomach, small bowel, colon, mesenteric structures, and intra-abdominal organs.

9.11.2 If the member has any disorders involving the gastrointestinal tract and abdominal viscera, the member shall be individually evaluated for the likelihood of inadequate nutrition, a propensity for symptomatic dehydration, anemia, or incapacitating pain syndromes.

9.11.3 Where the following GI disorders result in the complications defined in 9.11.2, the physician shall evaluate the member's ability to safely perform essential job tasks 1, 4, 6, 7, 9, and 13, and after the evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

- (1) Cholecystitis
- (2) Gastritis
- (3) GI bleeding
- (4) Inflammatory bowel disease or irritable bowel syndrome
- (5) Intestinal obstruction
- (6) Pancreatitis
- (7) Diverticulitis
- (8) History of gastrointestinal surgery
- (9) Gastric or other GI ulcers, including Zollinger-Ellison syndrome
- (10) Cirrhosis
- (11) Splenectomy, if healed, does not compromise the member's ability to safely perform essential job tasks. To prevent infections, Pneumovax is recommended at regular intervals.
- (12) Hernias, such as the following:
 - (a) Hernias of the abdominal wall, especially inguinal and femoral hernias, might compromise the member's ability to safely perform essential job tasks 1, 4, 6, 7, and 13 due to the risk of incarceration and bowel strangulation during heavy exertion and lifting.
 - (b) Large ventral hernias have a low risk of incarceration but can weaken the abdominal wall musculature and might compromise the member's ability to safely perform essential job tasks 1, 4, 6, and 7.
 - (c) Umbilical hernias that are small and asymptomatic will not generally interfere with fire-fighting duties.

(d) Abdominal wall hernias at any site that have been surgically corrected do not prevent otherwise qualified members from safely performing essential fire-fighting tasks, provided the incision site is well healed and the surgeon has cleared the member for full lifting.

9.12 Medical Conditions Involving Head, Eyes, Ears, Nose, Neck, or Throat.**9.12.1* Physician Evaluation.**

9.12.1.1 If the member has any medical conditions involving the head, eyes, ears, nose, neck, or throat, the member shall be individually evaluated for conditions that interfere with the member's ability to comfortably wear and be protected by the fire fighter's protective ensemble and that might compromise the member's ability to safely perform essential job tasks 2, 4, 5, and 13.

9.12.1.2 After the evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.12.2 Physician Guidance. When evaluating a member with medical conditions involving the head, eyes, ears, nose, neck, or throat, the physician shall consider the following:

- (1) Deformities of the skull associated with evidence of disease of the brain, spinal cord, or peripheral nerves can result in the potential for sudden incapacitation and the inability to properly wear protective equipment.
- (2) Contraction of head and neck muscles can interfere with wearing of protective equipment, impair speech, or otherwise compromise a member's ability to safely perform essential job tasks.

9.12.3 Disorders of the Eyes or Vision.

9.12.3.1* Physician Evaluation. Disorders of the eyes or vision including the following might compromise the member's ability to safely perform essential job tasks 6, 8, 10, and 11, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

(1)* Far visual acuity worse than 20/40 binocular corrected with contact lens or spectacles, and far visual acuity uncorrected worse than 20/100 binocular for wearers of hard contacts or spectacles, compromises a member's ability to safely perform essential job tasks 6, 8, 10, and 11. Successful soft contact lens wearers shall not be subject to the uncorrected standard.

(2)* Monocular vision, stereopsis without fusional capacity, inadequate depth perception, or loss of peripheral vision (greater than 110 degrees on confrontation) compromises the member's ability to safely perform essential job task 10.

(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.

9.12.3.2 Physician Guidance. The physician shall consider that new monocular vision requires a minimum of 6 months for depth perception accommodation in order to safely perform other essential job tasks.

9.12.4 Abnormal Hearing.

9.12.4.1* Physician Evaluation. Abnormal hearing requiring a hearing aid or impairing a member's ability to hear and understand the spoken voice under conditions of high background noise, or hear, recognize, and directionally locate cries or audible alarms, compromises the member's ability to safely perform essential job tasks 2, 6, 8, 10, 12, and 13, and the physician shall report the applicable job limitations to the fire department.

9.12.5 Vertigo, Ataxia, or Disturbance of Gait and Balance.

9.12.5.1* Physician Evaluation. Any condition causing chronic or recurring vertigo, ataxia, or other disturbance of gait and balance compromises the member's ability to safely perform essential job tasks 1, 8, 10, and 13, and the physician shall report the applicable job limitations to the fire department.

9.12.6 Nose, Nasopharynx, Oropharynx, or Dental Structures.

9.12.6.1* Physician Evaluation. Any deformity or disease of the nose, nasopharynx, oropharynx, or dental structures, including anosmia and sinusitis, might compromise the member's ability to safely perform essential job tasks 2, 3, 5, 8, 12, and 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.13* Neurologic Disorders.

9.13.1 Neurologic disorders shall refer to ongoing, chronic, or recurrent disorders that impair an individual's neurologic functions, including central regulation, cognitive abilities, strength, perception, reflexes, coordination, gait, and equilibrium.

~~9.13.2 Any neurologic disorder that significantly impairs the member's neurologic functions, including central regulation, cognitive abilities, strength, perception, reflexes, coordination, gait, and equilibrium, compromises the member's ability to safely perform essential job tasks as required by 9.13.3 through 9.13.11.~~

9.13.2 If the member has any neurologic disorder that significantly impairs the member's neurologic functions, including central regulation, cognitive abilities, strength, perception, reflexes, coordination, gait, and equilibrium, the member shall be individually evaluated in accordance with 9.13.3 through 9.13.11 to determine if the disorders compromise the member's ability to safely perform the essential job tasks.

9.13.3 Ataxias.

9.13.3.1 Physician Evaluation. Ataxias of the hereditary or degenerative type compromise a member's ability to safely perform essential job tasks 1, 4, 6, 7, and 8, and the physician shall report the applicable job limitations to the fire department.

9.13.4 Cerebral Arteriosclerosis.

9.13.4.1* Physician Evaluation. Cerebral arteriosclerosis as evidenced by documented episodes of focal, reversible, or neurological impairment ~~may~~ might interfere with the member's ability to safely perform essential job tasks 1 through 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.13.4.1.1 Cerebral arteriosclerosis as evidenced by documented episodes of focal, reversible, or neurological impairment. These conditions, if irreversible, compromise the member's ability to safely perform essential job tasks 1 through 13 and the physician shall report the applicable job limitations to the fire department.

9.13.4.1.2 Cerebral arteriosclerosis as evidenced by documented episodes of focal, reversible, or neurological impairment and, if requiring anticoagulation treatment, compromise the member's ability to safely perform essential job task 8 and the physician shall report the applicable job limitations to the fire department.

9.13.5 Neuromuscular, Demyelinating, and Other Progressive Neurologic Diseases.

9.13.5.1* Physician Evaluation. Neuromuscular, demyelinating, and other progressive neurologic diseases compromise the member's ability to safely perform essential job tasks 1, 4, 6, 7, 8, 12, and 13, and the physician shall report the applicable job limitations to the fire department, unless the member meets all of the provisos noted in A-9.13.5.1: is free of clinical disease for 3 years and evaluation by a specialist concludes that cognitive function and neurologic exam are normal and the member is on no drugs that can impair job function.

9.13.5.2 Physician Guidance. The physician shall consider that this category refers to but is not limited to multiple sclerosis, myasthenia gravis, muscular dystrophies, Huntington's chorea, amyotrophic lateral sclerosis, and bulbar palsy.

9.13.6 Epileptic Conditions.

9.13.6.1* Physician Evaluation. Epileptic conditions including simple, partial complex, generalized, and psycho-motor seizure disorders compromise the member's ability to safely perform essential job tasks 8, 9, 10, 11, and 13, and the physician shall report the applicable job limitations to the fire department unless the member meets all of the following provisos:

- (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 (CT 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 member meets the criteria specified in 9.13.6.1(1) through 9.13.6.1(4) and that the member can safely perform the essential job tasks of fire fighting.

9.13.7 Cerebral Vascular Bleeding.

9.13.7.1* Physician Evaluation. Cerebral vascular bleeding compromises the member's ability to safely perform essential job tasks 1, 4, 6, 7, 8, 9, 10, 11, 12, and 13, and the physician shall report the applicable job limitations to the fire department unless the cause of bleeding is surgically corrected, exam is normal, and studies (imaging and EEG) are normal off anticonvulsants.

9.13.8 Head Trauma.

9.13.8.1* Physician Evaluation. Head trauma including concussion, brain contusion, subarachnoid hemorrhage, subdural, and/or epidural hematoma might compromise the member's ability to safely perform essential job tasks 1 through 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.13.8.2 Physician Guidance: The physician shall consider having the member evaluated and cleared to return to duty by a qualified neurosurgeon or neurologist following significant head trauma.

9.13.9 CNS Tumors.

9.13.9.1 Physician Evaluation. CNS tumors depending on their location and the size of the mass might compromise the member's ability to safely perform essential job tasks 1 through 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.13.9.2 Physician Guidance: The physician shall consider that after successful resection of a CNS tumor a member can safely return to duty with a neurosurgeon's certification if exam and imaging studies are normal (except for surgical site) and EEG shows no epileptic activity off all anti-convulsant medications.

9.13.9.2.1 Where applicable, metastatic workup shall be negative.

9.13.10 Parkinson's and Other Diseases with Tremor.

9.13.10.1 Physician Evaluation. Parkinson's and other diseases with functionally significant tremor or abnormal gait or balance compromises the member's ability to safely perform essential job tasks 1, 2, 4, 5, 6, 7, 8, and 9, and the physician shall report the applicable job limitations to the fire department.

9.13.10.2 Physician Guidance.

9.13.10.2.1 The physician shall evaluate gait, balance, movement, and medications required to maintain function.

9.13.10.2.2 The impact of the operational environment including heat, hazards, stress, and exertion shall be considered and specifically addressed.

9.13.11 Progressive Dementia.

9.13.11.1 Physician Evaluation. Progressive dementia (e.g., Alzheimer's) compromises the member's ability to safely perform essential job tasks 1 through 13, and the physician shall report the applicable job limitations to the fire department.

9.14* Psychiatric and Psychologic Disorders.

9.14.1 Psychiatric and psychologic disorders shall include acute, ongoing, chronic, or recurrent disorders that impair psychological or emotional function.

9.14.2 Psychiatric and psychologic disorders might compromise the member's ability to safely perform essential job tasks 1, 3, 4, 5, 7, 8, 11, 12, and 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.15* Substance Abuse.

9.15.1 Substance abuse shall refer to the frequent and/or persistent use of alcohol or other substances causing the following:

- (1) Failure to fulfill major obligations either at work or at home
- (2) Verifiable physical or emotional harm to the member
- (3) Recurrent legal problems
- (4) Exacerbation of social and/or other interpersonal problems

~~9.15.2 Substance abuse might compromise the member's ability to safely perform essential job tasks, as outlined in 9.15.3 through 9.15.4.~~

9.15.2 If the member has any substance abuse problem, the member shall be individually evaluated in accordance with 9.15.3 through 9.15.4 to determine if the problem compromise the member's ability to safely perform the essential job tasks.

9.15.3 DSM IV Criteria.

9.15.3.1 Physician Evaluation. DSM IV criteria for substance abuse of alcohol and controlled substances compromises the member's ability to safely perform essential job tasks 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13, and the physician shall report the applicable job limitations to the fire department.

9.15.3.2 Physician Guidance.

9.15.3.2.1 The physician shall use medical evaluations, supervisory evaluations, and/or performance evaluations coupled with urine screen and blood toxicology to form a basis for determining and documenting substance abuse.

9.15.3.2.2 There is a high recidivism rate with treatment but members shall be offered treatment as in most cases substance abuse is a medical illness.

9.15.4 Methadone Maintenance.

9.15.4.1 Physician Evaluation. Methadone maintenance interferes with cognitive functions, energy, coordination, and equilibrium of the member, and therefore compromises the member's ability to safely perform essential job tasks 1, 4, 5, 7, 8, 10, and 11, and the physician shall report the applicable job limitations to the fire department.

9.16 Medications.

9.16.1 Medications shall include prescribed and over-the-counter medications.

9.16.2 When evaluating a member, the physician shall recognize that the medications in Section 9.16 are listed because of noteworthy side effects that may might interfere with the performance of essential job tasks.

~~**9.16.3** If the member is taking medications, the member shall be individually evaluated for potential interference with the performance of essential job tasks, as required by 9.16.4 through 9.16.10.~~

9.16.3 If the member is taking medications, the member shall be individually evaluated in accordance with 9.16.4 through 9.16.10 to determine if the medications compromise the member's ability to safely perform the essential job tasks.

9.16.4 Anticoagulation.

9.16.4.1 Physician Evaluation. Full dose anticoagulation compromises the member's ability to perform essential job task 8 due to the risk of internal bleeding from trauma with potential for rapid incapacitation from shock or central nervous system hemorrhage, and the physician shall report the applicable job limitations to the fire department.

9.16.5 Narcotics.

9.16.5.1 Physician Evaluation. Narcotics compromise the member's ability to safely perform essential job tasks 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13 due to alterations in mental status including vigilance, judgment, and other neurologic functions, and the physician shall report the applicable job limitations to the fire department.

9.16.6 Muscle Relaxants.

9.16.6.1 Physician Evaluation. Muscle relaxants compromise the member's ability to safely perform essential job tasks 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13 due to alterations in mental status and other neurologic functions, and the physician shall report the applicable job limitations to the fire department.

9.16.7 Sedatives and Hypnotics.

9.16.7.1 Physician Evaluation. Sedatives and hypnotics compromise the members ability to safely perform essential job tasks 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13 due to alterations in mental status, vigilance, judgment, and other neurologic functions, and the physician shall report the applicable job limitations to the fire department.

9.16.8 ~~Psychoactive Agents—Psychiatric Medications.~~

9.16.8.1 Physician Evaluation. Psychoactive agents Psychiatric medications might compromise the member's ability to safely perform essential job tasks 5, 8, 11, and 13 due to increased risk of heat stress, movement disorders, and somnolence, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.16.9 Anti-hypertensive Agents.

9.16.9.1 Physician Evaluation. Certain classes of anti-hypertensive agents (e.g., beta-blockers and high-dose diuretics and central agents such as clonidine) compromise the member's ability to safely perform essential

job tasks 5 and 8 due to risk for dehydration, electrolyte disorders, lethargy, and disequilibrium, and the physician shall report the applicable job limitations to the fire department.

9.16.9.2 Physician Guidance. If the member is on beta-blockers or high-dose diuretics, or central agents such as clonidine the physician shall refer the member back to his/her physician for consideration of a change in anti-hypertensive medications.

9.16.9.2.1 Once stable off these medications, the member shall be medically re-evaluated for duty.

9.16.9.2.2 Calcium channel blockers shall be acceptable as anti-hypertensive medications but if used for other cardiac reasons, refer to Section 9.4.

9.16.10 High Dose Corticosteroids.

9.16.10.1 Physician Evaluation. High dose corticosteroids for chronic disease compromise the member's ability to safely perform essential job tasks 5 and 8 due to the underlying disease or the risk for dehydration, electrolyte disorders, myopathy, altered sensorium, and/or lethargy due to high dose steroids, and the physician shall report the applicable job limitations to the fire department.

9.16.10.2 Physician Guidance. If the member is on systemic corticosteroids, other than high dose corticosteroids, the physician shall refer the member back to his/her physician for consideration of the underlying disease which might compromise the member's ability to safely perform the essential job tasks.

9.16.11 Anabolic Steroids.

9.16.11.1 Physician Evaluation. Anabolic steroids compromise the member's ability to safely perform essential job tasks 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13 due to alterations in mental status including vigilance, judgment, and other neurologic functions, and the physician shall report the applicable job limitations to the fire department.

9.16.12 Other Medications.

9.16.12.1 Physician Evaluation. The physician shall evaluate the member to determine if other medications might compromise the member's ability to safely perform essential job tasks 5, 8, 11, and 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.16.12.2 Physician Guidance. The physician shall consider that the member might require careful evaluation for increased risk of heat stress and other side effects of certain medications (e.g., MAOIs, phenothiazines, anti-cholinergics, tricyclic antidepressants), and shall ensure specialized annual follow-up of members taking these medications.

9.17 Tumors — Malignant or Benign.

9.17.1 Malignant conditions of any organ system can produce specific organ dysfunction or generalized debilitation.

9.17.2 When evaluating a member, the physician shall recognize that malignancy or its treatment can result in anemia, malnutrition, pain, and generalized weakness, temporarily or permanently compromising the member's ability to safely perform essential job tasks 1 through 13.

~~**9.17.3** If the member has tumors, whether malignant or benign, the member shall be individually evaluated as these conditions might compromise the member's ability to safely perform essential job tasks 1 through 13.~~

9.17.3 If the member has tumors, whether malignant or benign, the member shall be individually evaluated in accordance with 9.17.4 through 9.17.12 to determine if the tumors compromise the member's ability to safely perform the essential job tasks.

9.17.4 Benign Tumors.

9.17.4.1 Physician Evaluation. Benign tumors might compromise the member's ability to safely perform essential job tasks 1 through 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.17.4.2 Physician Guidance. The physician shall consider that benign tumors will compromise the member's ability to safely perform essential job tasks 1 through 13 only if the space-occupying lesion and/or its treatment affects energy levels or the involved organ system's function.

9.17.5 Acute Illness Related to Malignancy or its Treatment.

9.17.5.1 Physician Evaluation. Acute illness related to malignancy or its treatment might compromise the member's ability to safely perform

essential job tasks 1, 2, 3, 4, 5, 6, 7, 8, 9, and 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.17.5.2 Physician Guidance. The physician shall consider that acute illness related to malignancy or its treatment compromises the member's ability to safely perform essential job tasks 1, 2, 3, 4, 5, 6, 7, 8, 9, and 13 if low energy levels, anemia, weight loss, or specific aspects of that organ's dysfunction lead to debilitation.

9.17.6 Central Nervous System Tumors.

9.17.6.1 Physician Evaluation. Central nervous system tumors might compromise the member's ability to safely perform essential job tasks 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.17.6.2 Physician Guidance.

9.17.6.2.1 When evaluating the member for central nervous system tumors, the physician shall consider that central nervous system tumors compromise the member's ability to safely perform essential job tasks 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13 if low energy levels, anemia, undernutrition, weight loss, and specific organ dysfunction (seizures, loss of balance, inability to communicate, inability to process complicated commands in an emergency situation, weakness), are present or lead to a debilitated state affecting anaerobic and aerobic job tasks and the ability to wear personal protective clothing and SCBA.

9.17.6.2.2 If treated successfully, members shall undergo evaluation by a specialist who must certify that the exam is normal, imaging studies are normal (except for surgical site), and seizures have not occurred in the absence of anti-convulsant medications, and there is no further evidence of malignancy.

9.17.7 Head and Neck Malignancies.

9.17.7.1 Physician Evaluation. Head and neck malignancies might compromise the member's ability to safely perform essential job tasks 1 through 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.17.7.2 Physician Guidance.

9.17.7.2.1 When evaluating the member for head and neck malignancies, the physician shall consider that head and neck malignancies compromise the member's ability to safely perform essential job tasks 1 through 13 if low energy levels, anemia, undernutrition, weight loss, inability to clear oral secretions, or other specific organ dysfunction interfere with respiration, communication, hydration, and/or eating.

9.17.7.2.2 If treated successfully, a member shall undergo evaluation by a specialist, who must certify that exam shows normal function, imaging studies show no tumor, and overall medical evaluation reveals no condition that ~~could~~ might compromise safe performance of essential job tasks.

9.17.8 Lung Cancer.

9.17.8.1 Physician Evaluation. Lung cancer might compromise the member's ability to safely perform essential job tasks 1, 2, 3, 4, 5, 7, 8, 9, and 13, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.17.8.2 Physician Guidance.

9.17.8.2.1 When evaluating the member for lung cancer, the physician shall consider that lung cancer compromises the member's ability to safely perform job tasks if low energy levels, anemia, undernutrition, weight loss, weakness, paraneoplastic syndromes, or specific organ dysfunction (abnormal secretions, dyspnea, or pulmonary dysfunction interfering with or prohibiting use of SCBA or strenuous physical activities) are present.

9.17.8.2.2 If treated successfully, the member shall undergo evaluation by a specialist who must certify that the member has normal function, imaging studies show no tumor, and overall medical evaluation reveals no condition that ~~could~~ might compromise safe performance of essential job tasks.

9.17.9 Gastrointestinal Malignancies.

9.17.9.1 Gastrointestinal malignancies might compromise the member's ability to safely perform essential job tasks 1, 3, 4, 5, 7, 8, and 9, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.17.9.2 Physician Guidance.

9.17.9.2.1 When evaluating the member for gastrointestinal malignancies, the physician shall consider that gastrointestinal malignancies compromise the member's ability to safely perform job tasks if low energy levels, anemia, undernutrition, weight loss, weakness, paraneoplastic syndromes, or specific organ dysfunction (abnormal secretions or bowel function interfering with or prohibiting prolonged use of personal protective clothing, or strenuous physical activities) are present.

9.17.9.2.2 If treated successfully, the member shall undergo evaluation by a specialist, who must certify that exam and gastrointestinal functioning appear to be normal (including nutrition intake and excretion), imaging studies show no tumor, and overall medical evaluation reveals no condition that could compromise safe performance of essential job tasks.

9.17.10 Genitourinary Malignancies.

9.17.10.1 Physician Evaluation. Genitourinary malignancies might compromise the member's ability to safely perform essential job tasks 1, 3, 4, 5, 7, 8, and 9, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.17.10.2 Physician Guidance.

9.17.10.2.1 When evaluating the member with a history of genitourinary malignancy, the physician shall consider that genitourinary malignancies compromise the member's ability to safely perform job tasks if altered urinary function prevents prolonged activity without use of toilet facilities or if the underlying tumor has produced low energy levels, anemia, undernutrition, weight loss, or specific organ dysfunction.

9.17.10.2.2 If treated successfully, the member shall undergo evaluation by a specialist, who must certify that exam is normal (including nutrition intake and excretion), imaging studies show no tumor, and overall medical evaluation reveals no condition that ~~could~~ might compromise safe performance of essential job tasks.

9.17.11 Hematologic or Lymphatic Malignancies.

9.17.11.1 Physician Evaluation. Hematologic or lymphatic malignancies might compromise the member's ability to safely perform essential job tasks 1, 2, 3, 4, 5, 7, 8, and 9, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.17.11.2 Physician Guidance.

9.17.11.2.1 When evaluating the member for hematologic or lymphatic malignancies, the physician shall consider that hematologic or lymphatic malignancies (e.g., leukemias, lymphomas) compromise the member's ability to safely perform essential job tasks 1, 2, 3, 4, 5, 7, 8, and 9 if anemia, lymphopenia, or thrombocytopenia is present or if adverse effects of treatment are present.

9.17.11.2.2 If treated successfully, the member shall undergo evaluation by a specialist, who must certify that exam is normal, imaging and laboratory studies show no cancer, and overall medical evaluation reveals no condition that could compromise safe performance of essential job tasks.

9.17.12 Skin Cancer.

9.17.12.1 Physician Evaluation. Skin cancer might compromise the member's ability to safely perform essential job tasks 1, 3, 4, 5, 7, 8, and 9, and after further evaluation and a final medical determination of the member's condition, the physician shall report any applicable job limitations to the fire department.

9.17.12.2 Physician Guidance.

9.17.12.2.1 When evaluating the member for skin cancer, the physician shall consider that skin cancer that requires significant resection, chemotherapy or other systemic anti-neoplastic therapy or that results in the loss of skin integrity compromises the member's ability to safely perform job tasks because of low energy levels, anemia, undernutrition, and weight loss, as well as increased risk of burns, infection, dehydration, and heat rash while fire fighting and wearing PPE.

9.17.12.2.2 If treated successfully, the member shall undergo evaluation by a specialist, who must certify that exam is normal, imaging and laboratory studies show no cancer, and overall medical evaluation reveals no condition that could compromise safe performance of essential job tasks.

Substantiation: The committee has added language to the physician evaluation statements to make them state a requirement by indicating what the physician is to do as a result of their evaluation. In addition, the accepted comments for chapter 9 are incorporated in the text shown and editorial changes have been made to better standardize the format of the chapter.

Committee Meeting Action: Accept

Number Eligible to Vote: 31**Ballot Results:** Affirmative: 28**Ballot Not Returned:** 3 Norris, S., Stewart, D., Turen, C.1582-14 Log #CC5
(9.6.2)**Final Action:** Accept**Submitter:** Technical Committee on Fire Service Occupational Safety and Health**Comment on Proposal No:** 1582-2**Recommendation:** Revise 9.6.2 to read as follows:

If the member has any endocrine and metabolic disorders, the member shall be individually evaluated for potential interference with the performance of essential job tasks, as required by 9.6.3 through 9.6.7 9.6.5.

Substantiation: The reference in 9.6.2 should include 9.6.6 and 9.6.7.**Committee Meeting Action:** Accept**Number Eligible to Vote:** 31**Ballot Results:** Affirmative: 28**Ballot Not Returned:** 3 Norris, S., Stewart, D., Turen, C.1582-15 Log #8
(9.7.6.1)**Final Action:** Accept in Principle**Submitter:** David J. Prezant, New York City Fire Department**Comment on Proposal No:** 1582-5**Recommendation:** 9.7.6.1 currently reads:

“Physician Evaluation. Asthma compromises the member’s ability to safely perform essential job tasks 1, 2, 3, 4, 5, 7, 9, and 13 unless the following provisos are met:

(1) As defined by the “Guidelines for the Diagnosis and Management of Asthma (US Dept. HHS, NIH, NHLBI, NIH Publications #97-4053, October 1997), the member has mild asthma classified as either “Step One” (no control medications and requires inhaled bronchodilator rescue medications for attacks no more than 2 times per week) or “Step Two” (daily control medications needed consisting of low dose inhaled corticosteroids or cromolyn or oral leukotrienes modifiers (ex. Montelukast) and requires inhaled bronchodilator rescue medications for attacks no more than 2 times per week).

We again take serious issue with the safety of allowing incumbent firefighters with asthma to participate in interior structural firefighting even if they are controlled on low dose medications.

Substantiation: Asthma attacks are caused by exposure to recognized or unrecognized triggers such as noxious/irritant stimuli including chemicals, smoke, dust, exertion and weather extremes. Attacks can also be produced by allergens, stress or infections. At times, no clear trigger for the attack is identified.. *“Despite identification of triggers and reversibility with medication, over 5,000 asthma related deaths occur annually in this country” (CDC web site 12/04).* This is in part because response to medication may not be immediate and severe attacks may require intubation and prolonged treatment even if reversibility occurs. Just as no physician would approve an allergic asthmatic patient (even one on medication) to purposely suffer repeated exposures to a known allergen, no physician would approve an asthmatic patient (even on medication) to purposely suffer repeated exposures to a noxious/irritant environment. SCBA does not allow enough air for most fire suppression activities and must be taken off during a variety of escape and rescue scenarios.

Any member who has asthma requiring the use of bronchodilators on a regular basis would be likely to suffer an asthmatic attack during when not using SCBA. This attack may be life-threatening (as it has in 2 FDNY firefighters requiring intubation) or it may place the team at risk by eliminating 1 member from effective participation. Bronchodilator rescue medications cannot be used safely in a fire scene; would require removal of the SCBA to use the medication thereby possibly worsening the attack due to irritant exposure; and have these medications are not FDA approved for use in this environment. The legal liability to the Fire Department is substantial as common sense would dictate not placing these individuals in this environment. The fact that several studies have now shown airway hyperreactivity after smoke inhalation, a multiple alarm fire and the World Trade Center, would argue that this is not the type of exposure we should advocate for asthmatics.

Committee Meeting Action: Accept in Principle

Revise the order of the listed items as shown:

9.7.6.1 Physician Evaluation. Asthma compromises the member’s ability to safely perform essential job tasks 1, 2, 3, 4, 5, 7, 9, and 13 unless the following provisos are met:

(1) (3) The member denies bronchospasm during exertion, temperature/humidity extremes, irritant exposures, fire activities, or hazmat activities.

(2) (4) The member denies the use of bronchodilator rescue medications during exertion, temperature/humidity extremes, irritant exposures, fire activities, or hazmat activities.

(3) (5) The member’s fire department records (training, operations, rehabilitation, and medical) should be reviewed to verify that no asthmatic

episodes have occurred during fire suppression or hazardous materials operations or training.

(4) (1) As defined by the “Guidelines for the Diagnosis and Management of Asthma,” the member has mild asthma classified as either “Step One” (no control medications and requires inhaled bronchodilator rescue medications for attacks no more than 2 times per week) or “Step Two” (daily control medications needed consisting of low-dose inhaled corticosteroids or cromolyn or oral leukotrienes modifiers — for example, Montelukast — and requires inhaled bronchodilator rescue medications for attacks no more than 2 times per week).

(5) (2) The member’s asthma has not required systemic corticosteroids, emergency room treatment or hospital admission in the last 2 years.

(6) The member should show adequate reserve in pulmonary function (FVC and FEV-1 greater than or equal to 90 percent) and no bronchodilator response measured off all bronchodilators on the day of testing.

(7) The member has a normal or negative response (less than 20 percent decline in FEV1) to provocative challenge testing using either 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). If the member reports good control only when taking prescribed control anti-inflammatory medications (e.g. inhaled corticosteroids, cromolyn, or leukotriene modifiers), then consideration should be given to continuing these medications during the testing. The member should not use bronchodilators (short or long-acting bronchodilators) the day of testing because these medications can undermine the purpose of this test — that is, demonstrating normal pulmonary function without clinically significant bronchodilator response or airway hyperreactivity. Provocative challenge testing should be performed the first time the member is evaluated for asthma and only if all of the provisos in 9.7.6.1(1) through 9.7.6.1(7) indicate that the member’s asthma is under acceptable control. Provocative challenge testing is not required annually and should only be repeated if clinically indicated.

(8) The Fire Department provides and the member agrees to wear SCBA during all phases of fire suppression (i.e., ingress, suppression, overhaul and egress).

(9) The member has a signed statement from a pulmonary or asthma specialist, knowledgeable in the essential job tasks and hazards of fire fighting, that he/she meets the criteria specified in 9.7.6.1(1) through 9.7.6.1(6) and that the member can safely perform essential job tasks 1, 2, 3, 4, 5, 7, 9, and 13 without the use of bronchodilator “rescue” medications.

Committee Statement: The committee is not adding the suggested text but does believe that, by renumbering the provisos which must be met to safely perform the listed essential job tasks, the intent is clearer.

Number Eligible to Vote: 31**Ballot Results:** Affirmative: 28**Ballot Not Returned:** 3 Norris, S., Stewart, D., Turen, C.1582-16 Log #CC3
(9.7.22.1)**Final Action:** Accept**Submitter:** Technical Committee on Fire Service Occupational Safety and Health**Comment on Proposal No:** 1582-1**Recommendation:** Revise 9.7.22.1 to read as follows:

Physician Evaluation. Cystic lung diseases (e.g., congenital bullous disease, pneumatocele, blebs, cystic fibrosis) with significant abnormalities on chest film or moderate to severe pulmonary dysfunction (FVC less than 60 percent predicted or gas exchange abnormalities) compromise the member’s ability to safely perform essential job tasks 1, 2, and 4. Members shall be restricted from SCUBA diving (essential job task 14) if disease is moderate to severe on chest CAT imaging, even if pulmonary function tests are normal.

Substantiation: There is no essential job task 14 listed in the standard. Evaluation for SCUBA diving would be covered by section 9.2.

Committee Meeting Action: Accept**Number Eligible to Vote:** 31**Ballot Results:** Affirmative: 28**Ballot Not Returned:** 3 Norris, S., Stewart, D., Turen, C.1582-17 Log #CC4
(9.13.5.1)**Final Action:** Accept**Submitter:** Technical Committee on Fire Service Occupational Safety and Health**Comment on Proposal No:** 1582-1**Recommendation:** Revise 9.13.5.1 to read as follows:

Physician Evaluation. Neuromuscular, demyelinating, and other progressive neurologic diseases compromise the member’s ability to safely perform essential job tasks 1, 4, 6, 7, 8, 12, and 13, unless the member ~~s~~ meets all of the provisos noted in A-9.13.5.1: is free of clinical disease for 3 years and evaluation by a specialist concludes that cognitive function

and neurologic exam are normal and the member is on no drugs that can impair job function.

Revise A.9.13.5.1 to read as follows:

~~Multiple sclerosis and other demyelinating diseases could interfere with safe performance of essential job tasks 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13 unless the member is free of clinical disease for 3 years and evaluation by a specialist concludes that cognitive function and neurologic exam are normal and the member is on no drugs that can impair job function. In considering performance of essential job tasks, the impact of the operational environment (heat, stress, activity, duration, variable night shifts, etc.) on exacerbations should be considered and specifically addressed by the specialist and the fire department physician.~~

Myasthenia gravis could compromise a member's ability to safely perform essential job tasks 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13. In considering performance of essential job tasks, the impact of the operational environment (heat, stress, activity, duration, variable night shifts, etc.) on exacerbations should be considered and specifically addressed by a knowledgeable neurological specialist and the fire department physician. The neurologist must indicate that the member's cognitive function and neurological exam are normal and the member is off all drug treatment. The member cannot safely perform essential job tasks if there is evidence of respiratory muscle weakness or prior episode of respiratory muscle weakness in the last 3 years. The member cannot safely perform essential job tasks if on drug treatment for myasthenia including corticosteroids, cytotoxic drugs (e.g., Imuran), and/or plasmapheresis, as these treatments indicate that disease is still active and likelihood for exacerbation and life-threatening sudden incapacitation exists during emergency operations.

Substantiation: The body of the standard cannot refer to the annex for requirements so the requirements are being moved to body of the standard.

Committee Meeting Action: Accept

Number Eligible to Vote: 31

Ballot Results: Affirmative: 28

Ballot Not Returned: 3 Norris, S., Stewart, D., Turen, C.

1582-18 Log #10
(9.16.9)

Final Action: Accept in Principle

Submitter: David J. Prezant, New York City Fire Department

Comment on Proposal No: 1582-1

Recommendation: We believe that anti-hypertensive agents "(e.g., beta-blockers and high dose diuretics) should be Category A for not only for candidates but for incumbents "may compromise the member's ability to safely perform essential job tasks 5 and 8 due to risk for dehydration, electrolyte disorders, lethargy, and disequilibrium." We also feel that this list should also include calcium channel blockers and central acting agents such as clonidine.

Substantiation: Both are associated with lethargy and disequilibrium. At FDNY approved medications for Hypertension are for the most part low dose diuretics, ACE blockers and ACE antagonists.

Committee Meeting Action: Accept in Principle

Revise 9.16.9 to read as follows:

9.16.9.1 Physician Evaluation. Certain classes of anti-hypertensive agents (e.g., beta-blockers, and high-dose diuretics, and central acting agents such as clonidine) compromise the member's ability to safely perform essential job tasks 5 and 8 due to risk for dehydration, electrolyte disorders, lethargy, and disequilibrium.

9.16.9.2 Physician Guidance. If the member is on beta-blockers, or high-dose diuretics, or central agents such as clonidine the physician shall refer the member back to his/her physician for consideration of a change in anti-hypertensive medications. Calcium channel blockers shall be acceptable as anti-hypertensive medications but if used for other cardiac reasons, refer to Section 9.4.

Committee Statement: The committee is adding central acting agents such as clonidine) to the list of examples but is not adding calcium channel blockers as they are safe for antihypertensive treatment.

Number Eligible to Vote: 31

Ballot Results: Affirmative: 28

Ballot Not Returned: 3 Norris, S., Stewart, D., Turen, C.

**FORM FOR FILING NOTICE OF INTENT TO MAKE A MOTION (NITMAM)
 AT AN ASSOCIATION TECHNICAL MEETING
 2006 ANNUAL REVISION CYCLE
 FINAL DATE FOR RECEIPT OF NITMAM: 5:00 pm EST, April 7, 2006**

If you have questions about filling out or filing the NITMAM, please contact the
 Codes and Standards Administration at 617-984-7249

For further information on the Codes- and Standards-Making Process, see the NFPA
 website (www.nfpa.org)

FOR OFFICE USE ONLY

Log #: _____

Date Rec'd: _____

Date _____ Name _____ Tel. No. _____

Company or Affiliation _____ Email Address _____

Street Address _____ City _____ State _____ Zip _____

1. (a) NFPA Document (include Number and Title) _____
 (b) Proposal or Comment Number _____
 (c) Section/Paragraph _____

2. Motion to be made. Please check one: (See also 4-6 of the Regulations Governing Committee Projects)

(a) Proposal

_____ (1) Accept. _____ (2) Accept an Identifiable Part.*
 _____ (3) Accept as modified by the TC. _____ (4) Accept an Identifiable Part as modified by TC.*

(b) Comment

_____ (1) Accept. _____ (2) Accept an Identifiable Part.* _____ (3) Accept as modified by the TC.
 _____ (4) Accept an Identifiable Part as modified by TC.* _____ (5) Reject _____ (6) Reject an Identifiable Part.*

(c) Return Technical Committee Report for Further Study

_____ (1) Return entire Report. _____ (2) Return a portion of a Report in the form of a proposal and related comment(s).
 _____ (3) Return a portion of a Report in the form of identifiable part(s) of a proposal and related comments (s). (Identify the specific
 portion of the proposal and the related comments below)*

* Clearly identify the Identifiable Part(s) indicated above (use separate sheet if required).

3. I am entitled to make this motion in accordance with 4.6.8 of the Regulations Governing Committee Projects, as follows: (check (a), (b), or (c).

(a) _____ This motion may be made by the original submitter or their designated representative, and I am the (if you check (a) indicate one of the following):

- ___ I am the Original submitter, or
- ___ I am the submitter's designated representative (attach written authorization signed by the original submitter), or
- ___ I am an Organizational Member delegate permitted to represent the submitter on behalf of the Organization Member in accordance with 4-6.5 (c).

(b) _____ This motion may be made by a Technical Committee Member and I am a Member of the responsible Technical Committee.

(c) _____ This motion may be made by anyone.

(Form continued on next page)

Sequence of Events Leading to Issuance of an NFPA Committee Document

Step 1 Call for Proposals

▼ Proposed new Document or new edition of an existing Document is entered into one of two yearly revision cycles, and a Call for Proposals is published.

Step 2 Report on Proposals (ROP)

▼ Committee meets to act on Proposals, to develop its own Proposals, and to prepare its Report.

▼ Committee votes by written ballot on Proposals. If two-thirds approve, Report goes forward. Lacking two-thirds approval, Report returns to Committee.

▼ Report on Proposals (ROP) is published for public review and comment.

Step 3 Report on Comments (ROC)

▼ Committee meets to act on Public Comments to develop its own Comments, and to prepare its report.

▼ Committee votes by written ballot on Comments. If two-thirds approve, Reports goes forward. Lacking two-thirds approval, Report returns to Committee.

▼ Report on Comments (ROC) is published for public review.

Step 4 Technical Report Session

▼ “*Notices of intent to make a motion*” are filed, are reviewed, and valid motions are certified for presentation at the Technical Report Session. (“Consent Documents” that have no certified motions bypass the Technical Report Session and proceed to the Standards Council for issuance.)

▼ NFPA membership meets each June at the Annual Meeting Technical Report Session and acts on Technical Committee Reports (ROP and ROC) for Documents with “certified amending motions.”

▼ Committee(s) vote on any amendments to Report approved at NFPA Annual Membership Meeting.

Step 5 Standards Council Issuance

▼ Notification of intent to file an appeal to the Standards Council on Association action must be filed within 20 days of the NFPA Annual Membership Meeting.

▼ Standards Council decides, based on all evidence, whether or not to issue Document or to take other action, including hearing any appeals.

The Technical Report Session of the NFPA Annual Meeting

The process of public input and review does not end with the publication of the ROP and ROC. Following the completion of the Proposal and Comment periods, there is yet a further opportunity for debate and discussion through the Technical Report Sessions that take place at the NFPA Annual Meeting.

The Technical Report Session provides an opportunity for the final Technical Committee Report (i.e., the ROP and ROC) on each proposed new or revised code or standard to be presented to the NFPA membership for the debate and consideration of motions to amend the Report. The specific rules for the types of motions that can be made and who can make them are set forth in NFPA's rules which should always be consulted by those wishing to bring an issue before the membership at a Technical Report Session. The following presents some of the main features of how a Report is handled.

What Amending Motions are Allowed. The Technical Committee Reports contain many Proposals and Comments that the Technical Committee has rejected or revised in whole or in part. Actions of the Technical Committee published in the ROP may also eventually be rejected or revised by the Technical Committee during the development of its ROC. The motions allowed by NFPA rules provide the opportunity to propose amendments to the text of a proposed code or standard based on these published Proposals, Comments and Committee actions. Thus, the list of allowable motions include motions to accept Proposals and Comments in whole or in part as submitted or as modified by a Technical Committee action. Motions are also available to reject an accepted Comment in whole or part. In addition, Motions can be made to return an entire Technical Committee Report or a portion of the Report to the Technical Committee for further study.

The NFPA Annual Meeting, also known as the World Safety Conference and Exposition®, takes place in June of each year. A second Fall membership meeting was discontinued in 2004, so the NFPA Technical Report Session now runs once each year at the Annual Meeting in June.

Who Can Make Amending Motions. Those authorized to make these motions is also regulated by NFPA rules. In many cases, the maker of the motion is limited by NFPA rules to the original submitter of the Proposal or Comment or his or her duly authorized representative. In other cases, such as a Motion to Reject an accepted Comment, or to Return a Technical Committee Report or a portion of a Technical Committee Report for Further Study, anyone can make these motions. For a complete explanation, NFPA rules should be consulted.

The filing of a Notice of Intent to Make a Motion. Before making an allowable motion at a Technical Report Session, the intended maker of the motion must file, in advance of the session, and within the published deadline, a Notice of Intent to Make a Motion. A Motions Committee appointed by the Standards Council then reviews all notices and certifies all amending motions that are proper. The Motions Committee can also, in consultation with the makers of the motions, clarify the intent of the motions and, in certain circumstances, combine motions that are dependent on each other together so that they can be made in one single motion. A Motions Committee report is then made available in advance of the meeting listing all certified motions. Only these Certified Amending Motions, together with certain allowable Follow-Up Motions (that is, motions that have become necessary as a result of previous successful amending motions) will be allowed at the Technical Report Session.

Consent Documents. Often there are codes and standards up for consideration by the membership that will be non-controversial and no proper Notices of Intent to Make a Motion will be filed. These "Consent Documents" will bypass the Technical Report Session and head straight to the Standards Council for issuance. The remaining Documents are then forwarded to the Technical Report Session for consideration of the NFPA membership.

Important Note: *The filing of a Notice of Intent to Make a Motion is a new requirement that takes effect beginning with those Documents scheduled for the Fall 2005 revision cycle that reports to the June 2006 Annual Meeting Technical Report Session. The filing of a Notice of Intent to Make a Motion will not, therefore, be required in order to make a motion at the June 2005 Annual Meeting Technical Report Session. For updates on the transition to the new Notice requirement and related new rules effective for the Fall 2005 revision cycle and the June 2006 Annual Meeting, check the NFPA website.*

Action on Motions at the Technical Report Session. In order to actually make a Certified Amending Motion at the Technical Report Session, the maker of the motion must sign in at least an hour before the session begins. In this way a final list of motions can be set in advance of the session. At the session, each proposed Document up for consideration is presented by a motion to adopt the Technical Committee Report on the Document. Following each such motion, the presiding officer in charge of the session opens the floor to motions on the Document from the final list of Certified Amending Motions followed by any permissible Follow-Up Motions. Debate and voting on each motion proceeds in accordance with NFPA rules. NFPA membership is not required in order to make or speak to a motion, but voting is limited to NFPA members who have joined at least 180 days prior to the session and have registered for the meeting. At the close of debate on each motion, voting takes place, and the motion requires a majority vote to carry. In order to amend a Technical Committee Report, successful amending motions must be confirmed by the responsible Technical Committee, which conducts a written ballot on all successful amending motions following the meeting and prior to the Document being forwarded to the Standards Council for issuance.

Standards Council Issuance

One of the primary responsibilities of the NFPA Standards Council, as the overseer of the NFPA codes and standards development process, is to act as the official issuer of all NFPA codes and standards. When it convenes to issue NFPA documents it also hears any appeals related to the Document. Appeals are an important part of assuring that all NFPA rules have been followed and that due process and fairness have been upheld throughout the codes and standards development process. The Council considers appeals both in writing and through the conduct of hearings at which all interested parties can participate. It decides appeals based on the entire record of the process as well as all submissions on the appeal. After deciding all appeals related to a Document before it, the Council, if appropriate, proceeds to issue the Document as an official NFPA code or standard. Subject only to limited review by the NFPA Board of Directors, the Decision of the Standards Council is final, and the new NFPA code or standard becomes effective twenty days after Standards Council issuance. The illustration on page 9 provides an overview of the entire process, which takes approximately two full years to complete.